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From the Editor

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Welcome to the 36th issue of the *International Leadership Journal,* an online, peer-reviewed journal. With the COVID-19 pandemic creating challenges for leaders of businesses and higher education institutions around the globe, I hope this letter finds our readers and contributors and their families safe and healthy.

This issue contains one essay, three articles, one thought piece, and one book review. In the essay, Socas explores the question: Is satire aimed at leadership dead? With a growing global trend toward authoritarianism and repression of satire aimed at political leadership, political ideologies and relevant psychological factors are influencing the production and reception of satiric messages.

In the first article, Averin investigates the link between spiritual leadership and individual followers' behavior by focusing on the vision, hope/faith, and altruistic love dimensions of spiritual leadership and continuance commitment dimension of employee commitment. His analysis reveals a significant relationship between employees' perception of their leaders' vision and altruistic love and their continuance commitment.

Halkias and Neubert explain how multiple-case study design can be a valuable qualitative research tool in studying the links between the personal, social, behavioral, psychological, organizational, cultural, and environmental factors that guide managerial and leadership development. They note that exploring management and leadership behaviors and their contexts using this design can provide valuable insight on how and why these leaders behave as they do across different contexts.

Ballaro, Tyson, and Buckles' mixed-methods study sought to determine why data breaches continue to plague organizations, explore the association between a multigenerational workforce and their perceived cybersecurity awareness, and learn how IT security leaders use this knowledge to make informed decisions on cybersecurity policies. Their results revealed a significant relationship between IT training factors and perceived cybersecurity awareness of end users and indicate that collaboration between executive leaders and IT security experts will reinforce needed change.

In my thought piece, I suggest that leaders review how past leaders have handled crises—for better or worse—to learn and prepare for future crises. In doing so, leaders can better demonstrate strength and empathy, restore calm, resolve conflict, create a realistic recovery plan, and move their countries forward to prosperity.

Finally, Xiong offers a review of Day and Schoemaker's 2019 book *See Sooner, Act Faster: How Vigilant Leaders Thrive in an Era of Digital Turbulence*, which provides insights and tools for leaders and managers to maneuver in this turbulent time greatly influenced by digital advances.

I would also like to take this opportunity to welcome Dorothy McAleer of McAleer International Management, Inc.; Kirsty Tan of Ponts Business School; and Lisa Xiong of Emlyon Business School (whose book review appears in this issue) to the editorial board.

Please spread the word about *ILJ* to interested academics and practitioners and remember to visit http://internationalleadershipjournal.com. Also, feel free to propose a topic and be a guest editor of a special issue by contacting me at jcsantora1@gmail.com.

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Editor

ESSAY

Challenging Leadership Through Satire[*]

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This review essay responds to the question: "Is satire aimed at leadership dead?" Throughout history, satire has been employed to critique society. Most notably, satire has been used as an instrument of change against dictators such as Hitler. Today, there is a growing trend toward authoritarianism and repression of satire aimed at political leadership. Political ideologies and relevant psychological factors are influencing the production and reception of satiric messages. In addition, the creation of false salient exemplars and biased perceptions are influencing the impact of satire on public opinion. Understanding the new role of satire as it interacts with leadership is critical.

Key words: authoritarian leadership, biased perceptions, conservatives, liberals, political satire, salient exemplars, Trump

Howe (2020) challenges us in a recent essay, "Is Leadership Dead(?)" In it, Howe argues that the increase of democratic-empowered populations across the globe appears to be replacing leadership. Howe's provocative article encouraged this essay considering another challenging question: "Is satire aimed at leadership dead?" The focus of this essay is on the interaction of satire with current political leadership and the challenges associated with the performance of that satire. For this study, the term *satire* is used to encompass comedy, humor, irony, parody, ridicule, and sarcasm.

Satire has had a long history of arguing for change, critiquing leaders and policies, and exposing falsehoods—sometimes gently, sometimes harshly—through the instruments of satire (Dadlez, 2011; Drees & de Leeuw, 2015; Milner-Davis, 2017; Noonan & Leggett, 2018). The literatures of Ancient Egypt, Greece, and Rome attest to this, as does that of the modern era, with Rabelais, Shakespeare, and Swift being among the most noted examples.

In today's world, when attacking a political leader's persona and policies, a standard tactic is to liken them to Hitler. Reflecting back to the late 1930s, satirists

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took on Hitler through various media as an appropriate target for satire. In 1940, as the United States was on the verge of joining World War II, several films satirizing Hitler appeared. Among the most popular were Charlie Chaplin's *The Great Dictator* (1940) and the Three Stooges' *You Nazty Spy*! (1940). In the field of theater, Brecht was putting the finishing touches on *The Resistible Rise of Arturo Ui* (1941/1972)*,* providing a grim-comic satirical take on Hitler, modeled on a Chicago gangster, and calling for resistance to the encroaching power of similar dictators.

The postwar era brought *The Producers* (1967), as a film, reshaped into an award-winning Broadway musical in 2001, and again reshaped, this time as another film in 2005, satirizing the attempt of two corrupt and farcical producers to produce a musical starring a demented Hitler with goose-stepping chorines. Beginning in 2005, the *Hitler meme* was the label applied to the thousands of worldwide creations by people who dubbed satiric scripts onto a four-minute clip taken from Bier's 2004 film, *The Downfall,* which featured the hysterical ranting of the actor portraying Hitler as he faced defeat (Gladstone, 2006; Heffernan, 2008).

This purpose of this essay is to describe how satire is being once again called on to support freedom and the challenges confronting satire in this quest. Looking back on the demise of Hitler, Brecht (1941/1972) plaintively called society to action:

> This was the thing that nearly had us mastered;
> Don''t yet rejoice in his defeat, you men!
> Although the world stood up and stopped the bastard,
> The bitch that bore him is in heat again." (128)

Can satire heed Brecht's call?

Contemporary Development Trends in Satire

Starting in the 1980s and 1990s, various developments began to affect political satire. Media consolidation focused on the bottom line and avoided controversy, and technological changes occurred. In the United States, there was a growing political partisanship, most apparent with conservatives hewing to the status quo, and liberals hewing to reform. In addition, there was a growing disenchantment with journalism as the leading source of information, giving cable news and social media a louder voice.

Today, without Hitler as an appropriate target for satire, and faced with a host of complex challenges, the efficacy of satire in critiquing important developments and promoting change is being sharply challenged by a multitude of complex social and political factors. These include cultural, economic, and political uncertainties creating an increased sense of alienation; technological advances providing authoritarian leaders with opportunities for enhanced surveillance; and threats of mass shootings, nuclear war, and pandemics. These factors contribute to increasing polarization, nationalism, and xenophobia.

Satire is being increasingly questioned. In 2000, satirist Tom Lehrer argued that political satire had failed to play a meaningful role in countering U.S. involvement in the Vietnam War. Railing against Nixon's Secretary of State Henry Kissinger for his support of the war, Lehrer argued that "political satire became obsolete when Henry Kissinger was awarded the Nobel peace prize" (Purdom, 2000, para. 3). Since then, satire has been confronted with a number of questions. Should laughter be viewed as a force for change? (Coe, 2013). Is satire simply a placebo, a distraction allowing the powerful to endure laughter as a substitute for more meaningful challenges? (Bercovici, 2013). Is satire possible in the Age of Trump (Greenman, 2019). In an episode of his *Revisionist History* podcast, Gladwell (2016) set forth what he dubbed a "paradox of satire." Cook (2018) notes that "it seems satire creates more heat than light, and the noise it makes is neutral" (para. 13). Armando Iannucci, director of the 2017 film *The Death of Stalin,* a satiric depiction of the power struggle following Stalin's death, observes that "I don't think humour can change opinion" (Semley, 2018, para. 9).

General Trends in Contemporary Satire
Growing Acquiescence to Authoritarian Leadership. The temptation to turn to authoritarian leadership is not new. Dostoevsky wrote of the desire to escape from freedom in the "Legend of the Grand Inquisitor" passage in *The Brothers Karamazov* (1880/1996). There, Dostoevsky wrote of the preference of many for bread and circuses and for the guidance of leaders through mystery, miracle and authority. It is the Grand Inquisitor who, out of his love for mankind, generously takes on the heavy burden of leadership, freeing the people from having to make decisions.

Psychoanalyst Fromm (1941) updated this theme by describing the appeal of authoritarianism for modern man in his book *Escape from Freedom*. Fromm's idea that freedom may be experienced as a burden was also expressed by French existentialists Camus and Sartre. More recently, political commentator Ignatius (2009) cites comments by influential Russians explaining Russian support for the "soft authoritarianism" of the Putin era: "Without Russia (i.e., a secure and united government), no freedom could ever be possible" (para. 11); "Putin knows what the society needs better than the society does" (para. 7).

The yearning to escape from freedom is linked to what Krauthammer (2018) labels "the authoritarian temptation," one increasingly evident in the current political landscape. Krauthammer argues that "the hunger is not for bread, but for ethnic and nationalist validation" (p. 309) The move from democratic to Islamic nations of well-educated young middle-class Muslim and non-Muslim men and women demonstrates this yearning for recognition and purpose.

Taking advantage of these leanings, authoritarian and semi-authoritarian leaders seek to enhance their image, counter criticisms voiced by human rights advocates, ensure acceptance of their policies, and lessen the effectiveness of satire aimed at their regimes. The tactics these authoritarian leaders have adopted are described in Dobson's (2012) *The Dictator's Learning Curve* (as cited in Garner, 2012) and Zacaria's 2017 article on the new "playbook" for "strongmen" also being used in Saudi Arabia. These tactics include subtle intimidation, pressuring corporations to penetrate communication links of dissidents, regulating the media, interpreting laws for their own use, and attempting to undermine democratic elections.

Satire Across the Globe. In spite of such obstacles to its production and dissemination, satire continues to exist. In many countries, satire has been subjected to a range of constraints—some benign, others harsh, and, in many parts of the globe, it has been shaped by what is politically feasible (Miranda, 2015).

In the Netherlands, *Zondag met Lubach (ZML),* a highly popular television show influenced by John Oliver's *Last Week Tonight,* is playing a significant role in public debate. The show addresses selected topics deserving attention, thereby shaping the public and political agenda. For Boukes (2019), two episodes on the European

Union–United States trade agreement Transatlantic Trade Investment and Partnership (TTIP) have led to "first-level agenda-setting effects" (p. 426). *ZML*'s popularity appears enhanced by a very recent shift from linear TV watching to online and on-demand watching (Nieuwenhuis, 2018).

In Russia, although satire aimed at the top political leadership is severely repressed, ironic satire, referred to as *newstiob*, an aesthetic form camouflaging satire with ironic detachment and ambiguity, has become a favorite in the popular culture (Brock, 2018; Roudakova, 2017). Thanks to the new *stiob* approach, audiences are left guessing as to whether an article or a skit is mocking or supporting the communist rhetoric. Safe targets for satire include the U.S. elections or corruption by some very low-level bureaucrat.

In India, a number of satiric websites have been suspended because of concern over inflaming volatile religious and ethnic tensions. In Morocco and Tunisia, satiric rap music videos and satiric animations based on the *The Simpsons* and *South Park* formats in the Arab states are highly popular though carefully presented within restricted boundaries. In Pakistan, constraints are evident, shaping how comedians approach military rule and Islamization. In Spain, a caricature in the magazine *El Jueves* depicting a royal couple engaging in sexual intercourse received a fine. In Venezuela, online animation is a popular and safe site for satire, since the internet often manages to evade controls exercised by the state. In the West Bank, first the Israeli military and then the Palestinian Authority closed down a popular satirical TV show for having crossed politically sensitive "red lines." In Zimbabwe, impromptu satiric street theater performance is another way of escaping censorship and persecution.

There are many instances of threats of violence or other severe punishment aimed at producers of satire. In the United Kingdom in 2012, two Iranians were sent to assassinate the exiled Iranian journalist Hadi Khorsandi, editor of the satirical weekly *Asghar Agha,* but their efforts were stymied by British intelligence (Cook, 2018). In France, the journal *Charlie Hebdo* had achieved notoriety for its comic depiction of the Prophet Mohammed, as well as for its attack on the French Far Right. On January 7, 2015, three French-born Algerian and Senegalese militant

fundamentalist terrorists attacked the journal's office in Paris, killing 11, including two police officers, crying out they were avenging the Prophet Mohammed. The following days saw hundreds of thousands of people, including several leading international figures, marching in protest of this attack (Eko & Hellmueller, 2017; McGrogan, 2017). The *Charlie Hebdo* experience illustrates the dangers of deploying satire, not from governmental authorities, but from ideological fanatics.

In surveying current satire throughout the world, discretion is often needed. To avoid punitive measures when creating satire aimed at governmental, economic, political, or social policies or at lower-level political figures, satirists around the world tend to tread carefully. One notable exception is the United States, where satire aimed at President Trump has proved too tempting for satirists to ignore.

Political Satire in the United States. Satire aimed at Donald Trump as candidate, and, subsequently as U.S. President, has become a massive industry evidenced by hundreds of articles in the press and in journals, books, social media, and other media. Late-night TV has proven a vastly popular and influential site for political satire, largely due to Jon Stewart's *The Daily Show,* which fathered Stephen Colbert's *The Colbert Report.*

Viewer analysis of the popular late-night comedy *The Colbert Report,* on which Colbert satirically portrayed a die-hard conservative commentator, showed contradictory reactions from conservatives and liberals. The analysis indicated that conservatives felt that Colbert "only pretends to be joking and genuinely meant what he said, while liberals were more likely to report that Colbert used satire and was not serious when offering political statements" (LaMarre at al., 2009, 212).

Colbert was not pretending to be joking. This became dramatically clear when, as guest speaker at the 2006 White House Correspondents' Dinner, he delivered a controversial scathing satire of President George Bush's mistakes and blunders (Cillizza, 2015). The liberal satiric approach of Stewart and Colbert, still pervasive throughout the democratic world, is being refreshed by many satirists, including Bill Maher, John Oliver, and Trevor Noah. Although political satire for mass consumption appears to be the monopoly of the liberal camp, there is one notable exception: satiric comments produced by Trump on a regular basis.

Inspired by social analyst Mikhail Bakhtin's analysis of comedy, Trumpian satire reflects Trump's persona and personal history, as well as that of his cultish following (Symons, 2019). Trumpian satire recalls Bakhtin's views of "carnivalesque revelry," where everyone is free to play the fool and the madman, and where the heretofore generally accepted social proprieties are cast aside (185). To understand the general lack of conservative satire, it is helpful to understand the significant differences toward satire between liberals and conservatives.

The Processing, Production, and Reception of Satire Aimed at Political Leadership*.* Unlike past literature on satire, recent attention is being paid to the impact of political ideology and psychological factors on how satire is processed, as well as its operation and comprehension. There is also greater awareness of the production of false salient exemplars and the enhancement of biased cognitive perceptions used by some political leaders to further their interests.

The political orientation of the producer and the audience of satire play instrumental roles in shaping the impact of political satire: liberals are often seen as "more open-minded in their pursuit of creativity, novelty, and diversity, whereas conservatives lead lives that are more orderly, conventional, and better organized" (Carney et al., 2008). Based on extensive research, Young (2020) argues that liberals and conservatives may be interpreting satire transmitted from social media in opposite ways (Young et al., 2019). Jacobs (2017) explains this as being due to conservatives valuing humor and the cognitive efforts necessary for decoding humor less than liberals. Because of their political affiliation and ideology and their desire for self-enhancement, individuals may process information differently from those holding opposing affiliations and political beliefs—people see what they want to see.

The preferences of those affiliated with the two leading U.S. political parties, very similar in varying degrees to those in other democratic nations, indicate the following. For the liberal, there is comfort with ambiguity, experimentation and hybridity, abstract aesthetic forms, irony, combinations of the serious and the playful, and the informative combined with the entertaining. For the conservative, there is a preference for certainty and order, literal and didactic texts, an acute

sensitivity to negative and threatening stimuli, and less appreciation of both irony and exaggeration (Young, 2020; Young et al., 2019).

The field of linguistics also produces helpful insights. According to Cichocka et al. (2016), conservatives' need for structure and certainty explains their preference for nouns, as opposed to verbs or other parts of speech, for eliciting clear and definite perceptions of reality. Liberals are open to experience, ambiguity, and uncertainty and use longer and more tentative words, whereas conservatives prefer nouns embedded in short, clearer, richer sentences, producing more formal language (Schoonvelde et al., 2019). Analysis of the 2016 presidential election leads Savoy (2016) to describe Trump's communication form as favoring short sentences, simple direct styles, with frequent repetition of the themes of immigrants and taxes, and negative emotions. Hillary Clinton favored cognitive styles, characterized by longer sentences and more complex presentations of the themes of education and health care.

Future research is called for on the impact of political and psychological factors in political decision making. An additional area calling for future research involves the little-studied impact of biological/neuro-anatomical factors: Is the body destiny? (Chilton, 2017; McClennen, 2017; Pennycook et al., 2018).

The Processing of False Salient Exemplars and Biased Perceptions. *Salient exemplars,* which have often served as a base on which to build satiric presentations, are represented by vivid images manipulating the brain, facilitating easy recall of specific cases, episodes, and items from memory (Dreyfuss, 2017). By creating prototypes, the subject under study becomes more navigable, more graspable. Complications arise, however, when false salient exemplars are created, promoting biased perceptions, inflaming innate prejudices (Drager & Kirtley, 2016).

The accessibility and wide reach of Facebook, Twitter, Fox News, and MSNBC, as well as other social media, cable, and internet sites, offer tempting platforms for dissemination of stereotypical false exemplars, such as Ronald Reagan's "welfare queen," satirizing black women seeking welfare; Barack Obama's mocking description of rural Pennsylvanians as "clinging to their guns and religion;" Hillary

Clinton's "deplorables" making fun of low-income White people; Trump's sarcastic depiction of asylum seekers as "people that look like they should be fighting for the UFC (Ultimate Fighting Championship)." These false images have become iconic, feeding biased perceptions and, for some, blurring reality.

Of particular concern are the dangers of violence stemming from propagation of such satirical images as seen in the Pizzagate incident (Akpan, 2016; Zimdars, 2016). A young North Carolinian, armed with an AR-15 assault rifle walked into a Washington, D.C., pizzeria and opened fire, thankfully not hitting anyone. Swiftly disarmed, the assailant stated he was under the impression, gained from a news site, that the pizzeria was the headquarters of a child trafficking ring run by Hillary Clinton. Through repeated exposure, false information comes to be believed. This "illusory truth effect" facilitates retention of the images, even though the accuracy of the images may be forcibly challenged (Pennycook et al., 2018, 1865).

The prevalence of distrust of information on either side of the political fence in the United States has called into question the veracity of all information being disseminated by media sources on both the left and the right. Both mainstream media and Trump use the term "fake news" to mockingly describe the information being spread by the other. Trump dismisses his detractors in what he calls the "lame-stream media" as lacking patriotism and the mainstream media criticizes Trump for his disregard of facts. Each calls the other a purveyor of "fake news."

Twitter, with its millions of viewers and short messaging bursts, often appeals to uncritical audiences with short attention spans and plays a significant role in today's political environment. However, as Stollee and Caton (2018) warn, "a medium like Twitter is a Janus-faced figure or a double-edged sword, at once promoting the likes of a demagogue as easily as it might a democrat, Caesar as easily as Cicero" (157). In the hands of a leader skilled in Twitter and social media, satire can be used to bolster their popularity and support their policies.

