

 THE RESEARCH AGENDA

The Influence of Instagram and Social Media Marketing Engagement on Prospective College Students' University Selection

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Higher education institutions are at a critical point with college recruitment, whereby social media marketing recruitment strategies are vital. Today's prospective traditional college student utilizes social media for both information and engagement. Understanding the relationship between social media influence and the college selection process can direct enrollment management's social media efforts.

The purpose of this study is to determine the role, if any, social media marketing plays in the college selection process by traditional first-year college students. Data from a survey distributed to first-year college students at a private liberal arts university were used. Descriptive and inferential chi-square testing were used in this quantitative study to examine whether the frequency of posts by the higher education institution and response to online inquiries played a role in the college selection process. It also examined whether social media marketing is influential at the initial interest stage of the consumer decision framework.

The findings of this study suggest that targeted social media marketing strategies can be influential from a practical and theoretical framework for strategic enrollment management to consider for recruitment.

Over the last decade, social media usage in marketing has transcended to higher grounds, where it has been seen as a viable marketing channel (Ahmad 2015). Many marketing experts, such as Philip Kotler, have suggested a relationship between social media usage and consumer buying behavior (Sashi 2012). Additionally, various studies indicate a strong relationship between social media and purchase intent as well as enhanced brand loyalty and word of mouth marketing, which occurs when marketing is part of a consumer's everyday conversations (Shaheen 2016). The major issue is that no definitive studies highlight a direct or indirect relationship between social media and influence at the information gathering stage of the consumer decision-making framework, specifically for higher education institution selection. The research can yield practical implications for enrollment management in order to connect with prospective college students at the information gathering stage.

When it comes to the theoretical framework, the researcher suggests two main avenues of theories, one related to decision-making and one related to marketing theory. The decision-making theory of Herbert Simon and Henry Mintzberg is the underscore of the value analysis that students place in the university's social media posts. The consumer decision-making theory was formally introduced by John Dewey (Dewey 1910). The decision-making theory is established by the principle of problem identification, collecting information, and establishing a goal or end criteria. The consumer decision-making framework must take into account the level of online customer engagement and the level of importance that the consumer, *i.e.* student, puts on the intangible item of higher education. There is a gap in the literature regarding how social media influences consumers at the information gathering stage of the decision-making process. The study will, specifically, address the influence at the information gathering stage in order to keep the specific university or college in the consideration set of the consumer.

This study focuses on the crucial issues of applying social media strategies that cater to the decision-making behaviors of prospective traditional college students. The level of engagement and response rate to social

media posts on Instagram can influence consumer behavior. Enrollment Management can direct social media recruitment efforts based on the outcomes of this study.

Purpose

The purpose of the research is to determine the role social media marketing plays in students' college selection decisions. The research determined the effectiveness of social media in impacting student (consumer) decision-making regarding college choice, particularly at the information gathering stage. In assessing the connection between social media and college selection, the researcher examined the Instagram usage rates of first-year students and the delivery of regular information from the college or university of their choice. The study assessed the influence that regular and accurate information has on the student's selection process. While actual information provides influence, the frequency of Instagram posts and videos also plays a key role. In examining the influence of social media, and Instagram in particular, online customer engagement was examined to determine whether the level of engagement and response rates from the college or university impacts the decision-making process.

Research Questions

- Does the frequency of social media network posts play a role in influencing a student to attend a particular higher education institution?
- Is there a relationship between the response rate of questions on social media posts and the student's higher education institution selection?
- Is there a relationship between the online engagement of a higher education institution and the information gathering stage of the consumer decision-making framework?

Framework and Literature Review

Previous research has demonstrated how social media networks are utilized as platforms for consumer engagement. The gap in the current research is two-fold.

First, there is limited research on the influence that social media can have on the *specific information gather-*

