EMPLOYEE ENGAGEMENT, DIRECT VOICE MECHANISMS, AND ENTERPRISE SOCIAL NETWORK SITES (*ESNS*)

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DEDICATION

For my grandparents. The rest of time still wouldn't have been long enough to hold on to you.

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ABSTRACT

Effective organizational communication allowing a two-way flow of communication between employees and upper management can foster greater levels of engagement and productivity. This is often referred to as providing opportunities for direct employee "voice." Observing the success of social technologies for personal use, employers have been eager to capitalize on social technologies to engage employees by implementing enterprise social network sites (ESNS), also referred to as workplace social media. Whether workplace social media will be an effective tool in enhancing voice and engagement, and what potential drawbacks exist for employees and firms have yet to be fully studied.

Using fundamental concepts from the Self-Determination (SDT) and Social Cognitive Theories (SCT) as a guide, my research develops and tests a theoretical model examining the psychological motivations for voicing, perceived voicing affordances, as well as voice climate and communication style preferences, and their relationships to employee voicing behavior, engagement, and satisfaction. I validate the model using a field survey of participants who use workplace social media regularly, which is analyzed using partial least squares structural equation modeling (PLS-SEM). My research provides important insights on voicing to both academics and managers seeking to productively leverage workplace social media in their firms.

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INTRODUCTION

Employee voice is a concept that has been widely studied and debated from a variety of different academic and management lenses since the late 1960s and early 1970s. Hirschman's seminal book on voice and exiting (1970) defined employee voice early on as individually or collectively seeking a change in an objectionable state through the use of voice practices. Since then, research into the use of voice has been studied from various disciplinary perspectives, predominated by the Human Resource Management, Employee Relations, and Organizational Behavior fields (Mowbray, Wilkinson, & Tse, 2015), and more recently, moving its way into the Public Relations literature (Ruck, Welch, & Menara, 2017). From Employee Relations, Industrial Relations, Organizational Behavior, Organizational Communication, and even Human Resource Management, the employee voice construct has enjoyed comprehensive study and critique as a mechanism widely believed to be highly intertwined with employee participation (Hyman, 2018), and subsequently employee satisfaction-- including turnover intention (Burris, Detert & Romney, 2013). Studied within the contexts of indirect, unionized forms and indirect non-unionized forms, academic and management scholars have questions about whether employee voice can influence organizational climate or increase organizational efficiency (Dundon, Wilkinson, Marchington, & Ackers, 2005).

With the steady decline of trade union representation in the liberal marketplace over the last 50 years, increasing attention has been placed on alternative forms of employee voice, as employees perceive themselves as more capable of advocating on their own behalves (Hyman, 2018).

Researchers, attempting to draw correlations between direct voice practices (as a result of trade union decline), have proposed the idea of leveraging intra-organization communication networks (formal and informal) to encourage employee voice expression (Kim, MacDuffie, & Pil, 2010), engagement, and organizational success. Indeed, according to scholars such as Dundon, Wilkinson, Marchington, and Ackers (2005), various forms of employee voice mechanisms have been adopted by employees, many of which overlap between formal and informal structures. Additionally, as organizations and general notions of workplace democracy have evolved over the past 10 years, employees have now come to *expect* [emphasis original] to have a voice (Dundon et al., 2005).

The notion of the everyday citizen having a "voice" is no more apparent than in the advent and proliferation of social media. Social Media use is still developing and has expanded in significant ways into private life over the last 20 years. To what degree social media is perceived as a whole new phenomenon, or whether it is simply a new way of doing what we've always done is an ongoing conversation among academics and researchers. Social media scholar danah boyd (2015) suggests that social media are not new phenomena, but a new way of doing things we have always done. Although not entirely new, however, social media has affected the way old patterns are understood (boyd, 2014) and created new structures for doing the things we have always done (boyd & Ellison, 2007). In addition, "social media complicate what it means to be public, to address audiences, and to build publics and counter publics" (boyd, 2014). Harrison and Barthel (2009, p. 161) also argue that what is new about social media is the ''now-widespread recognition and acknowledgement that users actively apply the affordances (or material features) of new

technologies in the service of their own creative and instrumental objectives, and that the desire to do so seems to be liberally distributed among those who are online.''

Even as social media have permeated personal lives, their influence has continued to expand, now reaching into organizations that see the potential to leverage such powerful tools for overall productivity. In the same way that social media has changed communication structures in our personal lives, Enterprise Social Networking Sites (ESNS), or social media specifically for and bounded within organizations, have given rise to new structures and ways of connecting and communicating in firms. Of particular interest in organizational studies has been the correlations between use of ESNS and knowledge management. To date, however, little research has focused on the relationships between ESNS and phenomena such as employee voice and engagement.

Due to its affordances for reach and immediacy, emerging information and communication technologies (ICTs), such as social media, can have a profound impact on voice and engagement. Communication via these technologies are both instantaneous and widespread, whereas prior to social media the only way to capture large audiences were through traditional mass media channels such as television or radio. Now, however, average individuals—even organizational employees—can leverage social media affordances to both express themselves and learn from others.

Some scholars argue that employee voice and participation are in essence one singular construct (Hyman, 2018), while others have shown marked correlations between employee voice and greater levels of employee engagement (Holland, Cooper, & Sheehan, 2017), which can ultimately have

an impact on overall organizational productivity (Kim, MacDuffie, & Pil, 2010) and a decrease in turnover (Burris, Detert & Romney, 2013). In either case, it is clear from the literature that employee voice and engagement (or participation) are closely linked and highly valued constructs within organizational studies.

Voice, or "expression" in the workplace, has recently taken center stage as organizations, seeing connections between engagement, ideation, and innovation (Abhari et al., 2016), have been quick to leverage the popularity of social networking and knowledge management technologies as outlets for employee communication and collaboration. Some of the consequences of this foray into technologically amplified voice, however, have been unexpected and embarrassing. High profile cases such as that of James Damore, a Google engineer who was fired for posting what was widely referred to as an "anti-diversity" manifesto to an internal Google networking site (Wakabayashi, 2017) are gaining attention in the mainstream media, highlighting the benefits and drawbacks of leveraging social technologies for organizational outcomes such as promoting employee participation via voicing. In response, Google recently clarified the firms' position on using internal social technologies for non-work-related conversation as more issues have become apparent (McNulty, 2019). In all, social technologies are blurring the line between the personal and professional, where cases can end up in litigation to identify appropriate uses of organizational and personal social media, and to clarify how far organizations can reach into the private lives of employees using social media either for work or personal purposes.

Dissecting this contemporary issue requires an understanding of what motivates employees to voice within organizations, and subsequently how employees learn norms for voicing, and act to

voice within organizations. Many HRM, OB, and even communication scholars have looked to psychological theories that consider context *and* behavior to explain such complex processes. One such theory, the Social Cognitive Theory (SCT), (conceptualized by renowned psychologist and Stanford University Professor Albert Bandura) postulates that as individuals pursue desired outcome expectations, they learn behaviors from a process of modeling— observing those around them to determine their own behaviors (Bandura, 1986).

In a related vein of research on motivations for behavior, Deci and Ryan (2000) originated the idea of Self-Determination, which concerns an individual's intrinsic motivations and the degree to which one's behavior is self-motivated and self-determined. Numerous researchers have applied Self-Determination Theory to investigate psychological needs that inform baseline motivations prompting individuals to act, for instance the recently applied Needs-Affordances-Feature (NAF) perspective of social media use (Karahanna, Xu, Xu, Zhang, 2018). The NAF perspective postulates, in accordance with SDT, that individuals have basic psychological needs, which motivate them to seek out particular social media affordances (made possible through sets of features) that, in turn, fulfill basic psychological needs (Karahanna et al., 2018).

For example, an employee who is motivated to share their knowledge may perceive the opportunity to do so using an organizational discussion board feature of ESNS (perceived affordance), and observes other peers using the site for similar actions (SCT). Said employee, then, posts their experience or expertise about a subject to the discussion board, thus fulfilling a need for competence through the affordances of ESNS (SDT). Taken together, then, the applications of

SCT in conjunction with SDT provide important psychological and contextual factors that help explain how employees both learn and are motivated to interact in organizations.

As engagement, voice, and ICTs pervade organizations and collide in modern workspaces on a daily basis, the need for better understanding their intersection (both benefits and drawbacks) is a crucial step in proactively and productively managing organizational communication dynamics. As employers try to quickly leverage the power and immediacy of ICTs, with specific focus on social network sites, further study on the potential for social media and new technologies to influence the methods for, and expression of voice is merited (Mumford, 2016).

This dissertation research poses important fundamental research questions such as: *How does the availability of Enterprise Social Networking Sites influence employees' expression of voice in a work context? How does organizational voicing climate influence employee's motivation to voice in a work context? And, how do personal dispositions influence employee voicing behaviors on Enterprise Social Networking Sites?* To explore these research questions in greater detail, this study first looks to the relevant literature on voicing and engagement, with particular emphasis on motivations to voice (from the Social Cognitive and Self-Determination perspectives), followed by an investigation of ICTs such as Enterprise Social Networking Sites, and how the affordances of said technologies may help or hinder employee voice expression. Furthermore, this study will examine the literature on organizational voice climate and communication apprehension as important dimensions of the environment and personality that may also play a role in the decision-making processes employees must undertake as they determine voicing behaviors.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

To study employee voice requires a thorough examination of the current state of relevant organizational literature related to voice—including traditional mechanisms from which employees have voiced—as well as identifying new processes and procedures that have made way for contemporary forms of voice expression within organizations. This includes searching for potential gaps or weaknesses in the extant literature, identifying constructs from which to articulate between types of, and methods for voicing, as well as the motivations which drive employees to voice or silence. As such, this research draws on literature from Human Resources Management (HRM), Organizational Behavior (OB), Employee Relations (ER), and internal organizational communication (including public relations). The following literature review examines each of these areas as it seeks to understand and operationalize the voice construct. It also draws on relevant Information Systems (IS) literature to examine the evolution of technology that continues to impact organizations, especially their ramifications on voicing mechanisms and opportunities for voicing within organizations.

2.2 Employee Engagement and Voice

Researchers have long studied employee engagement as a metric that influences overall organizational success on various dimensions. Studies have supported early notions of employee voice, finding that employees who are more engaged on all three psychological levels (cognitive, behavioral, and emotional) tend to be more engaged in, and committed to an organization (Ruck,

Welch, & Menara, 2017). They have addressed engagement from the lens of rewards versus relationships, arguing that the answer to engaging employees lies not in individual reward structures or incentives (which generally focus only on 10% of an institution), but in energizing relationships that influence and promote continued engagement and positive feelings towards peers and management (Cross, Gray, Gerbasi, Assimakopoulos, 2012). Still others have posited that content—specifically individual employee expectations of content, such as job security or employee voice—can lead employees to higher levels of organizational identification and engagement (Ruck & Welch, 2012). Indeed, even empirical research has confirmed that internal organizational communication and internal supervisor communication support workplace relationships based on meaning and worth, and have a significant part to play in developing and maintaining optimal employee engagement (Karanges, Johnston, Beaston, & Lings, 2015). Other contemporary scholars such as Hyman (2018), have made strong arguments that voice itself is a function of overall employee participation and involvement in firms. In all, voice and engagement (or voice *as* engagement) has been a topic of intense investigation over the years due to its relationship with achieving positive organizational outcomes. As scholars and practitioners alike have continued to examine the phenomena of engagement, research continues to point to the correlation between communication dynamics and its interrelationship with organizational participation and engagement, which can be both positive or negative.

Voice and its impact on employee engagement have been studied at length by researchers from various disciplinary backgrounds. Human Resources literature contributed by Rees, Alfes, and Gatenby (2013) found in an empirical organizational study of the UK service sector, that positive relationships existed between voice and engagement, voice and trust in senior management, trust

in senior management and engagement, and the employee–line manager relationship and engagement. In addition, HR scholars Holland, Cooper, and Sheehan (2017) have studied voice in conjunction with management behavior, finding that supervisor support and direct voice are positively associated with employee engagement. Other scholars have examined voice from a Public Relations perspective, examining associations between upward employee voice, senior manager receptiveness to voice, and employee engagement via a series of questionnaire items relating to two aspects highlighted in their review of the literature: upward communication from employees, and senior management receptiveness to employee voice. Findings indicated a significant and positive relationship between upward employee voice and emotional organizational engagement. Positive relationships were also found between senior manager receptiveness and emotional organizational engagement. Together, these findings highlight upward employee voice and senior manager receptiveness to voice as valuable areas for internal communication scholarship (Ruck, Welch, & Menara, 2017). Recent research is only substantiating what prior scholars have found, pointing to the value of voice in fostering employee engagement. For example, Ge (2020) found that employees who perceived psychological safety and participated in voicing practices had increases in work engagement as well.

The breadth and depth of employee involvement practices have also been shown to be associated with organizational commitment and job satisfaction (Cox et al., 2006, 2009). What's more, Wilkinson, Dundon, Marchington, and Ackers (2004) echoed equally positive findings in their studies on changing patterns of employee voice, that when employees feel that they can speak up about issues to managers and peers in the firm, it can have positive outcomes on organizational performance, as well as employee wellbeing (Pohler & Luchak, 2014). Research has also shown

where management has recognized a number of benefits when organizations enable voice, including increased employee loyalty and commitment, increased organizational performance and decreased absenteeism (Wilkinson et al., 2004). In agreement with this sentiment, Wood and Wall (2007) found employee voice to be a means of enhancing productivity and employee commitment to an organization. What's more, in their research around HRM and employee engagement, Holland, Pyman, Cooper, and Teicher (2011) found that direct voice appeared to be the central voice arrangement underpinning employees' job satisfaction—that the relationship between direct voice and job satisfaction was positive. Research on the benefits to the organization doesn't stop there. In a comprehensive study on the impact of voice in organizations, Bashshur and Oc (2015) found that upward voice (or voicing upward to managers) helped facilitate unit creativity and innovation, enhance critical thinking, and provided better solutions to in-unit decisions. They also discovered that organizational voicing (voicing for the broader organizational good) reduced turnover, and improved organizational learning and performance. Further, in their studies of the benefits of allowing employees the opportunity to voice within organizations, Alfayad and Arif (2017) also added that there is a direct positive relationship between employee voice and job satisfaction.

As the value of voice becomes more apparent to researchers and practitioners alike, it is important to evaluate conceptualizations of the voice construct, patterns of voice expression within organizations, and new mechanisms for voicing in contemporary firms. Having largely overlooked the impact of existing and emergent technologies in organizations that impact voice expression and participation, exploration must also assess how communication technologies influence motivations, opportunities, and channel selections for voicing in firms.