Conclusion

In response to the question posed in the introduction—No, satire aimed at political leadership is not dead. However, it is being understood in new ways and used in a

variety of new media. Political leadership is using satire to promote their policies and their power. New understanding is being gained about how political affiliations and ideologies influence the processing and reception of satire. False salient exemplars are being used to create bias in public opinion. Satires espousing critical or opposing views of their leadership are being repressed throughout the world by authoritarian and semi-authoritarian leaders. Violence by ideological groups offended by satire, as seen in the *Charlie Hebdo* episode, is influencing leaders and the public alike. Awareness is also growing on how false salient exemplars are being used to create biases and disunity prejudicial to the social well-being of the citizenry of democratic nations. The questioning of what constitutes "facts" is increasing yet, for many, the understanding of truth seems to be further distanced. Truth may also be becoming a victim of deleterious political polarization.

One note of caution: satire has become so commonly used and misused that we forget, at its heart, much satire has a deeply important message. Failure to see satire as anything more than a source for amusement, can contribute to inaction, as Brecht (1941/1972) and Bonnstetter (2011) warn. When Bonnstetter had her students critique the satire in *The Producers*, she found that none of her students viewed the work as satire but rather as "just entertainment." Brecht's satirical work sought to ensure that audiences were no longer passively acquiescing, accepting existing social relations that were denying them social justice. He wanted audiences to no longer be victims of the facile soundbites and rapid images now flitting across TV screens, but to be awakened, emboldened, and empowered to change the world.

Satire, dispensed through various media, has become an important tool, for good or ill, deserving careful scrutiny. It is critical for leadership and the public to realize how satire can be wielded so that we can guard our precious freedoms. To respond to the crucial question, *Cui bono*? Brecht (1941/1972) advises us in his epilogue to be attentive and to act:

    If we could learn to look instead of gawking,
    We'd see the horror in the heart of farce,
    If only we could act instead of talking,
    We wouldn't always end up on our arse. (128)

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ARTICLES

Spiritual Leadership and Employees' Continuance Commitment: Employees' Perception of Spiritual Leadership in Their Organizational Leaders and Employees' Organizational Commitment[*]

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Recent interest in the effects of spiritual leadership on organizational outcomes have focused mainly on the impact of spiritual practices on the leader, as well as the relationship between spiritual leadership and group-level outcomes, leaving the link between spiritual leadership and individual followers' behavior largely unexplored (Reave, 2005). This study explored this relationship by focusing on the vision, hope/faith, and altruistic love dimensions of spiritual leadership proposed by Fry (2003) and continuance commitment dimension of employee commitment proposed by Meyer and Allen (1991). The data were collected from 88 participants employed in nonprofit religious organizations in the United States. The results of the data analysis revealed a significant relationship between employees' perception of their leaders' vision and altruistic love and their continuance commitment. The relationship between employees' perception of their leaders' hope/faith and their continuance commitment was found to not be significant. The potential confounding influence of age, gender, and social desirability bias was also explored and found to not be significant. Implications and limitations of this study, as well as recommendations for future research, are discussed.

Key words: commitment, leadership, spiritual leadership, spirituality

Scholarly interest in the practice and effects of spiritual leadership on organizational outcomes has grown over the past several decades (e.g., Bodla & Ali, 2012; Chen & Yang, 2012; Fry, 2003; Fry et al., 2005; Fry & Slocum, 2008; Javanmard, 2012). The majority of these studies, however, have focused mainly on the impact of spiritual practices on the leader as well as the relationship between spiritual leadership and group-level outcomes, leaving the link between spiritual leadership and individual followers' behavior largely unexplored (Reave, 2005). Reave (2005) recommends studying this unexplored area.

The purpose of this research is to add to the understanding of the connection between spiritual leadership and followers' behavior by addressing the research question of whether there is a relationship between employees' perception of spiritual leadership of their organizations' leaders and the employees' commitment to remain with their organizations. Specifically, this study explores this relationship by focusing on the vision, hope/faith, and altruistic love dimensions of spiritual leadership proposed by Fry (2003) and the continuance commitment dimension of employee commitment proposed by Meyer and Allen (1991). Furthermore, focus on employees, through exploration of their perceptions of leadership behavior and commitment to stay with an organization, provides additional value to a limited body of follower-centric research of organizational leadership (Jackson & Parry, 2011). This exploratory study utilized a quantitative research method and correlation analysis.

Scope of the Study

This study explored the relationship between spiritual leadership as perceived by the employees and their commitment to stay with their organization by examining the link between the three spiritual dimensions proposed by Fry (2003) and the employees' continuance commitment dimension proposed by Allen and Meyer (1990). Conceptualization of spiritual leadership has received broad attention from many scholars who offered a number of dimensions to describe this leadership style, including inspiration, trust, service, sense of mission, tolerance, compassion, courage, self-sacrifice, forgiveness, interconnectedness, religiousness, and humility, derived from social and religious viewpoints (Anderson, 2008; Burack, 1999; Fairholm, 1997; Millman & Ferguson, 2008; Mitroff & Denton, 1999; Sendjaya, 2007; Sendjaya et al., 2008; Wagner-Marsh & Conley, 1999).

However, to examine the relationship of interest, this research focuses on the concepts of vision, hope/faith, and altruistic love that Fry (2003) offers in his description of a spiritual leader's inner life. Similarly, the concept of organizational commitment is discussed in terms of affective commitment (Allen & Meyer, 1990; Jaros et al., 1993), normative commitment (Allen & Meyer, 1990; Stevens et al.,

1978), continuance commitment (Allen & Meyer, 1990; Angle & Perry, 1981; Jaros et al., 1993; Kanter, 1968; Mayer & Schoorman, 1992), moral commitment (Jaros et al., 1993), value commitment (Angle & Perry, 1981; Mayer & Schoorman, 1992; Porter et al., 1974), exchange commitment (Stevens et al., 1978), and effort and retention commitment (Porter et al., 1974), as well as cohesion and control commitment (Kanter, 1968). While these dimensions do not possess clear boundaries in terms of their description of employees' behavior, this study focused on the continuance commitment dimension proposed by Allen and Meyer (1990). It examined the link between employees' perception of spiritual leadership in their organizations and their commitment to stay, thus contributing to a deeper understanding of the impact of spiritual leadership on employees' individual behavior.

Literature Review

Spiritual Leadership

Fry (2003) argues that spiritual leadership is essential for continued organizational success by addressing both the leader's and follower's vital needs for spiritual survival, thus affecting their organizational productivity and commitment (694). This topic has received increasing scholarly attention over the last decades (e.g., Bodla & Ali, 2012; Chen & Yang, 2012; Fry, 2003; Fry et al., 2005; Fry & Slocum, 2008; Javanmard, 2012). However, the research on the connection between spiritual leadership and individual followers' behavior is very limited (Reave, 2005). This review of literature deals with the theory, conceptualization, construct development, and dimensions of spiritual leadership and is relevant to the exploration of the link between spiritual leadership and employees' commitment.

   Spiritual Leadership Theory, Construct Development, and Dimensions. Fry (2003) proposes spiritual leadership theory (SLT) in response to escalating demands for organizations to embrace transformation, flexibility, and learning as keys for success in the rapidly changing environment caused by the proliferation of the internet and technological advancements. He claims that a true learning organization must have a holistic approach to leadership that "integrates the four fundamental arenas that define the essence of human existence—the body (physical), mind

(logical/rational thought), heart (emotions, feelings), and spirit" (694).

Fry (2003) argues that even though previously developed leadership theories give adequate attention to the emotional, social, cognitive, and physical components of the leader–follower relationship, they largely ignore the spiritual element of the leadership process. To address this issue, Fry proposes the concept of spiritual leadership built on the premise that to build a transformational and learning organization, a leader must be sensitive to meeting followers' needs for spiritual survival by engaging with their core values and beliefs and communicating them to followers through personal actions, vision, and attitudes. Fry defines the concept of *spiritual leadership* as

> comprising the values, attitudes, and behaviors that are necessary to intrinsically motivate one's self and others so that they have a sense of spiritual survival through calling and membership [which] entails creating a vision wherein organization members experience a sense of calling in that their life has meaning and makes a difference; and establishing a social/organizational culture based on altruistic love whereby leaders and followers have genuine care, concern, and appreciation for both self and others, thereby producing a sense of membership and being understood and appreciated. (711)

Following Fry's (2003) initial work in the field of spiritual leadership, Fry et al. (2005) propose vision, hope/faith, and altruistic love as three key dimensions that are necessary to develop a sense of spiritual survival in followers by cultivating a sense of calling that transcends personal interests and membership in a larger community. The authors argue that leaders' values, attitudes, and behaviors that incorporate an appealing vision, hope/faith, and altruistic love serve as powerful, intrinsic motivators for both leaders and followers, providing a sense of spiritual survival through calling and membership, which ultimately results in higher levels of productivity and organizational commitment. Fry et al. (2005) describe values, attitudes, and behaviors attributed to vision as appeal to key stakeholders, definition of the destination and journey, reflection of high ideals, encouragement of hope/faith, and establishment of a high standard of excellence. Values, attitudes, and behaviors attributed to hope/faith include endurance, perseverance, expectations of victory, excellence, and doing what it takes (Fry et al., 2005). Values, attitudes, and behaviors attributed to altruistic love include trust/loyalty,

forgiveness, gratitude, acceptance, honesty, integrity, courage, patience, kindness, and humility (Fry et al., 2005). To measure all three dimensions of spiritual leadership, Fry et al. (2005) utilize corresponding items from a survey developed specifically for SLT.

Kotter (1996) describes *vision* as "a picture of the future with some implicit or explicit commentary on why people should strive to create that future" (68). He depicts this concept as a powerful force that is capable of breaking through the resistance of the status quo by crystalizing the direction needed for change, motivating participants to pursue the set objectives despite pain and difficulties, and coordinating a myriad of different activities into one cohesive whole to achieve the desired change.

Daft and Lengel (1998) propose a different perspective on the concept of vision. The authors compare it to a butterfly that cannot survive if placed in a controlled environment. According to Daft and Langel, vision, like a butterfly, will last and thrive when allowed to roam free outside of our rational control. They suggest that an effective, inspiring, and motivating vision is born out of and fueled by hope for something that is beautiful and special and without fear of being unconventional and free. In other words, Daft and Langel linked vision to hope and faith, which ignite people's hearts and commitment to see it come to fruition.

The apostle Paul, in the Bible's Book of Hebrews, gave tremendous insight into the essence of faith as "assurance of things hoped for, the conviction of things not seen" (New American Standard Bible, Hebrews 11:1). In Hebrews 11:32–40, he delivers an inspirational and exhaustive narrative about people's lives of faith marked by perseverance and commitment. Paul clearly communicates the impact of faith on the person's degree of commitment to the promise and vision given by God.

Snyder et al. (2002) draw a parallel between faith and hope, noting that like faith, hope is not an emotional state of inspiration but a cognitive process based on the faith in one's ability to initiate and accomplish a task. They describe *hope* as one's perceived capability to create pathways and motivate oneself to use those pathways to attain desired goals. In their research on the relationship between hope and academic success in college, Snyder et al. found that hope was

predictive of higher grades, higher graduation rates, and a lower likelihood of being dismissed due to poor performance. They point to hope as a strong motivator for students' learning, performance, and commitment. These findings suggest a positive relationship between employees' perception of their leaders' hope and their commitment to stay with their organizations investigated in this research.

In her discussion about the place of faith, hope, and love in organizational leadership, Jones (1995) emphasizes the unique role of *love* as a powerful force that breaks down barriers created by fear, miscommunication, doubt, and confusion. The author uses a number of examples to demonstrate her point by describing the life of Jesus Christ and his followers, who unconditionally embrace God's commandment to first, "love the Lord your God with all your heart and with all your soul and with all your mind and with all your strength [and], second . . . 'Love your neighbor as yourself'" (New American Standard Bible, Mark 12:30–31). Through her illustration of leaders inside and outside of the Bible who demonstrate their love in action, Jones points out a strong link between leaders' love and their followers' commitment to others, as well as completing tasks regardless of difficulties and obstacles.

Continuance Commitment

To reconcile various conceptualizations of organizational commitment, Allen and Meyer (1990) propose a three-component model of commitment consisting of affective, normative, and continuance commitment. They identify a commonality among these three components through their positive impact on an organization in reducing the rate of employee turnover. At the same time, Allen and Meyer point out the differences by associating affective commitment with employees' desire to stay with their organization, normative commitment with employees' sense of obligation to their organization that drives their decision to stay, and continuance commitment with employees' need to stay with their company.

In their further exploration of the continuance commitment construct, Meyer and (1984) propose the Continuance Commitment Survey (CCS) as its measurement instrument. To develop the measure, Allen and Meyer conducted a quantitative study among 256 full-time nonunion employees in two manufacturing

organizations and one university in the United States. Study participants were asked to complete a questionnaire consisting of 66 items modified from those used in other scales, including 15 items from the Organizational Commitment Questionnaire developed by Mowday et al. (1979, as cited in Allen & Meyer, 1990). The final scales for affective, normative, and continuance commitment were constructed based on the defined decision rules where items were eliminated from the scale if the item endorsement proportions were greater than 0.75, the item correlation with its keyed scale was less than its correlation with one or both of the other scales, and the content of the item was redundant compared to other items on the scale (Allen & Meyer, 1990). The authors utilized factor analysis to determine which items needed to be included in their corresponding scales according to the highest factor loadings. The resultant CCS included eight items with a calculated reliability of 0.75. The current research utilizes a survey that contains the items developed by Allen and Meyer to measure the continuance commitment construct.

In his research of antecedents to organizational commitment, Becker (1960) proposes the concept of *side bets,* defined as the magnitude and/or the number of investments undertaken by an employee in pursuit of an activity that increases the cost of terminating another related activity. Becker suggests that "commitments come into being when a person, by making a side bet, links extraneous interests with a consistent line of activity" (32). According to Becker's side-bet theory, employees who increase their side bets consequently increase their cost of leaving their organization, which positively affects employees' commitment to stay with their company.

Becker (1960) and Powell and Meyer (2004) categorize the side bets into five categories: generalized cultural expectations, face-to-face interaction, impersonal bureaucratic arrangements, individual adjustment to social positions, and nonwork concerns. He describes *generalized cultural expectations* as established patterns of behavior to which employees are expected to adhere in their organization, violations of which can result in negative consequences. Becker describes *face-to-face interaction* as concerns about damaging an employee's public image if they act counter to the expected norms of behavior. *Impersonal bureaucratic arrangements*

are defined as organizational policies and procedures designed to encourage long-term tenures and reduce employee turnover (Becker, 1960). *Individual adjustment to social positions* are investments of time and other resources made by employees to develop their relationships with their superiors and colleagues and improve their fit for their current positions, thus making other organizations and jobs less attractive (Becker, 1960). Lastly, nonwork concerns are identified as investments that employees make outside of their organizations, such as individual and family connections with the community, local family and friends, support systems, and so on that would disappear if an employee chose to leave their organization (Powell & Meyer, 2004). Becker acknowledges, however, that these categories are very broad and by no means exhaustive, and that side bets can be very idiosyncratic. For one employee, a loss of a perceived relationship can be sufficient to convince them to stay with the organization, and for another employee, it can be a loss of a good school system for their children that triggers their decision to remain with their company.

Powell and Meyer (2004) conducted an empirical study that investigated the relationship between the side-bet theory and the three-component model of organizational commitment developed by Allen and Meyer (1990). Among several hypotheses, they tested whether "the relations between side bets (including satisfying conditions and lack of alternatives) and turnover intention are mediated by affective, continuance, and normative commitment" (164). Powell and Meyer conducted the study among 202 randomly selected alumni of a local community college in the United States. The measurement of continuance commitment was conducted using the CCS, which included three items that measured a perceived lack of alternatives and six items that measured high sacrifice (Powell & Meyer, 2004). Side bets were measured using a seven-category measure that included "expectations of others, self-presentation concerns, impersonal bureaucratic arrangements, individual adjustment, non-work concerns, lack of alternatives, and satisfying conditions" (Powell & Meyer, 2004, 165). Powell and Meyer developed and validated the side-bet measure for this study, with 39 items (four to six items per category) included in the final measure. Powell and Meyer showed support of the hypothesis that the relationship between side bets and employee intention to

stay with the organization were completely mediated by continuance, affective, and normative commitment. Additionally, the analysis of data revealed that the six-item high-sacrifice continuance commitment measure, developed by Powell and Meyer for this study, showed a significant correlation with side-bet measures and intentions to stay with the organization (Powell & Meyer, 2004). On the other hand, the low alternatives continuance commitment measure was shown to relate to a distinctly different construct (Powell & Meyer, 2004).

As a result of this study, Powell and Meyer (2004) proposed a valid and more reliable measure of the Continuance Commitment–High Sacrifice (CC–HS) scale first suggested by McGee and Ford (1987, as cited in Powell & Meyer, 2004), based on the degree of an employee's personal sacrifices (e.g., social, emotional, material, etc.) associated with them leaving the organization. Furthermore, the authors demonstrated that side bets, which includes Becker's (1960) categories and satisfying conditions, affected employees' turnover intentions through a mediating role of the continuance commitment proposed by Allen and Meyer (1990). This outcome suggests a positive relationship between employees' perception of their leaders' spiritual behavior (as satisfying conditions) and the employees' commitment to stay with the organization explored in the current research.

Jaros and Culpepper (2014) conducted an empirical study that examined the structure of the continuance commitment construct. The focus of their study was to explore dimensionality of the continuance commitment construct and, specifically, to investigate whether this construct consisted of high sacrifice and low alternatives subdimensions. Jaros and Culpepper conducted the study among 225 employees who were also enrolled in graduate-level programs in the United States. They used Edwards' (2001) topology to analyze the data and discovered that continuance commitment was not a multidimensional construct, the low alternatives subdimension did not adequately measure the continuance commitment construct, and that the high-sacrifice subdimension was a valid measure of employees' continuance commitment to the organization, which was consistent with Becker's (1960) side-bet theory. Jaros and Culpepper confirm that Powell and Meyer's (2004) CC–HS scale is a valid and reliable measure (α = .72) for the continuance

commitment construct. The CC–HS scale was utilized in the current study to examine the relationship between employees' perception of their leaders' spiritual leadership and their commitment to remain with their organizations.

Method

To examine this relationship and test the related hypotheses, this study utilized a nonexperimental, cross-sectional, correlational research design, which was recommended by Shaughnessy et al. (2002) as an appropriate method to reveal the existence of a relationship between considered variables. Data collection was conducted via surveys as an effective method for examining the links between variables. According to Creswell (2009), survey methodology is an appropriate and cost-effective approach for studies that involve constructs dealing with participants' perceptions, behaviors, and attitudes. The surveys were administered via hard copies and online among randomly selected employees of nonprofit religious organizations in the United States, whose leaders were reasonably expected to practice spiritual leadership. The sample size for this study was 88 valid observations, which exceeded the minimum sample size requirement for the generalizability of the findings, as determined by the G*Power software (Faul et al., 2007). Data for all variables were collected anonymously from the same participants, which raised the issue of a common method bias. The control for this was achieved through a psychological separation of measurement, proposed by Podsakoff et al. (2003) as an effective procedural technique for minimizing and even eliminating a common method variance by "eliminating the saliency of any contextually provided retrieval cues [and] reducing the respondent's ability and/or motivation to use previous answers to fill in gaps in what is recalled and/or to infer missing details" (888). Specifically, the psychological separation was accomplished by communicating to the participants reduced relevance between the SLT survey and the CC–HS scale (Podsakoff et al., 2003).

