EFFECTIVE SOCIAL MEDIA CAMPAIGNS: USING STYLE AND SUBSTANCE TO SHIFT CONSUMERS INTO MORE RIGOROUS PROCESSING ROUTES

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ABSTRACT

How do consumers process information in a social media environment? Do they process Facebook posts and Twitter posts (tweets) differently, and if a company is interested in driving traffic to its webpage and generate a positive impression, what can they do to facilitate this from a social media environment? This thesis seeks to address these questions by drawing on academic literature from the study of persuasion processes to determine whether there are differences in style and substance that can facilitate positive impressions.

According to the persuasion literature, central route processing allows a person to carefully analyze the information being presented in order to evaluate its significance and implications before formulating an opinion or plan of action. Rhetorical questions (versus statements of fact) and the valence of the messages being negative (versus positive) are two methods used to encourage consumers to engage in this more rigorous central route processing. This more rigorous processing should lead to more positive social attitudes towards the brand, as well as increase the likelihood of patronage of the brand.

In order to test these hypotheses, participants were asked to read the social media posts of a restaurant, visit the restaurant’s website and indicate which tabs they were interested in viewing on the firm’s website. They then completed a survey regarding their social media usage habits and attitudes towards the restaurant’s social media posts and website. Participants were placed in one of eight conditions, with the following variables: social media platform (Facebook vs. Twitter), the valence of the information (positive vs. negative), and the form of the information (factual statements vs. rhetorical questions). Indeed participants who were in the negative factual statement Twitter condition were better able to recall the information that had been presented to them through social media than all other participants. In addition, these participants spent more time reading the social media posts and viewing the company’s website than any other
participant. These results suggest that when the information presented is in a clear, concise manner, with fewer distractions, as it is on Twitter, participants used central route processing, and sought additional information on the company’s website.

In contrast, Facebook has a much more cluttered format, which increases the users’ tendency to skim all of the posts, rather than carefully read each one. These participants engaged in peripheral route processing and were less able to recall the negative information contained in the posts. Therefore, Facebook users had a more positive attitude towards the brand than Twitter users, even in light of negative information. However, because of the way Facebook users tend to process information, they may not accurately absorb the content of the messages and may even perceive negative information as positive.

I will examine how these two social media platforms can be most effectively used for specific applications due to the differences in their formats and the types of information processing they generate.
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Chapter 1

Overview of Social Media

Social media is an integral part of our lives; this is especially true for college students. Social media is a form of online communication in which its users generate content through the sharing of information and ideas; it gives people the opportunity to connect with others and foster relationships, whether for social or business reasons (Bilton 2012). The basic concept of social media is not new; recommendations expressed through social media platforms are very similar to “word-of-mouth” campaigns amongst consumers, also known as “buzz marketing.” Face-to-face interactions and social media usage both enable people to learn more about their friends’ interests, preferences, usage, and purchasing habits, including what they are listening to, reading, viewing, and buying. However, social media facilitates sharing this information on a much larger scale.

Social media is merely another means of communication; it is simply the manner in which information is exchanged that has changed throughout history. For instance, in 1792, the telegraph was used to send and receive messages by those who lived a great distance from one another. Edosomwan, Prakasan, Kouame, Watson and Seymour, the authors of The History of Social Media and its Impact on Business, believe that social media has its beginnings with the use of telephones in the 1950’s. At that time, “phone phreaking” took place; people used homemade electronic devices to illegally connect to public phone systems and then spread their messages in a vein similar to today’s use of blogs and podcasts. This is similar to computer hacking, but with phones. In the 1960’s, social media was in the form of email (Goolsby 2009). However, at that time, the communication was between computers and the connection was only successful if both
were online at the same time. Today, emails are stored until users can read the messages at a
convenient time. *The History of Social Media and its Impact on Business* outlines how online
bulletin board systems were used for communication in the 1970’s. In addition, MUD, also
known as Multi-User Dimension, Multi-User Dungeon, or Multi-User Domain, provided a virtual
reality world, in which role-playing games and online chats occurred in real-time. During the
1980’s, virtual communities were created, such as The WELL, which stands for the Whole Earth
‘Lectronic Link, as well as other applications, such as Listserv. Penn State students are familiar
with this term; most sign up for inclusion on e-mail list software applications that send emails to
members of a club or class all at once. However, it was not until 1991 that the Internet was made
publicly available. This led to even more advances in computer technology and “social media”
flourished (Edosomwan et al. 2011).

The 1990’s brought on the development of several social networking sites that enabled
both strangers and friends to interact with one another on a variety of topics, such as common
interests, hobbies, or identities (Edosomwan et al. 2011). Communication took the form of
blogging, commenting on web pages, writing reviews of products, and sharing music, photo or
video files. Regardless of the content of the site, each social network provided individuals with
the ability to create personalized public profiles, form a system of users with whom they could
share connections, and look through the profiles of their connections and of other individuals
within the specified system. What distinguishes social network sites from other forms of Internet
communication is that users are able to specify those who are part of their network and make this
list publicly available for view (Boyd and Ellison 2008). Making one’s network viewable to
others allows individuals to establish connections with people they might never be in contact with
otherwise (Sih, Hanser, and McHugh 2009).

On social network sites, users create profiles by inputting information that describes their
ages, geographic locations, opinions, and interests. Users then seek others on the site with whom
they want to connect, whether it is based on mutual friendships, shared interests or other commonalities. Once users connect with “friends” or gain “followers,” they have the ability to write “comments,” “posts,” or other forms of messaging, depending on the specific social network site (Goolsby 2009).

Facebook is a social networking site that was created in 2004 by Mark Zuckerberg. Initially, Facebook was available to only Harvard students, but eventually the site expanded to encompass other universities and high school students. By 2007, Facebook registered over one million new users each week (Edosomwan et al. 2011). Twitter was established in 2006; it became popular by offering such unique features as micro-blogging and celebrity users. Micro-blogging enables people to broadcast brief text messages about their thoughts and experiences on a daily basis. Twitter is considered a form of micro-blogging; it consists of status updates, with a 140-character limit on the amount of information that can be included in each post (Goolsby 2009).

The terms “social media” and “social network” are not necessarily interchangeable. Edosomwan et al. (2011) help to distinguish the differences between these two terms. While social media is a broad, alternate form of media used to disseminate and communicate information to a large number of followers, social networking focuses on facilitating one’s ability to engage with other people and foster relationships through online communities. Nelson-Field and Taylor (2012) discuss what can be classified as “meaningful” engagement amongst a brand and consumers via social media. They list various ways of quantifying and recognizing engagement, which include attention, memory, usage of visuals, and social relations between the two communicating parties. Facebook, in particular, uses metrics such as “liking” content on a page or “commenting” on a post to determine fans engagement with a brand; however, Nelson-Field and Taylor question whether fans are engaged with those brands after their initial “liking” of a company (2012). Wu, Hofman, Mason, and Watts take this question a step further through
their research of *Who Says What to Whom on Twitter* (2011). Their study found that 50% of the content consumed on Twitter comes from .05% of Twitter users. From a business perspective, in order for a company to incorporate social media into its business marketing plan successfully, it should stimulate conversation (McCue 2013). A company can accomplish this by devoting time to reviewing customers’ comments and exchanging ideas. Businesses that actively participate in social media will improve their ability to build and strengthen their brand images by increasing consumer awareness and recognition of their brand names. Businesses use social media to improve their online content; they incorporate videos and photos that consumers will find more appealing and entertaining than plain text. Social media provides companies with a platform to receive and address customer feedback regarding their products and services, as well as to promote new products, policies and accomplishments. Social media takes on many customer service and support functions, addressing concerns and responding to comments. However, it is imperative that companies recognize that social media should not be used for crisis management, but rather as a forum that provides companies with the opportunity to be transparent and communicate with customers in a timely manner. This helps establish a brand as being reputable and trustworthy, which increases the likelihood that consumers will patronize the company in the future (Edosomwan et al. 2011).

The use of social media provides added benefits to companies that they do not receive from traditional forms of advertising. For instance, facilitating interaction between the company and its potential clients is a cost-effective method of marketing its brand. Although nurturing an ongoing dialogue between companies and consumers increases brand recognition, many question how significant a role social media plays in influencing purchasing and usage trends (McCue 2013). While most companies have both Facebook and Twitter pages, they often do not use these applications effectively. Evaluating the effectiveness of social media in generating consumer interest and purchasing intent helps companies gain a better understanding of how to market
products and services to their target market successfully. Users of social media boast hundreds of friends and followers, which can be a powerful marketing tool to advertisers. In fact, purchasing behavior may be influenced more by perceived trends in social media than by one’s own personal needs.

An analysis of the effect new technology has on developing successful marketing strategies would not be complete without the inclusion of digital technology. Though not explicitly examined in this thesis, digital technology is a growing field that web users access everyday. Search engine optimization (SEO) focuses on improving the visibility of a company or brand’s web page. Simply stated, more visits to a website typically translate into more sales of the company’s goods and/or services (McCue 2013). There is an entire industry devoted to selecting the right keywords so that a business appears within the first page of results in a Google search. Positioning is so important to a business’s success that it is beneficial for a company to learn how consumers conduct Internet searches, the amount of time spent on each web-page, and whether or not their web search ultimately results in a sale of goods or services.

College students, who are considered to be a part of “Generation Y,” or “Millennials,” use social media on a daily basis. They grew up being surrounded by digital technology (Black 2010). According to a study conducted by Galloway in 2010, 81% of Generation Y uses Facebook everyday, making social media a necessary channel to broadcast marketing messages. When asked why they engage, in some way, with brands through social media, 28% of men and 38% of women said they wanted to receive promotions and offers for the brand, while 24% of men and 26% of women indicated that they had an affinity for the brand. Collectively, Facebook users spend over 700 billion minutes per month on the Facebook website. From this data, it is clear that companies would benefit from offering special promotions to both male and female consumers through social media (Galloway 2010).
Therefore, it would be beneficial for companies using Facebook to both provide an open forum for consumers to communicate with each other and with the brand, as well as inform consumers of promotional offerings that will drive customer traffic to their website. The Facebook platform allows companies to post photos, videos, and other eye-catching content, while Twitter enables companies to post shorter, more frequent updates on their pages. Companies often summarize relevant or topical information and provide a link to an article with more details on the subject matter they are tweeting; in some instances, companies post links that redirect consumers to their websites, to encourage consumers to browse their site for an extended period of time. Twitter enables companies to stay abreast of trending topics and to track how their brands are doing in relation to other topics being discussed. Ultimately, whether through Facebook, Twitter, or both, companies that use social media the most effectively interact with their customers, publicize promotions, and encourage transparent and sincere dialogue (Long 2012).

Because of social media’s popularity among “Millennials,” I selected college-age students as the subject population for this research. For some companies, college-age students may be a relatively untapped target market. By better understanding how this target group processes tweets and Facebook posts, firms may be able to better communicate with their target audience and subsequently strengthen their business.
Chapter 2

Motivation for the Research

The prevalence of social media usage amongst consumers and the different types of information processing that results, serves as the basis to determine how businesses can use social media effectively to increase consumer purchase intentions. Businesses use social media campaigns as a form of “word-of-mouth” marketing and advertising. The objective of this is to not only generate sales, but also build brand images that will ensure the prosperity and longevity of the business (Bull 2012). As such, social media can be a valuable, cost-effective and efficient means of informing consumers, all around the world, about a brand’s presence in the marketplace. The ultimate goal of utilizing social media is to engage consumers to such an extent that they visit a company’s official website (Zhao and Lu 2012). Once they are on the website, consumers have the ability to learn more about the brand, its goods and services, and perhaps purchase some of the company’s offerings.