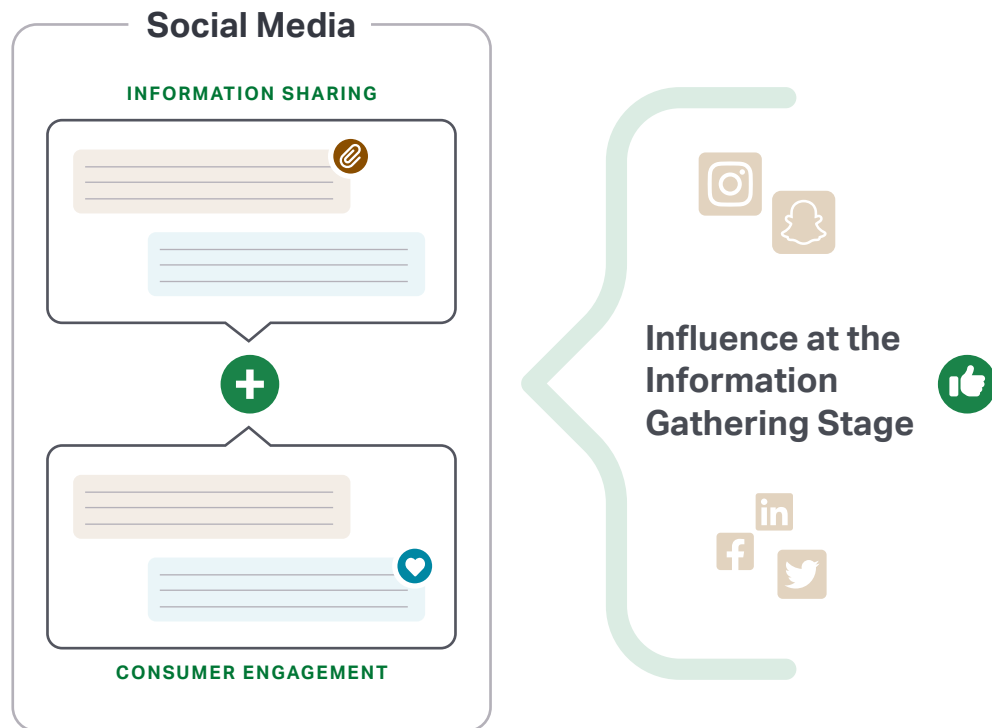


FIGURE 1 ➤ Influence at the Information Gathering Stage of the Consumer Decision Framework

ing stage of the consumer decision-making framework, specifically related to selecting an institution of higher education. Additionally, there is no literature on the level of engagement that a higher education institution can create on a social media network to influence a prospective student to keep an institution in the consideration set during the consumer decision-making process. According to Philip Kotler's marketing theory, the level of consumer engagement is an integral part of the consumer-decision making influences (Kotler 2003). The literature demonstrates that consumer engagement is a vital aspect of influence and attitudes during the decision-making process. Similarly, the literature supports the notion that social media has become a source of influence, information sharing, and community engagement.

The proposed model incorporates the consumer decision-making stage of information gathering, social

media networks, and consumer engagement. The theory is that higher education institutions can influence a consumer during the information gathering stage with better marketing strategies on social media platforms (see Figure 1). The influence of social media on increased consumer engagement and information sharing can play a role in keeping a higher education institution within the consideration set of the decision-making framework (Ahmad 2015).

Consumer Decision-Making Theory

Before one can discuss the consumer decision-making pathway as it relates to marketing theory, a brief overview of what an end decision truly means is important. "Decision implies the end of deliberation and the beginning of action" (Buchanan 2006). Theorists such as Herbert Simon and Henry Mintzberg laid the foundation for the study of decision-making, based on the notion of



FIGURE 2 ➤ Consumer Decision-Making Model

action, which may not always lead to optimal outcomes. Risk is an inevitable part of every decision. For consumers to optimize their decisions and minimize the risks, an understanding of the processes and numbers is important. Centuries ago, when theorists, such as Simon, studied decision-making, the understanding of the intricate numbers was not as profound as it is today. Simon's theory became known as bounded rationality, whereby he uncovered the significance of the term "satisfy" and "suffice" (Simon 1955). Ultimately, consumers first diagnose, then design, and then decide.

Theorist John Dewey (1910) mapped out five stages of the consumer buying process, otherwise known as the consumer decision-making process. These two terms are synonymous in marketing terminology. Understanding the consumer buying process begins with recognizing that consumer behavior is understood as problem-solving (Meena 2015). Consumer behavior can be thought of as combining both the results and efforts of the consumer's need to solve a specific problem. Typically, there is an unmet need that is the catalyst to the consumer solving a problem. There is a set pattern of consumer behavior that occurs while a person makes a purchasing decision.

"Studies suggest that customers generally go through a five-stage decision-making process whenever they make a purchase" (Pride and Ferrell 2007). Dewey's five-stage model suggests that all consumers go through every stage of the decision-making process for every purchase (Dewey 1910). The length of time spent at each stage and the importance given to each may vary. However, it is a general process that begins with need recognition, where the buyer recognizes a problem or need

(Meena 2015). The consumer enters the information search stage, where the consumer decides how much information is needed to solve the problem or satisfy the need. Information can come from various sources, such as personal, commercial, or public. Each of these information sources has varying degrees of influence and importance to the consumer.

Personal sources studied provide the most useful information for consumers to evaluate (Dubois 2001). Personal sources can be family and friends and come via word of mouth, social media, and/or other forms of personal communication. Consumers who are not experts on the problem spend more time in the information gathering stage than experts who search more efficiently. Experts spend less time searching because they have previous information stored in their minds, known as internal searches. The evaluation stage is next, where the consumer selects between the different alternatives. After the evaluation stage, the consumer ranks the alternatives and makes a purchase decision. The perceptions and attitudes of others may cause consumers to change their minds at the purchasing stage. The last stage is the post-purchase stage, whereby the purchasing process continues beyond the actual purchase. There are various thresholds for post-purchase satisfaction and behavior. In essence, the notion of the consumer-buying model is that it is a forward-moving process that starts well before an actual purchase is made and continues beyond the purchase as well (*see* Figure 2).