2.3 Employee Voice as a Construct

Although his early exposition focused on customers, not employees, Hirschman (1970) was arguably one of the first scholars to investigate and conceptualize the idea of "voice", specifically describing it as:

> any attempt at all to change, rather than to escape from, an objectionable state of affairs, whether through individual or collective petition to the management directly in charge, through appeal to a higher authority with the intention of forcing a change in management, or through various types of actions or protests, including those that are meant to mobilize public opinion. (p. 30)

Since then, his Exit-Voice-Loyalty theory has been applied more broadly to employees, leading researchers to investigate voice in a variety of academic and organizational disciplines, each situating the concept within their own disciplinary purview (Mowbray et al., 2015), although little agreement on how to define the voice construct has been reached in the field.

2.3.1 Conceptualizing Voice

Due to the volume of voice components within overlapping, yet competing literatures, in 2015, Mowbray, Wilkinson, and Tse set out to address ways in which a common conceptualization of employee voice may be reached in order to identify new theories, including their practical implications for organizations. The authors concluded that fragmentation within the voice corpus, beginning in the 1990s, stemmed from Human Resource Management (HRM) and Employee Relations (ER) scholars hoping to expand on Hirschman's initial work, conceptualizing voice as containing two elements—grievances and participation. Human Resources began focusing much more on dissatisfaction, while Organizational Behavior (OB) scholars commenced examining

voice as an extra-role and promotive behavior. Mowbray and colleagues (2015), therefore argued that these similar yet competing literatures have thus resulted in a large body of research on organizational voice that lacks an overarching theory explaining how to operationalize the voice construct (Mowbray et al., 2015), and is still debated amongst scholars today.

The following table outlines the contemporary voice construct as it has been examined in different streams of academic literature—including voice attributions and motivations, and finally, calling attention to the limitations in the conceptualizations within each field.

Table 1. Overview of the Voice Construct in Similar but Competing Literature Streams

Discipline	Voice Attributes & Motivations	Limitations
Human Resources Management/ Employee Relations (HRM/ER)	Grievance procedures (Miles & Mangold, 2014) Participation in decision-making (Miles & Mangold, 2014) Challenging the status quo (Marginson, Edwards, Edwards, Ferner, & Tregaskis, 2010) Prohibitive or promotive focus (Hirschman, 1970) Dissatisfaction (Miles & Mangold, 2014) Prosocial (Miles & Mangold, 2014)	Focuses too heavily on the component of voice that is related to dissatisfaction (Barry & Wilkinson, 2016) Focuses on a collective (Barry & Wilkinson, 2016)
Organizational Behavior	Communicating different points of view (Miles & Mangold, 2014) Improving organizational or unit functioning (Miles & Mangold, 2014) Challenging the status quo (Marginson, Edwards, Edwards, Ferner, & Tregaskis, 2010) Altruistic (Marginson, Edwards, Edwards, Ferner, & Tregaskis, 2010; Van Dyne et al., 2003) Prosocial (Miles & Mangold, 2014) Justice oriented (Miles & Mangold, 2014) Dissatisfaction (Miles & Mangold, 2014)	Focuses to heavily on voice as prosocial and neglects voice as 'complaining' (Barry & Wilkinson, 2016) Focuses on individual, communicative aspects of voice (Barry & Wilkinson, 2016)

Adapted from Mowbray, Wilkinson, & Tse (2015); Maynes & Podsakoff (2014); Barry & Wilkinson (2016)

Although Mowbray and colleagues (2015) widened the scope of the employee voice construct within the HRM/ER and OB disciplines, attempts at creating a broad and overarching interdisciplinary construct still failed to consider research from fields such as industrial/organizational psychology or organizational communication. To this point, however, the authors acknowledged that studies from these respective literatures could provide additional and valuable contributions in understanding the motivations from which employees voice, and how those motivations affect the choice of voice mechanism(s) (Mowbray et al., 2015) or even the choice to simply remain silent.

Although these broad streams of literature recognize voice as a complex construct that includes elements of both helping and hindering, the human resources literature focuses more on voicing dissatisfaction, while the organizational behavior literature focuses more on voice as a promotive and extra-role behavior. As such, both streams of literature may fail to adequately emphasize the depth of the voice construct as equally prohibitive and promotive. Despite their focus on intentions, however, the literature points to voice being effectual for both the individual and for management (Dundon, Wilkinson, Marchington, & Ackers, 2004).

2.3.2 Silence and Voice

Although expressing voice can be viewed as disruptive from the management perspective, studies have shown that silence can be detrimental for organizations as well. While silence is not mutually exclusive from voicing, it can signal a lack of engagement in firms (Farrell, 1983). When employees elect to remain silent rather than raising concerns or suggestions, they can put their organizations in ethical jeopardy (as seen in high-profile cases like the fall of the Enron

organization in 2001) (Miliken, Morrison, & Hewlin, 2003), contribute to an organization's overall legal jeopardy by adopting a deaf ear syndrome to employees attempting to report harassment (Peirce, 1998), or in innovative jeopardy when 'groupthink' (Janis, 1972) becomes so organizationally embedded that it inhibits overall group performance, including innovation. Research streams early on even pointed to perhaps less visible, although equally stifling, negative side effects of employee silence, such as the development of lax and disregardful professional behavior on the part of dissatisfied employees, described as 'neglect.' Neglect can ultimately lead to lower organizational effectiveness as a result of lateness and absenteeism as well as a host of other problems that arise out of a disengaged workforce (Farrell, 1983).

Research dating all the way back to the 1970s has considered the reasons (and dangers) of mass silence within society (Noelle-Neumann, 1974), and more recently, specifically within organizations (Morrison and Milliken, 2000). Morrison & Milliken (2000) found that organizational silence can compromise the effectiveness of organizational decision making and change processes by diminishing the variety of information and perspectives available to decision makers. In addition, they note that without minority viewpoints the type of critical analysis necessary for effective decision making may compromise organizational change processes. In related research around silence, scholars have also noted silence as a form of nonverbal dissent—or withholding of information or approval for self-protective or other-oriented outcomes (Van Dyne, Ang, & Botero, 2003). For example, lack of verbal affirmation, or silence, may be a means by which employees 'voice' their disapproval with management actions. Furthermore, as Mowbray (2018) points out, employees are significantly more likely to face career or social

consequences for pointing out problems and suggesting changes to the status quo than for helping others or taking on a stewardship role for the organization.

Milliken, Morrison, and Hewlin (2003) went on to assert that their organizational research substantiated similar fears around voicing and that,

> the most frequently mentioned concern [for not voicing] was the fear of being labelled or viewed negatively by others. Common labels that were mentioned were 'troublemaker', 'tattletale', or 'complainer'. A few respondents also raised concerns that they would not be seen as a 'team player'. (p. 1463)

It's clear, then, that substantial risks may be involved for employees who choose to voice, and the decision-making processes surrounding these choices may well be a byproduct of the organizational environment, or climate in which employees find themselves.

2.3.3 Environmental Influences on Voicing

While voicing is often a direct result of individual motivation, it may also be the outcome of social learning within the firm. The culture of an organization can provides tacit signals to employees about whether or not it is acceptable for employees to voice, regardless of whether those "rules" are intentional. Here, organizational voice climate is a collective phenomenon that can interact with individual-level phenomena. For example, in their study on voice climates in organizations, Morrison, Wheeler-Smith, & Kamdar (2011) found that group voice climate influences if and how individuals choose to exercise their voice. The authors point out that because voicing can have uncertain effects, individuals are likely to follow implicit group norms about sharing. It follows that if a climate of silence—a widely shared perception among employees that speaking up about

problems or issues is futile or dangerous—exists, employers stand to miss out on valuable employee insights (Morrison & Milliken, 2000, p.708). Other researchers have continued to consider employee silence and the threats it poses, finding that although there may be occasions when silence is preferred by an employee (e.g. as a self-preservation technique in a hostile work environment), deliberately withholding feedback about objectionable organizational circumstances from people who can effect change is harmful to both employees and their organizations (Pinder & Harlos, 2001).

2.3.4 Personal Factors Influencing Voice

Personal dispositions such as general apprehension may also detract from an employees' motivation to voice. McCroskey (1977) noted that decades of research have pointed to the fact that some people are more apprehensive to communicate than others (re: stagefright, reticence, audience sensitivity, shyness), and that apprehension has a negative impact on communication behaviors. Rolling much of the previous research in this general subject area under one umbrella to reflect the totality of reservations against speaking out, McCroskey labeled *communication apprehension* as "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey, 1977, p. 78). The idea of communication apprehension has progressed over the years from a learning-theory framework where anxiety can be learned or unlearned (*nurture*), to a communobiological perspective, or trait factor (*nature*), that is more physiologically prevalent in some than others (McCroskey & Beatty, 2000; McCroskey, 2010). Although a general reticence to communicate may be inbred physiologically, there are measures that individuals can take to improve symptoms of this anxiety

over time through processes like desensitization, or by early intervention—helping children by modeling and reinforcing communication during their formative years (McCroskey, 1977).

While much of the extant research on communication apprehension has been applied to face-to-face, interpersonal or instructional communication (McCroskey, Teven, Minielli, & Richmond, 2014), researchers more recently have begun focusing their attention on communication apprehension as it applies to organizations (Cole & McCroskey, 2003), and most recently, have begun to examine its impact within social media contexts (Punyanunt-Carter, Cruz, & Wrench, 2018). In their study on college student social media communication apprehension, Punyanunt-Carter, Cruz, and Wrench (2018) found that there were negative relationships with social media communication apprehension and introversion with social media use.

> While social media allows individuals, who are apprehensive with face-to-face communication to communicate in a more controlled setting, one in which they may edit and present the best version of themselves, social media may be another means of communication that produces anxiety for certain individuals and limits their effective use of the medium for communication. (p. 513)

Despite the possible risks and discomfort to individuals in speaking up, however, voice has great potential value both to the person who expresses their concerns, as well as to leaders who receive it. This includes but is not limited to opportunities to spot problems earlier, benefit from collective knowledge, and pursue improvements in specific area(s) of responsibility (Detert, Burris, Harrison, & Martin, 2013). Even though voice is a valuable asset to organizations, however, it is not a

singular choice. Once a decision to voice has been made, further decisions about the formality and mechanisms to express voice must be exacted.

2.3.5 Formal and Informal Voice

When considering the employee voice construct, it is important to examine the dynamics of voice expression such as formal and informal methods of voicing, as well as direct and indirect methods of expressing voice. In 2011, the Involvement and Participation Association endorsed notions of formal and informal voice by pointing out that "voice can take many forms and is generally grouped into direct and indirect voice" (IPA 2011, p. 3). Further, in 2014, Lewin drew out the evolution of employee voice from a system largely dependent on unionized and indirect forms of grievance management (or, reactive indirect voice), to more recently, direct non-unionized alternative dispute resolutions. The nod to history, here, is important, in that, trade unions began to be established subsequent to the boom of the industrial revolution, and were a direct response to the poor working conditions of many laborers who felt they had no say in how firms executed important policies.

In their exposition on the shift from union to non-union voice, Gomez and colleagues (2010, p. 401) defined "'formal' voice as any institutionalized form of two-way communication between management and employees.'" Formal and indirect voice (i.e. formal voice mediated by trade union representatives), then, has historically been the predominant method from which many employees have chosen to voice messages to upper management—yet these systems are now deteriorating. The table below, by Hyman (2018), illustrates the steady decline in trade union density in six countries between the years 2004 and 2016**.**

Table 2. Union density in six countries 2004-2016 (per cent)

Year	Australia	Canada	Ireland	New Zealand	UK	USA
2004	22.7	30.4	34.6	21.1	28.8	12.5
2014	15.5	26.4	27.4	18.7	25.1	10.7
2016	14.5	--	--	17.9*	23.5	10.7

Sources: Boxall et al. (2007b); OECD Stat (2016); DBIS (2016); DBEIS (2017a); Australian Bureau of Statistics (2017); New Zealand Centre for Labor, Employment, and Work Survey (2015); U.S. Bureau of Labor Statistics (2016).

Note*: December 2015 Source: Hyman, 2018

It's clear from the data that trade unions, specifically in western countries, are less prevalent now than they ever have been prior to their inception. These findings are significant in the study of employee voice as they indicate a shift from formal and structured methods of expression, to emphasis on informal channels and less structured ways in which employees attempt to be heard. In the absence of formal systems such as trade unions, scholars have turned their attention toward informal participation, conceptualizing it as

> the day-to-day relations between supervisors and subordinates, in which the latter are allowed substantial input into decisions… a process which allows workers to exert some influence over their work and the conditions under which they work. (Strauss, 1998, p. 15)

These day-to-day, or informal practices, then, are the means and actions by which employees exercise voice outside of formal structures and can include actions from general conversations, social functions within workplaces, informal emails or chat communications, to more ambiguous expressions such as absenteeism and even organizational exit. Informality even extends to place, as has been noted by authors such as Detert and Treviño (2010), who found that there was a preference by employees to voice in informal settings (such as an informal lunch), rather than formal settings (such as a project meeting).

Not only does research substantiate the distinction between formal and informal voice, it compels further study of the motivations and mechanisms that arise when traditional methods and systems for voicing wane.

2.3.6 Motivations in Voicing

Motivations for voicing are, in large part, where the voice corpus diverges in how the construct is conceptualized. While HRM/ER scholars and practitioners have taken a more grievance-oriented perspective of employee voicing, OB scholars have taken a more prosocial view. The idea of grievance expression is important and builds on the idea of 'principled organizational dissent' studied early on by Graham (1986). Principled organizational dissent examines how attention is drawn to the efforts by individuals in the workplace to protest and/or change the organizational status quo due to objections over current policy or practice, and takes it a step further by pointing to the mechanisms individuals use in making their protest. Other, more recent studies on dissent, such as Shahinpoor and Matt (2007), highlight the need for employees to have the opportunity to voice dissent, arguing that employees can reclaim their identities by doing so. The authors posit, here, that by dissenting, individuals voice their conscience, recover their dignity, and lay claim to their principles and self-worth. Dissenting, or, sounding the alarm on concerns of ethic or the general status quo, complement research on whistleblowing, or disclosing (using voice) to organizational members about perceived wrongdoing so that management can act (Near & Miceli, 1985).

It is true that expressing grievances and dissent have an important role in overall employee and organizational well-being, but these are not the only reasons that motivate employees to voice. Many research streams point to employees use of prosocial voice as a means to go above and beyond job duties to the benefit of the organization, even pointing to the use of voice as a means by which employees engage with their firms. In much of the organizational behavior literature, voice is seen as a prosocial practice that is other oriented (e.g. focused on the organization).

Van Dyne and LePine (1998) were some of the first to find via a six-month longitudinal study, that voice is perceived as an extra role behavior, being both positive and discretionary. As a proactive, promotive, and challenging behavior, they defined voice as a functional behavior that emphasizes expression of constructive challenges intended to improve rather than merely criticize (Van Dyne & LePine, 1998). Voice as a prosocial tool has also been found to aid in advocacy participation, or constructive and proactive behaviors, like voicing high standards, challenging others, or making suggestions for change (Van Dyne, Graham, & Dienesch, 1994). Further, authors have also noted that voice is often a facet of organizational citizenship behaviors (Dekas, Bauer, Welle, Kurkoski, & Sullivan, 2013), which are considered helpful to an organization, but not required by employers.

