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Social Media Analytics Use Among Small Business Owners

Melody White
Walden University

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Walden University

College of Management and Technology

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Melody White

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Dr. Steven Tippins, Committee Chairperson,
Applied Management and Decision Sciences Faculty

Dr. Robert Kilmer, Committee Member,
Applied Management and Decision Sciences Faculty

Dr. Howard Schechter, University Reviewer
Applied Management and Decision Sciences Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Social Media Analytics Use Among Small Business Owners

by

Melody White

MBA, University of Texas at Dallas, 1999

BBA, Southern Methodist University, 1993

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Management

Walden University

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Abstract

As of January 2018, small businesses created 47.5% of private jobs in the United States, but little is known about whether and why small business owners use social media analytics. This topic is important because social media analytics assist businesses in identifying social media effectiveness, gaining new customers, and staying connected with current customers. The purpose of this generic qualitative research study was to explore the use of social media analytics by small business owners, which can increase customer interaction and help monitor company perception and effectiveness. The conceptual foundation used in this study was the technology acceptance model. The study aimed to answer two research questions: “How small business owners use social media analytics” and “If small business owners are not using social media analytics, why are they not using it” A homogenous purposive sampling strategy was used to identify small business owners to interview. Data collection from 18 small business owners occurred during the global pandemic. Coding was used to organize interview data. Key findings of the study were that small business owners perceived social media analytics as beneficial for their business, analytic dashboards were easy to use, social media analytics was time-consuming, and there was a learning curve to interpret the results. A more in-depth study could be created using a larger sample or a different metropolitan area. The findings of this study may affect social change by teaching small business owners how to better understand social media analytics which can help identify opportunities to be social change agents in their communities.

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Dedication

This dissertation is dedicated to my parents, Allen and Sharon White, and my son, Joshua Zachary Beall. Although my mother is in her heavenly place, I know she is proud of me, as is my father. My son has been on this journey with me since the beginning. I would read my textbooks to him, spend quality time, and complete my assignments until he requested a book with more pictures. I pray this journey has taught him to never give up on his dreams no matter how long, hard, or impossible it may seem.

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Chapter 1: Introduction to the Study

More than a billion people worldwide use social media (Ghani et al., 2019; Hadi et al., 2020). The total number of active users is projected to grow to 3.29 billion users, or 42.3% of the world's population, in 2022 (Appel et al., 2020). The most popular social media sites include Facebook, Instagram, and Twitter (Chen et al., 2017). Businesses use social media to communicate with customers, build customer camaraderie, create company brand images, increase sales, and strengthen product awareness (Taneja & Toombs, 2014). Large or enterprise businesses incorporate social media analytics to gather information about the effectiveness of using social media platforms (Lee, 2018), which is important for all businesses (Holsapple et al., 2018). Small businesses account for 47.5% of the U.S. private workforce, and small business job growth accounts for 1.7 million net new jobs as of January 2018 over the previous year (Theorux, 2018). Thus, it is imperative for small businesses, many of whom have limited resources, to know if their social media efforts are effective. Social media analytics can enable small businesses to identify good or bad trends to offer a better product or service mix to service their communities.

In my research, I found no studies about social media analytics and small business owners in the Dallas, Texas Metroplex. This study's results provide insights into why small business owners may or may not use social media analytics. In Chapter 1, I discuss the study's background, problem statement, purpose, research questions, nature of the study, conceptual framework, definitions, assumptions, scope and delimitations, limitations, and significance of the study.

Background of the Study

Even with controversies such as fake news, privacy issues, and censorship, social media users' interaction with social media platforms has stayed relatively the same or increased in use. Many social media users report daily use of their preferred social media platform (Perrin & Anderson, 2019; Pew Research Center, 2019; Vogels, 2019).

Facebook and YouTube remain popular among most adults, and Instagram and Snapchat are most popular among the 18- to 24-year-old population (Pew Research Center 2019).

With millions of people using social media, social media platforms have become a prime arena for businesses to connect with and locate customers. In 2010, social media was considered more of a leisure activity; however, within 5 years, Fortune 500 business executives began to recognize social media's importance (Schlagwein & Hu, 2017).

Two-thirds of Fortune Global 500 businesses use social media (Schlagwein & Hu, 2017), and an increasing number of businesses connect with the public each year through social media (Parveen et al., 2016).

Companies can use social media for internal or external purposes. One example of an internal business use of social media is communicating and managing knowledge within the business. External social media use examples include gauging marketplace synergy and managing customer relationships (Schlagwein & Hu, 2017). I focused on the external usage of social media concerning social media analytics. Further, businesses' social media use can be categorized by sociability, dialogue, collaboration, knowledge management, and broadcast groups (Shlagwein & Hu, 2017).

Having a social media presence impacts business performance (Parveen et al., 2016). Critical goals in using social media include building brand awareness, customer engagement, increasing Web traffic, and customer stickiness (Velderman et al., 2017; Zhang et al., 2017). Businesses must also create strategies to gauge if the owner's business social media presence is working. Social media platforms generate large volumes of data, which is becoming increasingly crucial for businesses to analyze (Piccialli et al., 2018). Social media analytics can be used to gather relevant data to analyze and solve problems or make decisions (Holsapple et al., 2018). Many Fortune 500 companies use social media analytics daily (Lee, 2017). But it is essential for all business owners, large and small, to use social media analytics in an increasingly online society (Holsapple et al., 2018; Pavel & Vald, 2017).

There is a lack of studies on small business owners' use of social media analytics in the Dallas, Texas metroplex (Williams et al., 2017). This study was needed to fill this gap in research. More information on social media analytics can give small business owners insight into social media campaigns that assist with company longevity, resulting in more jobs, increased customer synergy, decreased unemployment rates, and community-identified needs.

Problem Statement

Leaders of companies need to adopt social media to maintain their competitive advantage (Andriole, 2015; Brown, 2016; Williams et al., 2017). Reported benefits of using social media analytics include increasing customer communications, monitoring publicity, reviewing product placement, and allowing decision-makers to monitor key

performance indicators in real time (Stieglitz et al., 2018). Though using social media analytics may help improve the business position of small businesses (Parvin et al., 2016), little is known about whether and why small business owners use social media analytics. The general management problem is that business owners may not use social media analytics effectively, if at all. The specific problem is that little is known about the use of social media analytics for small business owners.

Purpose of the Study

The purpose of this generic qualitative research study was to explore the use of social media analytics by small business owners. Research has indicated the effective use of social media can translate into improved services and better customer relations for businesses (Parvin et al., 2016). Social media marketing assists businesses with targeted campaigns, increased customer interaction, and improved firm value (Vinerean, 2017). An increased connection to customers can lead to increased revenue (Pavel & Vlad, 2017). Small business owners use social media; however, no research has been found on their use of social media analytics (Holsapple et al., 2018). I addressed the use of social media analytics by small businesses in the Dallas, Texas Metroplex by using the technology acceptance model (TAM) conceptual framework.

Research Questions

1. How are small business owners using social media analytics?
2. If small business owners are not using social media analytics, why are they not using it?

Conceptual Framework

The focus of this study was to explore the use of social media analytics by small business owners. This study's conceptual framework is the TAM (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989). The author of the TAM used two central constructs in the framework: perceived ease of use (PEOU) and perceived usefulness (PU). The PEOU construct is defined as a system that is easy to use (Davis, 1989). Davis (1989) theorized that an application that is easier to use is more likely to be accepted by users. Further, if users perceive an application will help them perform their duties better, they will most likely use it. This is the premise behind PU.

The TAM has been used in qualitative information technology (IT) studies to explain why business owners use and adopt technology based on their perception of the usefulness and PEOU toward the use of the technology. The questions listed in the TAM model allow researchers to tailor the framework for their studies (Davis, 1989). The model is a method to demonstrate someone's intention to use a system as determined by PEOU and PU (Legris et al., 2003). The construct of PEOU allowed me to explore how small business owners view social media analytics use and whether they use social media analytics. The construct of PU allowed me to explore if small business owners find value using social media analytics.

Nature of the Study

The purpose of this generic qualitative research study was to explore the use of social media analytics by small business owners. This type of research design typically involves interviewing participants. The targeted participants were small business owners

in the Dallas, Texas Metroplex. The designation of a small business can be based on the number of employees or revenue of the company. This designation can change based on the industry (*Size Standards*, n.d.). Dallas Regional Chamber (2020) defined a small business as an organization with 10–99 employees. The plan was to interview a sample of small business owners who report from 10 to 99 employees because this number is more prevalent when looking at size as a definition for a small business.

For this study, the plan was to interview a sample of non-manufacturing small business owners using a key informant format with 20 small business owners in the Dallas, Texas metroplex. The data collected from the interviews was codified for data analysis based on the TAM. During the study’s discussion, reference identification numbers were used in the report to maintain the confidentiality of the participants.

Definitions

Big data: Enormous data sets that cannot be managed using conventional data management tools (Akoka et al., 2017).

Customer stickiness: The process of having customers stuck to a company’s products or services exclusively (Zhang et al., 2017).

Dallas, Texas metroplex: This area includes Dallas, Texas; Ft. Worth, Texas; and surrounding suburbs, which include but are not limited to cities such as Arlington, Texas; Cedar Hill, Texas; Mansfield, Texas; Frisco, Texas, and Lewisville, Texas.

Influencer: “a person, who at relevant market place, has a reach greater than average or impact through word of mouth” (Gupta et al., 2019, p. 189).

Micro-influencer: A person who is not a traditional celebrity but has a large following on social media because of their content sharing, engagement, and relationship with their audience (Gupta et al., 2019).

Social media analytics: “All activities relating to gathering relevant social media data, analyzing the data, and disseminating findings as appropriate to support business activities such as intelligence gathering, problem recognition, opportunity detecting, sense making, insight generation, and/or decision making undertaken in response to sensed business needs” (Holsapple et al., 2018, p. 33).

Assumptions

The study’s primary assumption was that the selected sample of small business owners accurately represented the studied population of small business owners in the Dallas, Texas Metroplex. I also assumed the sample was sufficient to answer the research questions. I requested a list of small business owners from the Dallas Metropolitan Small Business Development Center, a local division of the Small Business Administration, office, providing the representative with the criteria for my homogeneous purposive sample. A further assumption was that the information provided by the small business owners would be accurate and honest. The assumptions are necessary because this research study may not generalize attitudes toward social media analytics for every small business owner. A different set of circumstances, such as another city, may produce different results because of the environment. The only indication that the business fits in the definition of a small business as defined in this research study was the small business

owner's information. I cannot confirm if the business owner provides the correct information to be designated as a small business.

Scope and Delimitations

I selected participants for this study from small business owners in the Dallas, Texas Metroplex because the small business owners were an accessible population. In this study, I focused on whether and why small business owners use social media analytics. The research questions were "How are small business owners using social media analytics?" and "If small business owners are not using social media analytics, why are they not using it?" Future research could use a digitally administered survey to collect more data from other business owners in the Dallas, Texas Metroplex and other areas. I chose this area of research because social media analytics is an integral part of business success (Appel, 2020).

Limitations

Lack of research around small business owners and the use of social media analytics limited the comparison to other studies. The relatively small sample size may have also limited generalizing social media analytics for all small business owners. I restricted the sample collection to accessible small business owners in the Dallas, Texas Metroplex. The findings obtained from this research study may not apply to other states or areas in Texas. Further, there could be some bias because I was the only one conducting the interviews. But when reporting the findings, I stayed as close to the transcribed interviews as possible.

Significance of the Study

Social media are essential for businesses because of increased social media platforms usage by potential customers and other businesses (Parveen et al., 2018). As businesses use social media for various reasons, including customer engagement and service improvement, businesses should use social media analytics to realize its benefits (Vinerean, 2017). Although there are some studies about using social media analytics in large enterprise businesses, limited studies have been conducted about social media analytics and smaller businesses. This research filled a gap in understanding the use of social media analytics by small business owners.

Significance to Practice

Social media is important because an increasing number of businesses connect each year through a social media platform (Parveen et al., 2016). Having a social media presence impacts company performance (Parveen et al., 2016). Owners need to use social media analytics in an increasingly online society (Holsapple et al., 2018; Pavel & Vald, 2017). Social media generates large volumes of data, and it is becoming critical for organizations to analyze this data (Piccialli et al., 2018).

Significance to Social Change

Using social media analytics can benefit small business owners positively due to increased customer interaction (Steiglitz et al., 2018). Because small businesses account for 47.5% of the U.S. private workforce, research that sheds light on how small business owners may improve and grow provides insight that can lead to positive social change.

By their nature, small businesses serve in their communities, and enabling small business owners to use social media analytics can help them better serve their communities.