The analysis utilized a correlation method to test the following hypotheses.

Hypothesis 1: Employees' perception of their leaders' vision is positively related to their continuance commitment.

Hypothesis 2: Employees' perception of their leaders' hope and faith is positively related to their continuance commitment.

Hypothesis 3: Employees' perception of their leaders' altruistic love is positively related to their continuance commitment.

Additional analysis was conducted to investigate a confounding influence of age and gender on the relationship between spiritual leadership behavior, as reported by employees, and their continuance commitment. Specifically, the correlational analysis was utilized to examine a confounding influence of age, which was reported as a discrete variable reflecting actual ages (rather than age groups) of participants. To investigate a confounding influence of gender (a categorical variable) on employees' continuance commitment, this study employed a *t*-test to find out whether there is a significant difference between the mean continuance commitment scores of the two sample groups represented by male and female genders. We thus tested the two additional hypotheses that follow.

Hypothesis 4: Employees' age is significantly associated with their continuance commitment.

Hypothesis 5: There is a difference between the employees' average continuance commitment scores for male and for female employees.

Because responses by the employees about their commitment to remain with their organizations involved self-reporting, there was a potential for social desirability bias (Holtgraves, 2004). To measure this possible bias and examine whether the differences in employees' average continuance commitment scores were related to social desirability, this study utilized the SDRS-5 as well as a one-way analysis of variance (ANOVA) to test the last hypothesis (Hays et al., 1989).

Hypothesis 6: There is a difference in employees' average continuance commitment scores based on the number of their extreme social desirability responses.

Measures
This research employed the SLT survey, the CC–HS scale, and SDRS-5 as valid and reliable instruments that reflect the utilized theoretical constructs, variables, and

stated hypotheses, thus supporting the purpose of this study. Furthermore, this study considered age and gender as variables derived from the literature and examined their potential confounding influence on employees' continuance commitment.

Spiritual Leadership Theory Survey. The SLT survey, developed by Fry et al. (2005), is a 17-item questionnaire that includes measures of vision, hope/faith, and altruistic love as dimensions of spiritual leadership that formed the research question and the stated hypotheses. The questionnaire utilizes a Likert scale response system from 1 (strongly disagree) to 5 (strongly agree) with the score for each variable calculated by averaging the scores of each underlying item. The items in this questionnaire were tested and validated in the studies by Fry et al. (2005) and Malone and Fry (2003).

Specifically, Fry et al. (2005) utilized structural equation modeling and demonstrated that the three-factor instrument consisting of vision, hope/faith, and altruistic love explained up to 93% of the variance in the sample used to develop the SLT survey. Additionally, parameter estimates that reflected the extent of the relationship between survey items and latent variables (i.e., vision, hope/faith, and altruistic love) were large and statistically significant, which further supported this instrument's construct validity (Fry et al., 2005). Furthermore, Fry et al. and Malone and Fry (2003) showed the adequate reliability of the instrument with Cronbach's alphas ranging from .86 to .93 for the three scales.

Continuance Commitment—High Sacrifice Scale. The revised CC–HS scale proposed by Powell and Meyer (2004) is based on their research findings that the low alternatives continuance commitment subdimension did not adequately measure the continuance commitment construct and that the high-sacrifice continuance commitment subdimension was a valid measure of employees' continuance commitment to the organization. This is consistent with Becker's (1960) side-bet theory, which underlines the conceptual basis of the continuance commitment construct. In the original scale used to measure continuance commitment, items were eliminated if the item endorsement proportions were greater than .75, the item correlation with its keyed scale was less than its correlation with one or both of the other scales, and the content of the item was

redundant compared to other items on the scale (Allen & Meyer, 1990).

Allen and Meyer (1990) utilized factor analysis to determine which items needed to be included in their corresponding scales according to the highest factor loadings. The resultant CCS included eight items with a calculated reliability of .75 (Allen & Meyer, 1990). The revised CC–HS scale contained six of the eight original items that represented the high-sacrifice continuance commitment subdimension and were measured on a scale from 1 (strongly disagree) to 7 (strongly agree). The reliability analysis of the CC–HS scale revealed a high level of internal consistency with a Cronbach's alpha equal to .81 (Powell & Meyer, 2004). Furthermore, Powell and Meyer (2004) showed that the CC–HS scale items' significant correlation with turnover intentions ($r = -.42$, $p < .01$) served as the evidence of the instrument's construct validity.

Demographics and Social Desirability Survey. In addition to completing the SLT survey and the CC–HS scale questions, each respondent was asked demographic questions about their age and gender. A review of prior empirical studies revealed an influence of age and gender on the degree of employees' commitment to their organizations (Affum-Osei et al., 2015; Ajayi, 2017; Jena, 2015; Messner, 2017; Toga et al., 2014). This study accounts for the possibility that these demographic variables had a confounding influence on employees' continuance commitment.

Since responses to the CC–HS scale survey involved self-reporting, there was a potential for a social desirability bias (Holtgraves, 2004). To measure this possible bias and examine whether the differences in employees' average continuance commitment scores were related to social desirability, this study utilized the Socially Desirable Response Set Five-Item Survey (SDRS-5) developed by Hays et al. (1989), based on the 33-item Marlowe–Crowne Social Desirability Scale (Crowne & Marlowe, 1960), that evaluates the degree to which employees' self-report responses may be impacted by social desirability. Hays et al. conducted two studies to assess the scale reliability of the SDRS-5 and found the Cronbach's alphas equal to .66 and .68 correspondingly, which was in line with the reliability of the Marlowe-Crowne Social Desirability Scale.

Data Analysis

The data collected in this study were analyzed in the following stages: initial data examination and preparation; calculation of correlation coefficients and testing of Hypotheses 1 through 3; and testing of the confounding influence of age, gender, and social desirability bias (Hypotheses 4 through 6).

All collected surveys were examined for missing entries. Specifically, each set of the SLT, the CC–HS, and the SDRS-5 surveys was discarded if it contained more than three unanswered items (Bennett, 2001). If a participant left off up to three items, the missing values were substituted with the average for that item rounded to the nearest whole number, according to the recommendation by Little and Rubin (2002). The data from each SLT survey were averaged for each considered variable of perceived vision, hope/faith, and altruistic love, and the data from each CC–HS survey were averaged to produce the continuance commitment score for each respondent. The responses to each item in the SDRS-5 were given the value of 1 for each extreme response and the value of 0 if the extreme response was not given (Hays et al., 1989). The averaged scores for each variable, the SDRS-5 responses, and the respondents' demographics were entered in SPSS Statistics software. Data distributions for perceived spiritual leadership, continuance commitment, social desirability, and age were examined for normality and homogeneity of variance by utilizing skewness and kurtosis values and Kolmogorov–Smirnov statistics (Hair et al., 2010).

The reliability of scales was assessed by calculating the Cronbach's alphas for the three spiritual leadership scales and one CC–HS. Hypotheses 1 through 3 were tested using the correlation analysis to explore whether the relationships between each of the spiritual leadership dimensions, as perceived by the employees and their commitment to stay with their organization, were significant. Specifically, correlation coefficients were calculated and analyzed for vision, hope/faith, and altruistic love to evaluate the significance of the relationship between each of these variables and employees' continuance commitment.

Age was reported as a discrete variable reflecting actual ages (rather than age groups) of participants. Therefore, Hypothesis 4 was also tested using the

correlation analysis to examine whether the relationship between employees' age and their commitment to stay with their organization was significant. Gender was reported as a categorical variable (i.e., 1 = male and 2 = female). Thus, the difference between employees' average continuance commitment scores by gender, reflected in Hypothesis 5, was tested for significance by using an independent sample *t*-test. Testing of Hypothesis 6 was conducted via a one-way ANOVA to examine the difference in employees' average continuance commitment scores by the number of extreme responses captured via the SDRS-5 (from 0 to 5).

Results

Tables 1 and 2 include information about the demographics of the study participants. Women represented 72.7% of the sample population, while men represented 27.3% of the sample. The reported ages of the participants ranged from 20 to 67 years old with an average age of 46.

Table 1: Gender Frequencies

Gender	*n*	%
Male	24	27.3
Female	64	72.7
Total	88	100.0

Table 2: Population Sample Descriptive Statistics

					Skewness		Kurtosis	
Variable	Min.	Max.	*M*	*SD*	Stat.	*SE*	Stat.	*SE*
Age	20	67	46.00	12.38	-0.25	0.26	-0.59	0.51
Vision	1	5	4.18	0.90	-1.62	0.26	2.34	0.51
Faith/ Hope	1	5	4.45	0.82	-2.16	0.26	5.05	0.51
Altruistic love	1	5	4.32	0.83	-1.71	0.26	3.30	0.51
Continuance Commitment	1	7	4.45	1.44	-0.57	0.26	-0.09	0.51
Social Desirability	2	5	4.14	0.62	-0.89	0.26	1.16	0.51

Note. N = 88

Data were examined for normality and significance of outliers to determine the suitability of the Pearson correlation as a planned statistical test. Examination of skewness and kurtosis values showed significant skewness and high kurtosis values for vision, hope/faith, and altruistic love variables, indicating a significantly asymmetrical and heavy-tailed data distribution relative to normal distribution, pointing to a possible violation of normality. Furthermore, visual examination of the histogram and normal Q–Q plots revealed significant skewness of data distribution and high kurtosis for vision, hope/faith, and altruistic love variables, further confirming the violation of the normal distribution assumption. This violation of normality was also confirmed by the Kolmogorov–Smirnov test, making the Pearson correlation unsuitable. Considering the violation of normality and ordinal nature of vision, hope/faith, and altruistic love variables, the Spearman correlation was used as a suitable nonparametric test to test Hypotheses 1 through 3. On the other hand, the examination of skewness and kurtosis of the continuance commitment distribution did not point to a potential violation of normality and homogeneity of variance of this variable.

Scale Reliability, Relationships, and Research Hypotheses Testing

Further evaluation of data suitability for the hypotheses testing was conducted through assessment of the scale reliabilities and intervariable correlations. Assessment of the scale reliabilities was conducted through a computation of Cronbach's alphas for the spiritual leadership, continuance commitment, and social desirability scales. The calculations produced Cronbach's alphas of .90 for vision, .94 for hope/faith, .93 for altruistic love, and .88 for the CC–HS scale, demonstrating a very good internal consistency of the selected measures. Additionally, the scale reliability calculation for the SDRS-5 produced a Cronbach's alpha of .66, which is supported as acceptable and in line with the finding of the research conducted by Hays et al. (1989).

Correlation coefficients were calculated using the Spearman correlation method. The results showed a significant correlation between all spiritual leadership variables (see Table 3 on the next page). Furthermore, significant correlations between vision and continuance commitment, as well as between altruistic love

and continuance commitment were found; thus, Hypotheses 1 and 3 were supported. Correlation between hope/faith and continuance commitment was not significant ($p > .05$); therefore, Hypothesis 2 was not supported.

Table 3: Intervariable Correlations

Variables	1	2	3	4	5
1. Age	–				
2. Vision	0.19	–			
3. Hope/Faith	0.09	0.68**	–		
4. Altruistic Love	0.09	0.61**	0.54**	–	
5. Continuance Commitment	0.15	0.31**	0.15	0.27*	–

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

Testing of Confounders and Social Desirability Bias

Additional analysis of potential confounding influences of age, gender, and social desirability bias on the employees' continuance commitment was conducted. The correlation analysis was utilized to examine a confounding influence of age, which was reported as a discrete variable reflecting actual ages of participants. The results show that correlations between age and spiritual leadership variables as well as between age and continuance commitment were not significant ($p > .05$); therefore, Hypothesis 4 was not supported.

The investigation of a potential confounding influence of gender on employees' continuance commitment was conducted by utilizing a *t* test to find out whether there was a significant difference between the means of the continuance commitment scores of the male and female sample groups. Since the examination of the skewness and kurtosis of the continuance commitment distribution did not point to a potential violation of normality and homogeneity of variance of this variable, an independent samples *t*-test was suitable for this analysis. Table 4 (see next page) presents the results of the *t*-test, which showed no significant differences ($p > .05$) in the continuance commitment means between the two gender groups; therefore, Hypothesis 5 was not supported.

Table 4: Independent-Sample t Test of Continuance Commitment Means by Gender

| | Gender | | | | | | *t*-test for Equality of Means | | | | |
| | Male | | | Female | | | | | | 95% CI of the difference | |
Variable	*M*	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*p*	Lower	Upper
Continuance commitment	4.05	1.46	24	4.60	1.41	64	-1.63	86	0.11	-1.24	0.12

Note. CI = confidence interval

   The test for social desirability bias was conducted using a one-way ANOVA that investigated the difference in employees' average continuance commitment scores by the number of extreme responses captured via the SDRS-5. The test results presented in Table 5 showed no significant differences ($p > .05$) in the continuance commitment means between the six groups sorted by the number of extreme responses (0 to 5) in the SDRS-5; thus, Hypothesis 6 was not supported.

Table 5: ANOVA of Continuance Commitment Means by Number of Extreme Socially Desirable Responses

ANOVA	SS	df	MS	F	p
Continuance Commitment					
Between Groups	19.14	5	3.83	1.94	0.10
Within Groups	161.58	82	1.97		
Total	180.72	87			

Discussion

The first three hypotheses tested in the study focused on the relationship between leaders' vision, hope/faith, and altruistic love as perceived by their employees and the employees' continuance commitment. The data analysis showed support for Hypotheses 1 and 3, which indicated that there is a significant positive relationship between employees' perception of their leaders' vision and employees' continuance commitment ($r_s = .31$, $p = .003 < .05$), and there is a significant positive relationship between employees' perception of their leaders' altruistic love and employees' continuance commitment ($r_s = .27$, $p = .012 < .05$). These findings are

not surprising given the theoretical support and the results of prior empirical studies that have addressed the relationship between spiritual leadership and other dimensions of organizational commitment (Chen & Yang, 2012; Fry, 2003; Fry et al., 2005; Javanmard, 2012).

On the other hand, the data showed no support for Hypothesis 2, indicating that employees' perception of their leaders' hope/faith and employees' continuance commitment do not have a significant relationship (r_s = .15, p = .159 > .05). Given the broad empirical support for the relationship between spiritual leadership and organizational commitment, this outcome points to potential complexities in multidimensionality of spiritual leadership and organizational commitment constructs as well as intricacies in the relationship between their various dimensions. Additionally, potential challenges in the definition and measurement of latent constructs, such as faith/hope, may present difficulties in objectively quantifying their impact on personal and organizational outcomes (Giacalone & Jurkiewicz, 2004).

Tests of the additional hypotheses that investigated a potential confounding influence of age, gender, and social desirability bias on employees' continuance commitment revealed no support for Hypotheses 4 through 6. This outcome indicated that, based on the selected sample population, employees' age, gender, and social desirability bias do not have a significant influence on the relationship between their spiritual leadership perceptions and their commitment to remain with their organizations. These findings eliminated the concern that the relationships tested in Hypotheses 1 through 3 were confounded by participants' age and gender, which were reported in the literature review as potential influencers of employees' organizational commitment. Furthermore, a potential for social desirability bias due to a self-reported nature of the CC–HS survey was a concern in the exploration of the hypothesized relationship between employees' spiritual leadership perceptions and their continuance commitment. However, the analysis of data collected through the SDRS-5 and the CC–HS surveys revealed that the employees' average continuance commitment scores were not significantly affected by the employees' extreme responses in the SDRS-5, eliminating the

concern for the social desirability bias as a potential confounder in the relationships hypothesized in Hypotheses 1 through 3.

Contributions of the Study

This study answered the call for additional research in the field of workplace spirituality and spiritual leadership (Benefiel et al., 2014; Reave, 2005). Considering the emergent state of the spiritual leadership paradigm, the findings revealed in the current study added to the growing body of the scholarly work on the effects of leadership spirituality on individual outcomes, specifically from the follower-centric perspective, and contribute to further validation of spiritual leadership theory (SLT) as well as reliability of the instrumentation utilized in this study. Furthermore, the outcomes of this study offered practitioners additional guidance for effective employee retention practices as well as leadership hiring and development programs that increase employees' continuance commitment.

   For Scholars. Considering multidimensionality of spiritual leadership and organizational commitment constructs, this study focused specifically on the relationship between employees' perceptions of their leaders' vision, hope/faith, and altruistic love and continuance commitment as one of the three components of the organizational commitment construct proposed by Allen and Meyer (1990). This study was original in its concentrated focus on the dimension of commitment that does not include an affective state of a person, which can be influenced by leaders' spiritual practices, behaviors, and attitudes (Fry et al., 2005). The outcomes of this research further validated the SLT by providing insights about the links between spiritual leadership behavior, values, and attitudes and followers' continuance behavior at the individual level versus the unit and organizational levels explored in prior studies (Reave, 2005). Additionally, the results pointed to potential complexities in the dimensionality and interactions between the dimensions of spiritual leadership and the organizational commitment constructs.

   The follower-centric nature of this study also contributed to a better understanding of leadership through the lens of followers' perceptions. Focusing on employees' perceptions of their leaders' spiritual values, behavior, and attitudes, this study shed more light on the dynamics and connections between

what employees see as important to them in their leaders and their own behavior, based on personal sacrifices and investments. Analysis of such connections contributes to a very limited body of follower-centric studies of leadership and enriches the understanding of the leadership processes, behaviors, and dynamics as a function of followers' perceptions (Jackson & Parry, 2011).

In exploring the potential confounding influences of age, gender, and social desirability bias, this study revealed a less significant impact of these variables on employees' organizational commitment as compared to the findings in several prior studies (Affum-Osei et al., 2015; Ajayi, 2017; Jena, 2015; Messner, 2017; Toga et al., 2014). This opens a door for further questions and additional investigations of the potential impact of these variables in the field of social sciences.

In addition to the contributions to spiritual and follower-centric leadership theories, this study contributed to instrument reliability. Consideration of latent constructs often presents challenges related to their measurement due to diverse definitions of the underlying concepts (Bollen, 2002). This study considered such latent constructs as vision, hope/faith, love, and continuance commitment operationalized by Fry (2003) and Allen and Meyer (1990) and measured them by utilizing the SLT and CC–HS surveys. The analysis of the collected data confirmed very good reliability of both instruments, further reinforcing their use as valid and reliable instruments in future research.

For Practitioners. This study provided a significant contribution for leaders of organizations that face challenges of employee retention. According to a study conducted by the U.S. Bureau of Labor Statistics in 2014, nonprofit organizations fall short in the levels of material compensation as compared with similar positions in the for-profit sector (Bishow & Monaco, 2016). The inability of certain organizations to be competitive with salaries and benefits offered by others may pose a significant threat to attracting and retaining qualified and committed personnel. The results of the study, which was conducted among nonprofit organizations, revealed a positive connection between employees' perceptions of certain spiritual leadership values and attitudes, such as vision and love, and their personal decisions to stay with their corresponding organizations despite the

potential to gain higher earnings elsewhere. These outcomes shed additional light for organizational leaders to see the importance of understanding and practicing the values of spiritual leadership and fostering workplace spirituality.