2.3.7 Multidimensional Motivations

Furthermore, scholars have broken down voice into motivational areas that are less dichotomous and frequently overlapping. They have recognized that voice can be used to contribute to management decision-making, in which employees seek improvements in work organization, quality, and productivity as well as demonstration of mutuality and cooperative relations where employees use voice to achieve long-term viability for both organizations and employees (Dundon

et al., 2004). Taken from this perspective, voice as a multidimensional construct can be leveraged by organizations through encouraging employee voice to foster greater corporate engagement.

Motivations in voicing, then, are complex and multifaceted. While many compelling and relevant components within the voice literature have been studied from these different academic and professional perspectives—including power and trust—they are outside the scope of this research. Instead, the focus here is on the voice construct itself, and the methods by which employees exercise voice within organizations.

2.3.8 Summarizing Voice and Motivations

As opportunities for formal, collectively mediated voice continue to decline in western organizations, it is appropriate to center the current research around an examination of direct, individual, and informal employee voice. Consistent with Hirschman's theory, and following Holland (2014), for the purpose of this research, employee voice is defined as two-way communication process between employers and employees as follows:

> The contemporary focus takes the frame of reference from just raising concerns and expressing and advancing interests to facilitating employee engagement, contribution and commitment to participating in workplace decision-making and solving problems to achieve organizational goals. (p. 139)

Moreover, as many distinctions have been called out within the relevant voice literature, the focus of the present research is narrowed further to examine individual or *direct* employee voice within organizations, which is voice uninhibited by formal hierarchical structures, giving way to direct lines of communication between management and individual employees (Holland, 2014, p. 140).

This focus on direct employee voice allows for a more bounded approach to studying motivations for voicing, the relationship between voice and engagement, and the choice of voice mechanisms.

2.4 Mechanisms for Voicing

The mechanisms, or methods, which employees utilize to express voice vary within organizations. Formal mechanisms are typically management sanctioned and include systems such as suggestion schemes, grievance processes, team meetings, and other management sponsored activities. Informal voicing mechanisms include actions or systems outside of the scope of management and can include things like informal discussions, online chats, or social activities. These mechanisms may be enacted through various communication channels. For example, formal channels may include filing a grievance directly via human resources, while an informal channel may include actions such as watercooler conversations. The table below provides various examples of formal and informal voice mechanisms within organizations.

Table 3. Examples of Formal and Informal Mechanisms for Expressing Employee Voice

Formal Voice Mechanisms	Informal Voice Mechanisms
Grievance processes Attitude surveys Staff meetings Team briefings Suggestion schemes Ombudsman Mediation Arbitration Internal Tribunals	Informal discussions One-to-one meetings Word of mouth Open door policy Empowerment by supervisor

Adapted from: Mowbray et al., 2015

While their findings indicate a great number of formal voicing systems outside of trade union representation compared to informal mechanisms, the existence of formal channels don't always mean that employees are inclined to use them. As Lewin (2014) pointed out, even in the wake of the variety of modern formal procedures to air grievances outside of trade union representation, informal employee voice is still much more common than formal voice and takes place largely via informal channels such as confiding in a co-worker, relative, or even a member of human resources.

In addition to these traditional informal channels, Information and Communication Technologies (ICTs) have become more and more pervasive in the personal and professional lives of employees. As these technologies increase the opportunity for informal voice expression, it is important that researchers and practitioners alike understand not only the motivations to voice, but also how voicing may be influenced by available channels, specifically with regard to new and emerging technologies.

2.5 Information and Communication Technologies (ICTs)

Historically, Information and Communication Technologies (ICTs) have played a significant role in internal organizational communication processes by breaking down the barriers of time and space, as well as barriers related to social and organizational boundaries (O'Kane, Hargie, & Tourish, 2004). The complex relationship between technology and communication has been studied for decades, with early theories, such as Media Richness, suggesting that the primary goal of organizational participants is to reduce ambiguity through media selection (Daft & Lengel, 1986). Email, one of the earliest forms of social technologies having 'one-to-many' features,

changed the nature of internal and external organizational communication by enabling the 'instant transfer of messages and documents worldwide' (Samuels, 1997, p. 35), eliminating considerations of spatial and geographical boundaries, and also by calling attention to the social influences within organizations that inform perceptions and attitudes about such technologies (Schmitz & Fulk, 1991; Fulk, 1993; Tuten, Urban, Gray, & Argenti, 1998). As researchers spent many early years dissecting the ripple effects of email within corporate life, they found in empirical studies that the benefits of email use such as access to superiors, status equalization, and volume of new information shared (60%), outweighed issues of weak social cues, irresponsible behavior (such as flaming), and overestimations of personal contributions (Sproull & Kiesler, 1986).

Over time, as ICTs have evolved, so too, have their features been leveraged to meet personal and organizational needs. Licoppe and Smoreda (2005) found that ICTs such as answering services, email, and text messages may act as a surrogate for co-presence when face-to-face communication is not possible or difficult to organize. They provided through observational case study analysis, evidence for the emergence and reinforcement of new social patterns where "presence" is no longer simply the opposite of absence. In other words, through the use of ICTs, the authors established that individuals took advantage of the low-cost features of ICTs in their communication practices (such as avoiding high rates for phone calls and difficulties in organizing calls over long distances and time zones), which in turn altered user perceptions of the construct of "presence" itself (Licoppe, 2004), leading to an entire research stream on the always on, "connected presence" (Licoppe, 2004). This "always on" mindset, facilitated by technology, quickly made its way into organizational settings where researchers noted that the opportunity to frequently monitor and respond to ICTs like email enabled a sense of control over the pace and substance of information

flow, but also fostered compulsive checking and an inability to disengage from work (Mazmanian, Yates, & Orlikowski, 2006), which has become common for many contemporary professionals.

With the variety of ICTs and their potential impacts both personally and organizationally, researchers broadened the scope of their agendas from investigations on particular types of ICTs within organizations and engaged in the study of the relationship of ICTs to phenomena like knowledge management. In fact, as early as the nineteen eighties and nineties, researchers and practitioners alike began asking questions about the relationship of technology to organizational communication, change processes, and the role of knowledge management, therein. For example, in their study of the improvisational practices organizations undertook to manage change, Orlikowski and Hoffman (1997) noted that "as managers redesign and reinvent organizations in a new image, many are turning to information technologies to enable more flexible processes, greater knowledge sharing, and global integration," (p.20). In 2001, Alavi & Leidner posited that information technologies support both formal and informal organizational communication flows, which help ease knowledge sharing practices across an organization. And others, such as van den Hoof and de Ridder (2004), noted that both commitment and communication climate were key variables in explaining knowledge sharing, and that CMC use also positively influenced this process (via commitment). Many more studies to date have explored the dynamics between ICTs, organizational communication, and knowledge management to varying degrees, and how each have been leveraged in chorus (and to different effect) in managing modern organizations (see Jarvenpaa & Leidner, 1999; Majchrzak, Rice, King, Malhorta, & Ba, 2000; Ruppel & Harrington, 2001; Faraj, Jarvenpaa, & Majchrzak, 2011).

The popularity in the conceptualization of ICTs as broadly communicative mechanisms has grown over the years. This is no more evident than in the advent of social media and social networking sites. Emerging ICTs such as Facebook, Twitter, Wikipedia, and other social platforms have changed the reach, immediacy, and flow of communication both personally and professionally. Definitions of social media and social networking sites have ranged from Carr and Hayes' (2015) broad conceptualization of an "Internet-based, disnentrained and persistent channels of masspersonal communication facilitating perceptions of interactions among users, deriving value primarily from user generated content" (p.49), to Ellison and boyd's (2013) definition of a social network site as a networked communication platform in which "participants (1) have uniquely identifiable profiles that consist of user-supplied content, content provided by other users, and/or system-provided data; (2) can publicly articulate connections that can be traversed by others; and (3) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site" (p. 158). The developments of social media (and social networking sites, specifically) have altered the trajectory of the formation and maintenance of personal relationships, and connected people the world over in ways that were previously unimaginable. Among other reasons, researchers have concluded that individuals engage in social media use to connect with people in their communities (both people they know in real life as well as people they do not) (boyd, 2014), for social support (Oh, Lauckner, Boehmer, Fewins-Bliss, & Li, 2013), as well as enjoyment, utility, and the opportunity for greater network externalities (to expand personal networks) (Lin & Lu, 2011).

While ICTs like social networking sites for personal use have become more ubiquitous, using these same technologies to facilitate the flow of organizational communication (and hence, productivity)

has gained more attention in recent years (DiMicco, Geyer, Millen, Dugan & Brownholtz, 2009; Ellison, Gibbs, & Weber, 2015; Leonardi & Vaast, 2017). Some organizations have begun to perceive the value of collaborative technologies for achieving goals, positing that if individuals regularly communicate and collaborate using dynamic technology in their personal lives, these same tools can be implemented in organizations to support the flow and exchange of communication and knowledge as well. And while it is clear that ICT use for, and relationship to, knowledge management systems have received a great deal of attention in the literature, ICTs as a channel for voicing has been less studied.

Practitioners, having realized the value of emerging social ICTs for achieving organizational goals, have quickly begun to adopt, create, and promote the use of "Enterprise Social Networking Sites," *ESNS* such as Beehive (DiMicco et al., 2009), Yammer, Slack, Jive, and Socialcast (Lombardi, 2015) (among others) in an attempt to capitalize on their benefits for organizing (DiMicco et al., 2009; Leonardi & Vaast, 2017), albeit with varied results.

2.5.1 ICT Affordances

To date, the conversation around ICTs as a promising avenue for understanding technologically mediated social interaction has resulted in an "affordance" perspective. Generally speaking, affordances are systems that enable myriad users to interact with the same communication technologies in different ways, and thus to different results. Research on affordances dates back to the 1970s and 80s, when Gibson posited a 'Theory of Affordances' in his work titled, "The Ecological Approach to Visual Perception" (1979). Gibson was a perceptual psychologist who defined affordances as, "latent cues in environments, such as substances, surfaces, objects, and

places, that hold possibilities for action" (Gibson, 1989, p. 279). In short, he believed that actors view objects not merely for what they are, but for the types of uses they afford. For example, a horizontal and substantively strong surface, knee-high above the ground, perceived by a human, affords the possibility of sitting on or becoming a seat. While the affordance of this seat is latent, it only exists in relation to the potential actor. Gibson provided a further example to clarify the potential for action based on the individual. "Knee-high for a child is not the same as knee-high for an adult, so the affordance is relative to the size of the individual" (p. 128). As such, "Affordances are unique to the particular ways in which an actor, or a set of actors, perceives and uses the object" (Treem & Leonardi, 2013, p. 145). In sum, actions are relative to the actor; two actors (or groups of actors) may perceive different affordances from the material features of the same object, and one object may provide multiple outcomes.

Since then, applications of the construct of affordances have permeated differing literature streams including information science (Leidner et al., 2018), education (Limperos, Buckner, Kaufmann, & Frisby, 2015), social media (Leonardi & Vaast, 2017), and knowledge management (Gibbs, Rozaidi, & Eisenberg, 2013; Majchrzak, Faraj, Kane, & Azad, 2013).

Affordances have been particularly salient in social media research. In fact, "Scholars who study the relationship between new technologies and social practices have found great utility in the affordance concept because it helps to explain why people using the same technology may engage in similar or disparate communication and work practices" (Treem & Leonardi, 2013, p. 146). While many scholars agree with the conceptualization of an affordance in word, authors like Leidner and colleagues (2018) have pointed out that agreement has not been reached in the

distinction between describing features of a technology and differentiating it from their potential for action.

> ...in spite of this conceptual separation of use and affordances in word, in practice, much of the IS affordance research does not sufficiently distinguish between features, use, and action. Treem and Leonardi (2012), for example, describe four affordances of social media: persistence, visibility, editability, and association. However, these are not actions. Rather, these are attributes of the technology. (p. 3)

Still, many scholars agree that affordances are salient in social media research, particularly in their implementation within organizations.

In particular, Rice, Evans, Pearce, Sivunen, Vitak, and Treem (2017) argue for a concept of organizational media affordances, or relationships among action possibilities, where agents perceive they can utilize one or multiple media with potential features relative to the goals of the agent, across organizational contexts. This perspective is key to this study as the authors assert that organizational members often use multiple communication media throughout the day, and that the relations between affordances and media use occur across three organizational contexts: interpersonal, group, and organizational levels.

Leonardi and Vaast (2017) also concluded that "Social media provide a number of material features that are distinct from other communication technologies used in the workplace" (p. 18). Majchrzak, and colleages (2013) echoed this sentiment, calling specific attention to the potential for voicing actions on organizational social media. Leonardi, and colleagues (2013) even asserted,

> ...rather than functioning as a channel through which communication travels, enterprise social media operate as a platform upon which social interaction occurs. Because this

> platform is digital, in contrast to the physical platforms of offices, conference rooms, and hallways that have traditionally been the stages on which most workplace communication is played out, anyone in the organization can participate at any time from any place. Due to the dramatic changes in social interaction that enterprise social media portend, it is no surprise that industry analysts and the business press predict unprecedented transformations in the way organizations that adopt them will operate in the coming decades. (p. 2)

As many authors agree that social media offers vast potential for individual and collective action, especially in organizations, it is reasonable that these affordances may influence employee motivation to particular behaviors—especially voicing.

2.5.2 Enterprise Social Networking Sites (ESNS)

Ellison and boyd (2013) define an *enterprise* social networking site, or ESNS, as a form of SNS used within organizations that are formally sanctioned by management, allow for collective affordances, and have the ability to restrict membership or specific interactions to members of a specific enterprise. Restricting these groups enables the flow of information that wouldn't be appropriate for public, commercial social media tools. In contrast to online communities individuals may participate in anonymously in their private life, there is no anonymity on ESNS, meaning that employee participation is visible to all.

Leonardi and Vaast (2017) were some of the first to conceptualize an affordance perspective for organizational ICTs, stating that:

> the term "affordance" refers to the potential for action that new technologies provide to users. All technologies are constructed out of material features that have properties that

> transcend their context of use. Although social constructivist approaches to technology use rightly argue that individuals can exercise their human agency to make choices about how to use the features of new technologies in their work, those features are constructed out of materials that permit certain actions and limit others. When individuals perceive that those features allow them to perform certain actions, the technology can be said to provide an "affordance". (p. 7)

The collective affordances of ESNSs, then, include visibility (Erickson, 2009; Treem & Leonardi, 2013), association (of content and people), persistence, and editability (Treem & Leonardi, 2013), as well as finding common ground with latent or weak ties (Ellison, Gibbs, & Weber, 2015; Granovetter, 1973). Leonardi and colleagues (2013, p.2) posit more specifically that enterprise social media allow workers to (1) communicate messages with specific coworkers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular coworkers as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited, and sorted by anyone else in the organization at any time of their choosing. Other researchers have added to the scope of these seminal affordances by adding that ESNSs also supports the affordance of "communicational ambidexterity", or "the capability to simultaneously address different and often conflicting communication needs that exist in an organization's internal communication" (p. 50) (Huang, Baptista, and Newell, 2015). In addition, due to its affordances of personalization (DiMicco et al., 2009), ESNSs can also be used as an outlet for individual expression-- specifically employee voice-- which may lead to higher levels of overall employee engagement and job satisfaction (Holland, Cooper, & Hecker, 2016). In all, the literature reiterates the use of ESNS for communication and personalization purposes by workers in ways that diverge from earlier

forms of social software such as email, blogs, or wikis, whose connections were more ambiguous, more tightly controlled by individuals within an organization, and were typically only shared with select viewers the originator intentionally identified.