Summary and Transition

Businesses use social media to disseminate information, connect with clients, and analyze regional trends. Fortune 500 companies use social media analytics to use social media effectively; however, there are no studies concerning small business owners and social media analytics used in the Dallas, Texas Metroplex. The purpose of this generic qualitative research study was to explore the use or non-use of social media analytics by small business owners. To achieve this research objective, I used the TAM to interview small business owners about whether and why they use social media analytics. The findings from this study may be helpful to other small business owners who use social media platforms. A trend analysis could help small business owners better serve the communities where they are located with a better product and service mix. Chapter 2 provides a review of the current literature.

Chapter 2: Literature Review

Leaders of companies need to adopt social media to maintain their competitive advantage (Andriole, 2015; Brown, 2016; Williams et al., 2017). But little is known about the use of social media analytics for small business owners. The purpose of this generic qualitative research study was to explore the use of social media analytics by small business owners. In this chapter, a breakdown of the search strategy for the literature review was provided. I also discuss the TAM framework, which is followed by a discussion on the relevant literature.

Literature Search Strategy

I obtained articles for this review from the following databases: Google Scholar, Walden University Library databases and peer-reviewed articles, and the University of North Texas in Denton Library database and peer-reviewed articles. I found articles in the following databases: Science Direct, Taylor & Francis Online, JSTOR, Association for Information Systems AIS Electronic Library (AISeL), Crossmark, and Business Source Complete.

I performed iterative searches using several keywords and phrases in a Boolean fashion filtered by a date range no earlier than 5 years. The only articles used in the literature review early than 5 years are seminal articles for the conceptual framework and discussion on qualitative research methods. The keywords utilized were *technology acceptance model*, *technology acceptance model* and *social media analytics*, *social media analytics*, *benefits of using social media*, *benefits of using social media analytics*, *social media analytics tools*, *social media*, and *small business*, *social media marketing*, *social*

media analytics and *small business*, *social media analytics*, and *big data*, and *small business* and *sentiment analysis*. I used a literature review matrix supplied by the writing department of Walden University to organize the articles. I researched statistics on the PEW research website. Information about individual platforms was investigated on the platform's sites and other informational media.

For the small business refined searches using social media analytics, I reviewed several articles. The articles did not provide any research data for small businesses and social media analytics but recommended small business owners use social media analytics. For small businesses and sentiment analytics, no articles existed in the last 5 years. I initiated a new search removing the term *small business* and using only *business* and *social media analytics*. A similar investigation was recreated using the search term *business* and *sentiment analysis*. I also removed the date filter for the seminal TAM articles to locate the conceptual framework's article. A search was conducted on the TAM and social media analytics for examples of how the factors of PEOU and PU were used in other studies.

Conceptual Framework

The conceptual framework used in this study was the TAM (Davis, 1989). In the early 1980s, some workers preferred not to use computer technology for many work-related tasks (Davis, 1989; Davis et al., 1989). Using the theory of reasoned action (TRA) as a starting point, Davis (1989) created the TAM as a framework to create better measures for the prediction and use of technology (see Davis et al., 1989). The TRA is a well-researched model that has explained and predicted behavior across various

disciplines (Davis et al., 1989). Davis used the TRA as a model to create a more technology-specific TAM for behavior prediction. Davis incorporated studies from over 10 years of research to create the model.

The TAM includes two constructs: PU and PEOU. PU is the degree to which a person would use a particular system because they believe it will augment their tasks. PEOU is defined as an easy system for task accomplishment (Davis, 1989). Additional constructs were introduced based on the TRA to understand further the link between technology acceptance and people (Davis et al., 1989). The constructs were behavioral intention to use and attitude toward using.

The TAM has been used to explore information systems acceptance adoption (Legris et al., 2003; Yaunquan et al., 2008). Yaunquan et al. (2008) verified that the TAM variables of PU and PEOU are positively correlated, showing significance toward behavior intention to use information systems. Legris et al. (2003) also said that TAM was a helpful framework to understand and explain a person's behavioral intention to use information systems. Researchers have reported that TAM is a stable model that can predict behavior intention with information systems (Legris et al., 2003).

Limitations of the TAM

Although results are positive for TAM as a conceptual framework, the model has some limitations. The notion of PU and PEOU is subjective and could have a bearing on the study's outcome concerning behavior intention (Davis, 1989). The goal of TAM is to predict behavior intention concerning the acceptance of technology, but the behavior intention could have obstacles such as organization negativity, unconscious habits, or

personal ability (Yuanquan et al., 2008). Another limitation is that most studies, regardless of methodology, use self-reported data concerning the intention to use technology but do not measure system use (Davis, 1989; Legris et al., 2003; Venkatash & Davis, 1996, 2000). Even with the stated limitations, studies concluded the TAM was still significant in predicting behavior intention towards using information systems because the findings were consistent across studies (Venkatesh et al., 2003).

TAM Usefulness

I used the classic TAM model because it has been flexible with external variables (Davis et al., 1989; Legris et al., 2003; Yuanquan et al., 2008). Over the years, new variables or relationships have been added to the classic TAM, and an extended model, the TAM2, has also been used to explore the deeper connections between PU and behavior intentions (Venkatash & Davis, 2003; Yuanquan et al., 2008). The model's extensions were created using the TAM classical structure consisting of the two constructs of PEOU and PU (Yuanquan et al., 2008).

The TAM has successfully predicted system use 40% of the time (Legris et al., 2003; Venkatash & Davis, 2000; Venkatesh et al., 2003). Based on the three conceptual constructs of PU, PEOU, and behavioral intention, the following are conclusions concerning a person's intention to use information systems (Davis et al., 1989):

1. System use can be predicted from a person's intention.
2. System usefulness is a powerful predictor of people's intention to use information systems.

3. PEOU is significant but is a secondary indicator of PU.

Using the TAM as my conceptual framework allowed me to explore the use of social media analytics by small business owners.

Literature Review

Business Social Media

An essential resource for a business is knowledge, which makes business social media an essential strategy to capture knowledge (He, Zhang, et al., 2019). Social media is at the top of business management research (Ma et al., 2019). Businesses must learn how to capitalize on the millions of people using social media every day (He, Zhang, et al., 2019). Out of 1,700 organizations surveyed, 50% used social networking (Abbasi et al., 2018). Businesses can no longer ignore the importance of using social media to connect with users (Fiaidhi, 2019). An essential advantage to companies using social media is the probability of revenue creation (Sajid, 2016). The following sections discuss social media's definition, benefits of using social media marketing, social media analytics, and social media analytic tools.

Definition of Social Media

Many articles have referenced social media as a communication medium (Carr & Hayes, 2015; Kietzmann et al., 2011). Examples of social media are Facebook, Twitter, and Snapchat (Carr & Hayes, 2015). According to Carr and Hayes (2015), social media are defined by tools or platforms and from the discipline's perspective, such as information systems, communications, and public relations. Researchers have also identified key aspects in determining social media, such as internet applications, user-

generated content, co-creation, interaction, creation, and exchange (Filo et al., 2015; Kaplan & Haenlein, 2010; Vinerean, 2017). Rathore et al. (2017) defined social media in terms of Web 2.0 technologies and user-generated content. Social media allows people to use internet-based applications built on Web 2.0 technologies to create and exchange user-generated content (Rathore et al., 2017). Further, Carr and Hayes (2015) developed the following definition for social media:

Social media are Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others. (p. 50)

Several factors have influenced the way social media have been developing. People use social media to create unsolicited and unscripted user-generated content with a combination of videos, images, texts, music, and hyperlinks (Brooker et al., 2016). General categorizations on how people use social media include communicating with people they know or do not know but may have the same interests and acquiring or contributing to user-generated content (Appel, 2020). The current environment of social media has some prevalent themes beneficial for businesses to take note. These themes include omni-social presence, influencers, and public policy such as trust and privacy concerns (Appel, 2020).

Influencers

Using celebrity endorsements is not a new phenomenon; however, with the omnipresence of social media, a new category has been invented called influencer

(Appel, 2020). Influencers can bring in millions of daily users, allowing social media companies such as Facebook, Twitter, Instagram, and YouTube to show ads to the users (Brown, 2021). Attracting and keeping influencers is competitive, with platforms offering different incentives to attract and retain influencers by providing them with various ways to create revenue for themselves (Brown, 2021). For example, Facebook announced the company would pay \$1 billion to influencers through 2022 (Brown, 2021). Facebook also stated it would offer seed funding to creators who use the Facebook and Instagram platforms for their online presence (Brown, 2021).

Using celebrities can be expensive, so smaller companies may use micro-influencers. These influencers may not be as well known but have a robust, targeted audience (Appel, 2020). These micro-influencers may be seen as more authentic, trustworthy, and credible experts (Enberg, 2018). Micro-influencers have a unique ability to engage their followers (Gupta et al., 2019).

Social Media Marketing

Social media is the primary way many users receive information, share content, and distribute personal information (Appel, 2020). As of 2015, over 2 billion people used social media, representing over 30% of active internet users worldwide (Holsapple et al., 2018). As of 2019, 70% of Americans used social media for connecting with other people, looking at news content, sharing information, and entertainment (Pew Research Center, 2019). Over time, social media usage encompassed a representative sample of the enormous population (Pew Research Center, 2019). Although young adults were adopters of social media, older adults have increased usage (Pew Research Center, 2019).

YouTube and Facebook are the most widely used social media platforms; users visited the platforms at least once per day. (Pew Research Center, 2019).

Social media has created advantages for businesses (Ahmad et al., 2019; He, Wu, et al., 2015). Social media quickly records large amounts of knowledge about enterprise partners, competitors, customers, products, services, and employees (Holsapple et al., 2018). Businesses, whether enterprise or small, can thus benefit from social media marketing. Fifty-four percent of consumers reported social media communication directly affects purchasing decisions (Vinerean, 2017), making it increasingly important for corporations to control as much information as possible (Kietzmann et al., 2011). Social media marketing “covers an organization’s decisions about social media marketing scope (ranging from defenders to explorers), culture (ranging from conservatism to modernism), structure (ranging from hierarchies to networks), and governance (ranging from autocracy to anarchy)” (Felix et al., 2017, p. 123). Social media marketing challenges and objectives vary by the business based on industry, size of the business, and the ability of the organization to keep up with quickly changing social media tools (Felix et al., 2017). The landscape of social media marketing also presents many challenges for businesses. Businesses must learn to deal with customers and competition (Baccarella et al., 2018). Companies must engage in social media marketing to control the company narrative.

Social Media Marketing in Small Businesses

Larger companies, such as Starbucks and IBM, have used social media marketing and were early adopters (He, Wang, et al., 2015; Sajid, 2016). Because large companies

have more resources, smaller companies use social media to connect with the local communities (He, Wang, et al., 2015). An essential marketing tool for small businesses is word of mouth because small business owners have limited resources (Bocconcelli et al., 2017; He, Wang, et al., 2015; Marolt et al., 2020). Social media marketing can be crucial for small business owners due to the low cost, which is why one out of five small businesses use social media (Ahmad et al., 2019; He, Wang, et al., 2015; Sajid, 2016). In 2016, a breakdown of small company's use of social media was reported as 75% have a website; 69% publish articles or company updates to social media websites; 57% develop a network; 54% monitor reviews about the organization, 39% maintain a weblog; 26% use Twitter (Sajid, 2016). But there are few research articles concerning small businesses and social media marketing (Ahmad et al., 2019; Bocconcelli et al., 2017; Felix et al., 2017; He, Wang, et al., 2015). Small business owners need to measure the effectiveness of social media marketing (He, Wang, et al., 2015).

Facebook as a Platform

Facebook is a social media platform offering social networking services founded in 2004 by Chris Hughes, Dustin Moskovitz, Eduardo Saverin, and Mark Zuckerberg while they were Harvard University students. The company headquarters are in Menlo Park, California. (Facebook Company Info, 2021). It is free to join Facebook (Facebook Company Info, 2021). The social media company earns most of its revenue from advertisements (Hall, n.d.).

Facebook was created so students could connect online via the internet (McFadden, 2020). The site allowed students to rate the attractiveness of Harvard

University students' faces, garnering 22,000 views in 4 hours (McFadden, 2020).

Students at other universities and high schools in the United States began to use Facebook (McFadden, 2020).

According to Facebook Company Info (2021), more than 200 million businesses use its app to grow their business and connect with customers. Facebook provides a business guide to assist companies that want to use their platform advertisements and marketing ("Facebook Pages," n.d.). Facebook allows a business to create a business account so the account owner can manage assets such as the Facebook page or product catalog, control user access and permissions, and track their ads. The Facebook for Business page provides businesses with tools to help them achieve and create their goals and has helped guide categories such as small business, industry, skills, and training. Setting up the business page is free. Two-thirds of surveyed Facebook users reported visiting pages of a local business at least once per week (<https://www.facebook.com/business/goals/promote-local-business#>).