In addition, the outcomes of this research revealed values and behavior that were perceived by employees as important and significant enough to become satisfying conditions for them to stay with their organizations. Becker (1960) refers to such conditions as side bets, or investments, that employees are not willing to give up when facing alternatives to join other organizations. These results give organizational leaders additional guidance and criteria for what to look for in the hiring process, especially when staffing leadership vacancies, as well as investing in leadership training programs that emphasize development and practice of spiritual behavior, attitudes, and values such as vision, hope/faith, and love, which were explored in this research.

Limitations of the Study

Among several limitations of this study is the consideration of only nonprofit religious organizations in the United States, whose leaders were reasonably expected to practice spiritual leadership. Potential differences in the perceptions and practices of spiritual leadership, emphases on the achievement of different organizational outcomes (e.g., bottom line, productivity, etc.), and compensation levels in the nonprofit versus for-profit sectors may play significant roles in the impact on employees' continuance commitment, thus limiting the generalizability of this research findings. Additionally, the religious nature of the participating organizations creates reasonable expectations of their greater emphasis on the importance and practice of spiritual values, behavior, and attitudes as the requirements for service as compared to nonreligious entities, which further limits the generalizability of this study outcomes.

An additional limitation to the generalizability of the findings of this study is its cultural scope. This research was conducted among organizations located in the United States, which is characterized as a culture with a high degree of individualism and a low degree of long-term orientation (Hofstede et al., 2010). Since different cultural propensities may have a potential impact on employees'

perceptions of leadership behavior and values as well as their organizational commitment, selection of participants from organizations located only in the United States presents a potential limitation to the generalizability of these research findings to other cultures (Ch et al., 2013).

Recommendations for Future Research

In view of the limitations described, additional research among for-profit organizations as well as organizations within different cultural contexts may further improve the generalizability of the findings from this study. Such extension of the study can provide additional insights into the relationship between employees' perceptions of their leaders' spirituality and employees' organizational commitment. In the current economic environment, marked by the accelerating forces of globalization, an exploration of cultural impact on the dynamics between perceived leadership behaviors, values, and attitudes, and employees' organizational commitment would be particularly beneficial.

The theory of spiritual leadership is still in the early stages of its development and validation (Benefiel et al., 2014). While this study focused on the spiritual leadership construct and dimensions conceptualized by Fry (2003), other conceptualizations of leadership spirituality are emerging (Sendjaya, 2007). Utilization of different conceptualizations that include such dimensions as religiousness, interconnectedness, sense of mission, and holistic mindset, as proposed by Sendjaya (2007), can further contribute to a better understanding of the role and the impact of spiritual leadership perceptions on an individual's organizational commitment as well as facilitate the further building of theory.

Exploration of additional dimensions of leadership spirituality is also recommended. For example, the positive impact of such spiritual practices as prayer, meditation, and reading the Bible on followers' commitment was widely demonstrated in the Holy Scriptures. However, scholarly research of the influence of these spiritual practices on individual and unit outcomes, as well as valid and reliable instrumentation to measure such dimensions, is lacking (Reave, 2005). Additional research to explore various spiritual leadership dimensions and construct valid and reliable measures would broaden the understanding of spiritual

leadership and further build theory.

This study explored the link between employees' perception of their leaders' spirituality and their commitment to remain with their organizations by using a nonexperimental, cross-sectional, correlational research design. The goal of this research was not to prove causation but to reveal the existence of a relationship between considered variables. While this study provided useful insights into the connection between the perceived spiritual values, attitudes, and behaviors of leaders and the continuance commitment of employees, exploration of whether perceptions of leaders' spirituality causes employees' decisions to remain with their organizations would further enrich the understanding of the effects of perceived spiritual leadership and contribute to further theory building. Therefore, additional longitudinal regression analysis-based research that explores such causation is recommended.

Finally, it is recommended to investigate a link between additional potential confounders, such as socioeconomic status, education level, and religious orientation of employees, and their continuance commitment. While this study did not reveal any significant relationship between age, gender, and employees' commitment to remain with their organizations, it can be hypothesized that employees' religious beliefs, levels of education, and socioeconomic status may influence not only their continuance commitment, but also their perceptions of the spiritual values and behaviors of others.

Conclusion

The purpose of this research was to add to the understanding of the connection between spiritual leadership and followers' behavior by addressing the research question of whether there is a relationship between employees' perception of the spiritual leadership of their organizations' leaders and the employees' commitment to remain with their organizations. The insights provided by this study delivered a deeper understanding of the relationship between the spiritual leadership dimensions and individual behavior from a unique perspective of the followers' perceptions. This approach provided a distinctive scholarly contribution to a still

limited body of the follower-centric research and added to further building and validation of SLT. In addition to contributions to the scholarly literature, the outcomes of this study offer practitioners meaningful insights and additional guidance for effective employee retention practices as well as leadership hiring and development programs that positively relate to employees' continuance commitment.

Beyond testing of the main hypotheses, this study explored the effect of age, gender, and social desirability bias as potential confounders in the hypothesized relationships and offered an opportunity for further investigation of the confounding influence of these and other variables. Revealing the insights into the complexities of the dynamic between perceived spiritual values, attitudes, and individual behaviors, the findings, implications, and limitations of this study opened a door for further investigation of additional spiritual leadership dimensions, development of valid and reliable instrumentation for their measurement, and a cross-cultural exploration of the causation effects of spiritual leadership on individual outcomes.

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Extension of Theory in Leadership and Management Studies Using the Multiple-Case Study Design[*]

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Extension of theory using a multiple-case study design can contribute value to a particular theoretical perspective and further define the boundaries of the original theory. Most organizations today operate in volatile economic and social environments. Qualitative research plays an essential role in the investigation of leadership and management problems, given that they remain complex social enigmas. The multiple-case study design is a valuable qualitative research tool in studying the links between the personal, social, behavioral, psychological, organizational, cultural, and environmental factors that guide managerial and leadership development. Multiple-case studies can be used by both novice and experienced qualitative researchers to contribute original qualitative data to extant theory. Multiple-case study research is particularly suitable for responding to questions of how and why and what Eisenhardt (1989, 2020) terms "big picture" research questions that remain unanswered in the extant leadership and management literature.

Key words: leadership studies, management studies, multiple case study, research methodology, study design, theory extension

Qualitative research plays an essential role in the investigation of leadership and management problems, given that they remain complex social enigmas even after tons of ink has been spilled on behalf of these phenomena for longer than anyone cares to remember. Quantitative methods remain insufficient for investigating phenomena with dynamic and symbolic components at multiple levels. Qualitative methods support investigators in finding interpretive contexts in which leadership is defined through daily lived experiences. Denzin and Lincoln (2000) note that qualitative researchers follow an *interpretive and naturalistic approach,* which "means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them" (3). Leadership and management researchers are increasingly adopting qualitative methods in their studies, mainly because of the

approach's flexibility and suitability in capturing the multiple dimensions of and subtle differences in social phenomena (Halkias et al., 2017).

The multiple-case study design is a valuable research tool for studying the links between the personal, social, behavioral, psychological, organizational, cultural, and environmental factors that guide managerial and leadership development (Abadir et al., 2020). Case study research is essential for the in-depth study of participants' perspectives involved in the phenomenon within its natural context. Rigorously designed management and leadership case studies in the extant literature have, as a central focus, the stories of individual managers and leaders and their perceptions of the broader forces operating within and outside their organizations.

Extant theories can be expanded and enhanced with a multiple-case study design that is utilized for gathering data to answer a qualitative research question. Extension of theory using a multiple-case study design can contribute value to a particular theoretical perspective and further define the boundaries of the original theory. Multiple cases are like multiple experiments; the previously developed theory can be compared and extended to account for the empirical results of the case study (Yin, 2017). The examination of the rich data collected in theoretically significant cases can bring forth additional constructs and relationships to theory to reflect the actual multiple-case study data set. Extension studies, such as this multiple-case study, not only provide replication evidence but also extend prior research results with new and important theoretical directions (Bonett, 2012).

Theory extension from a multiple-case study is distinct from other approaches to theory building, such as mathematical modeling or computational simulation. Extension of theory using a multiple-case study design is guided by logic that is informed by the systematic analysis of empirical data. Theory extension through multiple-case study research is a broader approach than other inductive methods such as *interpretivist research,* in which knowledge is assumed to be socially constructed by study participants' voices and lived experiences (Cooper & White, 2012). Narrative and phenomenological studies more often focus on exploring constructs such as identity, the meaning of experience, participant voice, and socially constructed knowledge about a specific phenomenon and less on creating

theory extension. Ethnography researchers explore culture through immersive observation and daily practices often unbeknownst to the observed participants, such as nonverbal cues, cultural rituals, and data derived from artifacts. Nevertheless, despite differences, qualitative approaches such as multiple-case, interpretivist, and ethnographic studies all utilize common research strategies, such as immersion in the phenomenon studied and purposeful sampling.

Multiple-case studies can be used by both novice and experienced qualitative researchers to contribute original qualitative data to extant theory. Multiple-case study research is particularly effective for responding to questions of how and why and what Eisenhardt (1989, 2020) terms "big picture" research questions that are essentially broad inquiries to address a gap in the extant literature. When a research question is tightly bounded within the context of an existing theory, using a set of theoretically relevant case studies to understand complex processes that occur in the context of this theory is deemed methodologically appropriate. Although the exploratory nature of a qualitative study overrules the benefits of a theoretical framework, theory-free research does not exist (Guba & Lincoln, 1994). A researcher who cannot formulate a theoretical framework to ground their multiple-case study still needs to immerse themselves in the literature to discover preconceptions about their study. Findings in a multiple-case study confirm or extend the existing knowledge in the discipline, as each case presented can be grounded in the reviewed literature (Stake, 2010).

Theory in Qualitative Research

Theory, theoretical frameworks, conceptual frameworks, and *theory of method* are "terms that have blurred lines within qualitative methods literature and either suffer or benefit from widespread nuanced differences. In general, a theory is a big idea that organizes many other ideas with a high degree of explanatory power" (Collins & Stockton, 2018, 2). The theory of method (or methodology) provides guidance as to what method will help answer a research question. A conceptual framework best functions as a map of "concepts" from those defined in the extant literature that used to define a particular study. These concepts are grounded in a

foundational theoretical framework that identifies the lens through which the study will interpret new knowledge.

Maxwell (2013) defines a *conceptual framework* as a tentative theory about the phenomena being studied that informs the whole of the study's design, noting that "this may also be called the 'theoretical framework' or 'idea context' for the study" (39). This use of theory to ground a study's concepts helps the qualitative researcher refine goals, develop research questions, choose methodological approaches, identify potential threats to the trustworthiness of analyzed data, and define the significance of the research. The primary source of the conceptual framework, from Maxwell's perspective, does not necessarily need to be an existing theory. Four primary sources are options from which to derive a conceptual framework: (a) knowledge based on experience, (b) existing theory, (c) exploratory research, and (d) "thought experiments" (44).

The network or "frame" of concepts woven together by the researcher from the literature are the guiding constructs of epistemology and theory for qualitative studies. Maxwell (2013) notes that the *conceptual framework* includes "the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research" (39). Maxwell (2013) continues*:* "I use the term in a broader sense, to refer to the actual ideas and beliefs that you hold about the phenomena studied, whether these are written down or not; this may also be called the 'theoretical framework' or 'idea context' for the study" (39). Similarly, Merriam and Tisdell (2015) add:

> Yet another point of confusion is that the terms theoretical framework and conceptual framework are often used interchangeably in the literature. We prefer theoretical framework because a theoretical framework seems a bit broader and includes terms, concepts, models, thoughts, and ideas as well as references to specific theories; further, conceptual frameworks are often found in the methodology chapter or section of a quantitative study wherein the concepts and how they are to be operationalized and measured are presented. (84)

According to Saldaña and Omasta (2016)*,* a *theory* encases research into a narrative about "social life that holds transferable applications to other settings, context, populations, and possibly time periods" (257). This "big truth," or theory, has four properties: (a) predicts and controls action with if-then logic, (b) accounts

for variation, (c) explains how and why something happens through causation, and (d) provides insights for improving social life (Saldaña & Omasta, 2016). Theory extension in case study research is a result of data collection that adds new knowledge to a conceptual framework by using theory as the framework to guide the study. Certain qualitative methodological approaches call for theory construction from a study's findings, such as in the case of grounded theory studies. Saldaña (2015) challenges the notion that theory construction should be the primary type of theoretical thought in qualitative research and urges researchers to consider utilizing the frameworks of noted theorists to guide qualitative studies. Guba and Lincoln (1994) note that theory in qualitative research must be present within the guiding framework when searching out new knowledge, while Ridder (2017) specifically recommends the use of case restudy research for theory modification or extension.

Theoretical frameworks provide four dimensions of insight for qualitative research: (a) focus and organization for the study, (b) exposing and obstruction of meaning, (c) connection of the study to existing scholarship and terms, and (d) identification of the strengths and weaknesses of the study (Maxwell, 2013). The theory makes it possible to highlight data and observations that another standing theory may misinterpret or overlook. According to Maxwell (2013), ineffective use of existing theories occurs when researchers are not sufficiently critical of the theory or rely on it too much, or when they make less than adequate use of it. Merriam and Tisdell (2015) note that all research has a theoretical framework that is either explicit or implicit, even when utilizing an inductive approach, and they refer to a *theoretical framework* as the "underlying structure, the scaffolding or frame" (85) of the study. Merriam and Tisdell (2015) also include the use of concepts, terms, definitions, and models in a theoretical framework. Consistent with Maxwell's assertion, Merriam and Tisdell note that all parts of a qualitative study are informed by a theoretical framework and describes the relationship between the research problem and the framework as a "set of interlocking frames" (86).

Consider a broader idea about *theory* as "webs of interlocking concepts that facilitate the organization of empirical material by providing explicit interpretive

frameworks that researchers use to make their data intelligible and justify their choices and methodological decisions" (Bendassolli, 2014, 166). Across all the methodological literature reviewed, this conceptualization is the closest to the cohesive presentation of a conceptual framework. The conceptual framework

> should show how [the writer] is studying a case in a larger phenomenon. By linking the specific research questions to the larger theoretical constructs or important policy issues, the writer shows that the particulars of this study serve to illuminate larger issues and therefore hold potential significance for that field. (Marshall & Rossman, 2011, 7)

Utilizing the literature to draw parameters for the conceptual framework is an exercise marked by efforts targeting distinction as well as simplicity. Literature presenting the conceptual framework in a way that shows how research and literature come together in molding a study is the most successful way to gain a deeper knowledge on how a contribution extends or modifies a theory.

Where Does the Novice Case Study Researcher Begin?

Case study design aligns with a research goal that can be met by answering phenomena-driven research questions and offers methods to extend a theoretical proposition. Yin (2017) recommends the case study method when the research seeks to address an explanatory question, such as how or why something happened, or a descriptive question, such as what happened. Qualitative case studies are now an integral part of the business, management, and leadership literature and used by researchers to understand better the actions and outcomes of actors and organizations in multiple fields (Klenke, 2016). Qualitative case studies generate holistic and contextual in-depth knowledge using multiple sources of data.

A case study is a "thick" or rich empirical description of a specific instantiation of a phenomenon, commonly with embedded (i.e., nested) levels of analysis and frequent reliance on multiple data sources (Yin, 2017). A defining aspect of case study research is the researcher's *deep immersion* in the phenomenon. *Replication logic* is a second defining aspect—this refers to the fact that the researcher does not pool cases together and use pooled logic (i.e., combine

cases) as in traditional theory-testing research; instead, the researcher analyzes each case as a stand-alone experiment. The researcher tries to understand the central research question within each individual case and then tries to replicate these insights across each case. This analysis of one or more cases is done to detect patterns in the data that offer theoretical insights in the form of constructs, theoretical relationships among those constructs, and sometimes propositions (Eisenhardt, 1989).

Yin (2017) articulates three conditions that are useful in determining whether the case study design should be used as a research strategy. The first condition relates to the type of research question that is being considered. Case study research is most appropriate when the researcher is interested in how, what, and why questions. The second and third conditions relate to the extent of control over behavioral events and the degree of focus on contemporary events. When a researcher is interested in contemporary events and cannot control or manipulate behavioral events, case study research is deemed an appropriate strategy. Three types of case studies can be undertaken: explanatory, exploratory, and descriptive (Yin, 2017). Case studies are particularly relevant when an understanding of complex social phenomena is needed because "the case study method allows investigators to retain holistic and meaningful characteristics of real-life events" (Yin, 2017, 2). Additionally, case studies may be used in evaluation research to explain, to describe, to illustrate, to explore, or to be used as a meta-evaluation.

Case studies may be undertaken for several reasons and are an appropriate approach when a researcher is interested in the process or seeks an in-depth understanding of a phenomenon because of its uniqueness. Stake (2005) identifies three motivations for studying cases: intrinsic, instrumental, and collective. An *intrinsic case study* is undertaken because the case itself is of interest. An *instrumental case study* is undertaken to gain insight into an issue. The case becomes secondary because it facilitates an understanding of something else. A *collective case study* is undertaken when several cases are selected jointly to provide insight on a phenomenon, population, or condition. A collective case study may result in an enhanced understanding of the phenomenon or theorizing.

Case studies can be descriptive, interpretative, or evaluative. Additionally, there are many types of qualitative case studies that can be undertaken: ethnographic, historical, psychological, or sociological (Baxter & Jack, 2008). A recent, dynamic approach to case study design is that of the live case study, also utilized in recent years at Harvard Business School, where the case study method for teaching has its origins (Neubert et al., in press). Specifically, *live case studies* function to immerse students in interactive working environments, so that system nuances and behavior can be observed in a way not possible through traditional methods (Neubert et al., in press; Rapp & Ogilvie, 2019).

Academic work traditionally begins with a problem and establishes a literature base to substantiate the problem and provide a record of what researchers have said on the matter. Subsequently, it is possible and necessary to logically and visually organize the literature into a conceptual framework, thus demonstrating how the literature covers or leaves available room to explore specific questions. From this point on, the theoretical framework can represent the turning point or pinnacle of a qualitative study. From the problem, the research questions, which can provide data to address the problem, are developed. The research questions are strongly related to existing theory, focusing on how and why questions. The existing theory contains research gaps that, after having been identified within the standing theory, point to assumed relationships that form a base for propositions and a framework that empirical data will be matched. This broad difference is further pronounced by using a design that targets the social construction of reality.

The case study research design includes research questions and interview questions to uncover the participants' experiences, participant selection logic, data collection, field procedures, an identified data analysis technique, and a template to follow for reporting the multiple-case study (Noor, 2008; Stake, 2013). Interviews are a primary source of data collection to answer a research question. Data triangulation is done in such a way as to limit problems related to construct validity, given that multiple data sources offer different measures of a phenomenon. Several strategies can be used for data analysis (e.g., case description, investigation of opposing explanations) as well as analytic techniques to compare

proposed relationships with empirical patterns (Yin, 2017). Pattern-matching logic is employed to compare empirical and predicted patterns, which supports additional techniques of data analysis (e.g., cross-case synthesis, time series analysis, explanation building, and logic models). Analytical generalization entails comparing the theory with the empirical results; based on the outcomes, the theory can be extended or modified (Ridder, 2017; Yin, 2017).