Much like Erickson (2009) points out in his exposition of how digital systems can support social intelligence via shared visualization (or social proxies), ESNS can provide employees with the opportunity to visualize information, connections, and content within a system, which may support organizational social norms. Leonardi and Meyer (2015) focus on this visibility in what they term *ambient awareness*, or a peripheral awareness of conversations and messages happening across an organization that require little cognitive energy to process, but can also be revisited by employees at a later time. Results of his study on ambient awareness indicated that exposure to "who knows what" and "who knows whom" provided cues from which observers could make accurate inferences about what kind of knowledge their co-workers held, easing the process of locating relevant information more expeditiously. Additionally, it was found that the contents of those messages contained useful information not only valuable to the individuals involved directly in the communication, but also to third parties outside of the communication as well (Leonardi & Meyer, 2015). Visibility, in the case of ESNS can be applied both to professional as well as personal information when employees come to conclusions about others based on information provided via social network sites. This "people sensemaking" (DiMicco et al., 2009), establishes a social connection between groups of users and acts as a social lubricant when determining what information is needed, and how best to approach colleagues to obtain it. These specific affordances (Leonardi, 2017) of enterprise social technologies allow for collaboration and communication in ways that have not been possible before.

Recent research endeavors have also noted the value of ESNS (sometimes referred to as 'Internal Social Media') for its influence on employee engagement, organizational affiliation, knowledge needs, and even innovation. For example, in their research on internal social media (ISM) and relationship cultivation in organizations from an employee perspective, Men, O'Neil, and Ewing (2020a) found that employee's use of ISM, the organization's strategic information dissemination, as well as two-way asymmetrical communication were all significantly related to employees perceived organizational transparency. Additionally, they found that the increase in perceived organizational transparency fulfilled employees' information needs and enhanced employee's perceptions of quality within the organization-employee relationship. In another study, Haddud, Dugger, and Gill (2016) found in their exploration about the impacts of ISM within organizations, that ISM usage was associated with the level of employee engagement. Men, O'Neil, & Ewing (2020b) echo these results, finding that the more employees used internal social media, the more they felt engaged with their organizations. Further, recent studies are also showing the benefits of ESNS for innovation due to their collaborative affordances (Abhari, Davidson, & Xiao, 2016; Abhari, Davidson, & Xiao, 2017).

2.6 ESNS as a New Mechanism for Voicing

While a substantial amount of prior research exists on leveraging ESNS broadly for knowledge sharing purposes (Majchrzak, Faraj, Kane & Azad, 2013; Leonardi, 2014, 2017; Ellison, Gibbs & Weber, 2015; Lam, 2016; Kane, 2017; Leonardi & Vaast, 2017; Wehner, Ritter & Leist, 2017), far less investigation has been directed toward an affordance perspective of ESNS as a mechanism for employee voice (although several researchers have indicated its potential) (Miles & Mangold,

2014; Leonardi & Vaast 2017; Holland et al., 2016). As a result of its ability to span communication boundaries, ESNS have the potential to change the undergirding power dynamics within organizations who have traditionally relied on a chain-of-command reporting structure (Sproull & Kiesler, 1986). While this can foster myriad positive outcomes to organizational dynamics such as employee engagement, job satisfaction, and knowledge sharing (Leonardi & Vaast, 2017; Holland et al., 2016), it can also present immediate challenges for management who are unprepared or ill equipped to respond meaningfully to such pervasive changes (Lam, 2016). Furthermore, due to the wide reach of social networking sites, employees have the ability to metavoice, and join broader conversations and decision-making processes. Majchrzak and colleagues (2013) define the affordance of metavoicing as "engaging in the ongoing online knowledge conversation by reacting online to others' presence, profiles, content and activities," (p. 41). This affordance is referred to as metavoicing because individuals are not simply voicing their opinion, but adding metaknowledge to content already online. Metavoicing can take many forms including retweets, votes on postings, commenting on someone's post, and ''liking,'' among others. As more employees metavoice about content, preferences of the work community become clearer. When decisions, then, need to be made in the workplace, the sentiment of the workforce can be helpful in creating a conversation around decisions that incorporate more opinions than otherwise would have been possible (Majchrzak et al., 2013).

Although some ICTs for knowledge management may be appropriated as voicing systems, they have been generally regarded in the research more functionally (i.e. how to facilitate collaborative work by exchange or publication of employee knowledge) (Ellison et al., 2015), and overlook affordances for open-ended channels of direct voice and communication. Broader approaches to

voice in ESNS, particularly to engender employee engagement, are still rare. It is critical, then, to consider these mechanisms in earnest as firms have already been engaging directly and indirectly with employee voice through various ESNS with mixed results.

Taking an affordance perspective in studying ESNS narrows the scope of this research to the intersection between individual goals and the material features of a technology (Leonardi & Vaast, 2017), specifically to support voicing. In this case, the emphasis on the affordances of ESNS to support communication and personal expression not only provide opportunities for sharing information, but also act as a mechanism to amplify direct individual voice within an organization, which will be explored in the following study.

2.7 Theoretical Lenses of Motivation and Learning: Relationships to Voice

To frame the exploration on the study of ESNS and its relationship to employee voice, this study utilizes important facets of two extant theories on learning and motivation. First, Social Cognitive Theory (SCT), examines how individuals learn and maintain behavior over time. One of the primary tenets of SCT is its emphasis on learning in a social context by way of modeling behaviors. Not only that, SCT draws out important connections between personal, environmental, and behavioral factors that influence choices to act (Bandura, 1986). Next, Self Determination Theory (SDT) frames individual motivation to certain behaviors as stemming from three universal psychological needs: autonomy, relatedness, and competence (Deci & Ryan, 2000). Taken together, both theories impart practical information to understanding the process of individual motivation and social learning, which may ultimately influence individual action to voice.

2.7.1 Social Cognitive Theory

The Social Cognitive Theory (SCT), introduced by Albert Bandura in 1986, is part of a larger body of psychological work on motivation, with particular emphasis on self-regulation and learning processes. Middleton, Hall, and Raeside (2018) asserted that

> In broad terms, SCT is a psychologically derived theory that explains how individuals within social systems enact multiple human processes, including the acquisition and adoption of information and knowledge. Its main focus is processes of learning, and the interplay between multiple factors therein. (p. 2)

Bandura (1986) adapted SCT from earlier works on learning theory with an eye toward filling gaps in knowledge about how people learn in a given social context. In short, SCT asserts that portions of individual knowledge come from observing others during social interaction, personal experiences, and even from outside influences like the media. In fact, Bandura (1986) points out that, "...most human behavior is learned by observation through modeling. By observing others, one forms rules of behavior, and on future occasions this coded information serves as a guide for action" (p. 47).

SCT is relevant in organizational research because organizations are unique and bounded social systems with explicit and implicit rules for behavior—some of which are formally taught, while others only observed. Stajkovic and Luthans (1998) found that SCT

> explains organizational behavior in terms of the reciprocal causation among the employee...the environment, and the behavior itself. Because of these combined reciprocal influences, employees are at the same time both products and producers of their personality, their behaviors, and their respective environments. (p. 64)

SCT has been and continues to be an important theoretical lens from which scholars perform research in organization, information systems, and media and communication studies as evidenced by the table below.

Table 4. Examples of SCT Application in Organization, IS, and Communication Research

Discipline	Theme	Authors
Organization Studies	Improvement of levels of organizational performance Collective organizational management Job satisfaction Self-efficacy, leadership, learning orientation, and creativity	Bandura, 1988 Wood & Bandura, 1989 Hwang et al., 2016 Gong et al., 2009
Information Systems	Adoption of public sector electronic services Computer training and systems use	Agarwal et al., 2013; Liang & Lu, 2013; Rana & Dwivedi, 2015 Agarwal et al., 2000; Baker et al., 2014; Bolt et al., 2001; Chiang & Hsiao, 2015; Compeau & Higgins, 1995; Hasan & Ali, 2006; Hooper, 2012; Sherif et al., 2009; Waldman, 2003; Want et al., 2015; Yap & Gaur, 2016; Yi & Davis, 2003
Media and Communication Studies	Internet use and gratification Social networks, media and mass communication	LaRose & Eastin, 2004 Bandura, 2009

Table Adapted from Middleton et al., 2018

Situating a study of employee voice within the lens of SCT serves as an important foundation in understanding how employees learn voicing norms within organizations. When employees join firms, it's critical that they learn not only explicit rules of engagement, but also tacit norms of acceptable and unacceptable conduct as well. Many of these learning experiences are born out of observing peers in their environment. Consistent with SCT ideas of modeling learned behavior, Milliken and colleagues (2003) found that employees learned to remain silent partly from talking with and observing peers. They concluded that while some suggested they learned firsthand that

speaking up in their organization was dangerous, others noted that they had learned from what they had seen and heard around them. The authors also pointed out that, "It appears from respondents' stories that they learn to be silent not just through trial-and-error experiences, but also by observing and talking to their colleagues" (Milliken et al., 2003, p. 1469).

Understanding how employees internalize norms for voicing within an organization is an important cursory step in a complex process of examining voice behaviors. Although Social Cognitive Theory gives important insight into how certain behaviors may be learned and executed in a given social context, it is less focused on the rationale or motivations behind decisions to voice, nor by which methods voice may be expressed.

2.7.2. Self-Determination Theory

To understand motivations that spur employees to certain actions, this study looks to Self Determination Theory—a macro theory that many scholars have used to study human motivation and personality. With early conceptions formed by Deci and Ryan in the 1980s, Self Determination Theory began as a way to understand intrinsically motivated behavior as separate from many behaviorist psychological theories of the time. These scholars looked first to cognitive evaluation theory, which postulates that there are certain antecedents to intrinsic motivation (and thus affective commitment)—that when people feel competent and autonomous, they are more intrinsically motivated. In addition, the authors found that feelings of being related to others also facilitated internalization (Baard, Deci & Ryan, 2004). These findings, together, lead Deci and Ryan (2000) to develop Self Determination Theory, predicated on the assertion that humans have three universal psychological needs for well-being and motivation: autonomy, relatedness, and competence. This theory assumes that when individuals have agency over what they do, feel

competent and empowered to complete tasks, and when they are connected to others, that they are more likely to be intrinsically motivated to achieve specific goals.

Self-Determination Theory is often further explained through sub-theories such as basic psychological need satisfaction, which elaborates the concept of these three primary psychological needs and their relations with overall wellbeing (Deci & Ryan, 2000). In conjunction with the macro lens of SDT, the authors posit that the three universal psychological needs of autonomy, relatedness, and competence must be ongoingly satisfied for people to maintain optimal performance (Deci & Ryan, 2000, 2017).

Because of its emphasis on intrinsic motivation and thus its relationship to affective commitment, Self Determination Theory has garnered much attention as a pragmatic way to approach management in organizations (Gagne & Deci, 2005). In fact Gagne and Deci (2014) state that

> Self Determination Theory, being an organismic theory, assumes that socialization is not something 'done' to people, but instead is what the organism does naturally by using environmental supports and nourishments (Deci, 1995). Without such support, the internalization functions less effectively (p. 3).

In essence, the "social context can either support or thwart the natural tendencies toward active engagement and psychological growth, or it can catalyze lack of integration, defense, and fulfillment of need-substitutes" (Center for Self Determination Theory, 2019). To understand the utility of Self Determination Theory within organizations, the following table gives examples of how Self Determination Theory has been applied across differing organizational contexts.

Table 5. Examples of SDT Application in Organization, IS, and Communication Research

Discipline	Theme	Authors
Information Systems	Leadership styles and motivation to continuously engage with new technological systems.	Rezvani, Khosravi, & Dong, 2017
Employee Relations	Employed employee motivation to find better work.	Welters, Mitchell, & Muysken (2014)
	Perceived organizational autonomy support and different types of work motivation.	Nie, Chua, Yeung, Ryan, & Chan (2014)
Organizational Behavior	Organizational Citizenship Behavior	Roche & Haar (2013)
	Engagement	Schie, Gautier, Pache, & Guntert (2018)
	Need satisfaction and positive work outcomes	Baard, et al (2004)
	Autonomous motivation and increased job performance	Breaugh (1985)

2.8 Theoretical Underpinnings Related to Research

Authors from a wide array of different perspectives, then, have echoed the relevance of Self Determination Theory to study human motivation in organizations. And while the idea of needs-based motivations may help explain some functions of individual action (Deci & Ryan, 2000), the Social Cognitive Theory layers perspectives of personal dimensions of cognition and the influence of the environment that may affect behavior development, all while bringing attention to the social aspects of learned behavior (Bandura, 1986).

In all, the Self-Determination and Social Cognitive theories point to the fact that behaviors are governed by a complex relationship between individual psychological needs, as well as personal, environmental, and social factors. While Self Determination Theory can provide the relevant psychological framework from which employees may weigh the risks and benefits to voicing

according to their specific needs, Social Cognitive Theory incorporates important social and personal factors such as organizational voice climate and communication anxiety, that may influence behaviors by way of observing, understanding, and modeling against accepted norms. These theories provide critical underpinnings from which to view employee voice as connections may be uncovered that help explain how these phenomena interact to motivate voicing behavior.

CHAPTER 3

RESEARCH MODEL

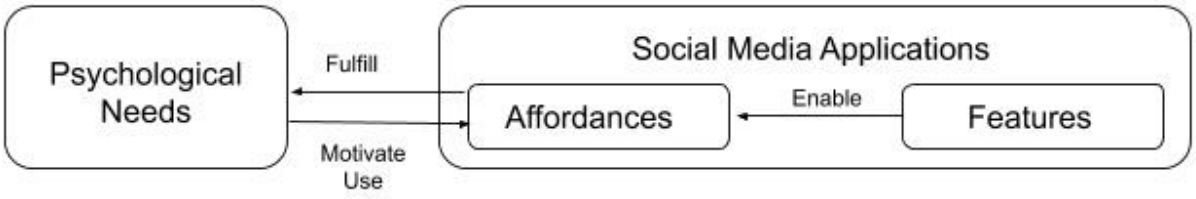
3.1 Introduction

My study investigates the relationships between employee voice and use of Enterprise Social Networking Sites by examining key technological affordances, motivations of employees who opt to voice, as well as personal and environmental factors that influence employee voicing behaviors. Specifically, my proposed ESNS Voicing model posits that employees who are motivated to voice and who perceive utilize Enterprise Social Networking Sites as an outlet for voicing, due to the availability of technological affordances that enable voicing goals, are more likely to voice within their organization. However, the employee's personal dispositions to voice and perception of organizational voicing climate will also influence voicing actions. This chapter develops the ESNS Voicing model by first drawing from the Needs-Affordances-Features perspective (Karahanna, et al., 2018), research on social media affordances (boyd & Ellison, 2007; Fox & McEwan, 2017; Rice et al., 2017; Treem & Leonardi, 2013), the Self-Determination Theory (Deci & Ryan, 2000), and the Social Cognitive Theory (Bandura, 1986) as the general theoretical foundations for the study. The proposed model addresses research questions such as: *To what extent does the availability of Enterprise Social Networking Sites influence employees' expression of voice in a work context? How does the organizational voicing climate influence an employee's motivation to voice in a work context? And, how do personal dispositions influence employee voicing behaviors on Enterprise Social Networking Sites?* This study utilizes key psychological motivations for utilizing social media, identified in the general Needs-Affordances-Features perspective, to investigate employee voicing behaviors.