Marketing and different stimuli can influence a consumer during the buying process (Meena 2015). There are known environmental factors, such as mar-

keting and environmental stimuli and a buyer's Black Box, such as a buyer's characteristics and decision process that impact the buyer's ultimate response (Meena 2015). Marketing stimuli can include the context of anything, ranging from the product to the price to the distribution to the promotion. Environmental factors, such as economy, technology, culture, and demographics, play a critical role in the influence of a buyer. However, the true challenge for a marketer is to understand what is inside the buyer's "Black Box." The inside of the "Black Box" indicates how stimuli can impact the response or vice versa. From a practical perspective, understanding the buying process enables a marketer to understand the evolving needs, wants, and motivations of consumers to develop effective products, communication, and strategies.

Branding has become an increasingly common tool used in higher education to differentiate among the competitive alternatives to attract a prospective candidate. Universities have varying brand elements, such as price, availability of majors, campus visits, size/location, and perception of others (Stephenson, Heckert and Yerger 2016). The brand elements that influence consumers through the decision pathway play a role in the consumer (*i.e.*, student) choice and the brand (*i.e.*, university or college) recruitment tools. As Curtis, *et al.* (2009) found, prospective students compare university brands and brand elements just as consumers compare brand features. They assign a level of importance to each component as part of evaluating the alternatives, which is known as the marketing stimuli that can impact the buyer's "black box." Marketing stimuli are integral parts of the decision framework. Colleges and universities have marketing stimuli at their disposal to use for recruitment tools.

Studies have shown that the consumer decision-making framework for the purchase of goods and services can be compared to the decision-making model for college selection. Like products, colleges and universities do not need to be of the same type of institution in order to be part of the consideration set for a student. There are brand attributes and personal sources that play a role in the *evaluation of alternatives* stage. However,

there remains a gap in the literature that underscores the influence at the *information search stage* of the consumer decision framework. This study will look at variables that can influence the student's selection choice by keeping a specific institution in the consideration set upon seeking information.

Furthermore, the consumer decision-making pathway and its relationship with digital media also have been studied. The consumer-buying journey has been enhanced by online capabilities and even transformed by social media (Hanna 2011). Social media has significantly influenced consumer behavior from the information gathering stage to the post-purchase stage (Mangold 2009). Thus, one of the most influential areas in consumer behavior is the consumer-decision making pathway, as consumers have a set of needs to satisfy.

Dasgupta (2019) studied the relationship between digital media strategies and consumer behavior, from the perspective of the consumer decision pathway in the retail/apparel sector. The quantitative study utilized a survey method with Likert scaling questionnaires. The findings, analyzed using a co-relation test on SPSS, were significant to prove the correlation between digital media strategies and the consumer decision-making pathway. The Pearson correlation factor also indicates the strength of the linear relationship. Therefore, the hypothesis was accepted that social media does have a positive impact on decision-making in the online apparel shopping sector.

Social Media Influence

Consumers have various influences throughout the decision-making framework. There is a gap in the literature related to influences at the information gathering stage. However, current literature around social media pertains to how social media has changed the way consumers make decisions (Ahmad 2015). Social media has trended upward, whereby consumers are spending more time on social media. The term social networking sites (SNS) is commonly used in the literature to reference a type of social media marketing. In this networking type, both customers and marketers participate, which plays a role in the decision-making journey.

The rise of social media networks began with the 20th-century technological revolution of smartphones and other devices (Shaheen 2016). Social media comes in various forms. There are blogs and micro-blogs, such as Twitter. There are also social networking sites (SNSs), such as Facebook, LinkedIn, and Instagram. And there are media sharing sites, such as YouTube and Flickr. All these social sites are ways in which people connect and share data, videos, or photos. Businesses can set up business accounts, which can track the interactions and influence of each marketing effort toward the consumer's decision pathway. In general, companies make posts on social media networks, and users comment or like the post. The information becomes visible to all who are connected to that user. Hence, it becomes a chain of likers and commenters, which evolves into the consumer's consideration set in the decision framework. The consideration set of peer likes and comments influences the consumer's decision pathway. The attitudes and preferences of peers are of significance. In this study, the influence of peers was tested in terms of online engagement.