Benefits of a Facebook business page include having one place for primary business information, engaging new and longtime customers, allowing Facebook to help determine a target audience for more effective ads, lessening marketing costs, and boosting web traffic (Freedman, 2020). Facebook maintains a lot of information about its users, which can assist businesses when purchasing ads (Freedman, 2020). Business owners can also use a created Facebook business profile to manage their Instagram account and purchase ads. Facebook acquired Instagram in April 2012 (McFadden, 2020).

Instagram as a Platform

Instagram is a photo and video-sharing app founded in 2009 by Kevin Systrom (Blystone, 2020). When the app was launched on October 6, 2010, 25,000 people signed up in one day (Blystone, 2020). People can join for free to upload photos or videos for their followers or group of friends (“Instagram Business Tools,” n.d.). Users of Instagram can view comments and like posts (“Instagram Business Tools,” n.d.). Instagram uses a verified badge system, denoted by a blue circled checkmark, to confirm an account belongs to a public figure, celebrity, or brand (“Instagram Business Tools,” n.d.). A verified badge does not indicate the user is a subject matter expert, authority person, or show importance; the badge only confirms the person or brand belongs to the Instagram account (“What is an Instagram Verified Badge?,” 2021). People visit Instagram to build relationships with brands; a business can sell products on Instagram, and 70% of shoppers visit the site for their next purchase (“Instagram Business Tools,” n.d.). With Instagram, businesses can create ads, share content, and engage with their customers (“Instagram Business Tools,” n.d.). Businesses can use Instagram to expand their presence and show products (Kuligowski, 2020). Reasons for a business to use Instagram include over a billion active users, any size business can use the platform, businesses can make money directly from Instagram, partnering with Influencers, customer engagement, reaching new customers, and watching their competitors (Kuligowski, 2020; Tankovska, 2021). Facebook acquired Instagram in April 2012 for one billion dollars in cash and company shares (“Instagram Business Tools,” n.d.; McFadden, 2020).

Snapchat as a Platform

Snapchat aims to help people live in the moment by sharing pictures with friends (<https://snap.com/en-US>). Snapchat, launched in 2011, was founded by then Stanford students Evan Spiegel, Reggie Brown, and Bobby Murphy (O’Connell, 2020). The central premise behind the social media app is posting videos and photos that disappear after a few moments (O’Connell, 2020). This social media tool is a messaging app where users can share pictures and videos (Elgersma, 2018). After the users share the photos and videos called snaps, the content disappears (Elgersma, 2018; O’Connell, 2020). Snapchat also includes interactivity tools such as games, news and entertainment, quizzes, and editing tools for photos and videos (Elgersma, 2018). The more a user interacts with Snapchat, the more Snapchat features such as face lenses and world lenses are unlocked (Elgersma, 2018).

Snapchat encourages businesses to advertise on the Snapchat site for future customers (“Why Advertise On Snapchat,” 2021). The demographics for Snapchat are millennials and Gen Z. On average, Snapchatters spend 30 minutes on Snapchat every day. Two hundred eighty million people use Snapchat every day. Businesses can create ads and sell products on Snapchat.

Twitter as a Platform

Twitter is a free online microblogging social media site (“Twitter,” n.d.). Twitter combines similar concepts of social networking websites such as Facebook with instant messaging, allowing users to communicate with brief messages called tweets. Twitter was designed in 2006 by Evan Williams and Biz Stone, then launched in March of 2007.

Twitter allows 280 characters per tweet, increasing from 140 characters per tweet (Driver, 2021 ;“Twitter,” n.d.). Users can also retweet posts so a user’s followers can see the tweet (Driver, 2021). The social media site has emerged as a quick way to report the news, allow political candidates to inform their constituents, and provide a way for people to report incidents (“Twitter,” n.d.) quickly. Twitter has millions of daily users (Driver, 2021). A blue checkmark indicates a user is a verified account; verified accounts are a prominent brand or influential individual (Driver, 2021). Users of Twitter have followers (Twitter Help Center, 2021). The Twitter website lists the following as improvements to a company’s brand when using Twitter 18% increase in message association, an 8% increase in brand awareness, 7% increase in brand preference, and a 3% increase of consumers who intend to purchase (Twitter Business, 2021).

In April 2010, Twitter introduced promoted tweets to increase revenue for the company and allow businesses to advertise on Twitter (“Twitter,” n.d.). Twitter promotes itself as a way for business owners to stay connected to the most current events happening in the world (“Why Use Twitter for Business,” n.d.). The business benefits of using Twitter are free business promotion, reaching new audiences, starting a conversation or movement, experimenting with tone, and staying in the know (Twitter Business, 2021).

YouTube as a Platform

YouTube is a social media site used for sharing videos headquartered in San Bruno, California (Hosch, n.d.). On February 14, 2005, YouTube was officially created by former PayPal employees Steve Chen, Chad Hurley, and Jawed Karim (Hosch, n.d.).

The trio wanted to provide a place for regular people to share their home videos (Hosch, n.d.). YouTube opened as a beta site in May 2005 and attracted 30,000 visitors per day (Hosch, n.d.). As of 2021, YouTube has 2.3 billion users worldwide (Statista, 2021).

YouTube users viewed over one billion hours of video on the platform every day (“Ever Wonder How YouTube Works?,” n.d.). Google purchased YouTube in November 2006 for \$1.65 billion in stock (Hosch, n.d.). YouTube encourages businesses to show users products using video

(<https://www.youtube.com/channel/UCwzySbzUWiKqG84jOnbeB1w>).

Benefits of Using Social Media Marketing

Millions of people use social media every day. A viral video caused business executives to realize the power of social media marketing (Morales et al., 2017). Businesses began to understand the many benefits of social media marketing for their organization and boosting their brand (Abrahams et al., 2015; Gholston et al., 2016). These benefits include attracting more customers, monitoring upcoming trends, discovering consumer interests, communicating with customers, and watching the competition (Bowen & Bowen, 2016; Gholston et al., 2016; Morales et al., 2017). These benefits have resulted in social media being a powerful tool for strategic decision-making (Bowen & Bowen, 2016). Another advantage of social media is discovering patterns in the data to help business owners make better organizational decisions (Bowen & Bowen, 2016). Social media platforms have given companies direct insight into individual users’ personal preferences, likes, two-way communications, repeat buyers, client commitment, and peer-to-peer communications (Fischback & Zarzosa, 2018; Moe & Schweidel, 2017;

Sajid, 2016). Abbasi et al. (2018) identified benefits for the organization using social media platforms as increased access to knowledge, identifying experts, successful innovations, and reduced communication and operational costs. Sajid (2016) lists the benefits of social media marketing as a way for companies to receive feedback on customers' suggestions and grievances about products, allows a company to identify influencers, and costs virtual zero dollars compared to traditional marketing methods. Social media marketing is important, but there can be some drawbacks to organizations using it.

Drawbacks of Social Media Marketing

For businesses to realize the many benefits of social media marketing, the business owner must learn how to recognize patterns in the data (Bowen & Bowen, 2016). For social media to be effective, there must be continuous monitoring of online conversations (Bowen & Bowen, 2016). Although small business owners may encounter a learning curve with social media, they need to identify potential customers' patterns and behaviors (Bowen & Bowen, 2016; Gholston et al., 2016). As companies engage more in social media, they need to evaluate their social media campaigns (Keegan & Rowley, 2017). Social media analytics assists businesses in identifying patterns and trends.

Social Media Analytics

Businesses are using social media for a competitive advantage (Holsapple et al., 2018). Social media analytics is a relatively new field (He, Zhang, et al. 2019). There are a limited number of studies concerning social media analytics and knowledge derivation (Abrahams et al., 2015; He, Zhang, et al., 2019). Some challenges exist in social media

analytics, such as choosing software architecture, storage technology, low-quality data, and visualization efforts (He, Zhang, et al., 2019). Social media analytics is a necessary process in decision-making for business (Rathore et al., 2017). Because social media is widely used by consumers and the subsequent creation of massive amounts of data, social media analytics has become an important area in the big data analytics field (Rathore et al., 2017).

Big Data

Big Data are enormous data sets that cannot be managed using conventional data management tools (Akoka et al., 2017). There are several definitions for Big Data, and all definitions refer to size, complexity, and technologies (Akoka et al., 2017). Terms such as volume, velocity, variability, and volatility are often quoted in Big Data definitions (Akoka et al., 2017; Miah et al., 2016). Velocity refers to how rapidly the data is produced (Akoka et al., 2017; Miah et al., 2016). Variety refers to the different formats of produced data such as photos, videos, and unstructured text (Akoka et al., 2017; Miah et al., 2016). Variability is the concept of data being produced over time and in many ways (Akoka et al., 2017; Miah et al., 2016). Big Data is also volatile due to production inconsistency (Akoka et al., 2017; Miah et al., 2016). Emerging Big Data opportunities include the social media area (Akoka et al., 2017). Many users voluntarily upload enormous amounts of data, such as videos, pictures, and posts (Miah et al., 2016). This vast amount of data can be analyzed using Big Data analytics. Social media analytics is a subset of the big data analytics field (Rathore et al., 2017).

Definition of Social Media Analytics

Several researchers defined social media analytics (Rathore et al., 2017). Social media analytics is concerned with establishing and assessing tools and frameworks to analyze, visualize, collect, monitor, and summarize social media data (Fan & Yan, 2015). Holsapple et al. (2018) defined social media analytics to apply analytics to generate definitive knowledge, such as detecting a problem or staying informed. Chang et al. (2019) described social media analytics as using the process steps of collection, extraction, analysis, and presentation for decision-making support. Fischback and Zarzosa (2017) defined social media analytics as gathering data from social media websites for better business decision-making. He, Wu, et al. (2015) described social media analytics similarly with the addition of researchers extracting patterns and intelligence for improved decision-making. He, Zhang, et al. (2019) defined social media analytics as developing and using frameworks to visualize, collect, analyze, monitor, and summarize social media data to extract patterns and intelligence. Although there are many definitions for social media analytics, researchers have used terms such as Web 2.0, user-generated content, gathering, analysis of data, and decision-making capabilities in their descriptions. The definition of social media analytics used in this study is as follows (Holsapple et al., 2018):

All activities relating to gathering relevant social media data, analyzing the data, and disseminating findings as appropriate to support business activities such as intelligence gathering, problem recognition, opportunity detecting, sense making,

insight generation, and/or decision making undertaken in response to sensed business needs. (p. 33)

This definition encompasses the elements of the other definitions. The description is also general enough to be used across industries and includes the main components of social media analytics: capturing, extracting, understanding, and presenting knowledge. Social media analytics is important because user-generated social media content is an important area for businesses to monitor. After all, consumers can influence other consumers' purchasing decisions and disclose their purchasing reasons (He, Tian, et al., 2018).

Necessity of Analytics

Millions of consumers use social media to decide on purchase decisions (He, Tian, et al., 2018). Social media analytics aims to capture, extract, understand, and present knowledge (Fan & Yan, 2015; Chang et al., 2019). It can be very costly to manually analyze data from social media (Chang et al., 2019). A business should automate the process of gathering information from customers (Chang et al., 2019). Companies need to analyze social media data to better understand users' perceptions and competitors (He, Zhang, et al., 2019). Business owners need to develop competence in collecting, storing, and analyzing social media data from consumers and competitors for decision-making purposes (He, Tian, et al., 2018). Companies need to listen and understand what users write about their products, services, and competitors (He, Wu, et al., 2015).

Social media analytics are essential because most user-generated content is unstructured and semi-structured (Chang et al., 2019). Much can be discovered concerning consumers by analyzing social media data (Moe & Schweidel, 2017). For social media to be helpful, companies must create a systematic process to capture social media data such as comments and text using analytics (Abrahams et al., 2015). Social media analytical tools need to be implemented for companies to apply social media analytics for better decision-making (Moe & Schweidel, 2017). Social media analytics is a significant area, and businesses that use social media analytics outperform their peers and gain user knowledge ahead of the competition (He, Wu, et al., 2015; He, Zhang, et al., 2019). Businesses should embrace the need for social media analytics, which would allow them to make smarter decisions and capitalize on customer loyalty (Fiaidhi & Mohammed, 2019).