Companies will integrate social media into overarching marketing campaigns to promote their products or services. However, this can only be accomplished if and when a company’s posts and tweets create and reinforce positive attitudes and perceptions amongst consumers, which then influences their actions. The elaboration likelihood model of persuasion (ELM) describes two distinct routes of persuasion in which the media can alter a consumer’s attitude—a central route (characterized by high effort) and a peripheral route (characterized by low effort) (McNeill and Stoltenberg 1988; Petty, Cacioppo, and Schumann 1983). The route selected is dependent on the extent to which a consumer is thinking about the message content. That is, how motivated a person is to process the information at hand and whether he or she has the ability and
opportunity to process the marketing communication. How a person processes new information and his or her level of confidence in the information, as well as the accessibility of this information, can have either a positive or negative impact on one’s attitude and perception towards a company and its products. A change in a consumer’s cognitive structure may alter his or her behavior, as evidenced by the decision to either patronize the business and buy its goods or services, or not engage in any transactions with the company.

Central route processing occurs when consumers pay attention to the messages they receive and actively think about the information presented (McNeill and Stoltenberg 1988; Petty, Cacioppo, and Schumann 1983). They then apply their collective knowledge and experiences to this message to determine whether they view its content favorably or unfavorably. In order for customers to engage in central processing, they must be highly motivated, have a high ability to process the message, and focus on a more detailed level of information. A consumer may be motivated to process the information if it is relevant to them personally or the subject matter pertains to something they want to learn more about. The ability to process a message depends on whether the consumer is distracted when being presented with the message and whether he or she previously heard the message repeatedly or is already familiar with the information (Petty, Briñol, and Priester 2008).

When consumers centrally process a message, they actively think about the message and then integrate these new ideas into their overall thoughts. It is important to note that the consumer does not always take away or retain accurate information from the message. The garnered information is influenced by the consumer’s previous experiences or knowledge; individuals may interpret the message differently than was intended. In general, however, consumers engage in systematic processing when they are following the central route to persuasion (McNeill and Stoltenberg 1988). Consumers are better able to define their needs and compare their options because they are paying more attention and expending more effort to
process the message. In these instances, consumers use information that is important and relevant to the message that they are processing, rather than merely relying on their previous knowledge and experiences. They then base their purchasing decisions on what they perceive as the best option. Attitudes towards and perceptions of a company or product that are developed after engaging in central route processing are easier to remember because the individual put more effort into evaluating options and information before formulating an opinion. These attitudes are long lasting, can be used to predict one’s behavior, and are hard to change, unless an individual is confronted with powerful contrasting information (Petty, Briñol, and Priester 2008).

The second route to processing messages is called peripheral processing (Petty, Cacioppo, and Schumann 1983). This occurs when consumers lack the motivation or ability to focus on the complete content of the message presented. Peripheral processing, by its very nature, will result in attitude changes that are less firmly established and long lasting (Petty, Briñol, and Priester 2008). Unfortunately, most consumers take this route when processing information. However, there are ways to gain their attention and increase the rigor with which the message is processed, including the use of visuals, celebrity endorsements, and presenting unexpected information (e.g., negative information).

Companies use a vast arsenal of resources to promote their brands to potential customers. Television, radio, print, internet, phone and in-game/media product placement are just a few tools used to deliver messages that they believe will prompt consumers to purchase their products or services. Consumers engaged in social media are bombarded with countless messages from a variety of sources, not all of which are significant, relevant or important to consider. These messages can be from trusted, reputable sources or experts in a given field or they may be from anonymous bloggers who post their opinions on a variety of topics. Most consumers do not allow themselves a sufficient amount of time to process all of this information. A concerted effort would be required to determine which posts are from knowledgeable or valid sources and contain
accurate or worthwhile information. Therefore, most individuals tend to scan the entries and then move on to read a different post. In contrast, television and radio commercials are externally controlled. There are strict guidelines for truth in advertising to which companies must adhere, and the messages themselves are limited in duration. Viewers and listeners have a limited opportunity to be exposed to and process a particular message (i.e. the length of a commercial). In contrast, there are no time limits when browsing the Internet. This means that consumers have the opportunity to process the information provided at their leisure. Although Internet users have the ability to review a wealth of information on-line, they may not be motivated to do so. Therefore, companies that post information without first engaging the user and creating an interest in their brand will not be effective at delivering their intended messages.

The current research seeks to understand how consumers process information on social media and attempts to establish that, although consumers are able to engage in social media at their own pace, information processing may be more peripherally than centrally based. Posts occur in real-time. As such, consumers are more likely to skim through multiple posts than to focus on a single entry. Even those who visit a company’s social media profile page or website may not spend sufficient time or pay enough attention to absorb all of the information or understand the messages.

When considering the ways in which to engage with consumers and shift them from peripheral route processing to central route processing, firms have several options. One of these is to present the message with rhetorical questions rather than a simple statement of factual evidence. Rhetorical questions involve the audience, making them more personally relevant. Petty et al. cite a study by Burnkrant and Unnava (1989), which found that using second person pronouns, such as “you,” in place of third person pronouns, such as “one,” “he,” or “she,” increases the relevance to the receiver and their processing of the message contents. Additionally, rhetorical questions increase message processing because they make consumers
think more about the information being presented to them, therefore increasing their involvement (Petty, Briñol, and Priester 2008). However, there is some concern that rhetorical questions actually distract readers from the message content and interfere with their ability to fully absorb the message because they are preoccupied with the style in which the information is presented (Ahluwalia and Burnkrant 2004).

A company’s social media plan should be engrained in its corporate culture and maintain a sense of honesty and transparency. Therefore, a company’s efforts to engage its target market should be ongoing, rather than a concerted effort to promote a specific product or event. There will be occasions when the company posts both positive and negative information, which could have a positive or negative affect on consumers’ attitudes and perceptions of the company. According to psychology’s spreading activation theory of memory, the thoughts and feelings that are evoked from a stimulus will activate related constructs in memory, which will then influence a person’s judgment about the original stimulus (Anderson 1983; Balota and Lorch Jr. 1986). Reading a post or tweet will prime concepts and related positive and negative associations that come to mind. Additionally, according to the accessibility principle, consumers will judge a brand based on information that is most readily available at the forefront of their minds (Shrum 2008).

In some cases, reading negative information from a brand actually induces trust by creating a sense of social transparency (Stuart, Dabbish, Kiesler, Kinnaird, and Kang 2012). Consumers may view a company as relatively trustworthy because it posts information that does not support its own interests; this suggests that the company has the customers’ best interests at heart. However, if a company were to only write about its positive attributes and offerings, consumers may question the candor of the company and wonder if it is hiding the truth. The implications of source trustworthiness relate to the concept of the elaboration likelihood and the routes to persuasion. A source that appears to be dishonest will generate greater attention
amongst consumers using peripheral processing than sources that are perceived as trustworthy. This phenomenon occurs because untrustworthy sources create a need for consumers to pay attention and think more about messages than they typically would to ensure that their current attitudes are correct (Petty, Briñol, and Priester 2008).

The concept of priming suggests that previous stimuli will influence how consumers react and judge subsequent stimuli. Therefore, if a consumer is presented with positive or negative information about a company, this could influence the consumers’ perception of future encounters with the company. In this study, subjects were presented with either negative or positive information, factual statements, or rhetorical questions. Since social media is an extremely fast paced form of communication, priming is effective when two stimuli are presented close in time to one another. After being presented with a company’s social media page, participants in this study were immediately redirected to the company’s website, so that their initial impressions remained fresh in their minds. Their perceptions of the business could be influenced by the judgments they formed from the tweet or Facebook post (Roskos-Ewoldsen, Roskos-Ewoldsen, and Carpentier 2008).

Hypotheses

In order to understand how social media can be used to increase information processing rigor and to create positive perceptions of a firm, an experimental design was employed. The specific hypotheses were developed based on the literature reviewed. The dependent variables are related to information processing rigor (e.g., time spent reading the social media post), as well as attitudes towards the firm. The hypotheses are structured around these dependent variables.

I chose to focus on two social media platforms, specifically Twitter and Facebook, because users on both platforms are able to update their statuses frequently and information is disseminated in real-time. Twitter currently has over 500 million users, while Facebook has one
billion monthly active users. One area of interest in particular was determining which social media platform, Twitter or Facebook, had the greatest influence with regard to the purchasing and consumption habits of college students. I selected Facebook and Twitter for my experiment because users were most familiar with one or both of these two platforms. I did not want results to be skewed because of users’ lack of familiarity, comfort and fluency with the social media platform. Participants were directed to the social media platform that they indicated they preferred and used most often.

Further, the findings may suggest that there is a difference between how consumers process information on Facebook and Twitter. Facebook has a more complex design and layout than Twitter, which could result in not only more time on reading the posts, but it could also lead to information overload; therefore, users may be more likely to focus on actually reading the posts on Twitter, as compared to simply skimming posts on Facebook. Alternatively, Facebook users might spend more time reading the social media posts because the information posted is usually more engaging -- it is more complex and narrative in style. In contrast, Twitter presents messages in a stacked format that is easier to read. There is also less content in each tweet because the posts have character limitations that restrict their length. It should be noted that in this study, the length of the posts were consistent across platforms; however, participants still may be under the impression that Twitter appears to be more concise. Therefore, Twitter users will be more likely to read the posts in their entirety.

I expect to observe participants spending less time reading the posts on Twitter. The tweets are shorter and there is less clutter on each page; however, the limited amount of information on a Twitter page may encourage users to spend additional time reading information on the company’s web pages.

I also expect to observe participants spending more time reading the rhetorical questions because these posts will encourage them to consider the content more carefully by posing a
Likewise, negative information within social media posts, whether presented in the form of a rhetorical question or factual statement, will increase the amount of time I observe participants reading and paying close attention to posts because the negative message is unexpected and may be viewed as more diagnostic. This element of surprise will encourage consumers to spend more time reading the content than positive information, because users would expect to read positive feedback on a brand’s social media page.

Together, the literature leads to the following hypotheses:

- **H₁**: The amount of time individuals read social media posts will be directly related to each of the independent variables.

- **H₁A**: Facebook users will spend a greater amount of time reading social media posts than Twitter users.

- **H₁B**: Rhetorical questions will increase the amount of time individuals read social media posts relative to factual statements.

- **H₁C**: Negative information will increase the amount of time individuals read social media posts relative to positive information.

The second hypothesis is that the time individuals spend processing information on the company website will be affected by both how the information is processed (i.e., rhetorical questions versus factual statements) and what is presented (i.e., positive or negative information). Further, I expect that the two social media delivery mechanisms will vary in their effectiveness in communicating the information. Specifically, those who are presented with the company’s Twitter page will spend more time viewing the company’s web pages because Twitter limits 140 characters per tweet. This limit will leave individuals with a more efficient understanding of the core message and more cognitive resources available to process the information on the company website.

Based on the literature regarding rhetorical questions, a post or tweet that is presented as a rhetorical question rather than as a statement of fact will increase the amount of time...
participants will attend to the message, which will encourage them to spend more time on the company’s web pages. Rhetorical questions will increase consumer engagement in systematically processing the information. Finally, in much the way that two-sided messages increase perceptions of truthfulness and increase systematic processing, I expect that negative information within social media posts will increase the amount of time individuals spend on the company’s webpage due to increased central route processing.

$H_2$: The amount of time individuals view the tabs on the company’s website will be directly related to each of the independent variables.

$H_{2A}$: Twitter users will pay more attention and spend a greater amount of time viewing the pages of the company’s website than Facebook users.

$H_{2B}$: Rhetorical questions will increase the amount of time participants spend viewing the pages of the company’s website relative to factual statements.