Designing a case study protocol allows researchers to augment the reliability of their study (Baxter & Jack, 2008; Yin, 2017). The method and research design delineate the process of conducting a multiple-case study (Tsang, 2013). The capacity of a multiple-case study to elicit common findings from across different settings is one of its design strengths. In multiple-case study research, theoretical replication involves the testing of a theory through comparison of the findings with new cases. If pattern-matching between data and propositions emerges in a series of cases, theoretical replication can manifest through a new series of cases that have contrasting propositions. The use of replication logic in case studies also allows for development of a rich, theoretical framework (Nonthaleerak & Hendry, 2008; Yin, 2017). Various authors (Yin, 2017) state that theoretical frameworks offer a base for generalization to new cases, similar to cross-experimental designs. By evaluating each case as a separate investigation in this study, generalizations can be supported by replication logic. For multiple-case studies, the use of replication logic has been likened to multiple experiments (Yin, 2012). Theories or hypotheses about the selected cases, essential for case study analysis and design, can be used to derive replication logic (Yin, 2012). For each case, a researcher applies further logic to develop consistent protocols for the collection of data (Yin, 2012).

The Advantage of Multiple-Case Study for Theory Extension

The advantage of multiple-case data analysis for leadership and management researchers is the ability to move from simple description to explanation of underlying organizational and behavioral dynamics that allows one to confirm, disconfirm, and extend a theory that underlies the whole set of multiple cases

(Mullen-Rhoads et al., 2018). Theory extension from case studies represents an important research strategy (Bonett, 2012). It can contribute theoretical insights that are both rich and weighted on phenomena that are under-theorized and inadequately explored. Entailing extensive immersion into a focal phenomenon, case research is appropriate for answering "how" research questions. The most successful research projects engender new theoretical insights related to "big-picture" research questions that seek to fill important gaps and dilemmas in theory. In multiple-case research, after completing the within-case analyses, a researcher also does a cross-case analysis.

Comparing multiple cases makes it possible to test the theory that is emerging in each successive case with the use of replication logic (Yin, 2017). Approaches used in comparing and contrasting cases (e.g., A to B, A to C, and B to C) compel a researcher to investigate and treat the data from more than one perspective and utilizing various combinations. Relevant constructs, for example, can be identified by distinguishing differences as well as similarities across the cases. Measures of constructs can be summarized in tables (Miles et al., 2014). Researchers can use these construct tables as tools to advance insights that establish theoretical relationships among constructs.

Real-life phenomena can be scientifically studied in depth and within the context of their environments using case study research. A person, problem, event, organization, group, and even an anomaly can be distinguished as a case (Ridder, 2017; Yin, 2017). In contrast to an experiment, a case's contextual conditions form part of the investigation; they are not controlled or outlined. No sample is seen to represent a larger population. As such, case study research employs non-random sampling. The case is selected, contrary to quantitative logic, precisely because it is of interest (Stake, 2005), or there may be theoretical reasons for selecting it (Eisenhardt & Graebner, 2007). Maximum variation (heterogeneity) sampling is used in qualitative sampling "to document variations that have emerged in adapting to different conditions" (Lincoln & Guba, 1985, 200) and is the preferred sampling mode for constructivist inquiry (Lincoln & Guba, 1985). A multiple-case study researcher can enact maximum variation sampling by purposefully selecting

leaders and managers from organizations operating in different sectors to include a diverse set of organizational contexts.

Maximum variation sampling in qualitative research relies on a researcher's judgment to select participants with diverse characteristics to ensure the presence of maximum variability within the primary data. The multiple-case study sample can be purposefully built up by including leaders and managers who would be information-rich for the study. This criterion-based sampling can gather a heterogeneous group of participants to support maximum variation sampling (Benoot et al., 2016). The sample size is determined by what the researcher wants to know, the purpose of the research, and the sampling strategy and data saturation. According to Patton (2002), "the validity, meaningfulness, and insights generated from qualitative inquiry have more to do with the information richness of the cases selected and the observation/analytical capabilities of the researcher than with sample size" (245). Accordingly, the multiple-case study researcher may collect data from individual participants representing their unit of analysis and conclude a saturation point is reached when no new themes emerge from the data analysis.

As part of the data collection strategy, researchers employing the case study method typically triangulate data, which provides a detailed case description (Dooley, 2002; Eisenhardt, 1989; Ridder, 2016; Stake, 2005). The detailed description and analysis arising from a single-case study can be used to enhance understanding of how and why things happen and thus represent the potential advantages of this type of research. Single-case study research offers the chance to delve into a "black box" that presents itself and thus examine a phenomenon's deeper causes (Burns, 2000; Fiss, 2009). Data gathered on a case can help identify patterns and relationships and enable a researcher to test, extend, or create a theory (Gomm et al., 2000).

To address a study's problem, the multiple-case study design and the selection of the cases are categorized into two types of selection, namely the *literal replication* and the *theoretical replication*. While the former means that case studies selected yield similar results, the latter means that case studies are selected to predict contradictory results. In a multiple-case study, the case itself

may be a person, event, entity, or other unit of analysis (Yin, 2017). Taking the example of a person as a case, a single case concerns one individual, whereas a multiple-case study involves more than one person. The purpose of this process is to replicate the same results across multiple cases by exploring the differences and similarities between and within cases. The evidence resulting from the replication process is considered robust and reliable and can be utilized to extend theory from cases (Welch et al., 2020; Yin, 2017).

The contributions to theory extension of multiple-case study research design lie in furthering in-depth knowledge that is dependent on context and concerns the identification of novel trends and new phenomena. Utilizing a multiple-case study, a researcher can contribute new perspectives and construct new realities based on openness to new phenomena, the ability to avoid theoretical preconceptions, and opportunities to gain insights from collected data. Although Eisenhardt's (1989) multiple-case study design is based on other philosophical assumptions and is itself used in various ways, there remains a substantial tendency to follow and quote her research strategy—a strategy aimed at advancing new relationships and developing new constructs from real-life cases. Interviews, observations, and documents are the primary means of collecting data. Concepts, themes, and relationships emerge from analyses within sites and across cases. Once emerged constructs have been identified, a researcher verifies the relationships that emerge between the constructs in each case. The logic supporting this approach is one of validation by replication. A researcher treats cases as experiments in which hypotheses are replicated on a case-by-case basis. In replication logic, emergent relationships that are confirmed by cases improve confidence in their validity and theory extension by targeting the precision of constructs and emerging relationships.

Extending Theory with Multiple-Case Study Design

Multiple-case study can produce detailed descriptions and cross-case analysis of leadership and management phenomena using constructs to compare the collected qualitative data to earlier literature. Yin (2017) emphasizes that multiple cases strengthen study results through replication logic, thus increasing the

robustness of the findings. A multiple-case study researcher may choose to use either literal replication (in which cases corroborate each other) or theoretical replication (in which cases cover different theoretical conditions) to establish replication logic. Since case studies rely on analytical rather than statistical generalizations, replication logic provides external validation to the findings. Each case can serve to confirm or disconfirm the conclusions drawn from the others.

Often, the term *multi-site case study* is used in the same sense as comparative case studies, multiple-case study, and the term *collective case studies* used by Stake (2013). Used to examine a current and defined phenomenon common to two or more naturalistic or real-world settings, a multi-site case study also provides opportunities to understand an event, individual, group, program, or policy through multiple representations of the phenomenon under study. In other words, a more comprehensive understanding of a phenomenon can emerge by shedding light on the implications, experiences, and effects of a phenomenon in multiple settings. In such a study, the research design is usually the same across all the sites, meaning the researcher studies the same phenomenon or unit(s) of analysis in the context of the same key research questions. Further, the researcher employs the same or similar approaches to collection, analysis, and reporting of data across all the sites. As such, in addition to producing site-specific findings, a multi-site case study can enable valid replication claims and cross-site syntheses.

A variation of the single-case study, a multiple-case study entails more than one observation of a phenomenon; this makes replication possible—the use of multiple cases to independently confirm emerging constructs and propositions. Further, it enables theory extension—the use of cases to bring out a phenomenon's complementary aspects. This results in a theory that is more robust, generalizable, and developed. Single-case research may reveal fascinating stories, but it is not as likely to support a high-quality theory. Multiple-case studies begin with data and end with theory building, construction, or extension. Given that deductive research just reverses the order of operations, it stands to reason that the two are not that different. The similarities include a clearly designated population that observations

are drawn from an a priori-defined research question and definition of constructs and, where possible, their measurement with triangulated data.

Multiple-case study design aligns with the social phenomena to be explored and includes the development of an appropriate case study to address the nature of the research problem (Yin, 2017). Since multiple-case studies are based in natural settings with the intent of understanding the process of an under-examined area, a holistic understanding of the phenomenon can thus be explored (Eisenhardt, 1989; Stake, 2013). This method enables the researcher to explore differences within and between cases (Yin, 2017). Yin (2017) argues that multiple-case study design is relevant for replication and allows researchers to address a complex social phenomenon and is relevant when comparing different studies.

Case study designs are useful in examining events when behaviors cannot be manipulated and when attempting to seek a greater understanding of an issue (Yin, 2017). A multiple-case study of a social phenomenon can involve individuals living within a social context as a separate unit of study (Yin, 2017). When the data focus is only on individuals in a multiple-case study design, the study's central phenomenon is the context and not the target of study (Eisenhardt & Graebner, 2007; Yin, 2017). The unit of analysis in a multiple-case study can be a person, place, organization, or event, and as such, this design allows for investigating differences within and between cases (Yin, 2017). The goal of a multiple-case study design is to replicate findings across cases and allows the researcher to link the research question and the research conclusion. Because comparisons are drawn, cases are chosen carefully so that the researcher can predict similar results across cases or contrasting results based on the conceptual framework (Yin, 2017). Comparing and contrasting results between multiple cases leads to more robust outcomes when using inductive theory. For any such outcomes to be persuasive, utilizing a specific research method and design must rely on arguments rooted in the methodological literature (Eisenhardt & Graebner, 2007).

Multiple cases are used by qualitative researchers to arrive at both theoretical and actionable insights. A multiple-case study allows a researcher to investigate a social phenomenon, comparing and contrasting differences between cases in the

same social context while contemplating each participant as a separate entity (Yin, 2017). The situational complexities associated with specific social contexts are vital for understanding the social and behavioral interaction of variables within a larger system (Stake, 2013). Yin (2017) suggests the qualitative method for probing questions, which also contribute originality, using a variety of data sources (Eisenhardt & Graebner, 2007). Eisenhardt and Graebner (2007) recommend that researchers utilize a multiple-case study approach when the goal of the study is to make an original contribution to a theoretical or conceptual framework and provide a rich, compelling picture of human interaction as compared to a single-case study.

When conducting research in the context of leadership, management, and business, ethical concerns may arise in a multiple-case study that does not occur in some forms of research (Gray, 2019). In turn, any ethical concern means researchers need to be well prepared to complete a valid and credible multiple-case study. The need for researchers to anticipate ethical and procedural issues in the fieldwork and reporting of multiple site cases is especially pronounced. For example, some participants who are interviewed may have unusual speech patterns that identify them if their perceptions are included in a report verbatim. Careful observation and listening practices during fieldwork can help reduce the risk of this happening. When reporting quotes, commonly used words can replace any idiosyncratic terms that participants have used.

The very act of asking an individual to give time to being part of, reading about, or acting upon findings from a study warrants respect from a researcher. It is unethical to encourage individuals to change their ways because of findings from a sloppy or unsound study. A researcher's first obligation is to participants and, if not taken seriously, may result in long-term unintended consequences for the participants. While a researcher and participants are personally interacting, their involvement can be ethically challenging in all stages of the study. Ethical challenges such as anonymity, confidentiality, and informed consent could potentially affect researchers and participants (Merriam & Tisdell, 2015).

There are numerous ways to analyze multiple-case studies. Almost inevitably, a researcher's ontological, epistemological, and other methodological stances will

influence the analytic approach selected. Ideally, a researcher's view of what constitutes "reality" and how meaning comes from knowing are explicitly acknowledged, underpinning features of a multiple-case study. The approach used to analyze a descriptive case will likely be different from those used in exploratory or explanatory multiple-case studies. Further issues in designing, conducting, analyzing, and reporting aspects of a multiple-case study are considered in the exemplar below. When the design, conduct, analysis, and reporting of a multiple-case study are sound, the findings may be more compelling than those from a sound study in which the sample is one cohort or a single phenomenon. A multiple-case study is a potentially useful means of capturing the complexity of a phenomenon while revealing rich understandings about the context in which it is based. In terms of costs, a multiple-case study can be one of the most expensive ways of investigating, due to the time and labor intensity. Because researchers are the main instrument in multiple-case studies, they need to be well prepared for the fieldwork requirements in a study. This includes being able to make analytical judgments while collecting data.

To thoroughly investigate a social phenomenon by comparing and contrasting differences between cases and considering each participant as an individual case, Yin (2017) suggests using a multiple-case study. Understanding the situational complexities related to particular social settings are imperative for understanding the social and behavioral cooperation of factors inside a bigger framework (Stake, 2013).Multiple cases may be conducted for several reasons: they extend emergent theory, fill theoretical categories, provide examples of polar types, or replicate previously selected cases to discover new theoretical direction (Bonett, 2012; Yin, 2017). In such a research design approach based on Yin's (2017) methods and interpretation of the multiple-case study, the case itself may be a person, and is often used in business and management studies in the scholarly literature. For example, Brown (2017) studied airport managers; Howard et al. (2019) studied women entrepreneurs; Komodromos (2014) studied university employees; Neubert (2016) studied tech firm owners; and Sanders-Muhammad (in press) studied African-American women managers.

A qualitative multiple-case study allows for in-depth study of holistic and meaningful characteristics of real-life events. It can offer an awareness of the underlying forces that support relationships and answer the questions of how and why those relationships are sustained (Yin, 2017). When the goal of the study is to make an original contribution to a theoretical or conceptual framework and provide a rich, powerful picture of human interaction, a multiple-case study approach is recommended over a single-case study (Eisenhardt & Graebner, 2007). Analysis of the cases is done using replication logic to offer contrasts between each case and extend theoretical constructs (Eisenhardt & Graebner, 2007). The qualitative method allows for probing questions using a variety of data sources, contributing to the originality of the study (Eisenhardt & Graebner, 2007; Yin, 2017).

Important themes and practical applications can be identified through the use of purposive sampling of only 5 to 15 participants, as a larger sample size can become an obstacle for in-depth investigation (Merriam & Tisdell, 2015; Schram, 2006). The final sample size of a multiple-case study is determined by data saturation (Eisenhardt, 1989). Triangulation, the method of integrating several data sources, strengthens the credibility of a study by balancing the strengths and weaknesses of each approach (Guion et al., 2011). Multiple data collection methods from multiple sources of evidence can be gathered to provide a study's research questions, such as interviews, reflective journaling, and analysis of archived data such as government reports and media reports on current leadership and management topics (Guion et al., 2011).

Data Analysis of Multiple-Case Study Research

Analyzing data can be particularly challenging for multiple-case researchers. The sheer volume of data may overwhelm some novice researchers. Identifying patterns and themes among triangulated data can prove challenging. However, the triangulated data is considered robust when a researcher reads, hears, and observes consistent data across multiple sources of evidence. While there is no rule, archival data are especially helpful in efforts to address the facts of a case, or the who, what, where, and when. To address how and why questions, interviews

and observation data are particularly useful. To illustrate, a researcher can use blogs and news articles to gain an understanding of which product innovations took place in an organization as well as the timeline they followed. A researcher can gain insights through observations and interviews regarding processes and motivations related to such innovations. By combining archival and primary data, it is possible to build a more accurate account of the case in its entirety, one that includes insights into when, how, and why events took place the way they did. For analyses within and across cases, the data collection emphasis is placed on archives, interviews, and participant observation (Flick, 2009; Mason, 2002).

Cross-case synthesis is recommended for data analysis to strengthen external validity, the trustworthiness of data, and provide a more vigorous multiple-case study research (Merriam & Tisdell, 2015). To identify patterns within the data, the analytic process includes both within-case and cross-case analyses (for multiple-case study designs). In later stages of the analysis, related literature is often introduced to refine constructs and theoretical mechanisms. The rationale for adopting multiple-case study research lies in the strength of replication logic (Yin, 2017). Concerning literal replication, cases are chosen to predict similar results. Regarding theoretical replication, cases are chosen to predict results that are in contrast but based on theoretical reasons. Yin (2017) provides several recommendations that can be utilized to increase the multiple-case study's reliability (e.g., protocol, database).

Applying systematic comparison in a cross-case analysis highlights differences and similarities as well as how these affect the findings. A researcher analyzes each case individually to compare the identified mechanisms, resulting in theoretical conclusions (Vaughan, 1992). As a result, case study research has different objectives in terms of contributing to theory, including creating theory by expanding constructs and relationships within distinct settings (e.g., in single case studies) and advancing theories by comparing similarities and differences among cases (e.g., in multiple-case studies).

The data analysis of a multiple-case study begins with writing each case. Typically, individual cases are "thick" descriptions obtained from delving deep into

the data related to the phenomenon of interest. Individual case histories are created with respect to the primary unit(s) of analysis, with a researcher either folding nested cases into the main case or keeping them separate to analyze them as distinct cases. The data sources are often triangulated, with a researcher often blending several kinds of data; these include archival data, interviews, observations, and even surveys.

The use of cross-case analysis reveals the advantages that can be gained through multiple-case study research (Yin, 2017). This method of analysis entails iteration between data and emergent theory. Comparing the collected data with the literature makes it possible to refine constructs and theoretical mechanisms as well as contributions. This involves an iterative back-and-forth between the data, theoretical arguments, and results from existing literature. A researcher can use this process to enhance the internal validity of the logic underlying the theoretical relationships that emerge. It further helps to advance a robust, accurate, and often parsimonious emergent theory with the least assumptions and variables but the most significant explanatory power.

Conclusion

The use of the multiple-case study design in a dominantly qualitative paradigm can aid in exploring and understanding the management and leadership process in novel and meaningful ways. Multiple-case study design can be utilized to study individual leaders and managers or multiple groups and organizations to provide rich and detailed data on the context of leadership behaviors and managerial competencies. The design of a multiple-case study can help a researcher to deeply explore, identify, and interpret qualities, behaviors, and traits within diverse samples of leaders and managers (Sadvandi & Halkias, 2019). It is further possible with the multiple-case study design to understand the context of leadership through the perceptions of participants, each as a stand-alone case or through groups and organizations. The rich detail offered by multiple-case study participants is an added value to our further understanding of a myriad of management themes such as governance, technology, digital innovation and transformation, talent

acquisition for competitive advantage, diverse employee groups, managing a black swan event, doing business in a conflict zone, or driving sustainable entrepreneurship across a variety of industry sectors. How data coding, theme identification, and cross-case analysis work within the multiple-case study design to capture specific management and leadership themes in ongoing scholarly investigations has been described in detail within this article.