Social Media Analytics Processes

Social media data has characteristics that contribute to the complexity of data analysis. Social media data is generated rapidly and voluminously (He, Zhang, et al., 2019; Moe et al., 2017). User-generated data should be considered in the context of the users' strength and influence in the network structure (Moe et al., 2017). When using analytics, user-generated content may also be dictated by personality traits associated with the preferred social media platform (Moe et al., 2017). Some steps can be taken when analyzing social media data. The social media analytics process has three standard steps: gather the data, convert unstructured data to structured data for analysis purposes, and report the data for decision making (He, Zhang, et al., 2019; Moe et al., 2017).

Social Media Analytics Techniques

Analyzing social media data can be challenging due to the widespread creation of unstructured data (Basili et al., 2017). Using precise mathematical models may prove problematic in the analysis because of human complexity (Basili et al., 2017). Many companies engage in social media listening (Moe et al., 2017). Social media listening helps discover users' aggregate-level behavior; social media listening does not deal with bias and is considered a snapshot of activity (Moe et al., 2017). Tam and Kim (2019) stated that organizations use social media listening to monitor competitors' activities, interact with users, and protect their brands. There are several techniques in performing social media analytics. Lexical features, stylistic features, social features, product features, specific terms, and semantic features are several methods used for social media data analysis (Abrahams et al., 2015). Lexical features seek to identify unique words and phrases, along with frequency (Abrahams et al., 2015). Sentiment features measure if a phrase is positive or negative (Abrahams, 2015). Specific terms use industry-specific dictionaries to rank industry words higher than other words for a particular industry, such as bullish in the finance industry (Abrahams, 2015). Product features are defined with tag types and values (Abraham et al., 2015). Semantic features count how frequently a concept class occurs, such as trains, people, or economic terms (Abrahams et al., 2015). A popular technique is sentiment analysis (Abrahams et al., 2015; He, Zhang, et al., 2019). Sentiment analysis focuses on perception, expectations, and how positively or negatively a user feels about a subject (Basili et al., 2017; He, Zhang, et al., 2019; Jurek et al., 2015). Sentiment analysis may also be automated; however, this is a complex

process (Basili et al., 2017). Sentiment analysis uses polarity lexicons, or hand-coded dictionaries, to capture the emotions behind certain words or expressions for analysis in an attempt to predict a particular feeling (Basili et al., 2017). The polarity lexicons exist mainly for the English language because implementing in other languages can be expensive (Basili et al., 2017). Sentiment analysis uses machine learning such as “vector machine, Naïve Bayes, maximum entropy and matrix factorization to classify texts as positive or negative” (He, Zhang, et al., 2019, p. 155). Jurek et al. (2015) used sentiment analysis to discover public sentiment on Twitter about disruption and disorder during public events. Other researchers have used sentiment analysis for tourism studies, monitoring real-time cyber-incidents, and analyzing the effectiveness of speeches using social media (Jurek et al., 2015). Another text analyzing method is opinion mining.

Opinion mining searches for opinions about specific products or people (Basili et al., 2017). Opinion mining does not deal with feelings of positivity and negativity like sentiment analysis. (Basili et al., 2017). How consumers feel about specific companies and products has a massive influence on decision-making and business processes (Basili et al., 2017).

Clustering and latent Dirichlet allocation are used to look for patterns in text analytics (Moe et al., 2017). As mentioned above, the method attempts to discover themes by analyzing sets of words together to find the meanings of the phrases (Moe et al., 2017). Other tools include volume metrics, semantic analysis, data mining, and geographic breakdowns. (He, Zhang, et al., 2019; Moe et al., 2017). Social media visualization is a growing field of social media data analytics (Chen et al., 2017).

Visualization areas include text, keywords, types, and sentiments (Chen et al., 2017).

There have been thousands of studies concerning semantics and social media (Abbasi et al., 2018). Although organizations want to understand a user's social media action and intention, most text analytic tools focus on sentiment (Abbasi et al., 2018).

Social Media Analytics Tools

The terms “tools” and “platforms” are periodically used interchangeably, although the two concepts are different. Platforms are the way a user accesses social media. There are hundreds of platforms, including the most widely used Facebook, Instagram, Twitter, Snapchat, and YouTube (Perrin & Anderson, 2019). Sentiment analytics is the most popular technique for social media analytics (Abrahams et al., 2015; He, Zhang, et al., 2019). Some standard tools in sentiment analytics to convert unstructured data to structured data include Brandwatch, Crimson Hexagon, and Salesforce (Moe et al., 2017).

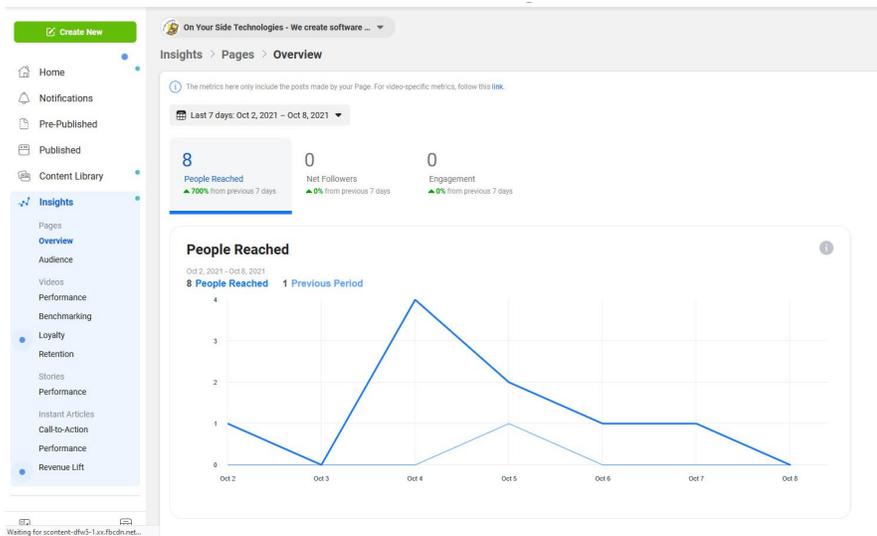
One way to convert unstructured data to structured data is to use software such as Linguistic Inquiry and Word Count (Moe et al., 2017). Popular sentiment analysis tools include Lexalytics, SentiWordNet, SentiStrength, Social Mention, Trackur, Sysomos, and Viralheat (He, Zhang, et al., 2019). Other standard tools include Facebook Insights, Twitter Analytics, Google Analytics, Brandwatch Analytics, and Vizia.

Facebook and Instagram Business Suite. Facebook offers a suite of free analytics tools that include ways to help business owners view engagement reports, demographic information about followers, and the reach of your Facebook page

(McLachlan, 2021). Figure 1 displays a sample Facebook and Instagram analytics dashboard.

Figure 1

Sample Facebook and Instagram Analytics Dashboard



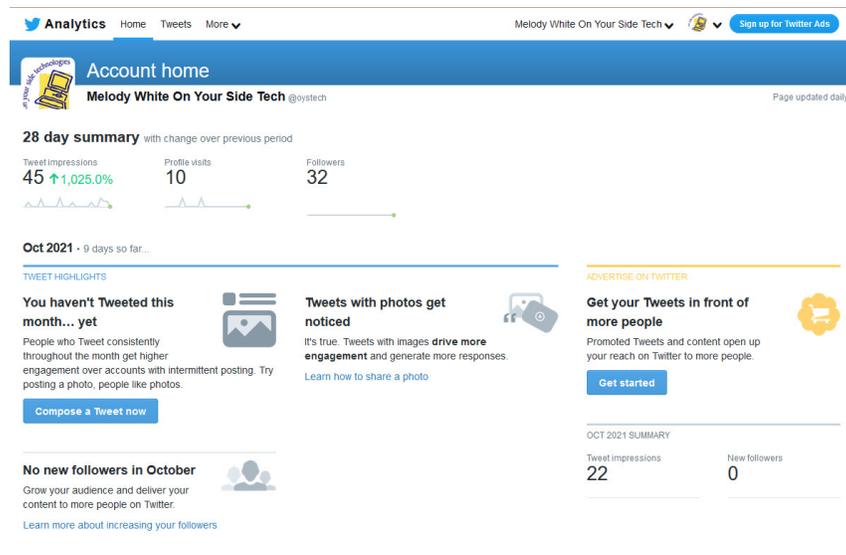
Facebook offers a suite of free analytics tools that include ways to help business owners view engagement reports, demographic information about followers, and the reach of your Facebook page (McLachlan, 2021). Facebook Business Suites assist the business owner in viewing visuals, reports, trends, and metrics (McLachlan, 2021). Creator Studio's tool allows the business owner to view information such as new followers, new unfollowers, impressions, loyalty, and performance (Facebook for Business: Business Help Center n.d.; McLachlan, 2021). Because Facebook acquired Instagram, business owners can view analytics information about their Instagram with the same suite of tools ("Facebook Pages," n.d.). A user can only view Instagram analytics

on a mobile device, titled Instagram Insights (“Instagram Business Tools,” n.d.). The following features are available for Instagram analytics: recent highlights, accounts reached, content interactions, and total followers (Instagram Business Tools, 2021). Additional information such as interactions, discoveries, and promotions can be viewed (Instagram Business Tools, 2021).

Twitter Analytics Tool. Twitter has three dashboards Tweet activity, followers, and Twitter cards. Tweet activities measure the engagement of the business owner’s tweets (“Analytics,” n.d.). The tweet activity also makes the business owner’s tweets more successful. Figure 2 displays a sample Twitter analytics dashboard.

Figure 2

Twitter Analytics Dashboard



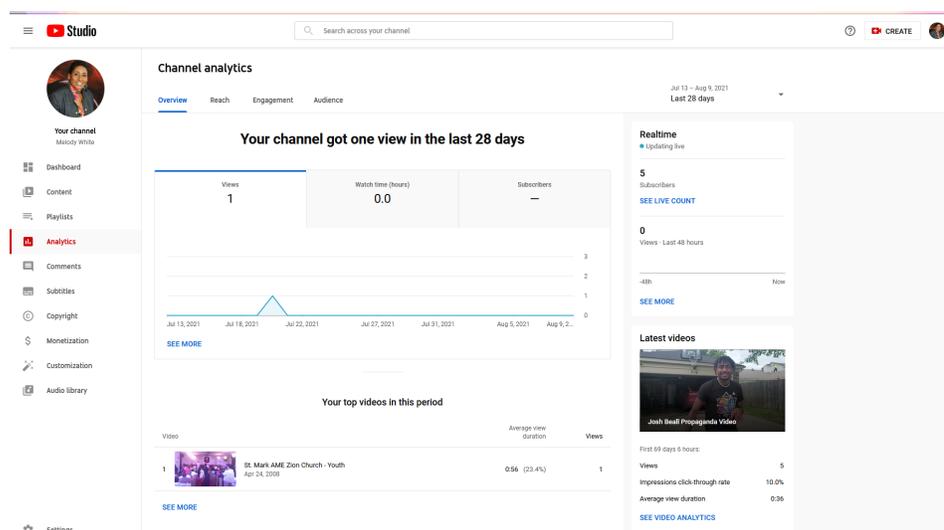
The follower’s dashboard provides the business owner with information about the users following the business. The report includes locations, demographics, and interests (“Analytics,” n.d.). Twitter cards allow business owners the opportunity to attach videos,

rich photos, and media experiences to their tweets (“Cards,” n.d.). This process drives more traffic to the website after the business owner adds lines of markup to their website. When someone Tweets links to the content, a card is added to the tweet visible to the person’s followers. The markups in the twitter cards allow for different experiences, such as downloading a mobile app or displaying video, audio, or other media. The Twitter analytics dashboard for cards tracks how the Twitter cards drive retweets, app installs, and clicks (“Analytics,” n.d.).

YouTube Analytics. YouTube analytics allows the user to view reports for the YouTube studio (YouTube Help, 2021). There are four tabs on the analytics dashboard for the user to view analytics about uploading videos. The four tabs are overview, reach, engagement, and audience. Figure 3 displays a sample YouTube analytics dashboard.

Figure 3

YouTube Analytics Dashboard



The overview tab includes video performance, top videos, real-time performance over a period, the performance from the ten latest videos, audience retention in real-time, and any performance from the last seven stories (YouTube Help, 2021). The reach tab provides information concerning how viewers found the content uploaded, any embedded videos from a user's channel, traffic from suggested videos associated with the user's account, how many impressions from the user's thumbnails along with click-through rates, traffic from playlists, and YouTube searches where the user's content appears (YouTube Help, 2021). The engagement tab reports how long a person views the user's videos (YouTube Help, 2021). The engagement tab displays additional information such as top videos, playlists, videos by end screen, posts, and likes vs. dislikes per video (YouTube Help, 2021). The audience tab provides a summary of metrics that includes when the user's viewers are watching their YouTube channel, the number of subscribed notifications, watch time, age, gender, other channels watched by the user's audience, geographies, who uses subtitles, and who uses closed-captioned languages (YouTube Help, 2021). YouTube allows the user to earn revenues from their channel. The revenue tab enables users to track their viewed videos' earnings, including top videos (YouTube Help, 2021).