$H_{2C}$: Negative information will increase the amount of time participants spend viewing the pages of the company’s website relative to positive information.

The third hypothesis is related to the number of tabs participants will read on the company’s website. Clicking on a greater number of tabs is expected with central route processing. Twitter users will view a greater number of tabs than Facebook users because participants will perceive Twitter as providing very little information, since the nature of Twitter is “micro-blogging,” in which each tweet is limited to 140 characters (Zhao and Lu 2012). The perceived brevity of Twitter will increase participants’ curiosity, which will increase the number of tabs that consumers will view once they visit the company’s website. Rhetorical questions, relative to statements of fact, will also increase the number of tabs viewed on the website because rhetorical questions encourage participants to engage in central route processing. As a result, individuals will want to enhance their knowledge about the brand by looking at more page tabs on the website. Negative information, relative to positive information, will increase the number of
tabs viewed on the company’s website because the unexpectedness of the negative information will lead participants to engage in central route processing.

**H3:** The number of tabs consumers read on the company website will be directly related to each of the independent variables.

**H3A:** Twitter users will view a greater number of tabs on the company’s website than Facebook users.

**H3B:** Rhetorical questions will increase the number of tabs participants view on the company’s website relative to factual statements.

**H3C:** Negative information will increase the number of tabs participants view on the company’s website relative to positive information.

In general, if the information on the company website is predominantly positive, then a more rigorous processing of the information on the website should lead to a relatively positive attitude towards the company (which includes the consumers’ overall impression of the company’s website, their expectations of the company, and their likelihood of visiting the company). Thus, the fourth hypothesis outlines the overall attitude consumers are likely to have towards the company by examining how those attitudes are related to each of the independent variables. Facebook users will have a more positive attitude towards the company than Twitter users because Facebook’s cluttered format encourages peripheral processing. Peripheral processing makes it more difficult for users to recall negative information, whereas Twitter’s streamlined layout makes processing of the core message more efficient. Rhetorical questions will create an overall higher positive attitude towards the company than factual statements because rhetorical questions may lead individuals to engage in counter-arguing with the negative information and give it less weight. Having used their own sensibilities to evaluate the information, individuals will base their attitudes on their own judgments, which may be positive. Positive information will result in a more positive attitude towards a visit than negative information because participants will be impressed with the company’s offerings and feel confident in the brand.
H4: The overall attitude towards the company will be directly related to each of the independent variables.

H4A: Facebook users will have an overall greater positive attitude towards the company than Twitter users.

H4B: Rhetorical questions will lead to a more positive attitude towards the company than will factual statements.

H4C: Positive information will create a more positive attitude towards the company than negative information.

The fifth hypothesis is related to individuals’ attitudes towards sharing their opinions about the company socially. This is referred to as the consumers “social attitude” and it is defined here as a consumer’s likelihood of recommending or engaging with the company via social media and his or her likelihood of re-visiting the company’s website. Twitter users will be more likely to engage with the brand via social media, recommend the brand via social media and visit the website again because of its clear, easy-to-read format. Twitter is the most commonly used social media platform for communicating with companies because it is perceived as having the most concise, easy to read format, being the easiest to use and having messages that are posted instantaneously (Ochman 2012). In reality, although both Facebook and Twitter post messages in real time, the perception is that Twitter is timelier (Gordhamer 2009). This may be due in part to the large number of people who tweet about events as they occur, while Facebook users tend to post comments about events after the fact. Rhetorical questions require a higher level of concentration because they attempt to elicit responses or opinions from users. This should create a higher positive social attitude towards the company overall because consumers relate to the brand and perceive the company as being interested in hearing their thoughts and opinions. Those presented with rhetorical questions will be more likely to reciprocate and continue the conversation via social media than those presented with factual statements. Statements require no further consideration or response from the user. Positive information will result in an increased positive social attitude towards the company because an individual would
be more likely to promote a company that has positive attributes than one that has negative associations.

**H5:** The overall social attitude towards the company will be directly related to each of the independent variables.

**H5A:** Twitter users will have an overall greater positive social attitude towards the company than Facebook users.

**H5B:** Rhetorical questions will create a greater positive social attitude towards the company than will factual statements.

**H5C:** Positive information will create a greater positive social attitude towards the company than will negative information.

**Interactions**

The sixth hypothesis involves the interaction between the form of the information (factual versus rhetorical question) and the valence of the information (positive versus negative). Although users presented with positive information will tend to have a more positive attitude towards a visit and a more positive social attitude towards the company, as stated in hypotheses 4 and 5, respectively, I believe that participants who are presented with rhetorical questions will view the company even more favorably. This is because rhetorical questions encourage users to contemplate the information further using systematic processing, whereas positive factual information is often accepted at face value, without any additional consideration on the part of the user. Their perceived involvement in processing relevant information before formulating an opinion will contribute to their positive attitude towards the visiting the company and their eagerness to share their findings with friends.

**H6:** Positive rhetorical questions will lead to a more positive attitude towards visiting the company and a greater positive social attitude towards the company than those presented with positive factual information.

The seventh hypothesis states that participants who are presented with negative rhetorical questions will have a more negative attitude towards the brand than those who are presented with
negative factual information. Negative information is not typically presented as a rhetorical question; it is usually conveyed through a simple factual statement to get the point across in a more concise manner, rather than belaboring the negative message (Ahluwalia and Burnkrant 2004). When users apply systematic processing to negative rhetorical questions, they review available options and determine that it is in their best interests to avoid usage of a brand or involvement with a company to reduce their association with the negative information. Once a negative association with a brand or company has been formulated, the user is less likely to patronize the business or form a positive social attitude towards the brand by recommending it to others. The negative rhetorical question has a greater impact on consumers’ attitudes because they came to this conclusion using systematic processing. Negative factual information may be overlooked with peripheral processing because the user was not required to consider alternatives before reaching a conclusion, as is the case when posing rhetorical questions. Ahluwalia and Burnkrant (2004) also note in their study that negative rhetorical questions led to more negative evaluations and attitudes towards brands.

\[ H_7: \] Negative rhetorical questions will lead to a more negative attitude towards visiting the company and a more negative social attitude towards the company than those presented with negative factual information.

In order to test these hypotheses, a study was conducted in which the content of social media posts were manipulated by three dimensions—Facebook vs. Twitter, positive vs. negative content, and rhetorical questions vs. factual statements. Time spent processing the company’s website pages, and measures of attitudes toward the company and social attitudes were gathered. I hope to establish the links between the nature and valence of the information provided via social media and the impact it has on consumers’ attitudes toward the company.
Chapter 3

Methods

Participants

Participants were 217 Penn State University students, 202 of which were under 21 years old and 15 who were 21 and over. Participants either completed the study as volunteers via word of mouth or for extra course credit through the Smeal College of Business. Students who were offered extra credit agreed to participate in a study about “Social Media” and received extra credit in either MKTG 301: Principles of Marketing or MGMT 301: Basic Management Concepts during the Spring semester of 2013. Participation in this study was voluntary.

Study Preparation

I determined that it would be best to create a mock restaurant, bar and grill establishment, called Puzzles, that would be popular amongst college students; this type of company would attract both male and female college students as followers of the brand via social media and would be a plausible type of company to post frequent status updates that followers would be interested in reading. I then created mock Twitter and Facebook accounts for Puzzles and crafted social media posts that contained either positive or negative information in the form of either rhetorical questions or factual statements. Both the Facebook and Twitter social media platforms were selected because the participants were familiar with one or both of these platforms and therefore, their comfort level with the systems would not be an issue. In addition, the two distinct formats of these platforms was a factor in users’ application of systematic or peripheral processing. Finally, I took screen shots of all eight conditions of the social media pages (see
Appendix A). The subject matter of the posts was the same across all eight conditions. Four posts were displayed on the Twitter and Facebook profiles in the same order in each condition. Since the company is a restaurant, two of the four manipulated posts were related to entertainment and food specials. The other two posts were neutral and unrelated to the expected restaurant experience (e.g., the restaurant’s proximity to a bus stop; a post from a customer congratulating Puzzles on its opening).

This study is a 2 x 2 x 2 factorial design, where the three conditions are Twitter vs. Facebook, positive vs. negative information, and rhetorical questions vs. factual statements. Participants were provided with screenshots of either this mock business’s Twitter or Facebook account. I then manipulated the company’s tweets and posts by making the content either positive or negative and in the form of factual statements or rhetorical questions.

Participants were asked to read a series of posts on either Facebook or Twitter and were subsequently directed to the restaurant’s “mock” website. Users entered the website and were told to spend as much time investigating the website as they desired. I monitored how long users spent reading the information on each tab. All participants were brought to the restaurant’s homepage that contained option tabs that the user could select to learn more about the company (see Appendix B). The tabs included: Home, Menu, Events, Gallery, and Contact Us. Users were also given the option to exit the website whenever they indicated that they were finished browsing.

The number and types of tabs reviewed were recorded to determine which aspects of the company’s website individuals found appealing. A user that selected the “Menu” tab could indicate his or her interest in learning more about the restaurant’s offerings. Showing an interest in the menu items might indicate an interest in visiting the restaurant. Users that selected the “Events” tab indicated that they were interested in the brand and its product offerings, and wished to learn more about upcoming events and specials. Participants who chose the “Gallery” tab
viewed a series of pictures of the venue, which suggested that users were most likely engaging in peripheral route processing and were not completely invested in paying attention to the brand information. Clicking the “Contact Us” tab allowed customers to learn where the nearest restaurant was located and its hours of operation. Users that selected this tab seemed to indicate that there was a greater likelihood of visiting the establishment. It may also indicate that the social media plan increased the consumers’ interest in patronizing the restaurant. A user that exits the site without seeking information from any of the tabs is indicating that he or she is not interested in the product offerings and did not feel connected to the brand.

The Task

In this “Social Media” study, participants initially answered questions about their usage of Facebook and Twitter, followed by their restaurant patronage and typical dining habits in State College (see Appendix C for the study in its entirety). Participants were then told that Puzzles, a new restaurant, had just opened in downtown State College and that they would be directed to the company’s social media page. (Screenshots of the company’s Twitter and Facebook pages in each condition can be found in appendix A.) An example of a positive rhetorical question post related to food specials read as follows: “Do you like wings? ‘All You Can Eat Wings’ night every Tuesday this winter for $9.99. Stop by and get ready for a finger-licking good time.” The counter example of this post, a negative factual statement post related to entertainment, read as follows: “Bon Jovi and his band will unfortunately be unable to attend the post-concert ‘After Party’ at Puzzles, originally scheduled for February 23.” After participants saw the social media page, they clicked the “proceed” button at the bottom of the page when they were ready to advance to the next portion of the study.

Participants were informed that they would be redirected to the Puzzles restaurant, bar and grill chain’s website so that they would have an opportunity to learn more about the
company. (Screenshots of the Puzzles website can be found in appendix B.) Participants were asked to indicate which tabs they would like to select next, until they specified that they were ready to exit the Puzzles website. Upon exiting the Puzzles web page, participants were prompted with an attention check question. They were provided with a series of statements regarding each post that was presented on the social media platform to which the user was assigned within their condition. This served as a way to test whether the consumers recognized the different manipulated posts and whether they took the time to read the contents on the social media pages. Participants were also asked a series of questions regarding their experience with the Puzzles social media pages and website, as well as their impressions of the brand and general demographics.

Lab Set-Up

The desktop computers in the behavioral lab were set up with the links to the study already up on the screen. The study was slotted to take place over a total of thirty minutes, but participants were informed that the study would only take approximately 20 minutes to complete, which left enough time for participants to finish comfortably. Ten participants were slotted to participate in each session at a time.