Theory extension achieved through a multiple-case study design rests on three methodological pillars: a data analysis process of rich and comprehensive data, an effective research design, and a well-developed research question that directly aligns with the purpose of the study. Each conceptual construct is grounded in well-measured and appropriate data from the literature. Rigorous multiple-case study designs control for theoretical variation that is not of interest and establish both transferability and generalizability (Stake, 2010). It is essential that a thorough literature review is presented to identify new and unanswered questions as well as refine theoretical contributions at the completion of the study. Evaluation of multiple data sources through a triangulation process determines the credibility of the evidence of the phenomena through a two-step process. In essence, the data is first analyzed using thematic analysis and then with a cross-case synthesis (Yin, 2017).

The question of how much to focus on the data, rather than the theory, remains an issue in writing case-based research. The fact that a researcher must work within publisher-prescribed spatial constraints translates to a trade-off between presenting the empirically based data that supports the emergent theoretical framework and providing a description of that framework. This tension is further pronounced with multiple-case research given there are more cases, not just one. The best way to resolve this issue, and keep a balance between "better stories" and "better theories," is for a multiple-case researcher to frame their paper with respect to the theory and then support it with empirical evidence as exhibited by some of the cases (Eisenhardt & Graebner, 2007).

A researcher can make use of figures, tables, and appendices to offer a clear visual representation of a multiple-case study's data analysis process (e.g., Hannah & Eisenhardt, 2018; McDonald & Gao, 2019). Single-case studies do not

have as many constraints as multiple-case studies. In this case, a researcher often frames their paper as the case narrative and follows this with the theory. Although various written formats can be utilized, it is important for researchers to link supporting empirical data to individual constructs and present the theoretical logic underlying relationships. The best multiple-case studies focus on results that are novel, with discrepant data that present a rival interpretation of the data from the literature, often driving implications and recommendations emanating from the study to support theory extension.

In conclusion, the most rigorous multiple-case studies focus on theory extension. A critical research skill is to understand how to write up extensions of theory from multiple-case studies that are high-quality and rigorous as well as how to evaluate this research. Two critical points to remember: (a) rather than attempting to extend theory through formulaic data analysis schemes, replication is at the heart of multiple-case theory extension, and (b) the aim of such research is the insight into a phenomenon, not theory testing. A well-constructed multiple-case study can provide a reliable theory extension that is internally coherent, accurate, robust, and parsimonious. Extension studies are useful because they provide replication evidence, and they can extend the results of prior studies in new and theoretically important directions (Bonett, 2012).

Today, most organizations exist in volatile economic and social environments across both developed and developing markets (Neubert, 2018). Today's leaders and managers face unforeseen and, at times, unimaginable challenges and are called upon to provide innovative and sustainable directions by their organizational stakeholders. The future of local, regional, and global business is uncertain at best. Case study research is now considered a mainstream methodological approach in contemporary research. It has a long tradition in the broad area of social science as well as the fields of organizational strategy, management, and leadership studies (Dibirov et al., 2015). Exploring management and leadership behaviors and their contexts using the multiple-case study design provides valuable insight on how and why these leaders behave as they do across different contexts as they are called upon to move their organizations forth into the future global economy.

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Information Technology Security Leaders' Solutions for Mitigating Data Breaches in a Multigenerational Workforce[*]

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The purpose of this mixed-methods study was to determine why data breaches continue to plague organizations and to explore the association between a multigenerational workforce (end users) and their perceived cybersecurity awareness, and how information technology security leaders use this knowledge to make informed decisions related to the groups' tendencies to ensure cybersecurity policies are understood and adhered to by all. In our study, we learned there is a lack of rigid cybersecurity policies and cybersecurity awareness training among employees in all industries, resulting in internal security violations and external breaches. The Pearson correlation test revealed a statistically significant finding between IT training factors and perceived cybersecurity awareness within our end users. The strategy of the final e-Delphi round provided IT security experts with an opportunity to verify solutions for mitigating data breaches. The findings from this study indicate that collaboration between executive leaders and their IT security experts will reinforce needed change. Data breaches can be mitigated when executive leaders support continuous cybersecurity training and a strong compliance program to engage and inform all levels of employees, as well as invest in technological advancements, including analytics, to protect organizations' information systems.

Key words: cybersecurity, data breaches, executive leaders, KAB theory, multi-generations, IT security experts, theory of planned behavior (TPB)

Cybersecurity leaders execute decision-making authorities and establish vision and direction for an organization's cyber and cyber-related resources in an organization (National Initiative for Cybersecurity Careers and Studies [NICCS], 2020). Leaders of modern companies have recognized the importance of cybersecurity to ensure the protection of their computer systems and networks against unauthorized access or other cybersecurity threats. We chose two distinct

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populations to help us understand why breaches continue. We collaborated with a university in the United States where the multigenerational workforce consisted of baby boomers, Generation Xers, and Generation Y/millennials. We also canvassed LinkedIn's professional IT group for certified information systems security professionals (CISSP) and IT security leaders with a minimum of five years of experience working with information security. Our goal was to find solutions to mitigate data breaches by focusing on the end users' (multigenerational workforce) understanding of cybersecurity awareness and engaging IT security experts in an e-Delphi forum to share their successful cybersecurity programs. Achieving an understanding of how employees perceive cybersecurity and how IT security experts use this information for improving policy may help executive leaders understand where and how improvements must be implemented to mitigate data breaches that continue to plague their organizations.

The IT training factors for our study consisted of training practices of the organization to include cyber hygiene policies, appropriate password protection (frequency of changing passwords), cybersecurity awareness training, antivirus software, spam filters, and acceptable user policy. Training and education are significant factors in contributing to an organization's success (Ballaro & Blanchard, 2018).

There are numerous articles written on cybersecurity, yet data breaches and security violations are still commonplace. Both the private sector and the U.S. government have placed emphasis on cybersecurity. An executive order enacted in 2013 involved various initiatives intended to increase cybersecurity awareness and related practices (Romanosky, 2016). As per the executive order, the National Institute for Standards and Technology (NIST, 2019) created a framework for developing best practices for information security, but by the end of 2019, the framework had not been mandated, allowing companies to implement the framework on a voluntary basis. The lack of rigid cybersecurity policies and cybersecurity awareness training among employees at some firms have resulted in many instances of nonmalicious security violations (NMSVs) (Barlow et al., 2013; Njenga, 2017; U.S. Government Accountability Office [GAO], 2019).

   Our research focused on determining why data breaches continue to be on the rise with an increase in NMSVs within the United States, despite existing cybersecurity awareness programs and related security initiatives (Crossler et al., 2013; Njenga, 2017). To address this problem, we noted that gaps in the literature exist in terms of security violations, compliance from a multigenerational context, and the lack of information and comprehension executive leaders have in making informed decisions regarding cybersecurity.

   Data breaches are one of the most primary and costly security failures in all types of industries (GAO, 2017, 2019). NMSVs account for over 50% of security breaches, and such violations have led to increased overall risks for companies and business operations (GAO, 2019; Holbert, 2013; Siponen & Vance, 2010). Researchers have selectively focused studies on cybersecurity at private firms centered around end users as the problem, instead of concerns related to privacy, IT infrastructure, and cybersecurity policies (Yusop & Abawajy, 2014).

   According to Altman (1975), the way that privacy is experienced and the role that it plays in social interaction is the idea that privacy is achieved through the operation of behavioral mechanisms. To frame our study, Altman's privacy theory was expanded by combining the theory of knowledge, attitude, and behavior (KAB) (Khan et al., 2011) and the theory of planned behavior (TPB) to emphasize that by enhancing one's privacy and security knowledge through continuous cybersecurity awareness training and cyber hygiene programs, one's behavior can change. Altering human behavior within the organization is a critical step to mitigating data breaches (Mena Report, 2019). Cybersecurity awareness and security training programs in the organization can follow the KAB theory and TPB to create planned and expected positive security behavior in multigenerational end users. This can be accomplished by implementing the recommendations from the IT security experts to address cyber hygiene and cybersecurity training programs developed to meet the needs of the organization and its employees.

   Engaged and informed people are the foundation of cybersecurity (Rubinoff, 2020). By taking into consideration human factors (Rubinoff, 2020) and then technological advances, an organization can engage its employees in fully

understanding the importance of cybersecurity compliance. Behavior change can be realized through engaged and informed employees. The findings from this study revealed that IT training factors among a multigenerational workforce correlated with cybersecurity awareness and compliance, and IT security experts' best practices, which include continuous cybersecurity training and compliance programs, are used as strategies to engage and inform all levels of employees. By investing in continuous cybersecurity training and technological advancements, including analytics, executive leaders will be better informed on how to minimize and prevent data breaches.

Literature Review

Historical Background of Data Breaches

The process of safeguarding data has been a concern since early 1996 (Akdeniz, 1996). Using a *cryptology technique,* or the process of encoding data to prevent disclosure of data, is a strategy to protect sensitive information (Akdeniz, 1996). According to Akdeniz (1996), many tools to protect data were in place as early as 1996 by encoding and decoding data, otherwise known as encryption and decryption methods.

The rate of data breaches continues to increase with very little hope of decreasing (Armerding, 2018; Blake, 2015; Holtfreter & Harrington, 2015; Jayakumar, 2014; Khanna, 2013; Paganini, 2017; Radichel, 2014). The causes of these breaches have been external hackers and internal threats within the organization (Giandomenico & de Groot, 2018; Jayakumar, 2014; Khanna, 2013). The threat from insiders can be a critical factor since employees are trusted with access to all private data (Franquiera et al., 2013). Recent literature has shed light on the need for research on improving compliance with information security policies and regulations, as well as new approaches to understanding the behavior of internal employees and hackers (Federal Emergency Management Agency [FEMA], 2019; GAO, 2019; Giandomenico & de Groot, 2018; Millham & Atkin, 2016; NIST, 2019).

When organizations' cybersecurity policies and guidelines are not enforced and maintained, employees sometimes engage in risky behavior that can damage the organizations' IT infrastructure and data security (Ani et al., 2016; Brewster, 2019). Some of the largest data breaches in the last 14 years (2005–2019) involved organizations from several different industries. TJX Companies in 2005; Heartland Payment Systems in 2009; Target and Yahoo in 2013; JP Morgan Chase and EBay in 2014; Anthem and the U.S. Office of Personnel Management in 2015; Friend Finder Networks and Myspace in 2016; Equifax in 2017; Facebook and Cambridge Analytica, Sun Trust bank, and Best Buy in 2018; and U.S. Customs and Border Protection, T-Mobile, Macy's E-commerce, Sprint, and Disney+ all experienced data breaches in 2019 (Armerding, 2018; Holmes, 2019; Turner, 2019).

In 2018, the U.S. military suffered a data security breach that targeted the cockpits of American Predator and Reaper unmanned drone aircraft due to hackers using a popular search engine to find an internet-connected device, Shodan, which was specifically targeted to find routers that have not been properly configured (Lyons, 2018). More than ever, the importance of IT security experts' digital prudence will provide the amount of information executive leaders need to make informed decisions regarding cybersecurity. The threats and the attacks call for a more proactive approach from executive leaders (Cleveland & Cleveland, 2018). Alarmingly, 86% of executive leaders surveyed have experienced at least one data breach in the past three years, with 60% having experienced at least four. Half of the executives believe they will face a major data breach in the next three years (Mena Report, 2019). The different types of threats associated with these breaches are described in the following paragraphs.

Internal Threats

A study conducted by Khanna (2013) found that 62% of data breaches were a result of employees failing to protect data. Data threats are known to come from internal sources not only by current employees, but also from former employees, contractors, or outsourced support personnel who are familiar with the organization's network (GAO, 2017; Khanna, 2013). Internal threats have been noted in prior studies as the largest threat to the organization (Franquiera et al.,

2013). Geric and Hutinski (2007) posit that information security can originate from inside or outside the information system and the threat inside is an extremely huge security risk, since internal employees are more familiar with where and how to access private data.

As noted by Khanna (2013) and Giandomenico and de Groot (2018), employees bring their own devices to work such as personal laptops, tablets, and smart phones, in addition to small electrical components, such as thumb drives, flash drives, or portable hard drives all of which can be used to transfer data from a work computer. The fact that leaders in organizations allow privately owned portable devices in the workplace sets precedence for data breaches to occur. Although challenging, leaders in organizations must establish policies to restrict personal devices in the workplace, and policies must be communicated so employees understand they will be held accountable for noncompliance.

External Threats

External threats to an information system are cybercriminals and hackers who are not affiliated with the business, with the goal of gaining access to highly classified data (Lord, 2017). Hackers are individuals who break into a secured network where security is vulnerable due to weak or lack of security systems (Kissel, 2013). Organizations must have IT staff who stay current with technology to enable executive leaders to invest in the most current technology in order to minimize threats from hackers, such as the use of intrusion detection systems (Giandomenico & de Groot, 2018; Lister, n.d.). If a firewall or antivirus program provides an update to protect the security of a network, it is safe to say that the hacker is able to exploit the vulnerability of that particular update (Sen & Borle, 2015). Hackers constantly test the vulnerability of a computer network as a hobby.

Mobile Threats

While telecommuting is on the rise, so is the threat of mobile security as more people are connected to an information system via mobile and hyper-connected means (Giandomenico & de Groot, 2018). Leaders in organizations provide laptops, smart phones, and tablets to employees to work remotely, which should

prompt the leaders in the organization to ensure that those employees are provided with the necessary information to take special precautionary measures to ensure mobile devices are secured. The rate of mobile security threats increased two-fold between 2010 and 2011 (Paul, 2012), and these threats continue to be a problem, as noted in research conducted in 2018 (England, 2018) and in 2019 (FEMA, 2019; GAO, 2019).

Mobile devices contain sensitive data; even leaving mobile devices unsecured in a parked vehicle can place an organization at risk. Paul (2012) posits that 35% of individuals lose their mobile devices, which in turn, places the organization and its data at high risk for a data breach. The exposure of this data causes damage to the organization because lost devices contain intellectual property, trade secrets, and other sensitive data (Giandomenico & de Groot, 2018).

Cybersecurity

Cybersecurity is defined as the measures for providing protection to computer systems, computer networks, and overall information from unauthorized access, modification, disruption, disclosure, and destruction (Muniandy & Muniandy, 2012) and is composed of different elements in the chain including the organization, the IT infrastructure, and end users. Studies have focused more on the technological aspect of an organization and placed less emphasis on human elements and errors in cybersecurity of the organization (Muniandy & Muniandy, 2012). As Siponen and Vance (2010) note, scholars have historically focused on employees' motivation and compliance with organization cybersecurity measures, including information systems (IS), security policy, and procedures.

Studies on the efficacy of an organization's countermeasures and responses and the view of their ability to perform those countermeasure acts are related to their compliance with the cybersecurity of the organization (Siponen & Vance, 2010). Employees were influenced to comply with the organization's cybersecurity policy based on their perceived quality and efficiency of organization security procedures, technical support received from the organization, and habits of their leaders and colleagues (Ifinedo, 2012). Researchers have emphasized the role played by employees' organizational commitment on their cybersecurity awareness and

compliance with the organization's cybersecurity policy (Parsons et al., 2014). Based on certain studies, the cybersecurity behavior and attitude of employees are determined by their perception of potential occurrences and consequences of IS security threats in the firm (Ifinedo, 2012).

In the Mena Report (2019), 91% of executives surveyed agreed that their organization's executive leaders must fully understand which cybersecurity measures work best and to shift the focus on needs from quantity to quality. Almost all of the executives (96%) stated the board of directors and C-suite strongly support efforts to control cybersecurity risks and 93% say the board of directors and C-suite are regularly updated on cybersecurity risks (Mena Report, 2019).

Generations and Generation Trends

The modern workplace is laden with a multigenerational workforce, in which executive leaders and managers must consider characteristics typical of each generation and approach members of each generation appropriately. To cultivate optimal cybersecurity literacy, attitudes, behaviors, and ethics in this mixed workforce, executive leaders must understand the unique core values, personal characteristics, and belief systems of the distinct generations (Pyöriä et al., 2017). Definitions by Schuman and Scott (1989) and Kelan (2014) focus on the collective experience as opposed to mere biology such as age factor, and contend that a generation is understood through the idea of common experience that people encounter during young adulthood. Despite the varied conceptualizations of generations, this study focused on three generations in the workplace as defined by Woodward et al. (2015):

- baby boomers—individuals who were born between 1945 and 1964;
- Generation X (Gen X)—individuals who were born between 1965 and 1979; and
- Generation Y/millennials—individuals who were born between 1980 and 2000.

By recognizing a cohort's shared characteristics, an organization's leaders can make predictions related to the group's tendencies, to ensure the firm's cybersecurity policies are understood and complied with (Pyöriä et al., 2017).

When seeking to increase cybersecurity awareness and compliance among employees, including executive leaders, it is imperative to consider and understand individual differences (Henshel et al., 2015; Leuprecht et al., 2016). The shared characteristics of the generations are detailed in the following sections.

Baby Boomers. The *baby boomer generation,* commonly known as the Vietnam generation or Woodstock generation, defines individuals who experienced postwar struggle and were involved in major social changes, such as the women's movement, the beginning of the civil rights movement, sexual revolution, and rapid evolution in the technology field (Srinivasan, 2012). Historians describe this generation as self-absorbed, and their main motivators include money, self-realization, and a corner office (Srinivasan, 2012). Baby boomers occupy several positions in the labor workforce as corporate leaders and executives (Hayes, 2013). Compared to the previous generation, this generation relates more with the digital immigrant stereotype, due to being less comfortable and adept at using technology (Woodward et al., 2015).

Generation X. *Generation X individuals* are those who experienced the 1980s recession, family insecurity arising from increasing divorce rates, and changing orthodox views through integration of diversity (Srinivasan, 2012). Scholars refer to this generation as the shadow generation, slackers, and the MTV generation (Srinivasan, 2012). Compared with baby boomers, this generation holds and respects more conservative family values, but supports environmentalism and social liberalism (Srinivasan, 2012). Generation X are techno-literate and fun loving, and they are open to accepting new information and communication technologies (Woodward et al., 2015). They expect their workplace to be up-to-date technologically and to provide employees with several learning opportunities (Hayes, 2013).

Generation Y or Millennials. *Generation Y,* commonly known as *millennials,* are individuals whose formative years collided with globalization, foreign investments, outsourcing, increased expansion of various information, and communication technologies (Srinivasan, 2012). They are referred to as nexters, the digital generation, echo boomers, the dot-com generation, net-gens or N-gens, digital natives, and the sunshine generation (Srinivasan, 2012). Millennials are

more globally educated; perceive themselves with entitlement and confidence; and are identified as highly goal oriented, optimistic, and idealistic (Srinivasan, 2012). According to Srinivasan (2012), millennials are keen to influence an organization's culture, practices, and management and may resign from their jobs based on a lack of social relevance (Pyöriä et al., 2017). Millennials are connected to the internet and social media sites 24/7 (Srinivasan, 2012).