From the marketer's perspective, social media online platforms also allow users to interact and companies to create pages for the users, otherwise known as fans (Stephen 2016). Rambe (2017) showed that young consumers (*i.e.*, students) are "pulled" to social media platforms for personal enjoyment and socialization instead of "pushed" to them from marketing strategies. The study gave strategic insights into how marketers can pull users toward their brand preference. Marketers can utilize this network of young students or users in a relaxed strategic approach to marketing. The question still lies as to which stage of the consumer decision-making process is the pull strategy most effective, particularly with the younger users. Social media networks serve as a channel to grow awareness and create an online community.

As consumers turn to social media as a forum for connection and community, marketers can also utilize the social media platforms as a marketing channel. Almohaimmed (2019) studied the effects of social media marketing antecedents on purchase intention and brand loyalty. The study utilized a theoretically developed

model, tested using structural equation modeling. The survey was distributed to 500 randomly selected participants, and the results confirmed that social media antecedents significantly affect three constructs: social media marketing, brand loyalty, and customer purchase intention. It is apparent from the study that outcome antecedents are just as important as marketing applications. The specific antecedents that were analyzed are content type, social media motivations, social media marketing, and brand communications. The validity and reliability were evaluated based on Cronbach's Coefficient Alpha and convergent and discriminant validity.

Based on the results of the Almohaimmed study, organizations should pay more attention to the antecedents of social media marketing. The antecedents have a direct impact on social media applications. In turn, the practical implication of the study links to this research, whereby the social media marketing activities are analyzed to determine influence during the consumer decision-making process.

Consumer Engagement

Consumers place significant value in the buyer/seller relationship. The relationship is ever-present on social media, as the level of consumer engagement varies depending on the social media platform. Marketing models have shifted from a model of one-way delivery to value creation that is based on user engagement, which indicates the Social Media Engagement Theory is critical in modern marketing (DiGangi 2016). The model focuses on the interactions among users on a social media network.

Instagram has become one of the most widely used forms of social media among young adults, according to reports on Pewinternet.org (Smith 2018). The study shows that 71 percent of young adults between the ages of eighteen and 24 years of age use Instagram. Of these young adults, 71 percent also visit the platform multiple times a day. There was an increase of 7 percent usage of Instagram since the 2016 study (Smith 2018). Instagram has gained popularity among young adults with its appeal of influencers to follow and the consumer experience. Hence, this study will primarily examine Instagram as the social media network of choice.

The buyer-seller relationship and the importance of customer engagement on a macro level are at the forefront of understanding the breadth and depth of social media. Sashi (2012) highlights how social media can provide opportunities for marketers to build close relationships with customers, where historical theorists and practitioners did not have access to in the past. Contemporary marketing must encompass social media as another channel used to connect with customers. Customers are keenly engaged in the online platforms, both with other customers and brands directly. Kotler's marketing concept theory entailed listening to the customer's needs and making decisions based on those needs better than the competition (Kotler 2003). The marketing concept relates to customer needs and fills the gaps based on marketing analysis to develop long-term relationships. The need for relationships and customer engagement is the core of any marketing concept execution. Since the marketing process depicts delivering value for a profit and receiving customer value, customer engagement is critical. The customers must be able to relate to the product and connect with the brand to achieve the most out of the relationship. This concept is much more difficult in modern days, as the social media platform can complicate the relationship and open other channels of influence.

As research in consumer engagement grows, two definitions have emerged. There is both a psychological and behavioral focus on consumer engagement, and, depending on the definition the researcher employs, the practical findings are reflective of the approach (Dessart 2015). Regardless of the definition focus of consumer engagement, researchers commonly refer to it as a motivational construct with differing degrees of concentration. There is both an object, typically the brand, and a subject, which is the consumer. Dessart studied participants who used a plethora of social media platforms and examined the interactions with the brands and others on these platforms. The study found two engagement variables in online brand communities: the community and the brand. The results showed that the primary usage driver of the social media network of choice is the strength of the networking and informa-

tion provided on the network. This finding exemplifies that the platforms serve as a facilitator of community engagement. The other reason participants selected a particular social media network is the ability to interact with brands. The results show a strong relationship between the community and brand engagement.

Kujur (2016) studied consumer engagement from the practical marketer's perspective. Kujur used a survey to gather empirical data to draw upon the influence of consumer-to-consumer online communities through marketing tactics. He sampled young adults, ages eighteen to 29, of varied educational backgrounds. The results indicate that social media marketing involved word of mouth (WoM) marketing as a viral marketing tactic within the consumer engagement cycle on social media networks. The distinct marketing tactics can influence the consumer-to-consumer interactions.

Additionally, the results show that social media marketing should focus on the vividness of photos and videos in order to draw attention to the users. The vividness factor scored highest in terms of influence on users' attitudes in social media. It was followed by entertainment, information, incentive, and interactivity. Thus, deliberate marketing tactics can influence young users of social media, primarily those that involve vivid pictures and provide entertainment or information. The practical correlation is that social media is increasing in need and marketers should understand its importance as a marketing channel for online customer engagement.