3.2 Needs-Affordances-Features

The Needs-Affordances-Features (NAF) perspective helped guide model development to theorize the implications of social media use in a work context to express employee voice. The NAF perspective was developed by Karahanna, Xu, Xu, and Zhang (2018), and uses Self Determination Theory to posit how human motivation influences, and is influenced by, social media applications by drawing on the concept of technological affordances. Here, the authors argue that people have general, essential psychological needs: *autonomy, competence*, and *relatedness* (extrapolated from Self-Determination Theory). The authors assert that people are motivated to use specific affordances of social media in order to fulfill these basic needs. They argue that certain social media affordances enable fulfillment of these psychological needs, when affordances are realized through individual actions/behaviors. Figure 1 depicts the logic of the NAF perspective where technological affordances arise from the relation between psychological needs and features of social media technologies:

Figure 1. Logic of the NAF Perspective



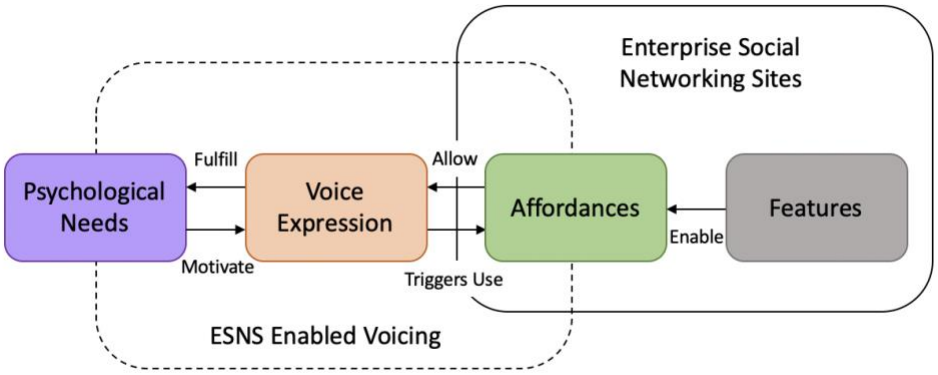
Source: Karahanna, Xu, Xu, & Zhang, 2018

While NAF addresses a broad general view of social media use in the everyday lives of individuals, my study focuses specifically on the organizational context of ESNS and direct voicing behaviors,

therein. My proposed ESNS Voicing model, then, focuses on the psychological needs that drive motivations for utilizing ESNS to enact voicing behaviors within organizations.

Further, my study contextualizes the realization of psychological needs through social media affordances in terms of particular *actions or behaviors* that technological affordances make possible. Specifically, my study posits that employees have particular psychological needs that can be satisfied by voicing actions or behaviors, and affordances of ESNS enable these voicing behaviors in organizations. Thus, the model depicted in Figure 2 focuses on basic psychological need satisfaction to posit that employees will be motivated to voice (an action/behavior) because of their psychological needs. Voicing is enabled via the affordances of ESNS (an emerging channel to communicate in organizations); and ESNS affordances, in turn, help accomplish voicing goals, which, in turn, meet psychological needs (for autonomy, relatedness, competence).

Figure 2. Relational Model of Psychological Needs Motivating Voicing Behavior



Articulating the relationship between psychological needs and affordances is a crucial first step to develop a testable model. However, in contrast to the recursive nature of the general NAF

framework, the model I develop in this study addresses the psychological needs that motivate voicing behavior and whether perception of ESNS affordances as a channel to voice helps motivate voicing behavior. The recursive interactions among psychological needs, social media affordances, and voicing behaviors suggested by NAF is beyond the scope of this study.

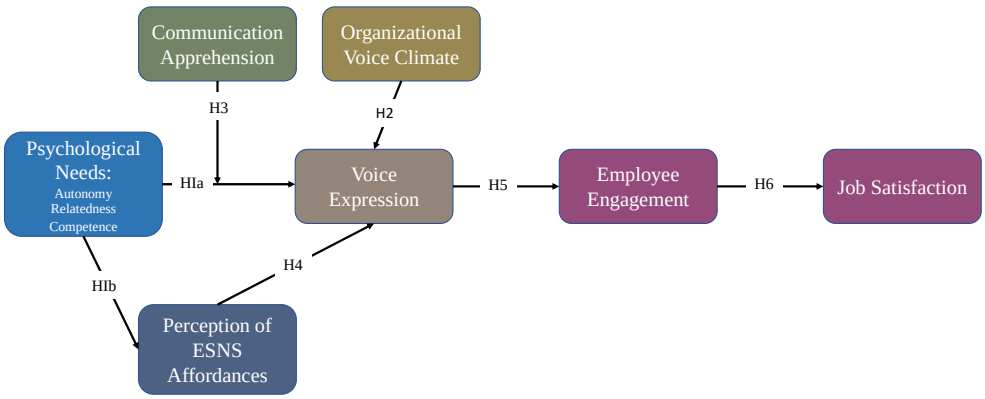
3.3 Model Development

My study develops a research model by drawing from the relevant literature on psychological motivations (Karahanna et al., 2018; Deci & Ryan, 2000), organizational voice climate (Morrison, Wheeler & Kamdar, 2011), communication apprehension (McCroskey, 1977), and technological affordances (Karahanna et al., 2018; Treem & Leonardi, 2013), to theorize relationships of these constructs with, and impacts on, employee voicing behaviors. (The proposed research model for this study is depicted in Figure 3).

My ESNS Voicing model suggests that psychological needs will motivate employees to voice in their organizations (H1a), that employees with high levels of need satisfaction will be more likely to perceive voice affordances (H1b), and that the employee's perception of the organizational voice climate will also influence voice behavior (H2). Furthermore, employee's levels of communication apprehension will negatively moderate the relationship between psychological needs and voicing behavior (H3). Additionally, the model proposes that employee perceptions of ESNS affordances will directly influence voice expression (H4), and finally, that voicing behavior will lead to higher levels of employee engagement (H5), and engagement to job satisfaction (H6).

My model is developed as a fully reflective model (meaning, each latent variable is reflected in certain behaviors or perceptions). Using a reflective measurement model suggests the assumption that the latent variable causes the measurement of its indicator variables. A change in the latent variable, then, will cause a change in its indicator variables. However, changes in indicator variables will not cause changes in the latent variable (since it is a directional relationship). For example, 'perceived affordances' are designed to measure the indicators that employees perceive as useful to voicing. This directional relationship is interpreted to be reflective, since a change in the latent variable 'perceived voicing affordances' will cause a change its indicator variables. A change in an indicator variable, however, will not necessarily cause a change in employees' 'perception of affordances' for voicing since affordances vary based on the perception of each user. The same can be said of psychological needs. While a change in psychological needs may change its indicator variables, the indicator variables of psychological needs do not necessarily cause a change in the latent variable psychological needs. As such, my study measures the reflective relationships of all the main constructs.

Figure 3. Proposed Model



3.3.1 Hypothesis 1: Psychological Motivations & Voicing

According to Deci and Ryan (2000) the need for autonomy, competence, and relatedness must be ongoingly satisfied for people to develop and function in healthy ways. These psychological needs are not limited to an individuals' personal life, but also apply to many other contexts, including the workplace. My study uses the universal basic psychological need satisfaction of autonomy, competence, and relatedness as a lens from which to examine motivations to voice via ESNS. Consistent with the literature on SDT (Karahanna et al., 2018; Deci & Ryan, 2000, 2017), my study proposes that employees will be motivated to voice based on the basic psychological needs: autonomy, relatedness, and competence. For instance, an employee may be motivated to voice to realize and to display their competence to those around them. This may include actions such as posting content, or responding to questions posted by others. The visibility of relevant content, or well-informed answers to questions may signal others in the organization that the individual is very competent in their job. Additionally, employees may be motivated to voice out of a sense of autonomy, or the ability to exercise choice. For example, an employee who responds to a forum discussing potential changes to important organizational policies may be exercising their need for autonomy by adding their thoughts on the matter. An employee may also be motivated to voice in order to form relationships with those at work. For example, an individual may join work-related groups where they discuss information and experiences via ESNS in order to build connections with other employees who have similar interests. This leads to the following hypotheses:

> ***H1a****: Employees who have strong psychological needs (autonomy, relatedness, and competence) will be more likely to voice in an organization.*

***H1b**: Individuals who have a high level of basic psychological need satisfaction will be more likely to perceive affordances for voicing via ESNS.*

3.3.2 Hypothesis 2: Organizational Voice Climate & Voicing

Organizational climate refers to the shared perceptions among employees about practices, procedures, and behaviors that are acceptable and rewarded in the workplace (Schneider, 1990). Organizational climate is not a direct byproduct of a formal set of written rules (although these play a role), but is a collection of tacit norms produced regularly by organizational members. According to Morrison and colleagues (2011), *voice climate* is a subset of the organizational climate that "refers to the collective beliefs or perceptions about the practices, behaviors, and activities that are rewarded and supported in a given work environment" (p. 184). There is often a personal risk for employees who choose to voice. As stated by Hsiung and Tsai (2017) "...voice behavior is a paradoxical type of behavior that may benefit organizations while putting individuals at risk" (p. 488). Moreover, "employees who make voice decisions often experience psychological conflicts" (p. 488).

A fundamental premise of the Social Cognitive Theory is that learning often happens in a social context (Bandura, 1986). Thus, before deciding on taking actions such as voicing, employees are likely to observe their environment, including co-worker behaviors and outcomes of these behaviors, and take cues from what they observe. If employees observe others receiving positive or negative personal consequences for voicing behaviors, they may be encouraged or discouraged to speak out. Hsiung and Tsai (2017) note that, "By carefully detecting the environmental cues and assessing the favorability of social contexts, employees can calculate personal costs and

benefits and then can decide whether to speak up or remain silent" (p. 488). Thus, the research model posits that an employee's perception of the organizational voicing climate will directly influence employee voicing behaviors. If the employee perceives the climate as open to voicing, the employee will be more likely to voice.

> ***H2****: Employees' perception of organizational voice climate will influence their needs-driven voicing behavior.*

3.3.3 Hypothesis 3: Communication Style Preferences & Voicing

Although employees collectively experience the organizational climate, there can be much variability in how they act. Bandura (1986) posits that individual cognitive factors influence learning and behavior and thus actions. Applying Bandura's social cognitive theory to organizational learning, Stajkovic and Luthans (1998) comment:

> Much of the knowledge and behaviors of organizational participants is generated from the organizational environment in which they operate; on the other hand, individual employees still process, and act upon, available information differently depending on their unique personal characteristics. (p.63)

They argue that self-efficacy, or, "an individual's confidence in their abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context," plays a significant role in weighing the risks and benefits of a particular behavior. This helps explain why some individual employees are more naturally comfortable speaking out, particularly in small and large groups, and therefore why they may be more likely to voice than their more reserved peers. Essentially, this idea explains how communicators have a particular communication style preference that is innate to each individual.

This idea of innate communication preferences is echoed through the concept of *communication apprehension*, which focuses on how individual trait and situational communication anxiety affect the psychological motivation to voice in a work-related context. McCroskey (1977) defines communication apprehension as "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (p. 78). He argued that communication apprehension is a subconstruct of communication *reticence*, where reticence "refers to a trait of an individual which results in that individual characteristically remaining silent rather than participating in communication" (McCroskey, 1977, p. 79). Communication apprehension is different from other constructs associated with an unwillingness to communicate, in that, the core of apprehension stems from fear or anxiety as the causal agents of silence. In their examination of college student's social media communication apprehension, Punyanunt-Carter, Cruz, and Wrench (2018) found that, "Ultimately, the decision to use, or not use, social media is dependent on motives, which are significantly influenced by apprehension" (p. 512). That is, an individual's disposition about speaking out may affect if or how they choose to speak out, or voice in an organization, even on a social media channel.

My ESNS Voicing model suggests that an employee's communication style preference will moderate the extent to which psychological needs motivate the employee's voicing behaviors, that is, is to speak out (voice). Because the viewers of social media content can be ambiguous, and a communicator may not know who (or how many) others they are communicating with, they may have reservations about voicing, especially on social media channels where communication is both immediate and permanent.

***H3**: Employee levels of communication apprehension will negatively moderate the relationship between psychological needs and employee voice expression.*

3.3.4 Hypothesis 4: Affordances & Voicing

ESNS offer myriad affordances to users (Karahanna et al., 2018; Treem & Leonardi, 2013; Rice et al., 2013; Fox & McEwan, 2013). Arising from the material features of technology and users' understanding of what features may be used for, affordances are important because they provide opportunities for action that may not have existed within the organization before. Affordances can influence employee behaviors, where certain behaviors can be enacted through technology use.

ESNS provide employees with multiple features and channels through which to express opinions, gather others' ideas and respond to them, and join into discussions generally, along with other actions. Although these opportunities for action may also be associated with specific tasks or knowledge sharing generally, ESNS provide new opportunities and new channels for communication for employees to engage in voicing actions, such as expressing their ideas for change, opinions, grievances, support for others, and so on. If employees perceive ESNS as affording such voicing-related actions, they may be more likely to engage in voicing behaviors.

Following Karahanna and colleagues (2018), this model posits that employees perceiving ESNS affordances conducive to voicing are more likely to engage in voicing actions.

***H4**: Perception of ESNS affordances to express voice in organizations will influence the likelihood of employee voicing behaviors.*

3.3.5 Hypothesis 5 & 6: Voicing, Engagement, and Satisfaction

Consistent with the human resource management, organizational behavior, and communication literatures on voicing both as a means of, and as an expression of employee engagement (Rees, Alfes, & Gatenby, 2013; Ruck, Welch, & Menara, 2017; Holland, Cooper, & Sheehan, 2017; Hyman, 2018; Kaufman & Taras, 2010; Kwon, Farndale, & Park, 2016; Langford, 2009), my ESNS Voicing model proposes that employees with greater levels of employee voice will be more engaged in the organization, and employees who are more engaged in their firms will have higher levels of job satisfaction.