Challenges in Social Media Analytics

People are sharing and spending less time on social media platforms (Tam & Kim, 2019). Some researchers deem automatic sentiment analytics as useless (Fiaidhi & Mohammed, 2019). Social media analytics can be prohibitive because deeper processes require expertise and can be expensive (Fiaidhi & Mohammed, 2019). There needs to be

qualitative analysis and quantitative analysis (Fiaidhi & Mohammed, 2019). It is challenging to gather all current and historical social media data, but sentiment analysis can assist in data analysis (Tam & Kim, 2019). Social media analytics cannot capture all public's opinions and sentiments (Tam & Kim, 2019). The idea of using a variety of qualitative analytics to attempt to predict user behavior, such as why a customer did not buy a particular product, is relatively new (Fiaidhi & Mohammed, 2019). Semantic analysis is the most popular technique for social media analytics (Abrahams, 2015; He, Zhang, et al., 2019).

Small Businesses and Social Media Analytics

There were no studies found concerning small businesses and the direct use of social media analytics in the Dallas, Texas Metroplex. A search for small businesses and social media analytics produced a list of authors mainly concerned with return on investment or small business owners' need to use social media metrics (Alhaimer, 2019; McCann & Barlow, 2015). Semantic analysis is the most popular technique for social media analytics for large enterprise companies (Abrahams, 2015; He, Zhang, et al., 2019). However, when searching for small businesses and semantic analysis, the results yielded no articles. This study helped to fill a gap in the research by exploring social media analytics use or non-use by small business owners in the Dallas, Texas metroplex using the TAM conceptual framework.

PEOU and PU

The TAM uses two factors, PEOU and PU, to determine a user's intention to accept new technology (Davis, 1989). PEOU is the perception that an IT system will be

easy to use (Davis, 1989). PU is the perception that an IT system will be helpful for a user task (Davis, 1989). There have been numerous studies using the conceptual framework in TAM. Gavino et al. (2019) stated that the TAM could be applied to small and medium-sized businesses during decision-making. Gavino et al. (2019) used the PU and PEOU factors to explore the attitudes of Latino entrepreneurs and social media adoption. Matikiti et al. (2018) used the TAM to discover the factors that impact social media marketing usage by travel agencies and tour operators in South Africa. The PU factor was concerned if a travel agency believed social media marketing would improve marketing performance (Matikiti et al., 2018). PEOU was concerned about whether a social website was easy to use (Matikiti et al., 2018). Verma et al. (2018) used the TAM factors of PEOU and PU to explore large business owners' intention to use big data analytics. Koul and Eydgahi (2018) used the TAM factors of PU and PEOU and driver age and experience to determine the intention to use driverless cars. Wang and Goh (2017) used the TAM factors of PU and PEOU and perceived enjoyment to examine video game acceptance between two categories of hedonic and utilitarian players.

Summary and Conclusions

Millions of people actively use social media platforms. Many businesses use social media platforms such as Twitter, Snapchat, Instagram, Facebook, and YouTube to engage with those users. Social media has become a driving force for many businesses. Social media is a low-cost way for businesses to connect with customers, manage their brands, and view competitors. Small business owners frequently have limited resources and choose social media marketing because of low costs. Social media user-generated

content occurs quickly and voluminously. Small business owners need to use social media and analyze social media marketing campaigns' effectiveness.

Social media analytics, a subset of big data analytics, analyzes social media data. Social media analytics includes gathering, processing, and reporting user-generated content for business intelligence purposes. There are many techniques and tools available to assist businesses in analyzing social media data—most of the research for analyzing user-generated social media data centered around sentiment analysis. Sentiment analysis is the process of determining if a user-generated post is positive or negative. Popular sentiment analysis tools include Lexalytics, SentiWordNet, SentiStrength, Social Mention, Trackur, Sysomos, and Viralheat. The literature for social media analytics centered around enterprise businesses. No literature has been found concerning social media analytics and small business owners' use in the Dallas, Texas Metroplex.

Small businesses reside in local communities and provide the area with their goods and services. Because small business owners typically have limited resources. It is crucial for business owners to effectively use social media and social media analytics to offer the optimal products and services to the local community. This study filled a gap in small business owners' PEOU and PU of social media analytics. PEOU and PU are TAM factors. The perception that technology is easy to use is the PEOU construct. The PU factor is the idea that technology is helpful for tasks. The constructs lead to the behavior of intention to use technology. The TAM has been used in thousands of studies since Fred Davis proposed it in 1989. Some studies have extended the model as Davis created

the conceptual framework to be flexible. This study used the original TAM as the conceptual framework in the methodology section.

Chapter 3: Research Method

The purpose of this generic qualitative research study was to explore the use of social media analytics by small business owners, which may lead to improved services and better customer relations for businesses (Parveen et al., 2016) as well as increased revenue and firm value (Pavel & Vlad, 2017). Although small business owners use social media, limited research has been conducted on adopting social media analytics to assess their social media campaigns (Holsapple et al., 2018). In this study, I aimed to address this gap by using the TAM conceptual framework to understand better small business owners' rationale for using or not using social media analytics. In Chapter 3, I present the research design and rationale for the study, the researcher's role, participant selection logic, data collection methods, and an overview of trustworthiness.

Research Design and Rationale

I engaged in a generic qualitative research study using the TAM as a conceptual framework to best address the research questions. To better understand the rationale for their current usage levels, I interviewed multiple small business owners in the Dallas, Texas Metroplex. I used the TAM variables to discover why small business owners use social media analytics. The lack of research concerning small business owners and social media analytics is the reasoning behind using the qualitative method. It would have been challenging to create a quantitative survey method without first understanding which questions to ask to answer the research questions. I reviewed six ways to conduct qualitative research studies: narrative, phenomenology, grounded theory, ethnography, case study, and generic research study.

Main Qualitative Study Categories

Narrative Research

Narrative research is a type of research that focuses on stories told by an individual (Given, 2008). Narrative studies may use narratives or emphasize various forms, including oral history, biographical studies, biographies, and autobiographies. A significant challenge for researchers using this qualitative research method is the extensive amount of information collected about participants to understand their lives. A narrative approach attempts to uncover the many layers of an individual's life to discuss the complexity of an individual's experiences. Narrative research was not appropriate for this study because I was not attempting to understand an individual's life.

Phenomenological Research

The phenomenological research method is like the narrative method in purpose; however, instead of focusing on individuals, it focuses on the lived experiences of individuals (Given, 2008). The phenomenological research method attempts to derive a universal description of a phenomenon. Some challenges for this type of research method include the following: A researcher should have a general understanding of the assumptions about a phenomenon, be careful in participant selection, and bracket their personal feelings about the phenomenon. Phenomenological research was not suitable for this study because I was not learning about a group's lived experiences.

Grounded Theory Research

Grounded research theory aims to discover a theory derived from data by observing many participants (Given, 2008). There are a few challenges to this qualitative

research theory. The researcher must ignore previous theories so the new theory can emerge. The researcher may have difficulty determining category saturation or knowing enough theory detail to complete the study. The researcher should also focus on this type of study, theory generation. I was not attempting to create a theory; therefore, the grounded research theory method was inappropriate for my study.

Ethnographic Research

The ethnographic researcher is interested in studying an entire cultural group (Givenm 2008). The cultural group may be small but is typically large. The researcher attempts to describe common patterns of values, language, beliefs, and behaviors. The ethnographic researchers try to understand how the culture works. A challenge for the ethnographic researcher is the extensive amount of data collection time. It is also possible that the researcher will spend so much time emerged in a culture they will not complete the study because they will lose objectivity. I was not attempting to understand the culture of social media analytics users; consequently, I did not use the ethnographic research theory.

Case Study Research

The case study researcher focuses on the study of an issue explored in one or more cases (Given, 2008). Cases use multiple sources of information. There are several challenges for the case study researcher. A researcher must be able to identify their case correctly. The researcher must decide if they are going to study multiple or single cases. The researcher also must have an established rationale for purposeful sampling, selecting cases, furthering information about the case. Because there is limited information about

social media analytics usage and small business owners, it would have been difficult to determine the case or cases for this study.

Generic Research

The generic or basic qualitative research study method does not have a straightforward definition. This approach is outside traditional research methods such as grounded theory, ethnography, and phenomenology. Defining the generic qualitative research in the negative is the most straightforward way to understand this approach. This research “is not guided by an explicit or established set of philosophic assumptions in the form of one of the known [or more established] qualitative methodologies” (Caelli et al., 2003, p. 4). In the past decade, there has been a growing trend for using the generic qualitative method (Caelli et al., 2003; Liu, 2016). This research method is proper when a research question does not necessarily fit into one of the more traditional methods and allows the researcher more scope to research the topic (Caelli et al., 2003; Kahlke, 2014).

The generic qualitative method is not atheoretical, and there is an emphasis on the connection between method choices, research methods, and research questions (Sandelowski, 2000). The generic qualitative method thus allows researchers to work outside of traditional theories (Kahlke, 2014). Though there is a lack of literature, researchers must know the other methodologies and challenge them to read and think more openly about the research study (Chamberlain, 2000; Kahlke, 2014). Generic method studies intentionally research how a new perspective is achieved by looking at a research question in a new way to possibly build a new generic framework (Kahlke, 2014). The main advantage of using a generic research method is approach is flexibility

(Lim, 2011). When working within a generic qualitative study, it is most important to illustrate the linkages between the research question and framework (Kahle, 2014). The generic qualitative research study method allowed me to explore whether and why small business owners use social media analytics. After reviewing the six approaches to qualitative research, I determined the generic qualitative research study was the best method to answer my research questions.

Role of the Researcher

I requested a list of 20 non-manufacturing small businesses with 10–99 employees in the Dallas, Texas Metroplex from the Small Business Development Corporation (SBDC), a division of the Small Business Administration. The requested list included contact information for small business owners interviewed for this research study. Using the list provided by the SBDC, I took on the role of interviewer-observer. My expertise is in IT; however, I did not impose my views on the interviewee, and I stayed open-minded during the interview process. During the interview process, my role was more of an observer because I did not have any personal relationships with the participants. There was no foreseeable power dynamic between the participants and me, and there was no incentive offered to the participants. The plan for addressing social media analytics use or non-use was to ask each participant the same set of open-ended questions. In the initial interview welcome, the participants were told that if there were any questions they did not feel comfortable answering, they could choose to skip the question. The questions helped me determine whether and why small business owners use social media analytics in the Dallas, Texas Metroplex.

Methodology

Participant Selection Logic

The companies chosen were non-manufacturing small businesses in the Dallas, Texas Metroplex. The participants were owners who knew the company's use or non-use of social media analytics. To help select appropriate businesses, I used the Dallas Chamber of Commerce's definition of a small business being 10–99 employees in the non-manufacturing category. From 2000–2018, small businesses created 9.6 million jobs, while larger businesses created 5.6 million jobs (Office of Advocacy, 2019). Small businesses created 64% of new private-sector jobs in Dallas, Texas, and accounted for 42% of private payroll in 2019 (Dallas Regional Chamber, 2020). There are approximately 160,269 small businesses in the Dallas, Texas Metroplex. (Dallas Regional Chamber, 2020). The Dallas Regional Chamber (2020) identified a small business as having 10 to 99 employees.

To address questions to businesses that meet these criteria, I requested a list from the Dallas Metropolitan Small Business Development Center office under the open records act in the Dallas, Texas Metroplex. This list served as the participant sample and had more than 20 small business owners if an owner denied my interview request. Because I used purposive sampling in this qualitative study, the sample may not be diverse. I created the sample by opening the list in Microsoft Excel. The RAND function was used to create a list of 20 small businesses. I contacted the small business owner and provided a brief explanation of my study. If the business owner agreed, I interviewed the owner. If the small business owner refused to be interviewed or did not return my phone

call, I continued down the randomly generated sample list until I reached the end. Then I visited the initial more extensive list provided by the Dallas Metropolitan Small Business Development Center and developed a new sample list until I interviewed enough small business owners for data saturation. Data saturation will be discussed in Chapter 4.

Data Collection

The generic qualitative method recommends interviews as the primary source of data collection (Kahlke, 2014). I used a scheduled-structured format for personal interviews. The number and wording of the questions were the same for all the respondents. The interview began after an initial introduction by me. I shared information about my study during the opening, procedures for ensuring confidentiality, and anonymization procedures. The qualitative interview's minimum sample size was 20 small business owners or until saturation occurs (Crouch & McKenzie, 2006).