Procedures

After answering questions related to social media usage and restaurant patronage habits, participants self-selected into either a Facebook or Twitter condition, depending on which they had indicated as the social media platform they used most frequently at the beginning of the study. Participants were then randomly assigned to the positive or negative information conditions and the rhetorical question or factual statement conditions.
Participants were first asked to answer questions about their social media usage, particularly with regard to their usage of Facebook and Twitter, followed by questions regarding their dining habits in downtown State College. Participants were then told that a new restaurant was opening in downtown State College and that they were being redirected to the company’s social media page (either Facebook or Twitter, depending on the platform they indicated engaging with most frequently). The computer recorded the amount of time it took participants to read the post on the specified Puzzles social media page. When participants clicked the “proceed” button after they finished reading the posts on the social media page, they were told that they were being redirected to the restaurant’s web site.

Participants were monitored for the amount of time they spent on the home page of the website. When participants were ready to move on from the home page, they selected the “proceed” button. Participants then decided which tab on the website they wanted to visit next—the home page, menu page, events page, gallery page, contact us page, or they could simply exit the site. The amount of time each participant took to decide which page they wanted to visit next was also recorded. Participants were given the opportunity to visit each page once and revisit any of the pages one additional time if they chose to review every tab. Participants were timed on every page to determine how long they viewed the content.

After exiting the company’s website, a short questionnaire was given to participants. Their responses provided data that helped determine the effectiveness of the social media posts and whether the website was appealing. The data would have been insufficient to determine participants’ likelihood of patronizing the restaurant if they simply had been asked a series of questions regarding their initial reactions to the social media profile of this mock bar/restaurant, without then bringing them to the official website. Therefore, after users explored the website and viewed its various tabs, participants were given a manipulation check question to determine how much participants remembered about the initial social media posts they had read.
Participants indicated how many tabs they thought they had viewed on the Puzzles website, which tabs they had viewed on the website, their overall impression of the Puzzles website and brand, and their likelihood of visiting the restaurant or engaging with the brand via social media in the future. Participants were also asked what their expectations were for the kind of experience they would have at Puzzles and their likelihood of recommending the establishment to friends either face to face or via social media. Additional questions included social media and general computer web browsing usage habit patterns, as well as demographics.

The consumers’ time reviewing the website tabs, their attitudes towards visiting the company and their overall social attitude toward the brand were the dependent variables and the social media platform (Facebook vs. Twitter), the valence of the information (positive vs. negative), and the form of the information (rhetorical questions vs. factual statements) within the posts and tweets were the independent variables in this experiment. The more positive an attitude the consumer has towards the brand, the greater the likelihood that his or her purchase intention will increase. There are multiple variables that will be held constant when comparing different versions of the business’s Twitter and Facebook profiles. The actual information contained in the posts and tweets remained constant in all eight conditions of the experiment; the only differences were whether the information was presented in the form of a rhetorical question or a factual statement, or if the information was positive or negative in nature.

The data collection took two days to complete. Upon its conclusion, data was imported into both Excel and SPSS for further analysis. Participants were assigned random identification numbers and their personally identifiable information was removed from the data.
Chapter 4

Results

As reported above, a total of 217 students took part in this study, with only 15 people aged 21 and older. As Puzzles is a restaurant, bar, and grill, underage subjects responded in relation to their current level of interest in the restaurant and grill side of Puzzles, rather than the bar. However, they may have considered the presence of a bar and the events featured in that area, with an interest towards their potential patronage when age was no longer a constraint.

Information was gathered regarding respondent’s typical usage of social media platforms. Forty-seven percent of participants indicated that they primarily use Facebook, 20.3% said that they use Twitter the most often, 27.6% of participants indicated that they use Facebook and Twitter equally, and 5.1% of participants said they use other social media platforms.

Attention Checks and Attention Failures

Attention check questions were included to determine whether participants read or were able to accurately recall specific information after viewing a social media page and Puzzles’ website. The percentage of respondents who did not fail any of the attention checks was 36.4%, while 22.1% of study participants had one failure and 39.6% of study participants had two or more failures. Those who did not answer the attention check questions made up 1.8% of respondents. Initially, these manipulation check questions were going to be used to screen out participants who did not seem to pay attention to the information provided or rushed through the study. However, after running multiple analyses, patterns began to emerge within the total number of attention failures.
The number of failures that occurred appeared to be indicative of the processing route in which participants were engaged. These results suggest that those who had fewer failures engaged in central route processing when reading the social media posts because they were able to correctly recall the information presented earlier in the study. For instance, individuals using Twitter had far fewer total failures than those reading posts on Facebook ($M_{FB} = 1.46$ vs. $M_T = .64$; $F(1, 205) = 29.11, p = .000$). This indicates that individuals who read Twitter posts were engaging in systematic and central route processing. As previously mentioned, Twitter’s layout is fairly simple and easy to follow, with the focal point of an individual’s profile being the actual tweets. Since the message content was more evident and direct, participants were more likely to read, rather than skim, the information that was presented and this resulted in fewer total failures.

Individuals who read posts in the form of rhetorical questions had marginally more total fails than those who read information presented as factual statements ($M_{RQ} = 1.18$ vs. $M_{Fact} = .91$; $F(1, 205) = 3.15, p = .077$). This finding was in direct contrast to the prediction that rhetorical questions would increase central route processing. The theory was that an individual who is processing the message rigorously would be less likely to fail an attention check. Rhetorical questions were employed to present engaging, two-way communicative posts between companies and social media users that would increase their level of interest in the brand. This did not occur. Participants were able to recall less of the content of the posts when they were presented as rhetorical questions.

Finally, more attention failures occurred when individuals were presented with positive than negative information on the social media page ($M_{Pos} = 1.14$ vs. $M_{Neg} = .95$; $F(1, 205) = 1.43$), though this effect was not significant ($p = .23$). Directionally, however, this is in accord with the idea that negative information will lead people to engage in central route processing, while positive information will induce people to engage in peripheral route processing. With peripheral route processing, the likelihood of missing information should increase.
Interactions. The interaction between the social media platform, the style of the post, and the valence of information in relation to the total number of attention failures during the study was also found to be highly significant. Individuals who read negative factual statements on Twitter had the fewest total fails, whereas those presented with negative factual statements on Facebook had the greatest amount of total fails ($M_{\text{NegT}} = .26$ vs. $M_{\text{PosT}} = 1.01$ vs. $M_{\text{NegFB}} = 1.65$ vs. $M_{\text{PosFB}} = 1.26$; $F(1, 205) = 14.01, p = .000$). People paid the most attention to negative facts presented on Twitter.

Because Facebook users who were reading negative factual posts had the greatest number of attention check failures, it can be inferred that they skimmed through the posts instead of reading them carefully. They did not allow themselves enough time to fully process the information presented and engaged in peripheral route processing. Since negative factual statements resulted in the fewest total failures in the Twitter condition, this combination of quick bursts of simple negative information may result in the highest comprehension and be indicative of central route processing.

Specific Posts and Attention Failures. In the current work, the two critical posts that carried valence were about a “wing night” at Puzzles Restaurant or about a special post-concert after-party involving Bon Jovi. What became evident in examining each of these events specifically was that people paid more attention to the “wing night” post overall (only 17% failed this attention check) and less attention to the information about the “Bon Jovi after-party” (32% of the participants failed this attention check). Overall, individuals were more likely to overlook announcements related to “wing night” on Facebook (16%) than on Twitter (1%) ($\chi(1) = 14.43, p < .001$).

Further, the valence and style of the information about “wing night” also seemed to matter; rhetorical questions about wing night led to more attention failures (11.3%) than factual statements (5.9%) ($\chi(1) = 4.04, p < .05$) and negative information was missed by 16.7% relative
to positive (.5%). More specifically, only 25% of participants failed the attention check question about wing night when it was a negative factual statement, whereas 43.5% failed after reading negative rhetorical questions. This may be because “wing nights” are so popular that participants skinned over the cancellation notice and assumed that the event would take place as scheduled. These participants may also have had a positive attitude towards the Puzzles brand, making them less likely to focus on negative news. Within the positive information condition, 43.5% failed the attention check when it was presented as a positive rhetorical question, while only 32% failed when the same information was presented as a positive statement of fact. This result is in contrast to the prediction that rhetorical questions would increase the amount of rigor individuals expend in processing the information and thereby improve their ability to recall the information. In the positive and negative factual statement conditions, the information was obviously easier to recall, retain, and process due to its simplicity.

Individuals’ reactions to the information provided about the Bon Jovi after-party were also driven by the platform, substance and style of the post.

Facebook users (22.6%) were directionally more likely to experience attention failure on this information and seemingly had a greater propensity towards engaging in peripheral processing than Twitter followers (9.1%), although this was not a significant finding ($p = .13$). In addition, individuals were more likely to overlook posts regarding an appearance by Bon Jovi when the information was reported positively (26.9%) rather than as negative information (4.8%) ($\chi^2(1) = 37.98, p < .001$), and slightly more likely to miss this information when it was presented as a rhetorical question (16.7%), rather than as a factual statement (15.1%). The latter was not significant ($p = .33$).

I also examined the interactions between information valence and the form of the information for the failures of attention with regard to the Bon Jovi after-party. When the information was presented positively, the percentage of individuals who experienced attention
failures when the content was in the form of a rhetorical question was 54.3%; 50% failed when the positive information was a factual statement. When the information was presented negatively, 13% failed the attention check when the content was a rhetorical question, versus only 6.8% in the factual statement condition ($\chi(1) = 37.98, p < .001$). For information that was not typical (a Bon Jovi after-party), participants found it easier to recall and retain information presented as factual statements, contradicting the prediction that rhetorical questions would increase the rigor with which individuals would process social media posts, which would, in theory, allow them to better recall information.

**Implications of Attention Failures.** People used peripheral processing on Facebook; they skimmed and overlooked information, which led to attention check failures. These findings are in contrast to the prediction that participants would spend more time reading posts on Facebook and in the form of rhetorical questions. The results indicated that more people had attention check failures when the information was in the form of a rhetorical question, regardless of the valence of the information and the platform on which it appeared. Since these Facebook users failed the attention check, one can infer that they did not spend sufficient time reading the social media posts. In the case of the Bon Jovi post, individuals may have experienced distractor thoughts, which caused them to focus on the event itself (the concert), rather than the specific information contained in the post. This may have triggered a different thought process that led participants to focus on such tangential factors as their desire to attend the concert and their need to purchase tickets.

Additionally, the results in this study appear to coincide with a central versus peripheral route processing story. For example, negative information regarding “wing night” and positive information relating to an appearance by Jon Bon Jovi were overlooked on both Facebook and Twitter. This could be due to a number of factors, including: the inability of people to recognize certain combinations (negative information paired with rhetorical questions), individuals
misinterpreting negative information as positive because of their unexpected or unusual nature, failure to believe the validity of the posts, the presence of too much information on screen or too many distractor thoughts. Patterns among the information check failures may also have implications on individuals' attitudes towards the brand.

**Time Reading Social Media Posts**

If attention failures are indicative of lack of rigor in information processing, the amount of time individuals spent reading the posts should be a positive predictor of rigor. Overall, I predicted that individuals would spend more time reading social media posts on Facebook than Twitter. However, as previously suggested by the attention check failures, the results indicate that Facebook users tended to engage in peripheral processing while reading the social media posts; more often they skimmed each message quickly, before moving on to the next post. This was reflected in slightly longer reading times in the Twitter condition (40.17) than on Facebook (37.23) ($F(1, 199) = 1.25, p = .265$). In addition, I expected that negative information would be attended to more closely than positive information. The results were consistent with that prediction ($M_{Neg} = 40.58$ vs. $M_{Pos} = 36.83$), though not significantly so ($F(1, 199) = 2.04, p = .155$). Finally, I expected to see more time spent reading the posts when the posts contained rhetorical questions instead of factual information. The means reflected that direction ($M_{RQ} = 40.39$ vs. $M_{Fact} = 37.02$), though again not significantly so ($F(1, 199) = 1.65, p = .201$).