Data Description

The study addresses the research questions by utilizing quantitative methods to explore the relationship between social media, online consumer engagement, university information sharing, online marketing activities, and the consumer decision-making process at the information-gathering stage.

The conceptual framework proposed based on the model is depicted in Figure 1. Utilizing the existing theoretical frameworks of the consumer decision-making theory and online consumer engagement and information seeking, the model was used to analyze the influence that social media network strategies can have on

the consumer decision-making process at the information-gathering stage of a prospective college student.

Primary data were collected to address the research questions presented in this study. The primary data collected was from a survey administered to traditional first-year students administered by the Office of Enrollment Management at a small private liberal arts university in a suburban environment in the Northeast region of the United States. There were 173 students who voluntarily completed the survey. The survey was included as part of first-year new student orientation and was optional. It did not represent the total first-year student population. Utilizing only first-year students provides a more meaningful analysis, as the influencing factors on the college selection should be more apparent in the students' minds. Additionally, first-year students tend to be active social media users for both information-seeking and engagement purposes. Of the 410 students who received the survey, 173 voluntarily completed it. Thus, the response rate of the survey was 42.2 percent.

Independent Variables

Based on the theoretical framework of past literature, engagement is an influential component of the consumer decision-making process. Additionally, social media is a forum for sharing information and creating an online community and engagement with the brand. As discussed during the literature review, the purchase decision of a tangible good can be transferrable to the purchase decision process of an intangible college or university selection.

The independent variables of this study are the level of online social media engagement and the amount of higher education information shared on social media networks. Each of the variables has questions associated with it. The level of social media engagement was assessed with a question directly related to the frequency and expectation of a response from the university. Similarly, the amount of information and frequency of the information provided by the higher education institution on social media networks is assessed with direct measure questions. Regression analysis is done

to determine the strength of the relationship between the dependent and independent variables. Each of these variables is self-reported, which allows for levels of inaccuracy.

Dependent Variables

The outcome variables for this study are nominal variables selected from the section of the survey relating to whether the information shared on social media sparked enough interest to gather more information from the university, created an initial interest, and shaped the final decision. Each question related to a stage in the consumer decision-making process was asked to evaluate the influence of the independent variables on the outcome. The outcome variables were the selection of the higher education institution and the higher education institution remaining in the consideration set during the decision-making pathway.

Students used the Likert scale to answer each of the questions relating to the direct outcomes measure: strongly agree, agree, neutral, disagree, and strongly disagree. The questions to assess the outcome variables were as follows:

- A social media activity by a given higher education institution helped you finalize your decision to select that university.
- A social media activity by a given higher education institution sparked enough interest to gather more information from the university.
- A social media activity by a given higher education institution created your initial interest in the university.

Descriptive Statistics

The research includes descriptive statistics to analyze the student demographics, such as gender and other specific descriptives related to the outcomes variables. The descriptive analysis method used was frequency and cross-tabulation. (See Table I, on page 11.)

Inferential Statistics

The second type of statistical analysis was inferential to analyze the correlation between the variables. Specifi-

TABLE 1 ► Confounding Variables Mapping

Independent Variable	Confounding Variable	Dependent Variable
Research Question #1		
Frequency of SM Posts from Institution	► Time of Day SM Use ► Type of SMN ► Major/School ► Gender/Type of Student	Students' College Selection
Research Question #2		
Response Rate of SMN from Institution (Engagement)	► Type of SMN ► Major/School ► Gender/Type of Student	Created Initial Interest in Institution
Research Question #3		
Response Rate of SMN from Institution (Engagement)	► Type of SMN ► Major/School ► Gender/Type of Student	Gather More Information on the Institution

■ SM = Social Media; SMN = Social Media Network

cally, chi-square testing was used to determine whether the independent and confounding variables were related and test the relationship between them and the dependent variables.

Results

The descriptive statistics underscore the variables of gender, race, major, and school. It also examines the type of students, such as residents or commuters and student-athletes or not. Table 2 (on page 12) outlines the descriptive statistics. Additionally, the frequency analysis provides insight into the social media patterns of the respondents, such as the top two social media networks of choice and the time of day spent on social media. Although the social media metrics will not be integral in this study, they provide a foundation for future research.