If possible, interviews were conducted in the small business's natural setting in Dallas, Texas, Metroplex. I chose the Dallas, Texas metroplex because it was an accessible population. Based on participant preference, multiple ways of interviewing the small business owner, such as traveling to each research site, using an online video conference platform such as Zoom, or the telephone, could be used. This individual knew the social media sites and analytics used for the company. The participant had the option to request their preferred setting for the interview if they were not comfortable with face-to-face possibilities. I assumed there would be no difference in the participants' responses because of location.

Interview Questions

Background questions:

1. How many employees are currently in the organization?
2. What is your industry?
3. What are your estimated revenues?

The questions related to the TAM conceptual model are indicated as PU and PEOU after the interview question.

Interview questions:

1. Do you believe social media is useful for your business? If, yes, why; if no, why? (PU)
2. What is your definition of social media analytics?
3. Which social media analytics do you use and why?
4. Do you believe social media analytics tools are valuable for your business? If yes, why; if no, why not? (PU)
5. What tools do you use for social media analytics?
6. Overall, is it easy to use social media analytic tools? If yes, why, if no, why not? (PEOU)
7. If no tools are used, how do you know if your social media campaign is working?
8. Overall, is it easy to interpret the results from social media analytics tools? If yes, how do you interpret the results? If not, what makes the interpretation difficult? (PEOU)

9. Overall, do you believe social media analytics has made it easier to reach your company's goals? If yes, can you provide an example; if no, will you continue to use social media analytics? (PEOU)
10. Who internally is an expert in social media analytics? If not internally, then what about externally?
11. Describe the benefits of using social media analytics for your company.
12. Describe the drawbacks of using social media analytics for your company.
13. Do you have any examples of how social media analytics has helped your company?
14. What is your general impression of social media analytics?

Data Analysis Plan

For this study, interviews of a sample of small business owners who do and do not use social media analytics were conducted using a key informant format. I recorded the interviews using the Otter app if I met the participant in person, the Cube ACR app, if I interviewed the person over the phone, or Zoom if I conducted a videoconference with the interviewee. I also created handwritten notes, as necessary. The website rev.com was used to transcribe the interviews professionally.

Coding is recommended in the basic qualitative method to stay as close to the data as possible (Kahlke, 2014). Coded elements from the interviews were measured by statistical frequency to build a case about the relative importance of each of the discovered elements using NVivo software. I input the NVivo software analysis output into Microsoft Word for further inspection. I used open coding to codify elements based

on themes repeated across interviews, reported similarities in peer-reviewed journals or other relevant themes to answer the research questions. I then decided which codes were the most important and created categories for the codes. I labeled the categories and determined how the categories were connected. I described the category connections determining if there was a hierarchy or a most important category. The result of this process was definitions of themes created from analyzing the coded data. I wrote up the analysis of the themes in Chapter 4.

During the discussion of the study, I anonymized the participants using reference identification numbers for privacy purposes. Other artifacts requested to be reviewed included social media plans, social media sites operated, and any current social media analytics generated reports if available. The goal was to interview twenty small business owners or until data saturation occurred. However, data saturation was achieved at the 18th interview. Validity was established with face validity by my committee. Because this was a qualitative study with projected interviews of 20 participants, demographic information was not collected.

Trustworthiness

Credibility

To ensure credibility, I remained unbiased and open-minded by analyzing the data recorded in the interview. I submitted the proposal to Walden's Institutional Review Board (IRB) and awaited approval before beginning to gather any data. Homogeneous sampling, a purposive sampling strategy, was used to select participants based on their characteristics. The specific features were small non-manufacturing businesses with 10-

99 employees in the Dallas, Texas Metroplex. These criteria were shared with the local SBDC to obtain the population for the study. To avoid selection bias, I defined the company's criteria and only chose business owners to interview in that sample. I provided participants with an option to review the transcribed interview and notes to identify any data discrepancies. I used a methodological triangulation process for credibility and validity. The primary data collection method was interviewing. Also, observational notes, available participant supplied documentation, and transcripts of recordings derived from the interviews were used in the analysis process, if available.

Transferability

This study used a homogeneous sampling to obtain the sample from the population. I used thick descriptions to capture observational notes. The notes provided context for subsequent analyses.

Dependability

Before conducting the interview, research participants were briefed concerning interview procedures, including requesting any documentation they may have created to support their social media goals. I addressed any participant concerns or questions about the interview process before the interview.

Confirmability

I used several methods to ensure confirmability. The first method allowed the interviewee to review the transcribed interview for any discrepancies. Also, I checked the transcriptions for accuracy. I began checking for data saturation after the 16th interview. Although I did not notice any new themes, two additional interviews had already been

scheduled. Again, no new themes emerged after I interviewed the 18th participant, and data saturation was achieved. This process indicates confirmability.

Ethical Procedures

The IRB at Walden University defines ethical procedures for data collection in this study. An IRB proposal was created and approved. No research occurred before IRB approval. Data were anonymized using reference identification numbers in this dissertation. I will destroy the data five years after the dissertation publication. No incentives were provided for the participants.

Data Sources

A list was obtained from the Dallas Metropolitan SBDC. The potential participant list is publicly available and shared with anyone who contacted the SBDC requesting information about local businesses. From the ordered list, the RAND function was used to choose 20 potential participants. The potential participants were contacted, and an interview was being requested.

Minors (people 17 and under) may not be unknowingly recruited into an adult research study, so I took reasonable measures to ensure that I did not accidentally recruit minors into my sample. My sample did not include vulnerable adults.

Data Protection

Paper notes and consent forms are stored in a locked file cabinet at my home. Electronic files are stored on a password-protected external hard drive attached to my computer. After the complete data set was saved to the hard drive, the drive was removed from the computer and stored in the locked file cabinet. This hard drive was purchased to

protect research data. The data will be stored for at five years after the publication of the dissertation. After five years, the software program Darik's Boot and Nuke will be used to erase the hard drive and then write over any data with 0s and 1s.

Participants' Safety

I ensured I was in a confidential location and alone for interviews over the phone or using a zoom videoconference call. Some interviews took place face-to-face at the business owner's request. There was a physical risk for COVID-19. When face-to-face interview occurred, social distancing and the wearing of masks was used. I wore a mask; however, the business owner sometimes chose not to wear a mask. I am in Texas, and the mask mandate was lifted. I also followed the Centers for Disease Control recommendations for public interactions. All participants' names and contact information are confidential, with participants codes used to label the data. The list was saved in an Excel spreadsheet with a unique password on the secured external hard drive. There are minimal professional risks to the small business owner. The main minimal professional risk identified for the small business owner was if a confidentiality breach occurred, a competitor could potentially view the small business owner's social media plan. All participants will be provided a copy of the results of my study. The IRB approval number for this study is 04-02-21-0032328, valid until April 1, 2022.

Summary

In Chapter 3, the methodology chapter, I reviewed six primary research methods for qualitative research. The methods were summarized, and the generical qualitative study was identified as the best method for this study. The third chapter included research

design, the role of the researcher, and the methodology. Chapter 3 listed how trustworthiness, credibility, transferability, dependability, and confirmability were handled during the study. Other areas in the third chapter included participant selection logic, research setting, and ethical concerns. In Chapter 4, I reported the results of the study.

Chapter 4: Results

The purpose of this generic qualitative research study was to explore the use of social media analytics by small business owners. I explored the attitudes and perceptions of small business owners toward the use of social media analytics using the TAM framework. I interviewed a sample of 18 purposively selected small business owners to represent the total population of small business owners in the Dallas/Ft. Worth metroplex. I used open-ended questions in the interviews, which I conducted over the telephone, with Zoom videoconferencing, or face-to-face. In Chapter 4, I discuss the findings of this study. First, I explain the research setting. Afterward, I discussed data collection, data analysis, evidence of trustworthiness, including credibility, transferability, dependability, and confirmability. Finally, I present the results.

Research Setting

I contacted 52 potential participants for this study before I reached my target. Eighteen participants completed and returned the consent forms. I followed the ethical procedures when corresponding with each participant. Each participant was given a choice as to where the interview was to take place. The options were telephone, videoconferencing via Zoom, or face-to-face. There was a mix of interview settings from each choice. When face-to-face was chosen, we followed safety measures outlined in the IRB and the Centers for Disease Control, COVID-19 procedures. Arrangements were made for the time, date, method, and place if necessary for the interview. The participants were notified at the time of appointment arrangements that they could choose not to participate in the study at any time. I also reassured them of the confidentiality of the

interview data and told them if any question was uncomfortable, they did not have to answer it. I also reminded them I would be recording the interview. For consistency, I asked each participant the same set of questions. Interview times ranged from 20 to 45 minutes. Interviews were recorded using the Otter app in person, Cube ACR for the telephone, and Zoom for the videoconferences. The recordings were sent to rev.com for transcriptions. The transcriptions were loaded into NVivo for coding and theme identification.

Data Characteristics

I interviewed 18 participants. Parameters included non-manufacturing, non-government, and no franchises. The small business owners were in Dallas/Ft. Worth Metroplex. I created a unique identifier for each small business owner. No demographic data were collected for each participant. Table 1 lists general non-identifying data characteristics for each surveyed participant.

Table 1*Characteristics of Participants*

ID	Industry	# of employees	Yearly revenues	SMA Used?	SM sites
SBO1	Non-profit	10	Very Low	Yes	Facebook Instagram Twitter
SBO2	Healthcare	12	\$800,000	Yes	Facebook
SBO3	Education	22	\$675,000	Yes	Facebook Instagram Twitter YouTube
SBO4	Non-profit	15	\$189,000	Yes	Facebook Instagram Twitter
SBO5	Restaurant	11	\$250,000	Yes	Facebook Twitter
SBO6	Health/Wellness	10	\$160,000	Yes	Facebook Instagram
SBO7	Real Estate	13	\$75,000	Yes	Facebook
SBO8	Healthcare	18		Yes	Facebook Instagram Twitter
SBO9	Health/Wellness	36	Not answered	Yes	Facebook Instagram
SBO10	Health/Wellness	10	\$400,000	Yes	Facebook Instagram
SBO11	Transportation	14	\$700,000	No	Facebook YouTube
SBO12	Non-profit	22	\$3,000,000	Yes	Facebook Instagram Twitter
SBO13	Insurance	12	\$675,000	Yes	Facebook Instagram Twitter
SBO14	Health/Wellness	19	\$800,000	Yes	Facebook Instagram Twitter YouTube
SBO15	Non-profit	11	\$75,000	No	Facebook Twitter
SBO16	A/C Repair & Installation	30	\$950,000	Yes	Facebook Instagram YouTube
SBO17	Restaurant	19	\$315,000	Yes	Facebook Instagram Twitter YouTube
SBO18	Non-profit	20	\$3,000,000	Yes	Facebook

Note. SMA = social media analytics. SM = social media sites (i.e., Facebook, Twitter,

YouTube, or Instagram), SBO = small business owner.

Data Collection

The data collection process did not begin until IRB approval. After the study was approved, I contacted the Dallas Metropolitan SBDC to request the list of small business owners for purposive sampling. I had previously contacted the SBDC to inquire if this type of list could be requested. The representative said it could be requested, and there was no charge for the list. When a potential participant agreed to be interviewed, I immediately set a date, inquired about the setting desired for the interview, and emailed the consent form and the formal invitation letter describing the study. I explained the consent form and allowed the participant to ask any questions about the study. I also reassured the participants that they could withdraw at any time from the interview with no ramifications. I explained to the participants that I would be asking them 17 questions, and they did not have to answer any questions that made them feel uncomfortable. I provided a copy of the signed consent form to each participant.

Before the interviews, I followed up with the participants to verify the date, time and setting were still available. I made the participants feel at ease by establishing rapport before asking questions and reassuring them that their answers were secure. I informed them their interview would be confidential, and no identifying information would be included in the study. Participants did not receive compensation for participating in the study. Before asking the interview questions, I asked permission to record the interview. After the interview, I thanked each participant and informed them they would receive a copy of the study results. I began the interview with three background questions and then started the interview questions associated with the research questions:

Background questions:

1. How many employees are currently in the organization?
2. What is your industry?
3. What are your estimated revenues?

Interview Questions:

4. Do you believe social media is useful for your business? If, yes, why; if no, why? (PU)
5. What is your definition of social media analytics?
6. Which social media analytics do you use and why?
7. Do you believe social media analytics tools are valuable for your business? If yes, why; if no, why not? (PU)
8. What tools do you use for social media analytics?
9. Overall, is it easy to use social media analytic tools? If yes, why, if no, why not? (PEOU)
10. If no tools are used, how do you know if your social media campaign is working?
11. Overall, is it easy to interpret the results from social media analytics tools? If yes, how do you interpret the results? If not, what makes the interpretation difficult? (PEOU)
12. Overall, do you believe social media analytics has made it easier to reach your company's goals? If yes, can you provide an example; if no, will you continue to use social media analytics? (PEOU)

13. Who internally is an expert in social media analytics? If not internally, then what about externally?
14. Describe the benefits of using social media analytics for your company.
15. Describe the drawbacks of using social media analytics for your company.
16. Do you have any examples of how social media analytics has helped your company?
17. What is your general impression of social media analytics?