**Interactions.** When predicting the impact on reading times for the social media posts, a marginal significance was found for individuals who were presented with negative information on Twitter ($F(1, 199) = 3.64, p = .058$). These participants spent longer reading the posts than in any other condition (positive information on Twitter and both positive and negative information on Facebook) ($M_{NegT} = 43.37$ vs. $M_{PosT} = 34.72$ vs. $M_{NegFB} = 34.81$ vs. $M_{PosFB} = 35.85$). This is consistent with the assumption that Twitter’s concise, easy-to-read layout encourages central
route processing. It is likely that the negative information attracted more attention in this condition because their presence was more surprising and unexpected; participants expected to read positive information on the restaurant’s Twitter profile. Participants may have been more intrigued, which led them to have a greater interest in message content, so they spent more time reading the posts.

*Implications of Time Reading Social Media Posts.* The findings that relate to the amount of time individuals spent reading social media posts parallel the aforementioned results for attention failures. Individuals presented with negative factual statements on Twitter had the fewest total fails. Here, participants spent more time reading negative posts presented on Twitter. It is plausible that these individuals were better able to recall this information because they had been using central route processing. Additionally, since the posts were in the form of factual statements, the information was more direct and succinct, making it easier for participants to recall.

What benefit does this more rigorous processing bring to bear? A significant relationship was found between the time individuals spent reading social media posts and a positive attitude toward visiting Puzzles \(F(1, 201) = 10.38, p = .001\). This suggests that the more time individuals spent reading the restaurant’s social media posts, the more likely they were to develop a positive attitude towards visiting the establishment. Therefore, since individuals spent more time reading posts on Twitter than Facebook, when they were presented with positive information, they developed a positive attitude toward the brand and visiting Puzzles.

*Time Spent on Puzzles Website*

The second hypothesis suggested that individuals would spend a greater amount of time on the company’s website after viewing the company’s Twitter profile, reading rhetorical questions, and receiving negative information. Tests were run to compare the total time spent on
page views \( (F(1, 209) = 4.35, p = .038) \) and the average time spent on page views \( (F(1, 209) = 8.01, p = .005) \) on the Puzzles website between the Facebook and Twitter conditions. The results indicated that the total time for page views \( (M_{\text{TotTimeTwit}} = 43.33 \text{ vs. } M_{\text{TotTimeFB}} = 33.90) \) and the average time viewing each page on the Puzzles website \( (M_{\text{AvgTimeTwit}} = 18.05 \text{ vs. } M_{\text{AvgTimeFB}} = 13.58) \) were greater for those who read messages on Twitter. Twitter users spent more time on the Puzzles website than individuals who read posts on Facebook. This is consistent with the prediction and with the previous results that indicated that participants in the Twitter condition were more likely to engage in central route processing. Since Twitter users were able to recall more of the content of the social media posts than Facebook users, it is plausible that these individuals would spend more time on the Puzzles website. Twitter users expended more time and energy into reading the posts and were able to retain more of the content. Therefore, when they had the opportunity to view the restaurant’s website, they had more of an interest in learning about the brand.

I predicted that rhetorical questions would increase the amount of time participants spent reading and viewing pages on the Puzzles website. This was disproven. No significant relationship was found between the form of the information (factual statements vs. rhetorical questions) and the time participants spent viewing the Puzzles website \( (M_{\text{TotTimeRQ}} = 41.45 \text{ vs. } M_{\text{TotTimeFact}} = 38.57, p = .56; M_{\text{AvgTimeRQ}} = 16.99 \text{ vs. } M_{\text{AvgTimeFact}} = 16.13; p = .62) \).

Additionally, in regard to both the total time spent on page views and the average time spent on page views, there was not a main effect of valence \( (M_{\text{TotTimePos}} = 40.74 \text{ vs. } M_{\text{TotTimeNeg}} = 39.28, p = .767; M_{\text{AvgTimePos}} = 16.35 \text{ vs. } M_{\text{AvgTimeNeg}} = 16.77; p = .812) \). Here, positive information led to directionally more time on the Puzzles website, but less time per page. This suggests that individuals who read positive information on the social media posts were likely to go into the Puzzles website and examine more of the total website than those who received the negative social media posts.
**Interactions.** Individuals who viewed positive factual statements on either social media platform spent more time, on average, on the Puzzles website than those who were presented with negative factual statements (M\textsubscript{AvgTimePosFact} = 16.65 vs. M\textsubscript{AvgTimeNegFact} = 14.65). This is in contrast to the prediction that the inclusion of negative information would increase the amount of time and attention a user spent on a company’s website. Positive information led individuals to stay longer on the pages of the firm’s website. A slightly different story emerged with respect to rhetorical questions. When negative information was presented as a rhetorical question, on either Twitter or Facebook, individuals spent more time on the restaurant’s website than when positive messages were presented as rhetorical questions (M\textsubscript{AvgTimeNegRQ} = 17.63 vs. M\textsubscript{AvgTimePosRQ} = 14.32; p = .098). The uniqueness of presenting negative information in the form of a rhetorical question would be so unexpected that the surprise factor would cause participants to engage in central route processing, which would lead participants to consider the information presented more thoroughly. One can therefore infer that when these participants were directed to the Puzzles website due to negative information in the form of a rhetorical question, they had more of an interest in its contents and were more invested in learning about the brand than those who had engaged in peripheral route processing.

It was originally hypothesized that negative information would be more effective at capturing the attention of individuals and prompt users to engage in central route processing. While this was true for rhetorical questions, it was not true for factual statements. The previous finding suggests that participants engaged in central route processing as a result of reading negative rhetorical questions and spent more time on the Puzzles website. However, positive factual messages also appear to have captured participants’ interest to a greater extent than negative factual information. One explanation may be that after being presented with negative information about Puzzles, participants were not interested in pursuing additional information about the brand on its website. In addition, these individuals may simply place a higher value on
positive information than negative information, especially when the brand is unknown to them. The presence of negative factual information failed to generate interest in the new restaurant as reflected by time measures.

**Number of Tabs Explored**

The Twitter platform, rhetorical questions, and negative information were all expected to have a significant impact on the number of tabs subjects viewed on the Puzzles website. Tests were run to determine how the different conditions (Facebook v. Twitter, Rhetorical question v. factual statement, Positive v. negative information) influenced the number of tabs an individual viewed on the Puzzles website. Regardless of where the messages were posted (on Facebook or Twitter), whether they contained positive or negative information, and rhetorical questions or factual statements, individuals across all conditions looked at 2-3 tabs on the Puzzles website. The number of tabs viewed on the website was not influenced by any of these factors (all $p > .25$).

**Types of Tabs Viewed.** Additional tests were run to determine whether the types of tabs that were viewed varied across conditions. Recall that there were five tabs: Home, Menu, Gallery, Events, and Contact Us. The results indicated that individuals in both the Facebook and Twitter conditions tended to view the Menu tab first (66.7% of individuals in the Twitter condition and 75% of individuals within the Facebook condition). However, those who saw the social media posts on Twitter were also more likely to visit the Events and Gallery pages than those who saw the social media posts on Facebook (7.6% of Twitter respondents vs. 4.2% of Facebook respondents viewed the Events page and 15.2% of Twitter respondents vs. 10% of Facebook respondents viewed the Gallery page). Finally, the results indicated that 75.5% of the individuals who were presented with factual statements visited the Menu tab first. This was compared to 68.5% of the individuals who read rhetorical questions and visited the Menu tab.
first. Selecting the “Menu” tab on the Puzzles website is indicative of the participants’ interest in learning more about the restaurant’s offerings. Showing an interest in the menu items might, therefore, indicate an interest in visiting the restaurant, perhaps due to central route processing. It is also important to be mindful that given the context, it is likely that people have a natural tendency to view the menu first on a restaurant’s webpage.

The earlier findings suggested that the form of the information had no significance in relation to the amount of time individuals spent reading social media posts. Of the individuals presented with a rhetorical question, 16.3% of individuals visited the Gallery page first, while 7.4% of individuals who read factual statements visited the Gallery page first. Participants who chose the “Gallery” tab viewed pictures of Puzzles, which suggests that these users were more likely engaging in peripheral route processing and were not completely focusing their attention on information presented to them; this could indicate that rhetorical questions do not prompt central route processing.

Similarly, those presented with positive information, as opposed to negative information, were more likely to visit the Gallery page first. This could suggest that individuals who were presented with positive information were engaging in peripheral route processing. In addition, these individuals may have been more interested in viewing photographs of the venue because they had formed a more positive attitude towards the restaurant after reading positive messages and they were considering a visit. They may have wanted to see what it looked like before they made their final decision as to whether or not they would go.

*Attitudes Towards Puzzles: Visit versus Social Perspective*

*Visiting Puzzles.* Did overall attitudes towards visiting Puzzles relate directly to each of the independent variables? A factor analysis was conducted to determine whether there were groups of questions that individuals responded to in similar ways. In an initial analysis of 7
questions using principal components analysis, two factors emerged that explained 75% of the total variance of responses. A Varimax rotation helped define the two factors. The first factor, which represents participants’ *positive attitude towards a visit*, consisted of questions relating to participants’ overall impression of the Puzzles website, the expectations of experiences they will have at Puzzles, and the likelihood that they will frequent Puzzles in the future. The second factor, which represents participants’ *positive social attitude*, is comprised of participants’ likelihood of recommending Puzzles via social media, their likelihood of engaging with Puzzles via social media, and their likelihood of visiting the Puzzles’ website again. The reliability analysis found that Cronbach’s Alpha was .870 for the first component and .834 for the second component.

Participants who read Facebook posts had significantly more positive attitudes towards visiting Puzzles (M_{FB}= 5.18 vs. M_T = 4.85; F (1, 209) = 3.61, p = .059). In addition, those who were presented with positive information had a significantly more positive attitude toward visiting Puzzles than those provided with negative information (M_{Pos}= 5.27 vs. M_{Neg} = 4.76; F (1, 209) = 8.56, p = .004). I predicted that rhetorical questions would lead to more positive attitudes towards visiting the company than factual statements, but this was disproven. A significant relationship was not found between the rhetorical form of the information and participants’ overall attitudes towards visiting the company (p = .644).

*Visit Interactions.* When Twitter users were presented with negative information, they had the lowest intentions to visit Puzzles relative to the other style and substance conditions (M_{TNeg}= 4.43, M_{TPos} = 5.27, M_{FBNeg} = 5.09, and M_{FBPos} = 5.26; F (1, 209) = 5.50, p = .051). As the data suggests, individuals who read negative information about Puzzles on Facebook were more likely to have a positive attitude towards Puzzles and visiting the restaurant. In contrast, Twitter users tended to have positive attitudes toward visiting Puzzles only when presented with positive information. These results suggest that Facebook users were more likely to engage in
peripheral route processing, which led them to skim the content of posts, rather than carefully read the information. Those who received a negative Twitter message utilized central route processing to consider the implications and developed a more negative attitude towards visiting Puzzles.