Table 2 represents the student self-reported characteristics of gender, race, major, school, type of student, social media network choices, and time of day most spent on social media. Table 2 reveals that most of the sample was female: 79.2 percent were female, compared to 20.2 percent males and only 0.6 percent who chose not to respond. Hispanic students comprised the largest group in the sample at 38.7 percent, while Black or Af-

rican American students comprised 31.8 percent, White 22.5 percent, and Asian 4 percent, while 2.3 percent fell into the other category. The distribution of student's primary major indicated that students fell into the following categories: 43.4 percent were nursing majors; 16.2 percent, biology majors; 16.2 percent, liberal arts majors; 8.7 percent, business administration; 5.0 percent, criminal justice; 3.5 percent, education; 1.2 percent, computer science; and the remaining 5.8 percent were undecided. Nonetheless, the schools that the various majors fall into are as follows: nursing school accounts for the largest percentage at 43.4 percent, followed by arts and sciences at 24.3 percent, then business at 9.2 percent, and education at 3.5 percent, while 19.7 percent were undecided. In terms of type of student, the breakdown was split between commuters and dorm residents, at 58.4 percent and 41.6 percent, respectively. The distribution of student-athletes as compared to non-student athletes is 22 percent and 78 percent.

The study also examined the frequency of social media usage among the respondents. The top two social media networks of choice were specifically reported, and Instagram captured the largest percentage of the respondents. The top two social media networks of choice are as follows: Instagram and Snap Chat, 35.8

TABLE 2 ► Descriptive Statistics of Independent and Confounding Variables (n= 173)

Variable Category	Variable	Frequency (%)
Gender	Male	20.20
	Female	79.20
	Prefer not to respond	0.60
Race and Ethnicity	Asian	4.00
	Black or African American	31.80
	Hispanic or Latino/a	38.70
	Native Hawaiian or Other Pacific Islander	0.60
	White	22.50
	Other	2.30
Primary Major	Nursing	43.40
	Liberal Arts	16.20
	Biology	16.20
	Business Administration	8.70
	Computer Science	1.20
	Education	3.50
	Criminal Justice	5.00
	Undecided	5.80
School	Arts and Sciences	24.30
	Business	9.20
	Education	3.50
	Nursing	43.40
	Undecided	19.70
Type of Student	Dorm Resident	41.60
	Commuter	58.40
Student-Athlete?	Yes	22.00
	No	78.00
Top Social Media Network Choices	Instagram and Snap chat	35.80
	Instagram and Twitter	13.90
	Instagram and Facebook	13.90
	Instagram and Other	5.80
	Instagram and Linked In	0.60
	Facebook and Snap chat	2.30
	Facebook and Twitter	1.20
	Snap chat and Twitter	1.20
	No Response	25.40
Time of Day on Social Media Network (SMN)	Before 9 am	4.60
	Between 9 am–12 pm	12.10
	Between 12–3 pm	15.00
	Between 3–6 pm	22.50
	Between 6–11 pm	37.60
	After 11 pm	8.10

percent; Instagram and Twitter, 13.9 percent; Instagram and Facebook, 13.9 percent; Instagram and other, 5.8 percent; Facebook and Snap Chat, 2.3 percent; Facebook and Twitter, 1.2 percent; Snap Chat and Twitter, 1.2 percent; Instagram and LinkedIn, 0.6 percent; and a remarkable 25.4 percent did not respond to the question. The time of day that is most spent on social media varies, with the evening and early evening hours accounting for the highest amount, at a combined 60.1 percent. More specifically, 4.6 percent of students spend time on social media before 9am; 12.1 percent, between 9–12pm; 15 percent, between 12–3pm; 22.5 percent, between 3–6pm; 37.6 percent, between 6–11pm; and 8.1 percent, after 11pm.

The descriptive statistical frequency in Table 2 offers an overview of the breakdown of the key confounding variables. The study consists of categorical data for the inferential analysis.

Discussion

Frequency of Social Media Posts and College Selection Choice

The descriptive analysis provided information about gender, race, major, and school within the higher education institution, and type of student (specifically, residency status, and athlete status). The demographic data were analyzed as the confounding variables to answer research question one on whether a relationship existed between the frequency of social media posts by a higher education institution and the influence on the college selection process. No relationship was established between the frequency of posts made and the selection of a higher education institution by traditional first-year students. Most students in each of the demographic categories either “disagreed” or “strongly disagreed” with the statement that the frequency of Instagram activity by a higher education institution plays a role in influencing the university selection. A limiting factor could have been that Instagram was utilized as a representative social media platform in the survey question. This factor could have impacted students who did not select Instagram as one of their top social media networks of choice. However, the survey demonstrated that nearly 70 percent of the sur-

vey respondents utilize Instagram as its primary social media platform, indicating a strong representative social media selection for the survey questions. Thus, it could have provided a source of respondent error, which could impact the validity of the data for this research question.

The descriptive results also revealed that more females than males took the survey, specifically 79.2 percent compared to 20.2 percent. The disparity of the gender breakdown could have an impact on the results of the survey question. In general, females may not view the frequency of social media posts to be as influential as males. Further analysis could transpire to dissect the gender characteristics and influence factors. Meanwhile, the inferential analysis also revealed that the relationship between gender and the frequency of social media activity by a higher education institution impacting the college selection process did not exist. It was not statistically significant, $\chi^2 = 14.720$, $p \geq 0.06$. Additionally, the type of student was studied in relation to the frequency of social media activity, and there was no statistical significance in this category, $\chi^2 = 1.174$, $p \geq 0.882$.