The participants did not indicate they had any issues understanding the questions.

The only deviation from the data collection section in Chapter 3, methodology, was instead of using fictitious names, I found it simpler to assign a random identification number to the participants ranging from 1 to 18. I began entering interview data into NVivo after the 16th interview and looked for themes. I already had interview appointments with two more small business owners. I interviewed the additional small business owners, input the data, and no new themes emerged from the interviews.

Data Analysis

The first step in my data analysis was to review the transcripts. I then edited the transcripts to remove any identifying information and saved the transcripts as SBOx using Microsoft Word. During the editing process, I removed the full-text heading and replaced the words with Q1, Q2, and so forth for the 14 main interview questions. I applied the header one style setting to the new question titles. I imported the transcripts into NVivo 12, which autocoded the transcripts per question. This was the starting part of my analysis.

I began with 14 codes titled Q1–Q14 and the associated answers from each of the questions. Next, I renamed the Qx questions to short phrases more closely related to the text question to make it easier for me to apply child codes under each main code. I reviewed each question and began to create more nodes using content analysis inductively. In some cases, I coded the phrase under a different main code than where the word appeared in the question answers. For example, the phrases related to the time commitment necessary for effective social media analysis appeared across multiple interview questions. The concept of time appeared in Question 6, “Overall, is it easy to interpret the results from social media analytics tools,” and Question 12, “Describe the drawbacks of using social media analytics for your company.” Participant SBO12 stated, “It is time-consuming,” as part of the answer for Question 12. After the second iteration of coding, I ended up with 60 child codes under the 14 principal codes. For the next iteration of coding, I began to combine some child codes because they were similar. For example, one child code was hard to understand and another was learning; I combined those into one child code listed under the main code of drawbacks. Some codes were combined because the data was similar. Question 3, “Which social media analytics do you use and why?” was similar to “What tools do you use for social media analytics?” Those two codes were combined into one child code titled easy-to-use social media analytic tools. The codebook from the previous iteration is presented in Table 2.

Table 2*Codebook After Three Iterations of Inductive Coding*

Name	Files	References
Benefits	15	83
Free	2	2
increased attention	2	2
increased revenue	4	7
keep in contact with customers	5	7
know who follows and likes	6	6
locate new customers	13	23
Track	4	5
understand demographics	8	16
Drawbacks	14	14
Consistency	1	1
customer to profit	3	3
follow up	2	2
Learning	4	5
negative customers	3	4
not on social media	2	2
Overexposure	1	1
technology issues	1	2
time-consuming	10	15
Understanding	10	14
Easy to interpret results	15	15
do not know how to interpret	2	2
Yes	8	8
Easy to reach company goals	15	15
not sure	2	2
Yes	11	11
Easy to use SMA tools	14	14
Easy	3	4
improved over time	2	2
SMA tools valuable	17	18
general impression	15	15
Budget	2	3
data-driven	2	2
Good	12	13
No	0	0
Yes	14	15
yes Social Media Useful	17	17
Yes	13	14
Platforms and tools used	17	31
Facebook	13	13
Instagram	12	12
Twitter	5	5
YouTube	3	4

Note. SMA = social media analytics

The themes created from the coding are directly associated with the TAM conceptual framework for this study. The conceptual framework uses two main variables, PEOU and PU, to determine whether someone is most likely to use the technology. The last iteration of coding produced three themes: PEOU, PU, and platforms and tools used. I decided to create a theme with the social media platforms and associated social media analytics tools because the indicated tools and platforms phrases appeared under most of the questions. The codes were organized under these themes, with drawbacks and easy to use social media analytic tools under PEOU; benefits, easy to interpret results, and easy to reach company goals under PU; and the platforms and tools used.

After the 16th interview, I began looking for data saturation. Eighteen interviews were completed because the last two small business owners had responded and been scheduled. None of the participants had created any documents, such as a social media plan, for review.

Evidence of Trustworthiness

Credibility

To ensure credibility, I remained unbiased and open-minded by analyzing the data recorded in the interview. The participants were able to review the transcripts and notes for discrepancies. I created identification codes for each interview transcript before I began examining the data in detail and coding. I checked and rechecked the transcripts by listening to the recorded interviews and correcting the transcribed data from rev.com. To avoid selection bias, I defined the company's criteria and only chose small business owners to interview in that sample. The primary data collection method was interviewing.

Additionally, observational notes and transcripts of recordings derived from the interviews were used in the analysis process. No data were collected before IRB approval.

Transferability

This study used homogeneous sampling to obtain the sample from the population. I used thick descriptions to capture observational notes during the face-to-face, phone, and videoconferencing interviews. The notes provided context for subsequent studies.

Dependability

Before conducting the interview, research participants were briefed concerning interview procedures, including requesting any documentation they may have created to support their social media goals. None of the participants had any written goals to share. I addressed any participant concerns or questions about the interview process before the interview. The main concern was about the confidentiality of the data.

Confirmability

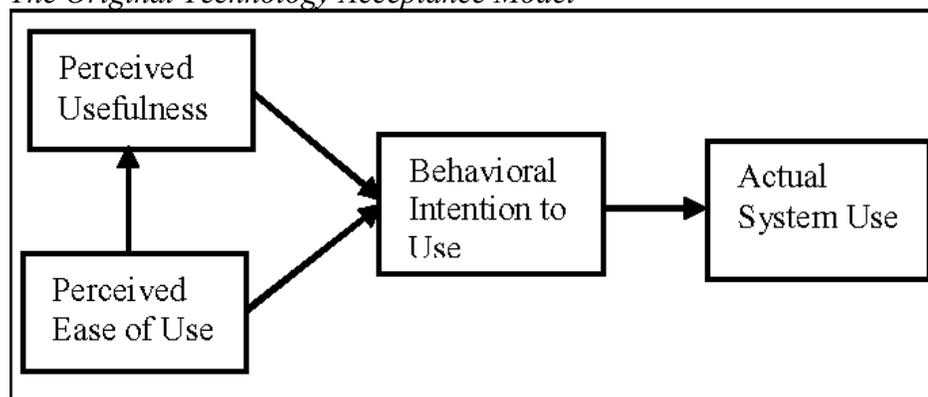
I used several methods to ensure confirmability. The first method allowed the interviewee to review the transcribed interview for any discrepancies. I also checked the transcriptions for accuracy by listening to the audio versions of the interviews and correcting transcripts as necessary. After interviewing the 16th and 18th participants, no new themes emerged, and data saturation was achieved. This process indicates confirmability.

Study Results

This research study focuses on the use or non-use of social media analytics by small business owners. I had two research questions: “How are small business owners using social media analytics? If small business owners are not using social media analytics, why are they not using it?” This research study uses the TAM conceptual framework to determine a small business owner’s intention to use social media analytics. The two variables for this framework are PEOU and PU. Figure 4 diagrams the original TAM conceptual framework.

Figure 4

The Original Technology Acceptance Model



Note. From “User acceptance of computer technology: A comparison of two theoretical models” by Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989), *Management Science*, 35(1), p. 985.

The coding is centered around the PEOU and PU concerning social media analytics. The third set of thematic coding defined which tools were used by the small business owners who used social media analytics. The tools matched the platform. It was

important to capture this data to verify the use or non-use of social media analytics. Two out of the 18 participants identified the interview participants used social media but did not use social media analytics for discrepant data. Interview participant SBO11 stated, “I do not use any tools. I do not have time right now.” The second participant, SBO15, said they did not use social media analytics because

It is time-consuming. I do not have the time, but I need to make time to learn about social media analytics to help my company grow. As a small business, the more things we can for free the better.

As stated in the literature review, the small business owners used the most popular social media platforms: Facebook ($n = 12$), Twitter ($n = 12$), YouTube ($n = 5$), and Instagram ($n = 4$). All the interview participants used multiple social media platforms.

PEOU

Davis (1989) stated that if the technology is easy to use, they will most likely use it. The social media analytics tool used in all cases was the tool provided by the social media platform. Facebook and Instagram both use Facebook analytics, Twitter uses Twitter analytics, and YouTube uses YouTube analytics. Each tool has a graphical dashboard to allow the user to view how each post, ad, or campaign is doing on social media. Fourteen out of sixteen participants that used social media analytics stated the technology was easy to use or has gotten easier over the years. Interview participants also noted the social media analytic tools used were valuable. The interview questions directly related to the PEOU construct were Questions 6, 8, 9, and 14:

- Overall, is it easy to use social media analytic tools? If yes, why, if no, why not?
- Overall, is it easy to interpret the results from social media analytics tools? If yes, how do you interpret the results? If not, what makes the interpretation difficult?
- Overall, do you believe social media analytics has made it easier to reach your company's goals? If yes, can you provide an example; if no, will you continue to use social media analytics?
- What is your general impression of social media analytics?

Though Question 14 is indirectly associated with PEOU, it allowed the interview participant to answer as free form as possible. This question captured general sentiments about social media analytics.

Interview participant SBO12, under question 14, stated, “overall I think it is really good. It’s a good tool [social media analytics] to help businesses have the gear, have the power, to make informed decisions about ad campaigns and marketing campaigns.”

Interview participant SBO16 stated, “social media analytics is useful and has gotten easier over the years” for interview question 14. However, many of the interview participants agreed that social media analytics are needed. Not every comment was positive; there were some negative comments also.

A few keywords that were repeated during coding for negative aspects of social media tools concerning PEOU were time-consuming to use social media analytics, a learning curve involved using social media analytics, knowing what to look for, and

monitoring social media platforms. The time concern was repeated at least 15 times with the interview participants. Interview participants SBO13, SBO11, and SBO15 are a few participants who said the social media analytics process is time-consuming. A few of the interview participants also reported learning how to use and set up social media was difficult and time-consuming. Interview participant SBO5 stated, “you have to go to three, four, or five different platforms. All the analytics are different.” Interview participants SBO14 and SBO17 said they have to learn the analytics platforms and are still learning. SBO16 stated, “it is hard.” Interview participants spoke about the monitoring aspect that couples with time-consuming.

Small business owners need to check and make sure their campaigns are working and look out for negative feedback. Interview participant SBO3 said, “if someone posts something negative about your product and service, it can hurt your business even if it is incorrect.” Interview participant SBO8 also stated you have to respond once someone “shares something negative.” As interview participant SBO1 said, “you have to be prepared to do follow-ups [to inquires].” Interview SBO8 who creates health tips videos for YouTube, said you have to constantly monitor the posts and respond to people. Several small business owners stated you have to know and understand what you are looking for when using social media analytics. This statement also was repeated when small business owners spoke about learning social media analytics. Understanding social media analytics was referenced 14 times among the small business owners who used social media analytics. Interview participant SBO14 said you have to know “specifically about what you are using social media for.” SBO13 stated, “once you learn how to use

them [social media analytics], you have to know what you are looking for.” Interview participant SBO10 said they “don’t have extensive knowledge.” The interview participants agreed that social media analytics is valuable and necessary, even with the negative aspects of PEOU.

PU

Davis (1989) stated that if users perceive technology as useful, they are more likely to use it. Eleven interview participants said social media analytics made it is easier to reach the company goals. Eight times the interview participants reported the social media analytics has easy to interpret results necessary for company success. Major codes written under PU include understanding demographics, locating new customers, interacting with current customers, and increasing revenue. Interview questions directly related to PU are listed in the table below. The interview questions directly related to PU were Questions 2, 4, and 13:

- Do you believe social media is useful for your business? If, yes, why; if no, why?
- Do you believe social media analytics tools are valuable for your business? If yes, why; if no, why not?
- Do you have any examples of how social media analytics has helped your company?