> ***H5****: Employees with greater levels of employee voice will be more organizationally engaged.*
>
> ***H6****: Employees who are more organizationally engaged with have higher levels of job satisfaction.*

CHAPTER 4

RESEARCH DESIGN AND METHODS

4.1 Introduction

This study addresses two main objectives. First, to establish a scale to measure perceived voicing affordances on ESNS. Second, to apply the scale to a larger model, examining the overall relationships that may characterize voicing behaviors on ESNS (voice climate, psychological needs, and communication style preference). First, to develop the affordance construct and measurement instrument, I used standard methods including card sorting and a pilot survey with exploratory and confirmatory factor analysis. After that, a survey of North American adults 18 and over was conducted to test the hypothesized model and examine the relationships between psychological needs, voicing affordances, voice climate, communication style preferences, and their effect on employee engagement and satisfaction. The following chapter will explain the design and development of the survey instruments, samples, and methods used to answer the research questions.

4.2 Operational Definitions and Measurement

The model developed in Chapter 3 assesses the relationships between voicing affordances, psychological needs, organizational voice climate, individual voice behaviors, communication style preference, and engagement and satisfaction. Thus, data were collected on the following constructs: 1) perceived voicing climate and behavior, 2) communication style preferences, 3) basic psychological need satisfaction, 4) employee engagement and satisfaction, and 5) ESNS voicing affordances. With the exception of voicing affordances, each of these constructs have been

studied and measured in a variety of literature. Therefore, I adopted and, as needed, adapted measurement scales for each of these latter constructs as described here. Development of the voicing affordances will be described in the next section. Table 6 (below) provides an operational definition of each construct, as well as the citation from the survey (where applicable) that formed the basis of my instrument development.

Table 6. Operational Definitions of Survey Constructs

Construct	*Definition*	*Survey Citation*
Autonomy	"Autonomy involves acting with a sense of volition and having the experience of choice. In the words of philosophers such as Dworkin (1988), autonomy means endorsing one's actions at the highest level of reflection" (Gagné & Deci, 2005, p. 334).	Basic Psychological Need Satisfaction and Frustration Scale—Work Domain (Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001; Ilardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey, & Ryan, 1992).
Relatedness	"An individual's innate psychological need to interact, be connected to, and experience caring for others (Deci & Ryan, 1991) - "to love and care and to be loved and cared for" (Deci and Ryan 2000, p. 231)" (Karahanna et al., 2018, p. 743).	Basic Psychological Need Satisfaction and Frustration Scale—Work Domain (Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001; Ilardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey, & Ryan, 1992).
Competence	"An individual's innate psychological need of being effective in dealing with the environment in which the person finds oneself (Deci & Ryan, 1991); to have a personal impact on the environment, self, and others, and to achieve valued outcomes (Bauer & McAdams, 2000; Deci & Ryan, 2000)" (Karahanna et al.,, 2018: 743).	Basic Psychological Need Satisfaction and Frustration Scale—Work Domain (Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001; Ilardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey, & Ryan, 1992).
Voice Climate/Voice Behavior	"The collective beliefs or perceptions about the practices, behaviors, and activities that are rewarded and supported in a given work environment" (Morrison et al., 2011, p. 184). **Note: this study measures individual perception of voicing climate for voicing.	Helping, Voice, and Extra-Role Behavior (Van Dyne & LePine, 1998), following the Morrison and colleagues' (2011) model on Group Voice Climate.

Communication Style Preference	This construct was adapted from the literature on Communication Apprehension. "Communication Apprehension is defined as an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey, 1977, p. 78).	*Adapted from the Personal Report of Communication Apprehension (PRCA-24) (McCroskey, Beatty, Kearney, & Plax, 1985)*
Voicing Affordances	"Relationships among action possibilities to which agents perceive they could apply one or more media within its/their potential features/capabilities/constraints, relative to the agents' needs or purposes, aggregated within or across media contexts, and within or across organizational contexts" (Rice et al., 2017, p. 110).	These items were developed based on a review of the literature, with specific attention to the affordances technologies may have for promotive, prohibitive, and advocacy voice.
Employee Engagement	"The harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (Kahn, 1990, p. 694).	Voice Climate Survey (Langford, 2009)
Employee Satisfaction	"A positive psychological state resulting from an evaluation of one's job, or job-related experiences or outcomes, where positive evaluations result in states of felt pleasure and enjoyment" (Rothausen & Henderson, 2018).	Voice Climate Survey (Langford, 2009)

4.2.1 Psychological Needs

As noted in the literature review, the ongoing satisfaction of autonomy, relatedness, and competence form the basis of self-determination theory, and help explain the intrinsic motivations behind individual behaviors (Deci & Ryan, 2000). Basic psychological need satisfaction has been measured using a range of different instruments within different academic fields. For this study, it was important to select measures of autonomy, competence, and relatedness that were a good fit for use in an organizational setting. As such, I employed the scale, "Basic Need Satisfaction at Work," (Deci & Ryan, 2000; Deci, Ryan, Gagne, Leone, Usunov, & Kornazheva, 2001; Illardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey & Ryan, 1992). This 21-item scale is intended to

identify the extent to which basic psychological needs are being satisfied at work. Respondents indicate on a 6-point Likert scale whether a given statement is "not at all true," to "very true." To the extent that basic psychological needs have been satisfied, individuals are purported to have a higher degree of intrinsic motivation. Table 7 (below) shows the items included in the survey.

Table 7. Basic Psychological Need Satisfaction at Work Measures

Construct	*Item*
Autonomy (AUT)	AUT1 - I feel like I can make a lot of inputs to deciding how my job gets done.
	AUT2 - I feel pressured at work. *(Reverse scored)*
	AUT3 - I am free to express my ideas and opinions on the job.
	AUT4 - When I am at work, I have to do what I am told.
	AUT5 - My feelings are taken into consideration at work.
	AUT6 - I feel like I can pretty much be myself at work.
	AUT7 - There is not much opportunity for me to decide for myself how to go about my work. *(Reverse scored)*
Competence (COM)	COM1 - I do not feel very competent when I am at work. *(Reverse scored)*
	COM2 - People at work tell me I am good at what I do.
	COM3 - I have been able to learn interesting new skills on my job.
	COM4 - Most days I feel a sense of accomplishment from working.
	COM5 - On my job I do not get much of a chance to show how capable I am. *(Reverse scored)*
	COM6 - When I am working I often do not feel very capable. *(Reverse scored)*
Relatedness (REL)	REL1 - I really like the people I work with.
	REL2 - I get along with people at work.
	REL3 - I pretty much keep to myself when I am at work. *(Reverse scored)*
	REL4 - I consider the people I work with to be my friends.
	REL5 - People at work care about me.
	REL6 - There are not many people at work that I am close to. *(Reverse scored)*
	REL7 - The people I work with do not seem to like me much. *(Reverse scored)*
	REL8 - People at work are pretty friendly towards me.

4.2.2 Perceived Voice climate

Voice climate and behavior have also been studied using various approaches. Van Dyne and LePine (1998) were seminal authors on the subject of employee voice, and found that employee voicing as an extra-role (positive, discretionary) behavior, explained variance in performance ratings of employees over time. In a self-report survey, Van Dyne and LePine (1998) developed a series of six statements, to be evaluated on a 7-point Likert scale from "strongly disagree" to "strongly agree", that measure an individual's inclination to voice at work. Their questionnaire was split into three parts in which employees rated themselves, their peers, and their managers (or subordinates) across the 6 statements. In 2011, Morrison and colleagues, applied the same framework in their research on organizational voicing climate. Again, respondents were presented with the same 6 items, and asked to rate them on a 7-point Likert scale. The purpose of the study was to identify the extent to which employees felt they had voice efficacy and voice safety. Participants were asked the extent to which they felt "definitely not capable" to "definitely capable," for voice efficacy, and "definitely not safe" to "definitely safe" for voice safety.

Using a similar approach, I modified the following 6 original statements to measure individual perception of organizational climate for voicing, including to what extent employees felt their organization *encouraged* voicing behaviors, as well as what voicing behaviors employees actually *enacted*. These two dimensions are referred to as perceived voice climate at work (how employees perceive the organizational voicing climate), and voicing behavior (the actual voicing behaviors employees enact in the workplace).

Table 8: Perceived Voice Climate and Behavior Measures

Construct	*Item - Employees in my organization are encouraged to… / At work I…*
Voice Climate/ Voice Behavior	VCL1/VBH1 - make recommendations concerning issues that affect this work group.
	VCL2/VBH2 – speak up and encourage others in this group to get involved in issues that affect the group.
	VCL3/VBH3 - communicate my opinions about work issues to others even if my opinion is different and others may disagree with me.
	VCL4/VBH4 - keep well informed about issues where my opinion might be useful to the organization.
	VCL5/VBH5 get involved in issues that affect the quality of work life in the organization.
	VCL6/VBH6 - speak up with ideas for new projects or changes in procedures.

4.2.3 Communication Style Preference

Communication apprehension as a construct has long been studied for its value in explaining the level of anxiety and apprehension in a real or anticipated communication exchange (McCroskey, 1978). The Personal Report of Communication Anxiety (PRCA-24), is a widely used 24 item scale developed by James McCroskey (1978) and used to measure an individuals' level of apprehension across 4 different real or anticipated communication contexts: group, meeting, dyadic, and public. Participants are asked to rate each statement on a 5-point Likert scale from "strongly agree" to "strongly disagree."

Social media are unique in their ability to be leveraged as an individual, small group, or even large group communication platform. Because social media can be partitioned in many ways, individuals are likely to have various perceptions of how personal (or impersonal) communication via social media sites may be. Particularly in a work context, employees may have varying levels of communication apprehension when expressing voice, depending on real or perceived participants involved in the exchange. This research adapted 8 of the following original 24 PRCA

items, specifically related to group and dyadic communication to measure respondents' communication style preference in conversations at work.

Table 9. Communication Style Preference Measures

Construct	*Item*
Small Group/Large Group Exchange	CSP1 - I dislike participating in group discussions. *(Reverse scored)*
	CSP2 - Generally, I am comfortable while participating in a group discussion.
	CSP3 - I like to get involved in group discussions.
	CSP4 – I am afraid to express myself at meetings. *(Reverse scored)*
	CSP5 – I have no fear of speaking up in conversations.
	CSP6 – Ordinarily, I am very calm and relaxed in conversations.
	CSP7 – Ordinarily, I am tense and nervous in conversations. *(Reverse scored)*
	CSP8 – While conversing with a new acquaintance, I feel very relaxed.

4.2.4 Engagement and Satisfaction

Engagement and satisfaction are constructs widely used in organization studies and applied to issues of management theory and practice (Langford, 2009). Employee engagement has been found to impact employee motivation (Schie, Gautier, Pache, & Guntert, 2018), positive communication behaviors (Kang & Sung, 2017), performance (Bedarker & Pandita, 2014), and job satisfaction (Holland, Pyman, Cooper, & Tiecher, 2011). In 2009, Langford measured organizational voice climate with a 31-item employee opinion survey that measured work practices and outcomes. Among the items on the self-report survey, were three broad sections relating to employee motivation and initiative, job satisfaction, and intention to stay. From the original 9 items, 8 of the following original statements were adapted for this survey.

Table 10. Engagement and Satisfaction Measures

Construct	*Item*
Motivation & Initiative (Engagement) (ENG)	ENG1 – I put in extra effort whenever necessary.
	ENG2 – I am quick to take advantage of opportunities.
	ENG3 – I take the initiative in solving problems.
	ENG4 – My work gives me a feeling of personal accomplishment.
	ENG5 – I like the kind of work I do.
Intention to Stay (Job Satisfaction) (SAT)	SAT1 – Overall, I am satisfied with my job
	SAT2 – I am likely to still be working in this organization in 5 years' time.
	SAT3 – I can see a future for myself in this organization.

4.2.5 Demographic Data

Basic demographic information were collected for descriptive purposes. Variables such as gender, age, employment industry, whether respondents were in a management position, if they supervised other employees, and how long they have been employed at their current organization were gathered in order to better understand background characteristics of the survey respondents, not to generalize about any specific population.

4.3 Development of Voicing Affordance Measurements

To date, instrument items that measure social media affordances are rare. To accurately identify and measure affordances, specifically those that are used for voicing behaviors within organizational contexts, I conducted a series of pilot tests based on the extant affordance literature, to identify and validate survey scales that would adequately measure affordances most salient to direct voice practices.

The initial operational definition and measurement items for employee voicing affordances were sourced from existing voicing scales (Van Dyne & LePine, 1998) and previously studied perceived

social media affordances (Karahanna et al., 2018). The initial pool of items included 43 items. These items were pre-tested for the instrument in two phases. In the first phase, measurement items and their categorization were pre-tested through card-sorting, following established guidelines (Moore & Benbasat, 1991). In the second phase, the refined measurement items were developed into a questionnaire and pre-tested for flow, structure, format and language.

4.3.1. Step 1: Card sorting

The card sorting exercise was conducted by 5 judges (academic faculty, PhD students, and individuals who work in business) who were selected based on their role within an organization that uses some form of ESNS. Card sorting is a technique to develop candidate items for measurements. Here, 'judges' are not necessarily experts, but individuals who are selected based on their experience with the phenomena being examined, in this case voicing. This technique was useful in testing the initial relationships between different items. Card sorting was also an initial attempt to test face validity by grouping items into different categories.

During the card-sorting exercise, randomly listed items, along with the names and definitions of the constructs, were distributed to the judges. The judges individually (1) sorted 43 items into what they believed to be the most appropriate construct, or (2) marked an item as "Does not fit any category", or "Does not make sense or is confusing." In total, twelve items marked as "does not fit any category" or "does not make sense or is confusing" were refined or removed before the full questionnaire was developed.

After multiple rounds of card sorting, 31 statements that were derived from the voicing affordance card sorting exercise were retained for use in a future pilot test to validate the voicing affordance measures (See Table 11, below).