The overall research question was designed to create a broad overview of the influence that the frequency of social media posts from an institution can have on the overall college selection process. The broad spectrum could be impactful for higher education institutions.

Response Rate from Institution Created Initial Interest in the University

The demographic data were also examined to answer the research question regarding social media institutional engagement, which was determined based on response rates to questions asked on Instagram and the influence at the first stage of the consumer decision-making process. The first stage of the decision-making framework involves a needs-identification, where interest is created. The research examined the potential for a relationship between the engagement of a university online and its influence on creating an initial interest in the university.

The inferential analysis revealed that a relationship does exist between the response of a higher education institution and the initial interest created for a univer-

sity. The relationship was statistically significant when assessing the relationship based on the demographic characteristic of gender and major, ($\chi^2 = 20.014$, $p \leq 0.010$). Thus, the online engagement from the university is impactful on the first stage of the decision-making process. It is worth noting that students do not expect a response from a university; however, a consistent response does play a role in the initial interest peaked by a prospective student.

Response Rate From Institution and the Information Gathering Stage

Like the previous research question, the response rate from a higher education institution was measured for its relationship with a specific stage of the consumer decision-making process; the information gathering stage. There was a statistical significance in the relationship when using the confounding variable of gender ($\chi^2 = 33.310$, $p \leq 0.000$). Based on gender, a response to a question on Instagram from a university influences a prospective student to move down the decision-making pathway to gather more information. Given the understanding that consumers utilize social media platforms for information and online engagement, the statistical significance of the relationship is impactful both theoretically and practically. Although prospective college students do not expect a response from an institution, based on the research data, it is evident that an actual response does leave a positive impression. Thus, higher education institutions could consider its social media marketing efforts and response rates to questions posed on Instagram.

During the information gathering stage of the consumer decision framework, consumers seek information and assess the evidence provided. This process involves determining the value and quality of the product. When a consumer seeks this information from online sources, such as social media platforms, testimonials, and reviews, as well as responses from a university play a role in the information sought. The level of engagement provides a prospective student with insight into the level of service provided by the institution. It is unknown from the research if the level of service or the content

explicitly provided from the response is the driving force behind this study's influence. The mere fact that the university is responding could be enough influence for a prospective student to gather more information to evaluate during the college selection process.

Theoretical Implications

The research model used in this study was derived from John Dewey's consumer decision-making framework. According to Dewey (1910), consumers behave in a series of five stages as they move through the decision-making process. The stages begin with recognizing a need, followed by the gathering of information, evaluating the alternatives, finalizing the decision, and post-purchasing behavior. The consumer decision-making process incorporates consumer behavior patterns, where there is a catalyst to solving a problem or unmet need (Meena 2015). The marketing stimuli influence a buyer's "Black Box" and social media maintains a platform for such stimuli. Social media is the medium by which digital media strategies and consumer behavior are linked (Dasgupta 2019). Social media is utilized for information and engagement, both of which play a role in consumer behavior. Kotler's marketing theory (2003) also dissects the strategic nature of marketing to serve as the linkage between a consumer or society's need and the response of a producer or industry. This response can be elicited on social media networks.

This study provided evidence demonstrating that the research presented on the theoretical framework of the consumer decision-making process and the marketing theory is related and useful. The impact that a university can have along the consumer decision-making pathway is significant. Specifically, this study examines the influence at two stages of the consumer decision framework: needs identification and information gathering. The use of marketing strategies on social media networks provides the stimuli and engagement that influence the consumer.

Implications for Policy and Practice

The findings in this study have practical implications for university administrators, most specifically enroll-

ment management services and other stakeholders interested in university recruitment of traditional first-year students.

Understanding of Student Social Media Practices

First, the design of this study allows a university to understand directionally student social media practices, such as social media networks of choice, the amount of time and time of day spent on social media. By getting a dataset of 173 traditional first-year students, a university can utilize the information to understand their core target consumer. The descriptive data provides a demographic breakdown by gender, race, major, type of student, social media choice, time spent on social media, and time of day spent on social media. Understanding the core target market is the central part of any successful marketing strategy. The recruitment strategy should follow the same marketing principles, and the data in this study can provide important insight. For instance, the social media choice is critical for enrollment management to select the most widely used site, as well as understanding when the best time of the day is to post.