Engaging Employees

As noted by Rubinoff (2020), continuous training has to be open-minded, multifaceted, and varied in its methods to convey understanding and compliance in order to engage employees. Engaged employees require continuous training that encompasses the different lens through which each generation views the world (Rubinoff, 2020). For instance, employees under the age of 30 adopt different working styles and prefer to be more productive, flexible, and agile at work using their own tools and devices (*Managed Healthcare Executive* Staff, 2019). In a survey conducted by NTT (2019), half of the under-30 aged respondents think that the responsibility for cybersecurity rests solely with the IT department; this is 6% higher than respondents in the older-age categories. As noted by Rubinoff (2020), the annual cybersecurity training is no longer sufficient; people tend to remember snippets of the training or nothing at all. Cybersecurity is ever-changing, leading to complex and extensive training that must be provided several times per year to ensure employee comprehension and compliance (Rubinoff, 2020). Cyber hygiene and cybersecurity are the responsibilities of all employees, and through continuous cyber awareness training using IT training factors, employees will be engaged and empowered to safeguard the organization's data.

IT Training Factors

IT training factors include all training programs and policies that educate all employees on cybersecurity and cyber hygiene awareness (Decker, 2008; Redekop, 2016). IT security experts must communicate anomalies, threats, and related cybersecurity issues to top executives, making the required changes to the organization's network configuration (Winnefeld et al., (2015). According to

Winnefeld et al. (2015), the technological advancements—including analytics such as big data analytics, sophisticated sensors, and consolidated security stacks—perform various functions and provide network administrators in the organization with greater visibility for detecting threats.

Bauer et al. (2017) indicate that noncompliance, related to the inherent quality of the policy, is often strict and entails harsh penalties, opposed to the individual's wish for noncompliance. To enhance users' compliance with the cybersecurity policy, IT security experts must implement ongoing security awareness training programs and policies for all employees (Bauer et al., 2017). *Information security awareness (ISA) programs* are systematically planned interventions for constantly and appropriately transporting security information to a particular audience (Bauer et al., 2017).

To end users, ISA is understood as the state of consciousness that enables users to ideally remain committed to the organization's rules, identify the potentialities, and understand the significance of their responsibilities (Ahlan et al., 2015). The need for continuous cybersecurity training for all employees is more prevalent as new technology is introduced. Considering the IT infrastructure of organizations, interconnection of separate networks has introduced new risks, such as malware spreading across the systems or vulnerability in one system paving the way for easily hacking another interconnected system (Winnefeld et al., 2015). IT security leaders must inform all computer users, especially executive leaders, how to effectively operate centralized systems, including actions that can also jeopardize cybersecurity. As Violino (2018) notes, top executives must adhere to the strictest data protection standards and use appropriate security technologies, including when they travel to high-risk locations.

While organizational leaders have stressed not to use computer systems and organization networks to surf the internet during working hours, some leaders allow employees to do so during their break hours (Conteh & Schmick, 2016). IT security experts must ensure that all IT security policies are formulated to regulate how employees use social media, since many organizations have their own social media sites. The employees' perception of organizational cybersecurity policies is

an important aspect in not only determining compliance, but also for engaging employees in achieving the ultimate goal of safeguarding the organization's data.

E-Delphi

E-Delphi is a way to access a geographically dispersed group of experts, similar to other Delphi approaches, but conducted online (Toronto, 2017). Hoon (2013) indicates that the e-Delphi methodology includes a panel of experts that can provide detailed information regarding a problem being researched. All Delphi designs require at least three rounds of survey questions for the researcher to categorize responses for each round with the goal of reaching consensus among the experts. E-Delphi provides a promising alternative by reducing time, cost, communication difficulties, consensus monitoring challenges, and participant attrition (Cole et al., 2013). E-Delphi delivers the highest number of words per respondent, followed by traditional focus groups (Bruggen & Williams, 2009).

Theoretical Framework to Support Cybersecurity Leaders

Leaders in the 21st century must fully understand the value of data and the importance of protecting data through effective management of data privacy and security. Altman's (1975) privacy theory, combined with the theory of KAB (Khan et al., 2011) and the theory of planned behavior (TPB), framed this study. The way that privacy is experienced and the role that it plays in social interaction is the idea that privacy is achieved through the operation of behavioral mechanisms (Altman, 1975). Altman has influenced the way researchers think about self-disclosure and the process of regulating privacy (Margulis, 2003). As Nissenbaum (1998) notes, and a recent GAO (2019) report supports, until powerful information technologies were applied to collecting and analyzing information about individuals, there was not a general or systematic threat to their privacy in public forums. According to the KAB theory, as knowledge accumulates in a relevant behavior, such as cybersecurity, changes in attitude are initiated (Khan et al., 2011). The TPB deems *behavior* as the result of intentions and behavior control, with the intentions determined by a set of beliefs that are grouped in attitudes, norms, and perceived behavioral control (Sommestad et al., 2015).

In support of the ever-changing complex technological advances of the 21st century, Altman's (1975) privacy theory, combined with the theory of KAB and TPB, present a stronger foundation that is best suited for understanding the importance of protecting data in public forums with the goal of enhancing one's privacy and security knowledge to change one's behavior in an organization. Many ISA interventions are based on the KAB theory, which focuses on the knowledge aspect of a human being (Baranowski et al., 2008). Cybersecurity awareness and cyber hygiene programs in an organization can follow the KAB theory and the TPB to create planned and expected positive security behavior in multigenerational end users by implementing recommendations from IT security experts to mitigate future breaches. Engaged and informed people are the foundation of cybersecurity (Rubinoff, 2020).

By taking into consideration human factors (Rubinoff, 2020) and then technological advances, an organization can engage its employees to fully understand the importance of cybersecurity compliance. Behavioral change can be realized through engaged and informed employees. There are many peer-reviewed journal studies and government reports to support that many data breaches are the result of the end user (Blake, 2015; GAO, 2017; Larson, 2017; Paganini, 2017). In our mixed-methods study, combining e-Delphi and correlation analysis, data from end users (multigeneration cohorts) and IT security experts were gathered to provide executive leaders with the knowledge needed to make informed decisions using policies and continuous cybersecurity training to engage employees to mitigate future breaches and fill this gap in the literature.

Methods

The researchers determined a mixed-methods study was most appropriate for collecting and analyzing data to determine how perceived cybersecurity awareness, using IT training factors, supports a multigenerational workforce. The study also determined how IT security leaders can use this knowledge to make informed decisions—related to the groups' tendencies—to ensure cybersecurity policies are understood and complied with; with the ultimate goal of assisting

executive leaders in mitigating the threat of data breaches in their organizations. IT training factors for our study consisted of cyber hygiene and cyber awareness policies, appropriate password protection (frequency of changing passwords), cybersecurity awareness training, antivirus software, spam filters, and acceptable user policy. *Mixed methods* is an emergent methodology of research that advances the systematic integration of quantitative and qualitative data within a single investigation (Wisdom & Creswell, 2013). The basic premise is that such integration permits a more complete utilization of data than from separate quantitative and qualitative data collection and analysis (Wisdom & Creswell, 2013). Our emphases was on analyzing rich descriptive experiences from our IT security experts and determining from the generational cohort data how the independent variable (IV)—IT training factors—correlated with the dependent variable (DV)—perceived cybersecurity awareness—to determine if a relationship existed between them. Through triangulation, we were able to provide a more complete and substantive analysis for recommendations to executive leaders on how to mitigate data breaches in organizations with a multigenerational workforce.

The quantitative correlation analysis was selected for the inquiry into the established quantitative research question, whereas the e-Delphi qualitative analysis supported the inquiry into the established qualitative research questions for this study; both methods and designs were beneficial for meeting our goal. The study involved a descriptive nonexperimental quantitative research method and correlational design, which included IT training factors measured on a Likert scale survey. A correlational design was selected since the study involved two quantitative variables: IT training factors (IV) and perceived cybersecurity awareness (DV).

The qualitative method encompassed an e-Delphi design, which provided us with an opportunity to survey a geographically dispersed panel of IT security leaders to further understand the problem of data breaches using the internet, where a gap existed in the literature. The intent of this study was to find answers to why data breaches continue to plague organizations and determine how cybersecurity awareness among generational cohorts may assist IT security experts with cybersecurity and cyber hygiene training and awareness programs, with the goal

of providing executive leaders with the knowledge they need to make informed decisions for mitigating future data breaches.

Quantitative Method

Demographics

The geographical location for this study was in the United States. The population was represented by 146 employees of a Florida university who constituted the organizations' end users, representing three multigeneration cohorts consisting of mid-tier staff, managers, and senior executive leaders. For our study, the end users, in the context of information technology, are individuals who use the hardware or software products and are not the product designer, developer, or installer.

Survey Instrument

The survey instrument utilized to gather desired data was comprised of two sections. The first section collected demographic details about the respondents, including gender, employment/student status, departments in which participants work, duration in their current position, and educational level. The second section consisted of five questions supporting IT training factors and four questions on perceived cybersecurity awareness. The IT training factors consisted of cyber hygiene and cybersecurity practices for all employees, including policies for appropriate password protection (frequency of changing passwords), cybersecurity awareness training, antivirus software, spam filters, and acceptable user policy. The perceived cybersecurity awareness consisted of the employees' commitment to the IS mission of the organization, protecting passwords, backup system for securing information, and the important role of the employee in protecting the organization's information. The survey questions were developed on a Likert-type scale of 1 (strongly disagree) to 5 (strongly agree).

   Validity and reliability. The survey was validated by Capella University's information security faculty (Decker, 2008; Redekop, 2016). A pilot test, consisting of 12 professionals, conducted validation tests by taking the survey and analyzing for clarity, readability, and usefulness in collecting required data (Decker, 2008;

Redekop, 2016). To test for reliability and internal consistency for our instrument, a Cronbach's alpha test was performed, revealing .79 on the IT training factors and .86 on the perceived cybersecurity awareness level. Both indicated relatively good internal consistency and reliability of our instrument (see Table 1). Field (2018) indicates that the achievement level for internal consistency and reliability is 0.7 and higher.

Table 1: Cronbach's Alpha for IT Factors and Perceived Cybersecurity Awareness Level

	α	α Based on Standardized Items	*N*
IT Factors	.79	.84	5
Perceived Cybersecurity Awareness Level	.86	.87	4

Quantitative Data Analysis

The end users in our study represented three multigenerational cohorts consisting of mid-tier staff, managers, and senior executive leaders. As per Raosoft's (2018) sample size calculator, to determine an appropriate sample size with a population size of 146, we calculated a 95% confidence level and 5% margin of error. The computation suggested 106 was the ideal sample size. Electronic surveys were sent to the entire workforce in this organization through SurveyMonkey. Ninety-one end users completed the survey, providing us with 85 usable surveys for data analysis. The rate of return was 62%, which is an excellent return rate for electronic surveys (Brtnikova et al., 2018). The 85 employees largely consisted of baby boomers (43.5%) and Gen Xers (43.5%), while the minority of the participants were millennials at 13.0%. The results were compiled and converted into a format compatible with Microsoft Excel before being imported into SPSS (Version 23) for data analysis.

The data were analyzed using a Pearson's correlation statistical test in SPSS to determine the relationship between variables: the degree/strength (strong, moderate, weak) of the relationship and the direction of the relationship (positive or negative). The perceived cybersecurity awareness level questions on the

second section of the survey were used to assess the generational cohorts' perceptions regarding cybersecurity and the IT training factors in relation to the organization's cybersecurity awareness program.

A Bonferroni correction was applied to minimize type I errors. The *Bonferroni correction* is an adjustment made to *p*-values when several dependent or independent statistical tests are being performed simultaneously on a single data set to minimize type I errors (Armstrong, 2014). A Bonferroni correction was performed to support the three multiple statistical tests conducted for this study. The *p*-significance was assessed at the 0.02 level based on the Bonferroni correction.

Scatter plots were created to assess the linearity assumption for finding Pearson correlation coefficients. All scatter plots showed an approximate linear relationship. The linearity of the points suggested that the data are normally distributed. All skewness and kurtosis statistics fell within -/+3, which was an acceptable range for normality. There were no significant outliers that fell outside -/+ 3 standard deviations.

Quantitative results. The results of descriptive statistical testing for the cybersecurity variable revealed that the perceived cybersecurity awareness level ranged from 3.00 to 5.00 (*M* = 4.40, *SD* = 0.51). Additionally, perceived cybersecurity awareness level by generation type was assessed and the findings revealed baby boomers' perceived cybersecurity awareness level ranged from 3.25 to 5.00 (*M* = 4.42, *SD* = 0.53). Gen Xers' perceived cybersecurity awareness level ranged from 3.00 to 5.00 (*M* = 4.41, *SD* = 0.49) and millennials' perceived cybersecurity awareness level ranged from 3.24 to 5.00 (*M* = 4.30, *SD* = 0.57).

The development of the null hypothesis required inferential statistical testing and analysis of the data collected to determine the relationships between the DV—perceived cybersecurity awareness level—and the IV—IT training factors—to conclude the appropriate inferences to reject the null hypothesis. A Pearson's correlation analysis was conducted on each of the generational cohorts (baby boomers (Cohort 1), Gen X (Cohort 2), and millennials (Cohort 3).

Hypotheses: IT Training Factors (IV) and Perceived Cybersecurity Awareness Level (DV)

Hypothesis$_0$: There is no statistically significant relationship between IT training factors and the perceived cybersecurity awareness level of end users among baby boomers, Gen X, and millennials.

Hypothesis$_a$: There is a statistically significant relationship between IT training factors and the perceived cybersecurity awareness level of end users among baby boomers, Generation X, and millennials.

The testing of the null hypothesis supported the first research question.

Research Question 1: What is the relationship between IT training factors and the perceived cybersecurity awareness level of end users from each generational cohort within the organization?

The correlation results for the baby boomer, Gen X, and millennial cohorts are presented in Table 2.

Table 2: Correlations Between IT Training Factors and Perceived Cybersecurity Awareness

Generational Cohort			IT Training Factors
1946–1964	Perceived Security Awareness Baby Boomers	*R*	0.42
		P	0.010
		N	37
1965–1980	Perceived Security Awareness Gen X	*R*	0.56
		P	0.001
		N	37
1981–1995	Perceived Security Awareness Millennials	*R*	0.49
		P	0.130
		N	11

As the data in Table 2 show, for baby boomers, there was a significant moderate positive correlation between IT training factors and perceived cybersecurity awareness ($r = 0.42$, $p = 0.010$). For Gen Xers, there was a significant strong positive correlation between IT training factors and perceived cybersecurity awareness ($r = 0.56$, $p = 0.001$). The null hypothesis was rejected for baby boomers

and Gen Xers, and the analysis concluded that there is a significant relationship between IT training factors for baby boomers and Generation X and perceived cybersecurity awareness. For these two generations, IT security training played a significant role in understanding the importance of cybersecurity. For millennials, there was a nonsignificant moderate positive correlation between IT training factors and perceived cybersecurity awareness ($r = 0.49$, $p = 0.130$). The findings failed to reject the null hypothesis for millennials, and the analysis concluded that there was nonsufficient evidence to determine a relationship between IT training factors for millennials and perceived cybersecurity awareness. The small sample size for millennials may have contributed to the nonsufficient finding, although the findings from the millennials in this study and those of the study conducted by NTT (2019), revealed that half of the under-30 aged respondents think that the responsibility for cybersecurity rests solely with the IT department.

Qualitative Method

Demographics

The geographical location for this study was in the United States. The population was IT security experts and a sample from the population, with a common feature, consisted of IT security experts found in LinkedIn's IT professional group. According to Linstone (1978), there are no hard and fast rules for selecting a sample size for Delphi research, suggesting that a suitable minimum panel size is between four and seven. Data were collected from five IT security experts who lived and worked in different parts of the United States and represented two different government agencies, the medical industry, the cybersecurity industry, and the pharmaceutical industry, providing us with an excellent representation of various industries.

Survey Instrument

The e-Delphi instrument consisted of 11 open-ended questions providing the baseline for the second and third rounds of questions. A field test was conducted to test the reliability, credibility, and confirmability of the questions and to weed out bias and leading questions prior to the start of this research study.

Results of the Field Test. The field test was conducted with a group of four subject matter experts—three experts in the IT field and one Delphi expert, all of whom provided feedback on the research questions. Field Test Expert A is an IT infrastructure manager, Field Test Expert B is an information security analyst, and Field Test Expert C is an IT project manager who has worked on data protection projects. The Delphi expert is a faculty member at a leading university. The feedback we received from these experts was extremely important to ensure the appropriate questions were being asked.

The recommendations received from Field Test Expert A was to add more questions related to phishing e-mails and policies that are in place to avoid future phishing and ask questions regarding when data breaches were experienced and what steps were taken to reduce the impact of the breach. Field Test Expert B felt that some of the questions were rather sensitive and/or elicited confidential information that company representatives may not want to divulge and recommended modification of questions, so the participants did not feel compelled to share confidential information. Field Test Expert C felt that the questions were solid but noted that there were two questions related to policy, felt both were similar, and recommended the removal of one. The Delphi expert recommended other Delphi designs to consider, leading to the decision to use an e-Delphi design. According to Colton and Hatcher (2004), a web-based Delphi procedure has the potential to offer a more rigorous validation of related content than traditional paper-based Delphi procedures, and the method also improves ethics in research by ensuring anonymity and confidentiality.

Data Collection

Data for this study were collected from two rounds of open-ended survey questions and a third round of scalable items to reach a consensus using an e-Delphi design. The SurveyMonkey tool was used to collect responses from the participants. In the first round, responses to 11 questions provided the evidence needed to develop questions for the second round. Questions in the second round aided in understanding why data breaches continue to be a problem and if differences in

generational cohorts contributed to the problem. The third round consisted of compiling the solutions and recommendations.

Data Analysis

The two research questions framing the qualitative analysis for this study were:

Research Question 2: What IT training practices are used to successfully educate employees to secure customer data to prevent future breaches?
Research Question 3: How do IT security leaders in organizations assist executive leaders with making informed decisions to mitigate future data breaches?

The first round consisted of 11 open-ended questions that provided a set of beginning data, and we then combined and synthesized the data from the IT security experts' responses. We examined the responses closely for similarities and differences. Categories from the first round of responses were placed into a map that produced patterns to assist in understanding the collective intelligence for the second round of questions. The second round of questions were developed to avoid bias. For example, no indication was provided to the IT security experts on how often a response was made. The second round of questions were sent to the IT security expert group for review to bring clarity to responses from the first round and for any additional data that would be significant.

Once the participants responded to the second round of questions, the data were analyzed to determine if a new set of questions was necessary. The second round provided responses to fill the gaps noted in the first round and information needed to understand advanced technology for future use in preventing data breaches. From these two rounds, categories emerged to align and support each of the two research questions. Key phrases supported several categories and were compiled into the third and final round for the purpose of achieving consensus.

The third round consisted of compiling the solutions and recommendations from the panel of five IT security experts. Voting on each section of the findings was accomplished using scalable items from 1 = highly disagree to 5 = highly agree. The strategy of the scalable final round was to provide the IT security experts an opportunity to verify and confirm the accuracy of responses from their multiple

perspectives and experiences, thus providing dependability and reliability of the results through peer and member checking. This strategy established the necessary support to ensure validity, credibility, objectivity, and confirmability for this study. Based on the responses received from the five IT security experts, a consensus was met in the third round with all five voting "highly agree" in support of the recommendations.

Qualitative Results. The results of the three rounds of questions provided by the five IT security experts generated several categories and key words to represent the IT security experts' recommendations and solutions addressing the causes of data breaches and how to mitigate these breaches. Our intent was to find answers to why data breaches continue to plague organizations and determine how generational cohorts' perceptions of cybersecurity awareness may assist IT security experts in improving cybersecurity training and awareness programs, with a goal of providing executive leaders with the knowledge to make informed decisions to mitigate future data breaches.