Table 11. Items Used in the Voicing Affordances Pilot Survey

Item Prompt - I use workplace social media to…	Future Use
…speak up to managers about employee needs.	Retained for pilot survey
…influence work-related decisions.	Retained for pilot survey
…suggest improvements at work.	Retained for pilot survey
…call for actions that bring about desired change.	Removed due to conceptual overlap
…speak out for or against my employer's stance on controversial issues.	Removed due to conceptual overlap
…voice constructive suggestions.	Retained for pilot survey
… offer input on others' decisions.	Removed due to conceptual overlap
… highlight concerns about strategies or actions.	Removed due to conceptual overlap
… organize actions to bring about change.	Retained for pilot survey
… criticize or defend my employers' stance on controversial issues.	Retained for pilot survey
… communicate my opinions about management actions.	Retained for pilot survey
… raise red flags about actions or decisions I observe.	Retained for pilot survey
… offer ideas for improvements at work.	Removed due to conceptual overlap
… promote actions to bring about desired changes.	Removed due to conceptual overlap
… take visible action to show my values.	Retained for pilot survey
… give feedback on policies or procedures.	Retained for pilot survey
… speak up about how decisions or actions affect particular groups.	Retained for pilot survey
… point out problems about people or personalities.	Removed due to conceptual overlap
… join in activities to bring about change at work.	Retained for pilot survey
… speak up to my employer about issues that impact society.	Retained for pilot survey
… suggest new project strategies or actions.	Retained for pilot survey
… point out problems about work related processes.	Retained for pilot survey
… tell my employer my stance on social or political issues.	Retained for pilot survey
… share my expertise to help others.	Retained for pilot survey
…participate in solving problems at work.	Retained for pilot survey
…share my ideas to help the organization.	Retained for pilot survey
… suggest solutions to problems in the workplace.	Removed due to conceptual overlap
… support fellow employees in workplace issues.	Removed due to conceptual overlap
… work out solutions to problems in the workplace.	Retained for pilot survey
… take sides on an issue.	Retained for pilot survey
… join in conversations about problems at work.	Retained for pilot survey

4.3.2 Step 2: Validating Voicing Affordances Measures

To validate the measurement instrument for employee voicing affordances, and to ensure that the scales demonstrated the appropriate levels of reliability and validity, I conducted a pilot test using the 31 items identified in the card sorting activity. All items in the questionnaire were constructed as 7-point Likert-type scale questions (Jamieson, 2004) to avoid collapsed variance and maintain the consistency of responses. The questions were ordered randomly to avoid possible order effects (Creswell, 2013). A panel of researchers with expertise in survey design reviewed the questionnaire to identify flaws associated with questionnaire construction, wording, and formatting. The questionnaire was evaluated in terms of respondent issues (e.g., comprehension, burden), as well as format issues (e.g., flow, typographical errors, and order effects).

Subjects for this study were drawn from a purposive sample of individuals who regularly use some form of ESNS as part of their work role. Invitations to participate in the survey were extended via direct and group email to relevant populations, as well as LinkedIn—a professional social networking platform. Participants included professionals from different organizations in academic, technology, entertainment, and service industry organizations. The goal was to gather sufficient, variable data to evaluate the measurement instrument, not to represent a specific population. Data were collected online using Qualtrics survey software. Respondents were also asked to provide feedback on the items, format, and scaling.

Of the 77 individuals who responded, thirty-six responses were removed due to incomplete data, leaving a final sample of 41 usable responses for analysis. Since the data were normally distributed, this sample size was a reasonable number for multivariate analysis (Hair & Anderson,

2010). The sample was relatively balanced according to all known demographic factors. Participants were predominately from the Western United States and had a minimum of 5 years of professional work experience.

4.3.3 Step 3: Exploratory & Confirmatory Factor Analysis

I used Exploratory Factor Analysis using Maximum Likelihood with Varimax rotation to identify which factors were the best items to measure the constructs representing each type of voicing affordance. Items that had low loadings (<.50), and high cross-loadings were removed. Factor analysis was repeated until an acceptable solution was achieved. The factor analysis resulted in a reduced pool of 12 items that loaded onto 3 factors. Three or more items were used to operationalize each construct. Table 12 (below) indicates each item and the corresponding factor it loaded on to. This pilot study is reported in Estell, Davidson, & Abhari (2021) and key tables are included in Appendix A.

Table 12. Voicing Affordance Measures

Factor	Items
Promotive Voicing Affordances	ESNS allows me to … **PRM1**: participate in problem solving at work **PRM2:** share my ideas to help the organization **PRM3:** voice constructive suggestions **PRM4:** suggest new project strategies or actions **PRM5:** share my expertise to help others
Prohibitive Voicing Affordances	ESNS allows me to … **PRH1:** point out problems about work related processes **PRH2:** give feedback on policies or procedures **PRH3:** influence work-related decisions **PRH4:** speak up to managers about employee needs
Advocacy Affordances	ESNS allows me to … **ADV1:** tell my employer my stance on social or political issues **ADV2:** speak up to my employer about issues that impact society **ADV3:** communicate my opinions about management actions

An examination of the eigenvalues revealed that these three components with eigenvalues greater than 1 explain 67% of the variance in total. Overall, these analyses reveal three dimensions for employee voicing via ESNS channels: (consistent with extant literature) perceived *promotive*, *prohibitive*, and (a new finding) *advocacy* affordances.

Confirmatory Factor Analysis further assessed the reliability and validity of the three identified dimensions. Using SmartPLS 3 (Ringle, Wende, & Becker, 2015) all constructs were found to have good to very good factor loading (above 0.7). Internal consistency reliability (construct reliability) was assessed by examining the Composite Reliability (CR) and Cronbach's alpha of the constructs. Each measurement met the reliability criteria (Hair, Hult, Ringle, & Sarstedt, 2013). After having performed exploratory and confirmatory factor analysis on voicing affordances, the full survey was piloted via Mechanical Turk. Although the results of this pilot study were satisfactory, due to the small sample size of the exploratory factor analysis, 22 of the 31 items were retained for the pilot test of the full survey instrument.

4.4 Pilot Study of Full Questionnaire and Research Model

To test the full survey instrument and assess the proposed model, I utilized Mechanical Turk (mturk.com), a crowd-sourcing website for businesses to hire remotely located "crowd workers" to perform on-demand tasks such as taking surveys. Mechanical Turk is part of the Amazon Web Services product offering, and owned by Amazon ("Amazon Mechanical Turk, FAQ page". Retrieved 14 February 2021). Here, employers can post what are referred to as *Human Intelligence Tasks* (also known as HITs), such as identifying videos, web content, or taking surveys. Workers

can browse available HITs and complete them at a rate set by the employer (mturk.com, 2021). As of April 2019, requesters could register from 49 approved countries (mturk.com, 2021).

4.4.1. Pilot Survey Sample

Mechanical Turk workers who identified as residents of North America, who were employed full time, and attested to having a personal LinkedIn account were recruited to participate in exchange for $2. Consenting participants were directed to an online survey on the Qualtrics survey platform.

When using Mechanical Turk, employers have the ability to pay an additional fee to have Mechanical Turk screen for employer selected criteria that help filter participants based on a range of factors. For this survey, I paid an additional fee to have Mechanical Turk screen for respondents that work full time and have a personal LinkedIn account. I sought out participants who work full time for this pilot because there is a greater likelihood that when working full time, participants are exposed to, and have more regular access to an organization's ICTs. Screening for presence on LinkedIn was used as a way to help gauge the level of professionalism of each participant, as well as their ability to use social media for a professional context. In addition to the screening criteria implemented by Mechanical Turk, two additional, initial self-report screening questions were added to the survey, which would preclude some crowd-workers from participating. These screening questions were:

1) Do you use any form of workplace social media on some type of technological system provided by your employer in your current job?
2) Do you live and work in North America?

If a respondent answered “no” to either of these questions, they were immediately taken to an exit page on the survey and were not permitted to participate (or be paid).

The final survey was posted to Mechanical Turk beginning in early December 2020. The HIT was open for 2 weeks and garnered an initial 136 responses. From these responses, the data was cleansed based on the following criteria: 1) Responses were removed for incomplete data, 2) Responses were removed based on participant duration in the survey (i.e. “speeders” were removed). Participants who did not spend at least 8 minutes in the survey were removed from the data set, 3) Participants who answered incorrectly to at least 2 attention-getter questions were removed, 4) Finally, participants whose IP addresses were located outside of North America were removed. In all, a total of 72 responses were removed from the final data set. After the data cleansing process, a total of 64 usable responses were kept for final analysis. Since the data was normally distributed, this was an acceptable sample size to test the model (and not to generalize to any specific population) (Hair & Anderson, 2010). Table 13 (below) gives a report of the frequencies and percentages for the Mechanical Turk pilot.

Table 13. Frequencies and Percentages of Mechanical Turk Pilot

Item		*n*	*%*
Gender	Male	42	65.6
	Female	22	34.4
Age	25-34	6	9.4
	35-44	42	65.6
	45-54	10	15.6
	55-64	5	7.8
	65-74	1	1.6
Race	White non-Hispanic	25	39.1
	Black or African American	1	1.6
	American Indian or Alaska Native	1	1.6
	Asian	37	57.8
Education	High School Diploma	2	3.1
	Some college	2	3.1
	Associates	44	68.8
	Doctorate or professional degree	1	1.6
	Prefer not to answer	15	23.4

4.4.2 PLS-SEM for the Mechanical Turk Measurement Model

I used SmartPLS (Ringle, Wende, & Becker, 2015) to validate both the measurement and structural properties of the proposed research model. For this type of study, PLS analysis is preferred over other analytical techniques because it simultaneously assesses the psychometric properties of the measurement items (i.e., the measurement model) and analyzes the direction and strength of the hypothesized relationships (i.e., the structural model). PLS also facilitates the modeling of reflective constructs and it is recommended for the hierarchical model evaluation used in this study (Hair, Ringle, & Sarstedt, 2011; Wetzels et al., 2009).

The structural model was tested following the two-step procedure suggested by Wetzels and colleagues (2009) for hierarchical models. In the first step, the latent variable scores for the second order constructs were obtained using PLS path modeling by specifying a latent variable that

represents all the manifest variables of the underlying first-order latent variables (Wetzels et al., 2009). In the second step, the hypotheses were tested.

While the proposed model was well supported during this pilot, it revealed several items that either needed to be 'watched', removed, or revised for clarity. Results of the pilot indicated that there was not strong support for communication style preference as a moderating factor between perceived ESNS voicing affordances, and voicing behaviors. This finding was noted as something to watch in the full field test, as the sample size was still relatively small. In addition, the following 27 items (Table 14, below) were selected for revision or removal based on low loadings:

Table 14. Items with Low Loadings

Item	*Initial Wording*	*Revised Wording (if applicable)*
VLC4	I feel that employees in my workplace are encouraged to… keep informed about issues where their opinions might be useful to the organization.	I feel that employees in my workplace are encouraged to… stay informed about organizational issues that are relevant to them, where their opinions may be useful.
VBH4	At work I… keep informed about issues where their opinions might be useful to the organization.	At work I… stay informed about organizational issues that are relevant to me, where my opinions may be useful.
CSP1	I dislike participating in group discussions.	I try to avoid participating in group discussions at work.
CSP2	Generally, I am comfortable while participating in a group discussion.	I am comfortable while participating in a group discussion at work.
CSP3	I have no fear of speaking up in conversations.	I like speaking up in conversations with my coworkers.
CSP4	I'm afraid to speak up in conversations.	I feel unsafe speaking up in conversations with my coworkers.
CSP5	I like to get involved in group discussions.	I like taking part in group discussions about work.
CSP6	I am calm and relaxed while participating in group discussions at work.	I feel comfortable when participating in group discussions at work.
CSP7	Ordinarily I am very tense and nervous in conversations.	I am very tense and nervous in conversations with my coworkers.
CSP8	Ordinarily I am very calm and relaxed in conversations.	I am comfortable in conversations with my coworkers.
ENG2	I am quick to take advantage of opportunities at work.	I am quick to take advantage of opportunities at work (e.g. new job responsibilities, networking opportunities, volunteering for committees).
AUT3	I am free to express my ideas and opinions on the job	I am free to express my opinions in group discussions at work.
AUT4	I am free to choose the method(s) to use in carrying out my work.	*Removed due to item's dependence on career field.*
AUT5	My feelings are taken into consideration at work.	My co-workers and supervisors take my feelings into consideration at work.

AUT7	At work, there are opportunities for me to decide for myself how to go about my work.	At work, I have reasonable autonomy to decide how I go about getting my job done.
COM1	I feel very competent when I am at work.	I feel very competent in doing my job.
COM2	People at work tell me I am good at what I do.	People at work tell me that I am good at my job.
COM3	I have been able to learn interesting new skills on my job.	I have been able to learn new skills in my job.
COM5	On my job, I have a chance to show how capable I am.	At work, there are opportunities to show others how capable I am at my job.
COM6	When I am working I often feel very capable.	When I am working, I often feel capable in completing the tasks I am responsible for.
REL1	I really like the people I work with.	I like my coworkers.
REL2	I get along with people at work.	I get along with my coworkers.
REL3	I don't need to keep to myself when I'm at work.	I can be myself when I am at work.
REL6	There are people at work that I am close to.	I have close relationships with some coworkers.
REL7	The people I work with seem to like me.	Most of my coworkers seem to like me.
REL8	People at work are pretty friendly towards me.	My coworkers are friendly to me.

Once all identified items were removed or revised, I proceeded with the full field test of the proposed model. The full survey instrument used can be found in Appendix C.

4.5 Field Test of Full Survey

For the full research study, I contracted with Qualtrics, the parent company of the Qualtrics survey software, which also provides survey panel services. Some of the advantages of using Qualtrics for survey research include:

- Digital fingerprinting and quality checking of all respondents
- Speed checks through a dedicated project management team (replacing those who take less than 8 minutes in the survey)
- Replacement of any identified straight-liners (respondents who answer the same option every time)
- Pattern recognition software that identifies fraudulent respondents
- Replacement of any proven straight liners, gibberish open-ends, or illogical / low-quality responses

The following screening criteria were determined as part of the contract, prior to the launch of the survey:

Respondents should be:

- 18 years of age or older
- Reside in the United States or Canada
- Work in white or "pink" collar industries (finance, technology, retail, or care oriented fields)
- Work part time or full time in an organization that uses some form of workplace social media

The national setting of employees may be relevant to employee voicing behaviors, because cultural norms and legal practices around employee expression typically vary in different parts of the world (Hofstede, 2001). To reduce variation associated with national cultural difference, which are beyond the scope of this study, and to allow variation of interest to the study to manifest more fully (e.g., individuals' psychological needs, perceived voicing affordances, and so on), the target population was narrowed to North America. My expectation was that norms around voicing practices by employees in organizations in U.S. and Canadian firms are likely to be more similar than across a global sample (Pew Research Center, 2004). Qualtrics allows researchers to choose any target audience within their pool of participants that can be screened on a variety of criteria. As such, I specified that all respondents should live and work in North America (U.S. and Canada).

In all, I contracted with Qualtrics for 350 quality survey responses. The survey began with a "soft launch," a process where Qualtrics pauses data collection at 10% of the target number of surveys specified. Once paused, I had the opportunity to evaluate the quality of the data, including location of IP address, speeders, and those who may have answered incorrectly to attention getter questions.

Once I determined that the survey was sufficiently capturing quality responses from the target population, the rest of the data collection proceeded.

The data collection period lasted two weeks, and Qualtrics provided a total of 369 responses. After further data cleansing, I determined that 3 respondents used IP addresses outside of North America, therefore they were dropped from the final analysis leaving a final total sample size of N=366 participants. This last data set is the source for evaluation of the proposed model, the results of which will be detailed in the next chapter.