Frequency of Social Media Posts

Secondly, one of the research questions addressed the relationship between the frequency of social media posts and the influence on the college decision-making process. The results proved not to be statistically significant; that no relationship existed among the 173 survey participants. The practical implication is that the frequency by which universities make social media posts for recruitment is not an influencing factor in the decision process. Traditional marketing strategies revolve around reach and frequency, but the data show that the frequency is not an important factor for first-year students when evaluating the options for college selection. Universities can utilize this insight in the development of social media marketing recruitment plans. The strategies can be more targeted and specific instead of frequent and may provide more influence in the decision-making process.

University Online Engagement

The other two research questions centered around online engagement by the university and its impact on the different stages of the consumer decision-making process, specifically at the first and second stages. Both questions focused on the influence at the needs recognition and information gathering stage, respectively. The data for both questions were statistically significant. Thus, a relationship exists between the response rate (online engagement) by a university and the influence on consumer decision-making at the specific stage of the process.

This finding provides one avenue of insights to university administrators and how they navigate online social media platforms at a specific point in the enrollment decision process. University enrollment management services can utilize this data to help formulate their social media marketing strategies for recruitment, specifically at the information gathering stage of the decision-making process. The primary implication is that university administrators need to assign a dedicated representative to social media responses and prospective student engagement. Interestingly, the data showed that students do not necessarily expect a response from a higher education institution. However, if one is received, it helps engage the student and lead to desirable outcomes for the university. In turn, a student is influenced by a response from a university. Thus, university recruitment plans that involve any type of social media presence must have a dedicated approach to online responses. A university that provides consistent response to inquiries could increase the probability that the prospective student may keep that university within the consideration set.

Finally, the findings of this study assist in the identification of best practices for online recruitment of prospective students. It provides evidence to enrollment services regarding what works and what does not work to connect, engage, and attract traditional first-year college students. With the right marketing strategies, the stakeholders at the higher education institutions can be focused, targeted, and deliberate in their social media presence.

Conclusion

In modern college recruitment, social media is a growing means for reaching prospective students and influencing the decision-making process. Although the study sampled students from a small liberal arts university, the practical implications can apply to all types of higher education institutions. To better utilize social media marketing strategies, university enrollment marketing departments must understand the influence factors on social media related to the varying demographics. The more targeted the information and the better the response rate (engagement) from the university are, the more likely it is that a university will influence a student's decision to create more interest or gather more information on the university. The better the social media recruitment strategies are at influencing prospective students at the various stages of the consumer decision-making process, the more successful the recruitment process will be for higher education institutions.

Limitations

The research naturally had some forms of limitations. The first limitation of this study is the design and dataset, which is based on a randomized voluntary sample of traditional first-year students from 2020. There are various limitations from a design and sampling of this nature. The use of only first-year traditional students does not consider perspectives of other students, who may have been able to contribute to the research outcomes. Another significant factor in the limitation of the study is the dataset consisting of only traditional first-year students in the year 2020. Given the COVID-19 pandemic's impact on prospective first-year students' college selection choice, this could be a substantial limitation to the study. This is not a typical year for students to be evaluating all colleges and universities, so the social media influence factors can be skewed.

Another limitation is the primary social media network analyzed and translated to be representative of all networks. Since Instagram is the primary social media platform utilized by students and Enrollment Management Services of the university, it was the social media network examined specifically, as it related to postings

from the university. The narrow scope of the social media platforms can limit the reliability of the data. However, given that the survey's data indicates that Instagram is the primary choice of 70 percent of the participants, it is the leading social media network (SMN) that was analyzed. There are many similarities in the social media networks that share information, pictures, and videos, which can be represented using Instagram as the primary research network. Other social media networks that act as micro-blogs, such as Twitter, may not be as representative and thus, the data may not be as transferrable.

Additionally, the control variables of the study are not of interest. However, they could be a source of future research. The control variables are as follows:

- type of higher education institution,
- prior connection with a specific higher education institution,
- social media network of choice, and
- hours spent and time of day on social media.

The survey questions did not specifically address the need for knowledge of the type of higher education institution or any prior connection with such institution, which could be a limitation source. Survey questions related to the students' social media network of choice and the amount of time and time of day spent on social media networks can also be a springboard for future research.

Future Research

This study focused on the relationship between social media engagement and the student college selection process. While this study aimed to enrich the current literature by examining the influence at specific stages of the decision-making process, there are many additional areas of future research.

To have a more detailed analysis of the relationship, a qualitative study that builds from the outcomes of this study can be of significance, particularly by examining the student perspective of the consumer decision-making process. A qualitative study could uncover more in-depth research by utilizing focus groups and individ-

ual open-ended interviews. The qualitative study could complement this quantitative study to reveal findings that could be more meaningful for university enrollment management services.

Secondly, the dataset utilized in this study comprised of traditional first-year students. The study could

be conducted with non-traditional students, such as graduate or adult learners. The expansion of the study to a different dataset would add additional insight into student trends in social media usage and college selection and the influences that can impact different university recruitment efforts.

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