Categories and key terms emerged from the data coding based on the IT security experts' responses to support Research Question 2. All five security experts agreed on the following training recommendations.

The director of IT and compliance is responsible for

- developing and conducting all IT security training.
- providing continuous mandated training to all employees that includes recognizing a phishing e-mail and reporting such e-mails; latest threats; data privacy; creating and maintaining strong passwords; avoiding dangerous applications; and ensuring valuable information is not taken out of the company.
- developing a data information security policy/infosec policy that will
  ◦ ensure information security leaders routinely send out phishing type e-mails (to determine what percentage of employees open these types of e-mails);
  ◦ ensure searches for vulnerabilities are conducted periodically; and
  ◦ ensure antivirus software and firewalls are adequately installed (with modern technology) and updated.

- ensuring IT team members continually monitor and control user accounts, which will
    ◦ prevent illegal activity from occurring;
    ◦ address the organizations' entire security posture;
    ◦ comply with government policies and regulations; and
    ◦ govern how data are protected with language that is understood by all generational cohorts and specifically state the expectations for all employees.

Once the policy is instituted and implemented across the enterprise, the IT security experts will

- review the policy at least twice a year (or more often as needed) to ensure accuracy and currency.
- review the policy when significant upgrades are made to a company's network infrastructure and make the necessary revisions.
- include data and network segmentation.
- continuously monitor all activities across every IT asset, screening for abnormal and/or suspicious activity and activity patterns.
- ensure leaders comprehend the important link between data security and data privacy and how to safeguard the data the company are entrusted to secure.
- ensure employees use data properly, legitimately, and with the confidence the company expects.

Categories and key terms emerged from the data coding based on the experts' responses to support Research Question 3. On the top of their list, all five IT security experts agreed that executive leaders must be better informed on the causes of data breaches to make informed decisions to mitigate future breaches. The following recommendations are briefed to executive leaders.

Executive leaders are briefed that IT security experts must

- stay current in their field (certification must be current).
- continuously scan computers for violations of policy.
- have a principle of least privilege (POLP) policy in place wherein IT security experts allow users access only to what is required to complete their work.
- approve all systems access for granting permission to highly sensitive data.

- update policies quarterly to ensure the right level of access and permissions are provided to the employees based on their position in the organization.

- ensure messages and attachments remain confidential by transmitting these through an encryption platform that integrates with existing systems and workflows.

- implement a defense-in-depth strategy with protection at multiple layers of open systems interconnection (OSI) model.

- ensure encryption methods are used to protect data and secure end points of the data.

- encrypt data (medical record systems) using native database capabilities.

- continuously monitor for potential hacker activity.

- install and monitor current industry-standard firewalls and antivirus tools (and update these tools quarterly).

- continue to authenticate and reset passwords every 90 days.

Executive leaders must invest in

- continuous cyber hygiene and cybersecurity training for all employees.

- data loss protection (DLP) solutions, which are very helpful for detecting insider threats.

- triple DES (the standard for federal government systems).

- factor authentication (used to access internal sites).

- vulnerability scanning, multi-factor authentication, and USB and full disk encryption.

- software that is designed to detect malicious intent, not just viruses.

- SD-WAN and Protiviti Consulting to help with security and compliance remediation.

- Similar Snort or Suricata, which are both considered high-performance network IPDS and network security monitoring engines.

- real-time monitoring and 24/7 security operations centers to minimize data breaches with proactively alerts on events that lead to major security incidents. This strategy reduces the dwell-time of hackers on systems and networks.

- laptop and desktop encryption and multi-factor authentication.

- access controls—both preventive and detective tools—to encrypt data in rest and in motion.

- testing of the server on which data are stored and periodic updates of security patches.

- regularly monitoring and analysis of databases.

- the company's architecture and understanding of the structure, set-up, and connections, and support of open collaboration between IT and business departments.

- multi-cloud deployments. Keep in mind that managing and measuring performance across a multi-cloud infrastructure presents challenges, which will drive more artificial intelligence (AI) and machine learning (ML) adoption.

- container adoption, which will increase as does application mobility across environments.

- new technology that will cause a computer chip to self-destruct when a data breach occurs to ensure privacy and security of sensitive data on any number of devices. (This technology is still in the design stages with no timetable currently available).

Triangulation of Quantitative and Qualitative Analysis

Implications

Triangulation was met by reviewing the agreed-upon recommendations of the IT security leaders and the results of the statistical testing of the null hypothesis for each generational cohort to determine how perceived cybersecurity awareness correlated with IT training factors and to determine what constitutes a successful training program to meet the needs of the organization and the individual's perception of cybersecurity. Based on the findings, there is a significant relationship between IT training factors for baby boomers and Gen Xers and perceived cybersecurity awareness. Baby boomers and Gen X employees found security training significant for supporting their awareness of cybersecurity.

The IT security experts highly recommend the need for mandating continuous cybersecurity training for all employees, taking into consideration that each

generation perceives cybersecurity differently and the emphasis must be on knowledge and compliance. Due to the significant correlation between IT training factors and perceived cybersecurity awareness, executive leaders must understand the importance for IT security experts to take the lead in their organizations to improve cybersecurity awareness for all members of the workforce. IT security experts should develop the necessary IT and security policies and conduct the correct IT security training for all employees, including executive leaders, in a timely and continuous manner.

The theoretical framework supporting this study extended Altman's (1975) privacy theory with the theory of KAB and TPB, which says that a person's privacy and security knowledge can change behavior. Executive leaders can follow the KAB theory and TPB to create planned and expected positive security behavior in multigenerational end users by implementing the recommendations from the IT security experts. Previous literature indicates that each generation understands technology a little differently, with millennials having stronger technological skills, but lacking the engagement needed to fully understand that they, too, are responsible for cybersecurity.

As noted in our findings, breaches occur due to a lack of innovative security tools and employees' carelessness from lack of continuous cybersecurity training and enforcement of policies, resulting in nonengaged employees. Leadership strategies that bring together, in a cooperative manner, experts in technology, will result in successful cooperation and a greater understanding of the need for behavior changes (Ballaro & Moriarty, 2019). Behavior changes regarding cybersecurity can be achieved when employees are engaged and informed (Rubinoff, 2020).

Within the context of the present research findings, the holistic approaches and considerations appear to be the most optimal means of assessing the cybersecurity awareness of multigenerational workplaces. Understanding end-user behavior is a complex process, as the actions and perceptions of individuals are related by a multitude of factors. Consideration of these theories within the context of the present research has demonstrated a potential need to understand

how behavior can be changed and how the collaboration between executive leaders and their IT security experts will reinforce this change.

Limitations

The intended target sample for this study was a total of 106 participants; however, only 85 end users completed the entire survey correctly. The sample size for each cohort was not of equal size. For instance, the sample size for Cohorts 1 and 2 were 37 participants, while the sample size for Cohort 3 was only 11 participants. There were fewer millennials employed in this organization, and the small sample size may have contributed to a nonsignificant finding for this generational cohort. However, the findings from the millennials in this study support the findings of those of NTT (2019), which revealed that half of the under-30 aged respondents think that the responsibility for cybersecurity rests solely with the IT department.

Conclusion

As noted in our findings, IT security leaders play an important role in educating executive leaders regarding cybersecurity awareness and that breaches occur due to the lack of continuous cybersecurity training, lack of innovative security tools, mandated security policies, third-party vendors, and employees who are not engaged in the process. This study filled a gap in the literature on how IT training factors among a multigenerational workforce correlates with cybersecurity awareness and IT security experts' successful enforcement of cybersecurity policies to assist executive leaders in minimizing and/or preventing data breaches. Executive leaders must fully understand the importance of participating in security awareness training on a continuous basis. In addition, IT security experts must explain to executive leaders the importance of having their own assigned workstations, laptops, and mobile devices updated and patched regularly and use VPNs and other secure communication technologies. Executive leaders are the target for data breaches. Malicious hackers and other baleful actors place executives among their favorite targets because executives are more likely to hold valuable information and/or have a high level of access to such data (Violino, 2018).

Recommendations for Future Research

For future research, we suggest that the number of participants for each cohort should be set to a closer sample size, which would help increase the reliability findings for millennials. Research should be conducted on organizations that invest in continuous cybersecurity training and up-to-date cybersecurity technologies. The findings may reveal how successful these organizations are in preventing breaches based on how the systems are implemented and maintained and how security training is provided to a multigenerational workforce.

The recommended research may reveal how IT security experts can have better controls in place and how these controls can be enforced to prevent breaches. Data breaches can be avoided or at least mitigated if executive leaders fully understand how data are protected. Investing in continuous cybersecurity training for all employees, including executives, and technical solutions recommended by the IT security experts, may lead to a reduction in data breaches. Organizations that do not invest wisely and executives who do not fully comply with security policies are placing their organizations at risk for data breached. Executive leaders must lead by staying abreast of technological advancements, including analytics, by investing in recommended technical solutions and implementing mandated, *continuous* cybersecurity training and policy compliance for all employees to protect the organization's information systems and its data.

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Leaders can learn a great deal from a crisis as it unfolds. They learn by trial and error, and they often experiment with solutions that they hope will resolve the crisis. Undoubtedly, crises offer leaders teachable moments to help them improve how they manage a current crisis and prepare for future ones.

The following is some advice that may be helpful to leaders who are called to action during a major crisis.

• **Tell the truth.** Be honest and transparent with people. Do not sugarcoat the facts or create false hope. Share the good, the bad, and the ugly. People appreciate the truth, even when it is painful. They can handle the truth, and they deserve nothing less from their leaders.

• **Rely on experts.** No leader can be an expert in everything. Smart leaders surround themselves with knowledgeable advisors and subject-matter experts who can provide sound advice and accurate information. Leaders should listen to these experts and heed their recommendations.

• **Communicate frequently.** During a crisis, people are hungry for information. Leaders should communicate regularly and consistently to keep people informed. Frequent communication helps reduce uncertainty and builds trust.

• **Show empathy.** People want to know that their leaders care about them. Leaders should express genuine concern and compassion for those affected by the crisis. Empathy helps build connection and solidarity.

• **Be decisive.** Crises require swift and decisive action. Leaders should gather the necessary information, weigh the options, and make timely decisions. Indecision and delay can worsen a crisis.

• **Remain calm.** People take their emotional cues from their leaders. Leaders who remain calm and composed during a crisis help instill confidence and reduce panic. A calm leader can be a stabilizing force.

• **Collaborate.** No leader can resolve a major crisis alone. Leaders should work collaboratively with others—government agencies, businesses, nonprofits, and citizens—to marshal resources and coordinate responses.

Former U.S. presidents George W. Bush (R: 43) and his successor Barack Obama (D: 44) were both unavailable when natural disasters struck in 2005 and 2016, respectively. For Bush, it was Hurricane Katrina in August 2005 that devastated the city of New Orleans, Louisiana. Bush flew over New Orleans in Air Force One "inspecting" the damage "from the air" instead of "from on the ground." For Obama, it was another disastrous Louisiana flood 11 years post-Bush. Both presidents were on vacation (Bush on his Texas ranch, and Obama on Martha's Vineyard, Massachusetts), responded slowly, and demonstrated a lack of leadership that put millions of lives in peril. Most recently, President Donald Trump responded slowly to the coronavirus pandemic, which continues to infect Americans and has claimed nearly 100,000 lives to date, by initially minimizing its deadly effects.

Leadership at Its Finest

Leaders must offer people safety and security, an immediate intervention, and hope for the future. U.S. President Franklin D. Roosevelt (D: 32) did that in his March 1933 inaugural address. Though we tend to remember his famous phrase, "the only thing we have to fear is fear itself," other notable passages from his speech, especially "this great Nation will endure as it has endured, will revive and will prosper," further exemplify his ability to create hope. Every leader can learn a lesson from this masterful presidential address, which should be read in its entirety. It exemplifies leadership and provides a message of hope in desperate times. Roosevelt followed those words with actions when he launched his New Deal in 1933, with programs such as the Civil Works Administration and the Tennessee Valley Administration. Roosevelt also communicated via Fireside Chats (1933–1944), a series of informal radio talks directed at Americans to provide them with solace and hope. Over time, these chats helped people move from despair to hope, because they trusted in Roosevelt's message.

Government leaders can follow Roosevelt's lead by intervening and partnering with businesses. The internet provides a great opportunity for today's leaders to hold virtual town hall meetings to keep the public informed and present creative ways to reinvigorate the economy. Indeed, Twitter and press briefings do get the

information out, but they are often one-sided and lacking in emotion. A virtual community meeting, where leaders can respond directly to people's concerns and fears, would help generate messages of hope that are so sorely needed in the same way that sitting around a "fire" next to a family member or loved one does.

Undoubtedly, some businesses and industries will never recover from the economic effects of the COVID-19 pandemic. Others will adapt and survive, and still others will be created. Successful organizations will develop and apply new techniques and strategies to survive future crises. The government plays a key role in helping the economy and reversing the financial effects of the pandemic. For example, this would be an ideal time for government to create funding mechanisms to repair infrastructure weaknesses throughout the country by creating partnerships with labor unions to create jobs to repair the often maintenance-deferred bridges and roads. Another stimulus could be the development of new, innovative experimental programs by the Small Business Administration to entice novice and serial entrepreneurs to design business incubators to accelerate the growth and development of successful new startup companies.

Ideas to stimulate the economy are seemingly endless, but it is imperative that they are communicated effectively to all stakeholders. U.S. President Herbert Hoover (R: 31), who served during the Great Depression, often said that "prosperity is just around the corner." For his prediction to hold true today, it will require visionary leadership, committed government funding, joint partnerships with businesses, hard work, and most importantly, a strong dose of hope.

Questions for the *ILJ* Practitioner Community

1. Have you ever encountered an overwhelming challenge as a leader of an organization? How did you approach it with your employees and staff?
2. Did you find that giving employees and staff hope worked? How so?
3. Are words of hope alone good enough to help reduce employees' concern, or is something else needed?
4. What other ways can you create hope when your organization encounters a major challenge?

BOOK REVIEW

***See Sooner, Act Faster: How Vigilant Leaders Thrive in an Era of Digital Turbulence* (2019)**[*]

By George Day and Paul Schoemaker

Published by MIT Press

Cost: $29.95, Pages: 208

Reviewed by Lisa Xiong, Emlyon Business School, Lyon, France

Turbulence is no longer in a narrow definition for flying experience, but a new normal in global business. For an organization to survive or even thrive today, it takes vigilant leadership to anticipate threats, spot opportunities, and act quickly when the time is right. In *See Sooner, Act Faster*, Paul Schoemaker, a scholar in the fields of strategic management and decision making, and George Day, an expert in the fields of marketing, strategy, and innovation management, offer tools to turn adversity to opportunity in turbulent times. The book is written from a leadership perspective to provide insights and tools for leaders and managers to maneuver in this turbulent time greatly influenced by digital advances.

Interestingly, this book published before the COVID-19 pandemic became significant in this structural transformation of the global economy in 2020. The COVID-19 pandemic has shifted the ground of the global economy, forcing an instant stop of "business as usual" and generating overwhelming uncertainties. To tackle the organizational survive and thrive issue, the authors successfully draw a connection between strategy and leadership through the innovative concept of the vigilance quotient. Examples are presented in a systematic way from the beginning to the end, with a thorough analysis in some cases, such as LED technology and automobile ecosystem.

Structure

This book discusses the most challenging topic in business management: how firms survive and thrive in turbulent times. The focus of the turbulence is on the impact of digital technologies. The target readers are leadership teams in need of guidance and practical tools to lead their organizations to become more vigilant. There are eight chapters: (1) Facing Reality in Real Time, (2) Vigilant Organizations, (3) Managing Organizational Attention, (4) Sensing Weak Signals Sooner, (5) Tackling Ambiguity, (6) Taking Timely Action, (7) Vigilance: An Agenda for Action, and (8) Forewarned Is Forearmed: Six Lessons about Vigilance. There are two appendices: Appendix A: A Diagnostic Tool to Assess Vigilance, and Appendix B: About Our Research. Both appendices offer readers an exceptional opportunity to dive deeper into the topic.

Integration of Different Concepts

Grounded on theories across multiple business management disciplines, this book delivers a well-integrated story on organizational vigilance and leadership. The interrelation among strategic leadership, scenario planning, and dynamic capabilities is skillfully articulated and clearly exemplified. The concept of dynamic capability views in strategy making to achieve sustainable advantages is much more significant in recent times due to the velocity of change in business environment. In Chapter 1, the authors use the metaphor by Rita McGrath that strategy making is becoming more like the ancient Chinese board game Go, and less like chess due to the formidable level of combinational complexity. Throughout the book, the use of scenario planning is stressed for different purposes. In Chapter 4, on the theme of attention, the leaders suggest scenario planning to identify the range of plausible alternative futures to redirect organizational attention. One of the leadership challenges at the end of Chapter 3 is to "recognize that prior knowledge shapes the creation of new knowledge inside a firm" (49). The authors suggest that this could be resolved through scenario planning, to prepare the corporate mind based on the foundation of the previous knowledge.

Key Themes

Key themes in the book are elaborated with clarity. To begin with, the differences between vigilant organizations and vulnerable organizations are clarified through the four elements of the vigilance quotient: "leadership posture," "approach to foresight," "strategy making," and "coordination and accountability" (20). The features of the four elements are highlighted in a straightforward manner for both types of organizations in Figure 2.2.

Ocasio (1997) defines *organizational attention* as the socially structured pattern of attention, but Day and Schoemaker's conceptualization of *organizational attention* is different and more related to the subject-based focus endorsed by resources in organizations. They utilize a myopia matrix to help readers visualize four categories of organizational attention within a SWOT framework: short-sightedness, tunnel vision, willful blindness, and missed chances.

The ability to ask questions plays a crucial role in sensing weak signals sooner (Chapter 4). The distinction between focal questions and guiding questions is well-presented as existing organizations share the common issue of focusing too much on current operational activities. The scope of identification in strategy making hinges more on questions and less on answers, so as to think beyond the limits of current knowledge. A practical frame of guiding questions anchored on the past, present, and future provides tangible help to readers. Example questions are presented with the supporting contextual information.

Critique

The vigilance quotient is introduced, but not fully explained in detail in the main body of the book. However, related research on the vigilance quotient is shared in Appendix A. The research design reveals an uneven distribution of the number of questions in each element. Leadership posture (four questions), strategy making (three questions), approach to foresight (three questions), and coordination and accountability (three questions). Unfortunately, there is no explanation provided for the uneven distribution of the questions. The validation of the model is less convincing as the authors mention only one paper in a footnote in Appendix A.

Conclusion

Charles Darwin's famous quote: "It's not the strongest of the species who survive, nor the most intelligent, but the ones most responsive to change," can be directly applied to this book. Admittedly, Day and Schoemaker succeed in reinforcing the interlinkage between strategy and leadership on the important topic of a turbulent external business environment. The vigilance notion is well-expounded at the leadership and organization levels. Current examples of interesting companies make this book an attractive read. More research on vigilance quotient model validation across sectors would be helpful to provide more practical tools for readers. The book's relevance, originality, and vividness all contribute to my recommendation to read this book.

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