Eleven interview participants stated that social media analytics makes it easy to reach their goals. Interview participant SBO9 said, “yes, because the analytics are super detailed.” The most cited code was the ability to locate new customers. Interview

participants SBO1 and SBO10 stated they get “referrals” from social media, and the analytics help them know how their company is being found. Several participants identified demographic data as a valuable part of social media analytics. Interview participants SBO18 and SBO3 stated it is easier to narrow down the demographics for their business and target ads based on information reported by the dashboard of social media analytics tools. Interview participant SBO7 stated the analytics help them “shift my marketing in a different direction, or, you know, I need to target a specific set of people.” Social media analytics helped small business owners keep up with their current customers. Interview participant SBO9 stated, “it helps us connect directly with our audience.”

A few examples of how social media analytics have helped small business owners are listed next. Interview participant SBO1, a non-profit, stated social media analytics had helped them target campaigns for donations, “especially necessary during the [2020] COVID-19 pandemic.” Interview participant SBO13 said, “lots of people clicked on our posts and filled out the form on our Facebook page” for insurance. Interview participant SBO16 stated,

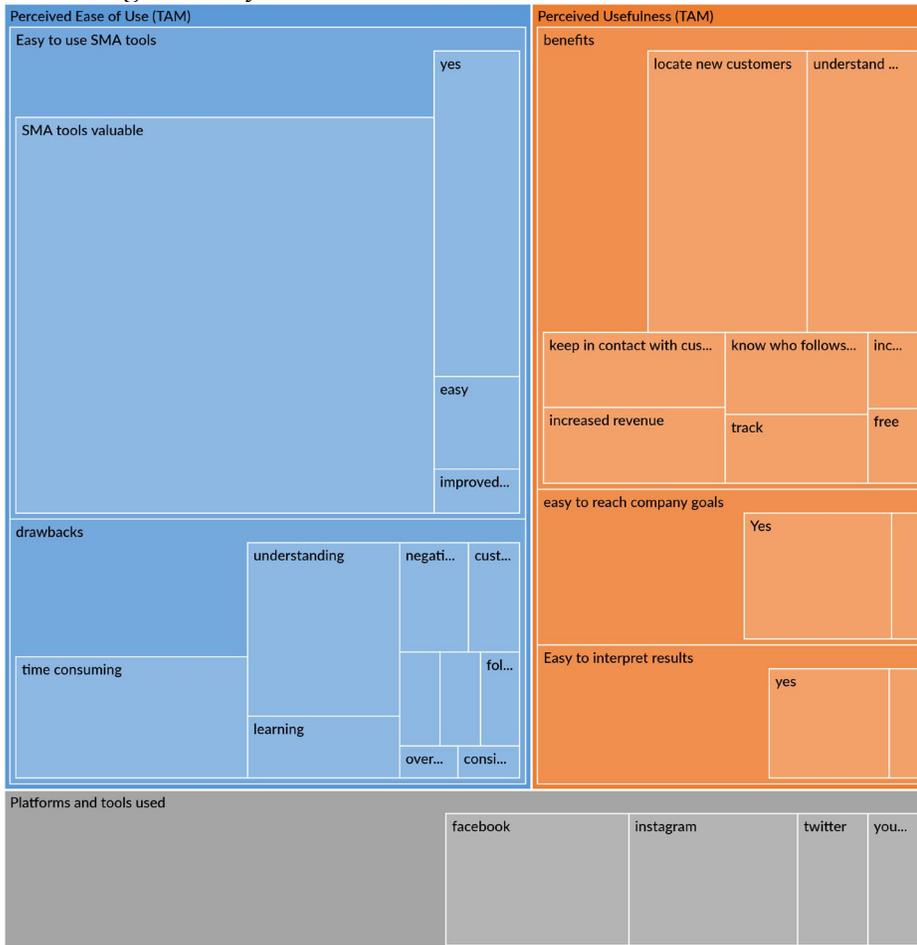
When we opened the store, we have a promotion for free products. We had a contest where people could earn entries for free products the more they liked and shared the posts with their friends. Per the analytics, our engagement greatly increased. We are looking to see how we can keep the engagement high.

Interview participant SBO18 said, “we have learned that boosting a post helps drive customers to our site.” Interview participant SBO19 mentioned, “if a class is not full, we

can boost the post, and the class becomes full.” Figure 6 is a graphical presentation of the codes organized by themes.

Figure 5

Codes Organized by Themes



Summary

I presented the results to explore the use or non-use of social media analytics for small business owners. I interviewed 18 participants that were small business owners in the Dallas/Ft. Worth Metroplex met the purposive sampling criteria of 10–99 employees who were non-government, non-franchise, and not manufacturers. Ultimately the employee count was 10–36 because those small business owners responded to my interview request. I followed the methods outlined by the submitted IRB document approved by Walden’s IRB. I did not collect any data until the IRB was approved. I analyzed the data imported into NVivo 12 software using inductive coding. The analysis resulted in 60 codes that were then analyzed and grouped into three major themes. The three major themes were PU, PEOU, and platforms and tools used. The first two themes are directly associated with the TAM conceptual framework. The participants used a combination of the most popular social media platforms: Facebook, Instagram, Twitter, and YouTube. Out of the 18 participants interviewed, 16 used social media analytics. SBO11 and SBO14 stated they used social media but not social media analytics because it took too much time. Most interviewed participants agreed social media analytics were valuable and easy to use. Overall, small business owners believe social media analytics are necessary for their business. Small business owners can realize tangible benefits, such as new customers and community engagement, from monitoring their social media activities. In Chapter 5, I present the interpretation of findings, limitations of the study, recommendations, implications, and conclusions.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this generic qualitative research study was to explore the use of social media analytics by small business owners. The targeted participants were small business owners in the Dallas, Texas Metroplex. Eighteen small business owners were interviewed for this study. The major themes from the coded data are PU and PEOU from the TAM conceptual framework and the major platforms and associated tools used. The consensus is that social media analytics are easy to use and useful for small business owners. The social media analytics platforms used by small business owners in this study are Facebook, Twitter, Instagram, and YouTube. The dashboards were noted to be easy to use and provided good information as long it is understood what the user is looking for in the data. Significant benefits of the PU of social media analytics were locating new customers, understanding the demographics of potential clients, and current customer engagement. The focus of this chapter is the interpretation of the findings presented in Chapter 4 by major themes in the context of the TAM. The limitations of the study, recommendations, and implications are also reviewed.

Interpretation of Findings

Social media analytics is often viewed in the context of big data, as they contain data that cannot be managed using conventional data management tools (Akoka et al., 2017). Social media analytics is essential because most user-generated content in social media is unstructured and semistructured (Chang et al., 2019). For social media to be useful, companies must create a systematic process to capture social media data such as comments and text using analytics (Abrahams et al., 2015).

The small business owners in this study did not have a formal social media written plan. The small business owners started the site and allowed the analytics to lead them from the tool's dashboards. The participants in this study use the dashboards associated with Facebook, Twitter, Instagram, and YouTube. But analyzing social media data can be challenging due to unstructured data, and mathematical models may not apply to human complexity (Basili et al., 2017). Some participants in the study mentioned that it is important to understand what they are looking for in social media analytics, which they did not always understand and sometimes needed time to learn. One less technical way to analyze social media analytics is through social listening. Social media listening helps discover users' aggregate-level behavior; social media listening does not deal with bias and is considered a snapshot of activity (Moe et al., 2017). Although the participants did not specifically say they were engaging in social media listening, the types of data presented on the popular social media analytics dashboard present data in that way.

PEOU Theme

The participants in the study generally believed that social media analytics were easy to read and interpret. But there was a learning curve involved in the interpretation of results presented by the four major platforms. Some participants stated social media analytics is time-consuming, with two participants opting out of using the tools. Further, there were some issues in interpreting the data to generate profits. Some business owners recognized that profits could increase from social media use, but sometimes they were unclear about making the conversion from users viewing their site to purchasing. However, social media analytics overall made it easier for small business owners to

identify potential customers, monitor negative reviews, and follow up with potential customers. Social media analytics were easy for small business owners at the platform level, but the issues come from the interpretation of the data and how to create profitability from the data.

PU Theme

The participants in the study all agreed that social media analytics are useful. There were several non-profit owners interviewed in this study who turned to social media for major ad campaigns, especially due to the COVID-19 pandemic. Non-profits are donations-driven and need as much exposure as possible. Because many non-profits were limited in their budget, they needed a cost-effective way to promote their capital campaigns. The non-profits needed a way to track their social media campaigns and turned to social media analytics. One participant stated that a benefactor found them through social media and unexpectedly donated \$7,500.

Other industries also mentioned how useful social media analytics was for them during the pandemic. Small business owners used social media to inform customers they were still around and sell them services. These owners also needed to know which demographics to target. Social media analytics helped them identify demographic data for their products and services. This was also true for non-profits that used social media analytics to target areas closest to them for their services. Small business owners were able to monitor their followers and likes, which helped them create target campaigns inside of the social media analytics platforms. Overall, small business owners in this study agreed that social media analytics was useful.

According to Davis (1989), when someone believes a technology product is useful and easy, they are most likely to adopt it. Although there were more difficult areas to understand with social media analytics, 16 out of the 18 small business owners agreed that social media is practical, easy, and necessary. The two small business owners who did not use social media analytics reported that non-use was more time related but recognized it was a needed task. Based on the TAM, small business owners will and do use social media analytics.

Limitations of the Study

Lack of research around small business owners and the use of social media analytics limited the comparison to other studies. The relatively small sample size of 18 participants may also limit generalizing social media analytics for all small business owners. It was challenging to connect with businesses with 37–99 employees, and the business owner of these businesses typically was not available for an interview. I also restricted the sample collection to accessible small business owners in the Dallas, Texas Metroplex. The findings obtained from this research study may not apply to other states or areas in Texas. Additionally, there could be some bias because I was the only one conducting the interviews. But when reporting the findings, I stayed as close to the transcribed interviews as possible. An additional limitation was the identification of two discrepant cases in data analysis. Interview participants SBO11 and SBO15 use social media but do not use social media analytics.

This study may also have been affected by the current COVID-19 pandemic environment. Many businesses had to shift the way they identified and maintained

relationships with customers. During this global pandemic, businesses had to shut down if they were not essential for months. When the business finally began opening, there were restrictions for gatherings. As of the writing of this research project, there is another variant of COVID, and limitations may be resumed. All these factors may have led to businesses understanding the importance of social media analytics.

Recommendations

Although the current research limits the study on small business owners and the use of social media analytics, more research can be accomplished in this area. This study was qualitative, based on a relatively small sample of 18 small business owners in the Dallas/Ft. Worth Metroplex. The businesses represented non-profits, restaurants, health and fitness, and air conditioner repair and installation categories. A quantitative study on more small business owners would be helpful for more data collection. The only reason stated by the two small business owners who did not use social media analytics was not enough time. Therefore, it would also be useful to research more from small business owners who do not use social media analytics to determine further why they may not use it. More research can also be done concerning the learning curve and barriers to successfully using social media analytics.

The industries were not specified in the homogeneous purposive sampling, but a future study could be done by industry. Additionally, studying social media use or non-use by small business owners broken down by employees would be helpful. As stated in the limitations, all the small businesses in the study had 36 or fewer employees. But a future study can be broken up into businesses with 9–50 and then 51–99 employees. The

larger companies may respond better to a qualitative survey than a qualitative interview. Further, I did not collect any demographic data. But this study can be recreated to focus on sexual orientation, race, religion, or geographic area.

Additional research can also discover why small business owners use social media platforms but do not use social media analytics. The business atmosphere also changed because of the global pandemic; a question can be asked if the small business owner changed how they used social media analytics. This study correlated with the literature review on the benefits of using social media analytics. But more research can be done on how small business owners interact with the dashboards and why they chose that platform.

Implications

Using social media analytics can benefit small business owners positively due to increased customer interaction (Steiglitz et al., 2018), which is significant due to the jobs they provide (Theorux, 2018). Further, small businesses typically serve in their communities. Social media analytics can allow small business owners to identify trends that serve their communities. These businesses offer positive influences in their communities by providing jobs and events for the community and staying connected to their client base. Small businesses can identify specific needs in the community, such as when a school organization needed event sponsors. Non-profit organizations are able to identify new clients with needs such as rental assistance quickly. Small business owners have also provided a place for socially distanced events for community connection assisting with mental health and feelings of isolation. The small business owners were

able to accommodate communities because the business owners were the decision-makers.

Conclusions

My research focused on the use of social media analytics by small business owners. Contrary to the literature review, small business owners are aware of the usefulness of social media analytics. The literature focuses on complex, coded data for their analysis. But the small business owner does not have the time or knowledge to delve deep into unstructured big data for their business. Many of them are the internal experts for social media analytics and have to run the company too. They rely on the analytics dashboards offered by Facebook, Instagram, Twitter, and YouTube to provide analytical data.

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