In contrast to what was predicted, there was no significant relationship between the form of the information (rhetorical questions vs. factual statements) and the valence of the information (positive vs. negative). However, a directional, rather than significant relationship, was found that showed that participants who were in the positive factual and positive rhetorical question Twitter conditions had a more positive attitude towards visiting Puzzles than participants in the negative factual statement and negative rhetorical question Twitter conditions. These results are consistent with previous findings that indicated that the inclusion of positive information on Twitter generated more interest in the brand than the inclusion of negative information, whether the information was presented as a factual statement or rhetorical question. In contrast, participants in the Facebook condition generally had positive attitudes towards visiting Puzzles regardless of whether the information was positive or negative, or presented as a rhetorical question or factual statement. This discrepancy again suggests that different types of processing occur amongst users of each platform. Facebook users tended to have a positive attitude towards the brand regardless of the positive or negative nature of the post. Twitter users were able to recall both the positive and negative information presented and formulated their attitudes towards the brand accordingly.

These findings may be attributed, in part, to the different layouts of each platform. Facebook has a more cluttered format that displays more images and types of information on each page. In comparison, Twitter has a simpler, easy-to-read format that displays tweets stacked one on top of the other. The “direct” style of delivery of messages on Twitter may increase users’ ability to pay closer attention to the information presented, which would lead them to engage in
central route processing. Twitter’s concise format encourages users to seek additional information on the company’s website, where they can spend more time gathering additional information. In the case of the negative information, Twitter resulted in this more rigorous processing and hence more negative attitudes resulted.

*Social Attitude.* I also examined individuals’ attitudes towards engaging with Puzzles via social media in the future – something I have termed “social attitude.” Facebook users were more interested in becoming involved with Puzzles through social media ($M_{FB} = 3.77$ vs. $M_T = 3.08$; $F(1, 209) = 12.04, p = .001$) than those in the Twitter condition. Facebook users were much more likely than Twitter users to spread the word, as suggested by their more positive social attitude. This discounts the expressed predictions, which suggested that Twitter users would have an overall greater social attitude towards Puzzles than Facebook users. Because Facebook users tend to skim the posts and do not fully process the information being relayed to them, their ability to “spread the word” accurately may be limited.

Twitter users, who are more likely to engage in central route processing, are better at absorbing and retaining the information, yet they are less inclined to share these messages via social media. This distinction suggests that individuals’ private attitudes may differ from their public attitudes. Although an individual may read information about the “Puzzles” brand, formulate a positive attitude towards it and decide to frequent the establishment, that person does not necessarily feel compelled to broadcast his or her decisions and opinions on social media platforms.

Individuals who communicate through social media are very conscious of the image they show the world and try to present the very best images of themselves. As a result, people are very careful about what information they share with their network and what is better left unsaid. They may not consider their dining habits worthy of mentioning in a tweet or Facebook post, particularly if the restaurant is an unknown entity that they have not yet patronized. In this study,
participants’ only form of engagement with the new restaurant was their ability to read the posts on its social media page and view its website. This may have been insufficient to motivate them to tweet or post about their interest in visiting the restaurant.

I also examined whether the form of the message would affect social attitudes. I predicted that rhetorical questions would create a greater positive social attitude towards the company than would factual statements and that positive information would create a greater positive social attitude towards the company than would negative information, respectively. These hypotheses were disproven, not due to contradictory findings, but rather from lack of significance (both $p > .60$). No relationship was found between overall social attitude and question form or valence.

Individuals who indicated that they had previously “liked” a restaurant or other business on Facebook were significantly more likely to have a positive attitude toward a visit ($F(1, 205) = 8.40, p = .004$) and a positive social attitude toward Puzzles ($F(1, 205) = 4.05, p = .045$). This additional testing indicates that an individual’s engagement with the Puzzles brand via social media is indicative of his or her typical usage habits. Therefore, those who indicated that they would not engage with Puzzles via social media did so as a result of their customary usage tendencies, rather than their specific issue with the Puzzles brand.
Chapter 5

General Discussion and Managerial Implications

This experiment indicates that central and peripheral route processing affects one’s ability to accurately process information presented on social media platforms. The study was conducted to determine if the form of information (as rhetorical questions or factual statements), the valence of information (either positive or negative in nature), and the social media platform (Twitter as compared to Facebook) would affect users’ attitudes toward a brand or their likelihood of patronizing the business.

Initially, both Facebook and Twitter were used so that individuals could view posts on the site that provided them with the greatest comfort level and with which they were most familiar. This was necessary because if a company’s Twitter profile was presented to a predominantly Facebook user, the results may have been skewed. However, analyses of the study results indicated that different patterns emerged for Facebook and Twitter users.

The results suggested that individuals who engage in peripheral processing tend to skim over the information posted on social media websites and are therefore less able to retain information presented. Peripheral processing often occurs when users are not engaged or interested in the content of the brand, or when the information is presented in a complex format. Comparatively, individuals who engage in central route processing tend to take more time reading over the information posted on the social media platforms, which increases their ability to retain and recall information, as well as form more educated attitudes towards the brand.

Overall, and with respect to this study, Facebook’s format is more spread out than Twitter’s layout. Facebook requires users to scroll down more frequently to read the content, as
opposed to Twitter, which presents tweets stacked one on top of the other in an easy to read format. Additionally, photographs are more prevalent on Facebook and may serve as distracters for users attempting to retain the content of the posts. As a result, users tend to skim the content of the posts, rather than carefully read each of them in their entirety. This suggests that Facebook users tend to use peripheral route processing, while Twitter users, who view information in a simpler and more concise manner, are more prone to applying central route processing.

One implication of the research is that negative information presented on Facebook seems to be easily overlooked, but is more noticeable on Twitter. Furthermore, I found that Facebook users who were presented with negative factual statements had the most attention failures. This suggests that Facebook participants were more likely to have skimmed through the posts and that this quick review of the message content did not provide them with sufficient time to use central route processing, which would have helped them retain the information. Their use of peripheral processing may also have led them to interpret negative information as positive. Overall, Facebook users tended to have a more positive attitude towards the restaurant, regardless of the format in which the information was presented and whether the valence of the posts was positive or negative in nature.

This supports the idea that Facebook users did not recall the negative message and, therefore, the posts did not negatively impact their attitudes towards the restaurant. A managerial implication is that there is a danger that product warnings or recall notices posted on Facebook may be overlooked. Therefore, Twitter may be more effective in relaying more important and valuable information to consumers, with Facebook used as a supplementary platform. Additionally, although Facebook does not have a character limitation, posts should still be limited in length to increase the likelihood that users will take the time to read, interpret, and evaluate the information so that they can later recall the messages after using central route processing.
Facebook users had significantly more positive attitudes towards both visiting the restaurant and engaging with the business via social media than Twitter users, regardless of whether the information contained in the posts was positive or negative. Therefore, another managerial implication is that information presented on Facebook is more likely to be viewed favorably, generate a positive attitude towards the company, encourage users to engage in communication through social media and visit or patronize the businesses.

The positive attitude towards a company, demonstrated by Facebook, makes this an excellent platform for companies to generate a positive buzz about new products and services. Facebook users are more likely to be receptive to information regarding new product launches because they will be perceived as positive. However, because Facebook users tend to engage in peripheral processing, there is a concern that they may not accurately absorb the content of the messages. Therefore, the information they share with friends may not be the message that was intended. A managerial implication would be to present posts that have greater entertainment value, such as the inclusion of videos, which might entice the user to pay closer attention and then share the link with friends, so that the message is delivered as intended.

In contrast, Twitter’s concise format limits the amount of information that can be posted, thereby encouraging users to seek additional information on the company’s website, where they can spend more time gathering additional information. The results confirmed that Twitter users did spend more total time and a greater average amount of time on page views of the Puzzles website. Twitter users tended to have positive attitudes towards visiting Puzzles when the information presented was positive in nature, regardless of whether the information was in the form of a rhetorical question or factual statement. Their use of central route processing enabled them to recall both the positive and negative information presented. Therefore, they formulated their attitudes towards the brand accordingly. The managerial implication is that negative information presented on Twitter will negatively impact a user’s attitude towards a business.
Therefore, extra caution must be taken on Twitter to present the company in its most favorable light.

In addition, Twitter users who had a positive attitude towards visiting the restaurant were not necessarily inclined to tweet their opinions, as measured by their overall positive social attitude toward the company. The managerial implication is that although Twitter users may have a favorable private attitude towards a business and even patronize the business, they do not feel compelled to tweet their usage and purchasing habits or opinions publicly. Therefore, another managerial implication is that businesses cannot rely on Twitter users to generate a positive buzz and share their enthusiasm for new services or product launches. Business may opt to focus their efforts on other social media platforms where users are more amenable to sharing their views.

Both Facebook and Twitter users spent more time on the Puzzles website after viewing positive factual messages. It had been hypothesized that negative information would generate more interest and prompt users to engage in central processing. However, positive messages proved more effective in capturing the attention of participants. The managerial implication is that when consumers are unfamiliar with a product or business, their attitudes towards the brand are negatively affected when presented with negative information. Rather than being intrigued by the negative comments, they lose interest in learning more about the brand. Therefore, businesses should avoid the use of negative information to capture the attention of potential customers.

Generally speaking, rhetorical questions were not found to significantly affect a user’s attitude towards a brand. The platform on which the messages were presented, the content of the message, and the valence of the messages were all more influential factors in generating interest in the brand or developing a positive attitude towards patronizing the business. Therefore, a managerial implication is that substance over style is more effective when trying to influence consumers’ attitudes. However, a comparison of the positive and negative rhetorical questions presented on Facebook and Twitter did yield a distinct difference. Individuals spent more time on
the Puzzles website when social media posts were in the form of negative rhetorical questions, as compared to positive rhetorical questions. This finding supported the hypothesis that the unusual combination of having a rhetorical question containing negative information was so unexpected that the surprise factor caused participants to engage in central route processing.

The results of this study led me to infer that when participants were brought to the Puzzles website, they were more curious about its contents and wanted to learn more about the brand. However, it is unclear if their interest demonstrated a positive attitude or just reflected their level of curiosity about the negative information contained in the posts. An analogy that might clarify this point is when drivers rubberneck to see what type of accident is causing a traffic jam; they are curious to see what occurred, but they would not have a positive attitude towards the situation or want to be a part of it. The managerial implication is that, in certain circumstances, negative rhetorical questions can be more effective than positive rhetorical questions in generating consumer interest in the brand; however, the interest is not necessarily positive.

The overall managerial implications of the results from this study suggest that social media can be an effective means of launching new products, nurturing a positive attitude towards a brand and increasing patronage of a business. Each of the social media platforms examined in this study is best used for specific applications due to the differences in their formats and the types of information processing they generate. Central route processing allows users to carefully consider the information presented and formulate an opinion or course of action based on how users interpret the information provided. Information can be perceived as either negative or positive, which may impact a social media user’s level of interest in the company and its product offerings. I can infer that the more involvement a user has with a company, as demonstrated by their viewing of social media posts and visiting the company’s website, the greater the likelihood that he or she will patronize and form a more positive attitude towards the business.
Appendix A

Social Media Screen Shots

Twitter Positive Factual Statements Condition:
Twitter Negative Factual Statements Condition:

Puzzles Bar & Grill
@PuzzlesBarGrill
Why’s it called Puzzles? THAT’S the puzzle. The best night in town.
State College, Pennsylvania

47 Tweets
247 Following
1,500 Followers

Tweets

Puzzles Bar & Grill @PuzzlesBarGrill
Bon Jovi & his band will unfortunately be unable to attend the post-concert “After Party” at Puzzles, originally scheduled for February 23!
Expand

Sam Moore @MoorePSUSam
@PuzzlesBarGrill Congrats on your opening!
Retweeted by Puzzles Bar & Grill
Expand

Puzzles Bar & Grill @PuzzlesBarGrill
Stay out of the cold! Puzzles is located near the Blue Loop stop by Atherton Hall.
Expand

Puzzles Bar & Grill @PuzzlesBarGrill
“All You Can Eat Wings” on Tuesday nights... CANCELLED for the remainder of the winter! Regular prices apply.
Expand
Twitter Positive Rhetorical Questions Condition:

Puzzles Bar & Grill
@PuzzlesBarGrill

Why's it called Puzzles? THAT'S the puzzle. The best night in town.
State College, Pennsylvania

4 TWEETS  247 FOLLOWING  1,500 FOLLOWERS

Tweets

Puzzles Bar & Grill @PuzzlesBarGrill
Do you like Bon Jovi? Post-concert "After Party" at Puzzles! Come meet him & his band members after their concert at the BJC on February 23!

Sam Moore @MoorePSUSam
@PuzzlesBarGrill Congrats on your opening!
Retweeted by Puzzles Bar & Grill

Puzzles Bar & Grill @PuzzlesBarGrill
Stay out of the cold! Puzzles is located near the Blue Loop stop by Atherton Hall.

Puzzles Bar & Grill @PuzzlesBarGrill
Do you like wings? "All You Can Eat Wings" night every Tuesday this winter for $9.99. Stop by and get ready for a finger-licking good time.
Twitter Negative Rhetorical Questions Condition:

Puzzles Bar & Grill
@PuzzlesBarGrill
Why’s it called Puzzles? THAT’S the puzzle. The best night in town.
State College, Pennsylvania

4 TWEETS 247 FOLLOWING 1,500 FOLLOWERS

Tweets

Puzzles Bar & Grill @PuzzlesBarGrill
Planning for the Bon Jovi concert “After Party” at Puzzles on February 23? He and his band members can unfortunately no longer attend!

Sam Moore @MoorePSUSam
@PuzzlesBarGrill Congrats on your opening!

Puzzles Bar & Grill @PuzzlesBarGrill
Stay out of the cold! Puzzles is located near the Blue Loop stop by Atherton Hall.

Puzzles Bar & Grill @PuzzlesBarGrill
Were you looking forward to “All You Can Eat Wings” on Tuesday nights at Puzzles? CANCELLED for the rest of the winter! Regular prices apply.
Facebook Positive Factual Statements Condition:

Post-concert "After Party" at Puzzles! Come meet Bon Jovi and his band members after their concert at the BJC on February 23!

Stay out of the cold! Puzzles is located near the Blue Loop stop by Atherton Hall.

We are having "All You Can Eat Wings" every Tuesday night this winter for $9.99. Stop by and get ready for a finger-licking good time.
Facebook Negative Factual Statements Condition:

Bon Jovi and his band will unfortunately be unable to attend the post-concert “After Party” at Puzzles, originally scheduled for February 23.

Stay out of the cold! Puzzles is located near the Blue Loop stop by Allerton Hall.

“An All You Can Eat Wings” On Tuesday nights… CANCELLED for the remainder of the winter! Regular prices apply.

Opened on December 21, 2012

Joined Facebook
December 21, 2012
Facebook Positive Rhetorical Questions Condition:

---

**Puzzles Bar and Grill**

Do you like Bon Jovi? Post-concert "After Party" at Puzzles! Come meet him and his band members after their concert at the BJC on February 23!

Stay out of the cold! Puzzles is located near the Blue Loop stop by Asherton Hall.

---

**Joined Facebook**
December 21, 2012

**Opened on December 21, 2012**
Facebook Negative Rhetorical Questions Condition:

Planning for the Bon Jovi concert “After Party” at Puzzles on February 23? He and his band members can unfortunately no longer attend!

Stay out of the cold! Puzzles is located near the Blue Loop stop by Atherton Hall.

We’re looking forward to “All You Can Eat Wings” on Tuesday nights at Puzzles? CANCELLED for the rest of the winter! Regular prices apply.

Joined Facebook
December 21, 2012

Opened on December 21, 2012
Appendix B

Puzzles Website Screen Shots

Puzzles Home Page:

![Puzzles Home Page Screenshot](image-url)
Puzzles Menu Page:

**Bites**

**Appetizers**

- **Buffalo Wings**: Boneless or traditional with your choice of sauce - $7.99
- **Loaded Potato Skins**: Loaded with melted cheddar and spicy bacon - $5.99
- **Huevos Rancheros**: Homestyle potato chips with melted cheese and bacon - $7.99
- **Pretzel Mozzarella**: Crispy and gooey on the outside, hot and goopy inside - $7.99

**Soups & Salads**

- **Creamy Tomato Soup**: Wine-poached tomato puree with fresh cream - $3.99
- **French Onion Soup**: Gruyere, Gruyere Cheese - $4.99
- **Marinated Steak Salad**: Baby Arugula, Onion, Cucumber, Blue Cheese - $9.99
- **Shrimp Spinach Salad**: Cinnamon-Glazed Cheese, Apples, Oranges - $12.99

**Mains**

- **Fish & Chips**: Guinness Beer Battered Fish, Tartar Sauce, French Fries - $7.99
- **Shepherd’s Pie**: Ground Beef, Peas, Carrots, Golden Brown Mashed Potatoes - $8.99
- **Cedar Plank Salmon**: Apricot-Glazed Salmon, Smoked Potatoes French-Style - $13.99
- **NY Strip Steak 10 oz.**: Overcooked Black Angus, Medallions in Brandy & Brown Sugar - $19.99
- **Portobello Burger**: Fresh Mozzarella, Tomato, Freshened Red Pepper, Walnut Pesto - $8.99
- **Our Choice Burger**: Ground Beef Patty, Toasted English Muffin, Tomato, Onion - $8.99
- **The Kahuna Burger**: Pepperjack Cheese, Bacon, Jalapeño, Pineapple Sauce - $8.99
- **The Rooster**: Grilled Chicken, Guacamole, Bacon, BBQ Sauce - $7.99

**Beer**

**Draft**
- Stella Artois - $3.25
- Lone Star - $3.00
- Brooklyn Lager - $3.55
- Sam Adams - $3.00
- # Point - $3.50

**Bottles**
- Budweiser - $3.00
- Bud Light - $3.50
- Coors - $3.75
- Amstel Light - $3.50
- Miller - $3.00

**Wine**

**White**
- Riesling - $4.00
- Sauvignon Blanc - $7.00
- Semillon - $4.50
- Pinot Gris - $7.50
- Moscato - $7.00

**Red**
- Merlot - $8.00
- Cabernet Sauvignon - $7.00
- Petit Sirah - $7.00
- Syrah - $4.50
- Pinot Noir - $7.90

**Cocktails**

- Classic Cosmopolitan - $8.00
- Manhattan Sour Whisky - $8.50
- Moscow Mule - $7.50
- Bicolored Martini - $8.50
- White Russian - $8.00
- Don’s Queen Rumanian Rum - $7.00
- Peach Schnapps, Orange Juice - $8.00
- Spiced Fireball Amaretto - $8.50
- Cream Liqueur, Vodka - $7.50
- Amaretto, Amaretto - $7.50
- Godiva Chocolate Martini - $7.50

**Opening Hours**
- **Monday-Sunday**: 11am - 9pm

**Address**
- 366 E. College Avenue
- State College, PA 16801
- T: 814-486-0000
- F: 814-486-1090

**Find Us**

© 2013 by Puzzles Restaurant, Bar and Grill
EVENTS
All of State College’s favorite musical guests will be appearing regularly--from Go Go Gadget to My Hero Zero... there’s always something happening at Puzzles. Cheer on your teams and watch exciting sporting events with friends on our 25 flat screen TVs. An endless array of activities and events will keep you coming back for more. Come for karaoke night or Sunday brunch. Indulge in your favorite meals, crack open a beer and enjoy all we have to offer! What will it be tonight? THAT’S the puzzle!

Karaoke Night
Bring your friends and join us for our Thursday Karaoke night--always a crowd favorite! You’ll be surprised at the amount of local talent. Come cheer them on or join in the fun. It’s guaranteed to be a great time.

When:
Every Thursday from 10pm-1am

Weekdays
from 9pm-12am

Happy Hour
Join us for happy hour for the best deals you will find in all of State College-- Half off all drinks and food!

When:
Weekdays between 3pm-12am

Sunday Brunch
We are now serving brunch on Sundays! Start your day off with our variety of delicious brunch menu items--with everything from Eggs Benedict to chocolate chip pancakes!

When:
From 11am-3pm we serve your favorite Sunday meal!

BUY ONE GET ONE HALF OFF
Get your night started with one (or maybe two) drinks in hand. You’ll be sure to have a great time with our buy one get one half off deal on Saturday nights.

When:
Saturdays between 9-11pm
Puzzles Gallery Page:

![Puzzles Gallery Page](image-url)

**GALLERY**

**OPENING HOURS**
- **MONDAY-FRIDAY**
  - 12pm - 2am
- **SATURDAY-SUNDAY**
  - 11am - 2am

**ADDRESS**
- 341 E. College Avenue
- State College, PA 16801
- puzzlesbergh@gmail.com
- T / 814-487-5300
- F / 814-235-5000

**FIND US**

© 2013 by Puzzles Restaurant, Bar and Grill
Puzzles Contact Us Page:

Puzzles
Restaurant, Bar and Grill

MAP

CONTACT US

Contact us to book a table for any occasion. We accept reservations for up to 20 people.

Puzzles
341 E. College Ave.
State College, PA 16801
puzzlesbargrill@gmail.com
T / 814-687-6330  F / 814-355-6630

Sign up for our preferred customer mailing list to receive news on special promotions and upcoming events.

Name

Email

Subject

Send

OPENING HOURS
MONDAY-FRIDAY
12pm - 2am
SATURDAY-SUNDAY
11am - 2am

ADDRESS
341 E. College Avenue
State College, PA 16801
puzzlesbargrill@gmail.com
T / 814-687-6330  F / 814-355-6630

FIND US

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Appendix C

“Social Media” Study

Thank you for agreeing to participate in today's research study. It examines social media usage habits and will take you approximately 20 minutes to complete. The study is being conducted by Erica Wertheim, a senior Marketing major, for her Honors thesis. Please make sure you are fully engaged and paying attention.

Before we begin, we are interested in understanding a bit more about your consumption patterns and general demographics.

Which social media platform(s) do you use most frequently when engaging with friends?

- Facebook
- Twitter
- Use both about the same amount
- Other (Please Specify): ____________________

On average, how many hours a day would you say that you spend on Facebook? (please enter a number)

On average, in a given day, what proportion of the time spent on Facebook is time in which you are "active" (i.e., you are liking, commenting, posting status updates or writing on a friend's wall)? (please enter a number between 0 and 100%)

Approximately how many Facebook friends do you have? (please enter a number)

On average, how many hours a day would you say you are spending on Twitter? (please enter a number)
On average, in a given day, what proportion of the time spent on Twitter is time in which you are "active" (i.e., you are tweeting, re-tweeting, or favoriting tweets)? (please enter a number between 0 and 100%)

Approximately how many Twitter followers do you have? (please enter a number)

Have you ever "liked" a restaurant or other business on Facebook?

- Yes
- No

Have you ever followed a restaurant or other business on Twitter?

- Yes
- No

Have you ever tagged a company in a Facebook post or Tweet?

- Yes
- No

Have you ever had a company reach out to you through social media because of something you had posted?

- Yes
- No

What kinds of companies are you most likely to follow or "like"?

- Restaurants and Eateries (e.g., Olive Garden; Starbucks)
- Consumer Package Goods Companies (e.g., P&G; Revlon)
- Retail Stores (e.g., Target; Saks)
- News and Entertainment (e.g. ESPN, NY Times)
- Other (please specify) ____________________
We would like you to switch gears for a moment and ask you about your current restaurant patronage in State College.

In a given week, how frequently do you dine out for lunch downtown?

- Never
- 1
- 2
- 3
- 4
- 5
- Every day

On average, how much money do you spend when you dine out for lunch downtown (per person)?

- Less than $5
- $5 - $7.99
- $8 - $10.99
- $11+

What kinds of restaurants do you dine out at most frequently for lunch downtown?

- Fast food—i.e., Taco Bell, McDonald’s, Chipotle
- Pizzerias—i.e., College Pizza, Canyon Pizza, Corrinado’s
- Dine-in Restaurants—i.e., The Deli, Rotelli, Baby’s, Golden Wok, The Waffle Shop
- Bar/Restaurants—i.e., Inferno, Kildare’s, Gingerbread Man ("Gman"), Allen Street Grill, Chili’s
- Other (please specify) ____________________

In a given week, how frequently do you dine out for dinner downtown?

- Never
- 1
- 2
- 3
- 4
- 5
- Every day
On average, how much money do you spend when you dine out for dinner downtown (per person)?

- Less than $5
- $5 - $7.99
- $8 - $10.99
- $11 - $13.99
- $14 - $16.99
- $17+

What kinds of restaurants do you dine out at most frequently for dinner downtown?

- Fast food—i.e., Taco Bell, McDonald's, Chipotle
- Pizzerias—i.e., College Pizza, Canyon Pizza, Corrinado’s
- Dine-in Restaurants—i.e., The Deli, Rotelli, Baby’s, Golden Wok, The Waffle Shop
- Bar/Restaurants—i.e., Inferno, Kildare's, Gingerbread Man ("Gman"), Allen Street Grill, Chili’s
- Other (please specify) ______________________

How do you decide where to go out for dinner in downtown State College when you are going out to eat?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tbody>
<tr>
<td>I rely on friends to figure it out.</td>
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<td>I let my wallet dictate where I will go.</td>
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<td>I see what specials, promotions or events are available.</td>
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<td>Neither Agree nor Disagree</td>
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<td>I decide based on what is conveniently located.</td>
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</tr>
<tr>
<td>Please select &quot;somewhat agree&quot;</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I decide how much time I have.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I think about what kind of food I am in the mood to eat.</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I figure out what else I want to do that evening.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I figure out who has the best food.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I figure out who has the best service.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

With which social media platform are you most likely to interact with a company?

- ☐ Facebook
- ☐ Twitter
Suppose that a new restaurant had just opened in downtown State College. You decide to visit their Facebook page. Since it just opened, the Facebook content is relatively sparse. They are waiting for your posts and comments. When you have finished reading the posts and looking at the entire website, please click the button to advance. (You will need to scroll to the bottom of the page to see everything and locate the button to advance.)

(Graphics Omitted. See Appendix A for Screen Shots.)

Now that you have seen the social media page, we will be directing you to the Puzzles website.

(Graphics Omitted. See Appendix B for Screen Shots.)

Which page would you like to be directed to next?

- Menu
- Events
- Gallery
- Contact Us
- Home page
- I'm ready to exit Puzzles website

(Graphics Omitted. See Appendix B for Screen Shots).

Which page would you like to be directed to now?

- Menu
- Events
- Gallery
- Contact Us
- Home page
- I'm ready to exit Puzzles website

(Graphics Omitted. See Appendix B for Screen Shots).
You've seen two webpages thus far, what would you like to do now?
○ Go to the menu page
○ Go to the events page
○ Go to the gallery page
○ Go to the contact us page
○ Go to the home page
○ Exit the website and return to the survey

(Graphics Omitted. See Appendix B for Screen Shots).

Three down, what's next?
○ Menu page
○ Events page
○ Gallery page
○ Contact page
○ Home page
○ Exit the website and return to the survey

(Graphics Omitted. See Appendix B for Screen Shots).

You've seen all of the webpages once. Would you like to re-visit any of them?
○ Menu page
○ Events page
○ Gallery page
○ Contact Us page
○ Home page
○ I'm ready to exit the Puzzles website and return to the survey

(Graphics Omitted. See Appendix B for Screen Shots).
On the social media platform that you were directed to at the beginning of the study, the posts indicated that:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing night was cancelled.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The bus stops close to Puzzles.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Bon Jovi is stopping by Puzzles for an after-party.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Sam asked for the restaurant hours.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

How many tabs did you look at on the Puzzles Restaurant, Bar and Grill website?
○ 1
○ 2
○ 3
○ 4
○ 5
Which tabs did you look at on the Puzzles Restaurant, Bar and Grill website?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Menu</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Events</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Gallery</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Contact Us</td>
<td>ø</td>
<td>ø</td>
</tr>
</tbody>
</table>

Did you go to any of the tabs on the Puzzles Restaurant, Bar and Grill website more than once?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Menu</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Events</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Gallery</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Contact Us</td>
<td>ø</td>
<td>ø</td>
</tr>
</tbody>
</table>

What is your overall impression of Puzzles Restaurant, Bar and Grill website?

- ø  Very Poor (1)
- ø  2
- ø  3
- ø  4
- ø  5
- ø  6
- ø  Very Good (7)
What is the likelihood that you would consider going there for dinner in the future?
- Definitely Would Not (1)
- 2
- 3
- 4
- 5
- 6
- Definitely Would (7)

What are your expectations for the kind of experience you will have at Puzzles Restaurant, Bar and Grill?
- Very Poor (1)
- 2
- 3
- 4
- 5
- 6
- Very Good (7)

What is the likelihood that you would visit the Puzzles Restaurant, Bar and Grill website again?
- Definitely Would Not (1)
- 2
- 3
- 4
- 5
- 6
- Definitely Would (7)

What is the likelihood that you would engage with Puzzles Restaurant, Bar and Grill via social media through either "liking" or following the establishment?
- Definitely Would Not (1)
- 2
- 3
- 4
- 5
- 6
- Definitely Would (7)
What is the likelihood that you would recommend this establishment to friends via social media?

- Definitely Would Not (1)
- 2
- 3
- 4
- 5
- 6
- Definitely Would (7)

What is the likelihood that you would recommend this establishment to friends via face-to-face interaction or voice message?

- Definitely Would Not (1)
- 2
- 3
- 4
- 5
- 6
- Definitely Would (7)

Please respond to each of the following statements on a scale from 1 (strongly disagree) to 7 (strongly agree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would definitely go to a company's website if my friend Tweeted about them.</td>
<td></td>
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</tr>
<tr>
<td>I never trust any company information posted on Facebook.</td>
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</tr>
<tr>
<td>I would go to a company's website if the company posted or tweeted information that was personally relevant to me.</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
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</tbody>
</table>

I would be likely to click on a company's website link within a tweet or post if it was personally relevant.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
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<tr>
<td>If a company posts something of interest on Facebook or Twitter, I am not likely to physically type in their web address through a browser.</td>
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<tr>
<td>In my free time, I am unlikely to browse corporate websites for information.</td>
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<tr>
<td>I have visited the websites of fewer than 50% of the companies that I follow or &quot;like&quot;.</td>
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</tr>
<tr>
<td>I have visited the websites of fewer than 25% of the companies that I follow or &quot;like&quot;.</td>
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</tr>
</tbody>
</table>
We have a few additional questions for you...

Have you ever worked as a wait staff in a restaurant?
- Yes
- No

Your gender:
- Male
- Female

Your age (please enter a number):

Your year in school:
- Freshman
- Sophomore
- Junior
- Senior
- Graduate Student
- Other

How would you describe the area where you grew up?
- Rural
- Small town
- Suburbs
- City

Is English your native language?
- Yes
- No

Do you own a SmartPhone?
- Yes
- No
Please specify the percentage of time you spend on-line using each of these devices. Your answer will total 100% of your internet usage.

- SmartPhone
- Computer (i.e., Desktop or Laptop)
- Tablet

If you were trying to decide where to eat for dinner and needed some restaurant recommendations, would you consider browsing websites on your mobile device?
- Definitely would not (1)
- Definitely would (6)
- 2
- 3
- 4
- 5

If friends were describing the variety of restaurants you are willing to dine at, would they say you were stuck in a rut, or that you tried a new restaurant for every meal?
- Stuck in a Rut (1)
- Try a New Restaurant for Every Meal (6)
- 2
- 3
- 4
- 5

At what age did you create your Facebook account? (please enter a number or enter "NA" for not applicable)

At what age did you create your Twitter account? (please enter a number or enter "NA" for not applicable)

How did you hear about this research study?
- Extra credit opportunity from Professor
- Received a request from Erica to participate

Thank you for participating in this research. Please take your completed scantron to the front of the room and place it in the appropriate box lid. Have a great day!
REFERENCES


Gordhamer, Soren (2009), “When Do You Use Twitter Versus Facebook?”


McCue, T.J. (2013), “Twitter Generates Leads 9 Times More than Facebook and LinkedIn,”


http://marketingscience.info/assets/documents/275/Facebook_fans_A_fan_for_life.pdf


ACADEMIC VITA

Erica M. Wertheim
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EDUCATION
The Pennsylvania State University, University Park, PA May 2013
Schreyer Honors College
Honors in Marketing
Bachelor of Science, Marketing and Psychology

PROFESSIONAL EXPERIENCE
The Pennsylvania State Marketing Association Fall 2012 – Spring 2013
Managing Director of Market Research State College, PA
- Collaborate with executive board members across eight divisions
- Solicit prospective clients from local businesses and conduct market research
- Oversee all research division projects and meetings with project managers, teams, and clients to review progress

The Smeal College of Business Marketing Department Laboratory Fall 2012
Research Assistant State College, PA
- Supervise lab research conducted by university professors and manage up to 15 participants
- Organize and prepare materials for each laboratory session

iAcquire Summer 2012
Search Engine Optimization (SEO) Intern at a Digital Marketing Firm New York
- Performed SEO keyword research and competitive analyses for 100+ current and prospective clients, including site audits and comparisons, with Google AdWords and SEMrush
- Wrote “Five Psychological Principles Behind Effective Social Media Content,” a blog that received positive feedback from around the world
- Certified in Google Analytics to analyze the effectiveness of campaigns and site traffic patterns
- Contributed daily to social media campaigns to promote site content through Facebook, Twitter, Pinterest, LinkedIn, Reddit, Delicious, inbound.org, and Google+
- Edited copy for presentations and promotional materials
- Presented content strategy techniques in company-wide meetings
- Contacted venues and PR representatives of various entertainers to plan an event for 1,000+ people

Dental Product Shopper Summer 2010
Editorial Assistant at a Business-to-Business Publishing Company Manalapan, NJ
- Wrote and edited articles and product descriptions to maximize exposure of featured products amongst dentists
- Updated website to feature advertisers’ products and presented relevant articles on company’s Facebook profile
- Researched and created a database of all previously featured products
HONORS AND AWARDS
Phi Beta Kappa
Beta Gamma Sigma
Smeal College of Business Marketing Student Marshal
Smeal Marketing Department Senior Award Recipient
Schreyer Honors College Academic Excellence Scholarship
Dean’s List every semester
Central New Jersey Alumni Association academic scholarship recipient
Schreyer Ambassador Travel Grant

ASSOCIATION MEMBERSHIPS/ACTIVITIES
Managing Director of Market Research within Pennsylvania State Marketing Association
Chair of the Schreyer Honors College Speaker Series Committee
Co-Founder of Community Outreach Program
American Marketing Association Member
Fundraising Committee Member in Atlas THON

WORKING PAPERS
“Effective Social Media Campaigns: Using Style and Substance to Shift Consumers into More Rigorous Processing Routes”