CHAPTER 5

RESULTS

5.1 Demographic Frequencies and Percentages

Table 15 summarizes the demographic frequencies and percentages of my sample. More males participated in the survey than did females. The majority of respondents were between the ages of 35 and 64, and a majority of the population (over 94%) had at least some college education. Although my study did not seek to establish a statistically representative sample, the group of respondents sufficiently reflected the types of individuals likely to engage with ESNS at work. For example, the sample population consisted mainly of knowledge workers in organizations using IT regularly. In addition, the sample population included approximately 20% respondents of color (similar to racial demographics in both the US and Canada).

Table 15. Frequencies and Percentages of Survey Population

Item		*n*	*%*
Gender	Male	202	55.2%
	Female	164	44.8%
Age	18-24	5	1.4%
	25-34	73	19.9%
	35-44	148	40.4%
	45-54	70	19.1%
	55-64	58	15.8%
	65-74	12	3.3%
	75 and older	0	0%
Race	White non-Hispanic	286	78.1%
	Black or African American	20	5.5%
	American Indian or Alaska Native	1	.3%
	Asian	33	9.0%
	Native Hawaiian or other Pacific Islander	1	.3%
	Two or more races	11	3.0%

Education	Other	14	3.8%
	Less than high school	2	.5%
	High School Diploma	18	4.9%
	Some College	43	11.7%
	Associates	35	9.6%
	Bachelors	147	40.2%
	Masters	86	23.5%
	Doctorate or professional degree	35	9.6%

5.2 Analysis of Proposed Model

I used SmartPLS (Ringle, Wende, & Becker, 2015) to validate the structural properties of the proposed research model. As previously stated, PLS analysis is preferred for this type of research because it simultaneously assesses the psychometric properties of the measurement items and analyzes the direction and strength of the hypothesized relationships. It also facilitates the modeling of reflective constructs and it is recommended for the hierarchical model evaluation used in this study (Hair, Ringle, & Sarstedt, 2011; Wetzels et al., 2009). Further, the two-step approach, when the measurement model serves as the baseline model is preferred (as opposed to a one-step model only) because it is more useful in the model building process due to 1) the test of significance for all pattern coefficients, 2) asymptotically independent test of the theoretical model, 3) model re-specification to achieve acceptable unidimensional construct measurement, and 4) formal comparisons of the substantive model of interest with the next most likely theoretical alternative (Anderson & Gerbing, 1988).

To test my proposed model, several measurement techniques were employed to assess the quality of both the measurement model and structural model. Table 16 (below) reports the measurement techniques employed for my field study.

Table 16. Measurement Techniques Used in Field Study

Measurement Model (Reflective Constructs)	*Internal consistency reliability: Composite reliability*
	Indicator reliability: Indicator loading
	Convergent validity: Average Variance Extracted (AVE)
	Discriminant Validity: Fornell-Larker criterion and cross-loading.
Structural Model	Collinearity among IVs: Tolerance and Variance Inflation Factor (VIF)
	Path coefficients' significance by bootstrapping
	R2 (Explanatory power)
	Q2 (Effect size/predictive relevance): Redundancy analysis (blindfolding)

5.3 Evaluation of the Reflective Measurement Model (Step 1)

I evaluated the measurement model by assessing internal consistency reliability (composite reliability and Cronbach's alpha), indicator reliability (outer loadings,), convergent validity (AVE), and discriminant validity (cross-loadings and Fornell-Larker criterion).

First, analysis was run to preliminarily examine the outer loadings of each indicator for internal consistency reliability. A rule of thumb indicates that a latent variable should explain at least 50% of each indicator's variance (Hair et al., 2017). In general, then, an outer loading of 0.70 is considered a rough benchmark in deciding whether to keep or remove items from the overall measurement model, although exceptions are sometimes made (Hair et al., 2017). Consistent with Churchill (1979), a minimum loading 0.70 is necessary for each measure, however, a minimum of 0.6 is acceptable for newly developed measures (Hair et al., 2010). As Hair and colleagues (2017) also point out, in some cases (particularly with social science research seeking to establish newly developed scales) researchers should not decide on indicator elimination based on weak outer loadings alone, but instead carefully evaluate how those choices affect other parameters like internal consistency reliability (Hair, Hult, Ringle, & Sarsdedt, 2017).

As such, instead of immediately eliminating poorly performing items when a loading was below 0.7, I assessed not only the outer loading itself, but also the effects of item removal from the composite reliability, as well as on the content validity of the construct (Hair et al., 2017). In my study, items with outer loadings that were between 0.40 and 0.70 were considered for removal only when deleting an indicator would lead to an increase in the composite reliability above the suggested threshold value. Table 17 (below) displays items that were found to have loadings between 0.4 and 0.7, that when removed, increased overall composite reliability for each construct. In all, 11 items were removed from the final model.

Table 17. Items Removed Due to Low Loadings

Item	*Item wording*
PRM1	I use workplace social media to voice constructive suggestions.
PRM3	I use workplace social media to suggest new project strategies or actions.
AUT2	I do not feel pressured at work.
AUT6	I feel like I can pretty much be myself at work.
REL2	I get along with my coworkers.
REL3	I can be myself when I am at work.
REL8	My coworkers are friendly to me.
COM3	I have been able to learn new skills in my job.
CSP1	I try to avoid participating in group discussions at work.
CSP4	I feel unsafe speaking up in conversations with my coworkers.
CSP7	I am very tense and nervous in conversations with my coworkers.

Promotive Voice (PRM), Autonomy (AUT), Relatedness (REL), Competence (COM), Communication Style Preference (CSP)

As shown in Table 18 (below), all the loadings of the retained measurement items on their latent constructs exceed 0.6, indicating acceptable item reliability for exploratory research (Nunally & Bernstein, 1994). Cronbach's alpha and composite reliability of all the constructs are higher than 0.7, indicating good internal consistency among the items measuring each construct (Hair et al., 2013). In addition, three criteria were adopted to assess convergent validity and discriminant

validity: (a) all Average Variance Extracted (AVE) are higher than 0.50 (Hair et al., 2013); (b) the square root of the AVE of each constructs is larger than the correlations of this construct with the other constructs (Fornell & Larcker, 2006); and (c) the correlations among all constructs (i.e., inter-construct correlations) are all well below the 0.90 threshold (Hair et al., 2013). The results of these tests (Table 18, below) suggest adequate convergent and discriminant validity.

Table 18. Psychometric Properties of First Order Constructs

Latent Variable	*Indicators*	*Loading*	*AVE*	*α*	*CR*	*ADV*	*AUT*	*CSP*	*COM*	*ENG*	*PRH*	*PRM*	*REL*	*SAT*	*VBH*	*VCL*
Advocacy Voice (ADV)	ADV1	0.891	0.798	0.874	0.922	**0.893**										
	ADV2	0.923														
	ADV3	0.865														
Autonomy (AUT)	AUT1	0.821	0.637	0.812	0.875	0.485	**0.798**									
	AUT3	0.833														
	AUT4	0.793														
	AUT5	0.741														
Communication Style Preference (CSP)	CSP2	0.833	0.749	0.916	0.937	0.517	0.632	**0.865**								
	CSP3	0.872														
	CSP5	0.872														
	CSP6	0.906														
	CSP8	0.840														
Competence (COM)	COM1	0.723	0.555	0.805	0.862	0.286	0.691	0.497	**0.745**							
	COM2	0.720														
	COM4	0.788														
	COM5	0.780														
	COM6	0.710														
Engagement (ENG)	ENG1	0.754	0.581	0.819	0.873	0.380	0.666	0.535	0.718	**0.762**						
	ENG2	0.667														
	ENG3	0.748														
	ENG4	0.860														
	ENG5	0.770														
Prohibitive Voice (PRH)	PRH1	0.791	0.688	0.848	0.898	0.827	0.522	0.548	0.364	0.459	**0.829**					
	PRH2	0.855														
	PRH3	0.872														
	PRH4	0.796														
Promotive Voice (PRM)	PRM2	0.842	0.757	0.840	0.903	0.640	0.509	0.590	0.457	0.529	0.794	**0.870**				
	PRM4	0.910														
	PRM5	0.857														

Relatedness (REL)	REL1	0.754	0.595	0.829	0.880	0.419	0.729	0.523	0.612	0.584	0.455	0.435	**0.771**			
	REL4	0.810														
	REL5	0.822														
	REL6	0.740														
	REL7	0.727														
Satisfaction (SAT)	SAT1	0.862	0.745	0.833	0.898	0.360	0.616	0.463	0.596	0.671	0.415	0.401	0.588	**0.863**		
	SAT2	0.827														
	SAT3	0.900														
Voice Behavior (VBH)	VBH1	0.831	0.698	0.913	0.933	0.488	0.610	0.550	0.499	0.538	0.591	0.562	0.459	0.437	**0.835**	
	VBH2	0.840														
	VBH3	0.823														
	VBH4	0.807														
	VBH5	0.868														
	VBH6	0.843														
Voice Climate (VCL)	VCL1	0.835	0.671	0.902	0.924	0.323	0.597	0.390	0.453	0.486	0.432	0.387	0.509	0.453	0.604	**0.819**
	VCL2	0.852														
	VCL3	0.800														
	VCL4	0.795														
	VCL5	0.836														
	VCL6	0.792														

Note: The diagonal elements are the square root of the shared variance between the constructs and their measures.

5.4 Evaluation of the Structural Model (Step 2)

Once reliability and validity of the measurement model have been achieved, the next step is to address the assessment of the structural model results. This can be accomplished by examining the model's predictive capabilities and the relationships between constructs (Hair et al., 2017). The evaluation of reflective constructs involves an assessment of each indicators' (predictive) validity and multicollinearity (Hair et al., 2013). Indicator validity, which gauges the strength and significance of the path from the indicator to the construct, was estimated using the PLS algorithm method with a bootstrapping of 5,000 samples to calculate the loading of each indicator on its corresponding construct. As Table 19 (below) shows, the loadings of all the indicators are significant, suggesting satisfactory indicator validity (Hair et al., 2013).

Multicollinearity among indicators is also of crucial concern for all constructs (Diamantopoulos & Winklhofer, 2001). In my study, multicollinearity was tested by computing the Variance Inflation Factor (VIF) of each indicator. All computed VIF values are at or below the commonly accepted threshold of 5, suggesting that multicollinearity is not a threat to the validity of my study's findings (Ringle et al., 2015).

To further assess the model, each of the hypotheses were tested. The results of structural model analysis are illustrated in Figure 4 and summarized in Tables 19 and 20. As shown in Table 19 (below), my model accounts for 54%, of the variance in employees voicing behaviors, 29% of the variance in employee engagement, and 45% of the variance in employee satisfaction.

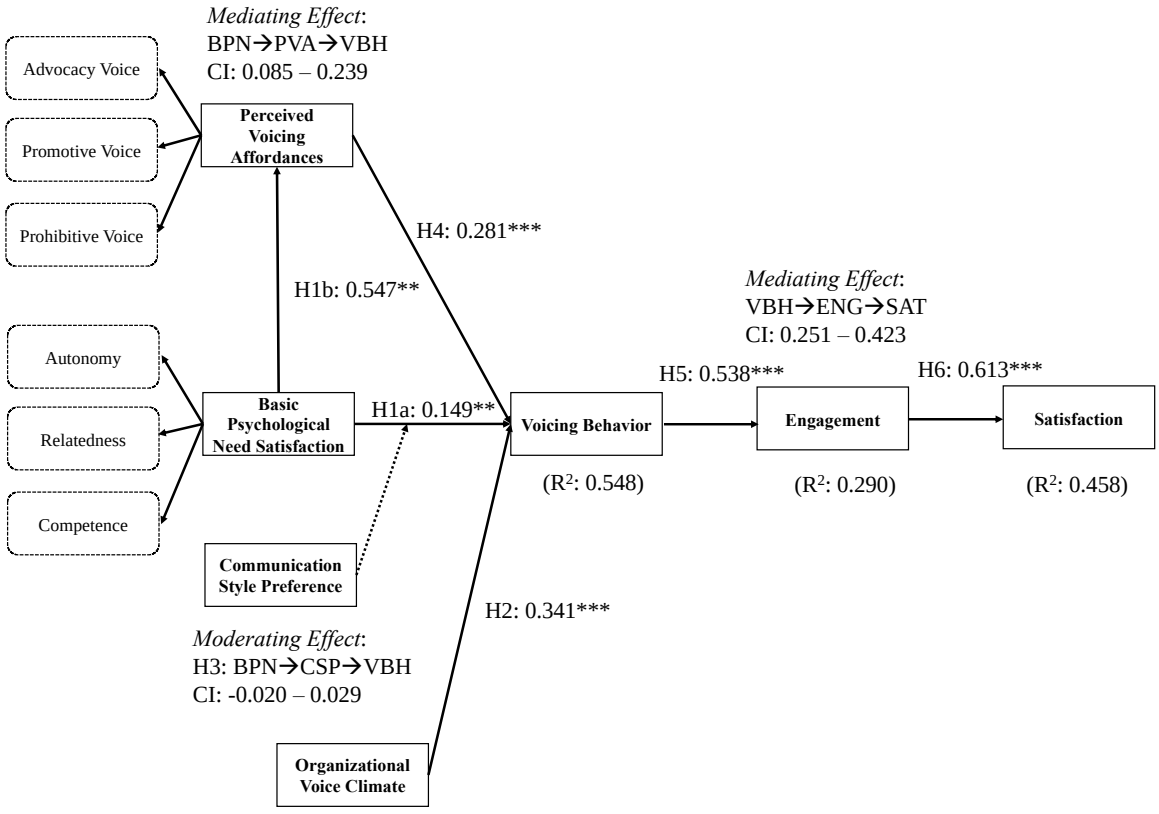
My results found that basic psychological need satisfaction, voice climate, and perceived voicing affordances all significantly influence voice behaviors **($\beta = 0.149$, $p < 0.01$), ($\beta = 0.341$, $p < .001$), and ($\beta = 0.281$, $p < 0.001$), respectively. Additionally, basic psychological need satisfaction also significantly influenced perceived voicing affordances ($\beta = 0.547$, $p < 0.001$). As such, the data provides support for hypotheses H1a, H1b, H2, and H4.

Comparison of path coefficients using Cohen's f^2 effect size (Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012) reveals that: (a) voice climate ($f^2 = 0.164$) has greater predictive power on voice behavior when compared to basic psychological need satisfaction ($f^2 = 0.021$), or perceived voicing affordances ($f^2 = 0.098$).

I also tested the relationships between voice behaviors and employee engagement. Results indicate that voice behavior significantly influences employee engagement ($\beta = 0.538$, $p < 0.001$). Additionally, employee engagement exerted significant influence on employee satisfaction ($\beta = 0.613$, $p < 0.001$). Together, these results substantiate H5 and H6.

Comparison of path coefficients using Cohen's f^2 effect size (Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012) indicate that voice behavior exerts a significant amount of influence on employee engagement ($f^2 = 0.408$), and that employee engagement has significant predictive power on satisfaction ($f^2 = .493$).

Figure 4. Structural Model Analysis



*p < 0.05, **p < 0.01, ***p<0.001, CI = confidence interval, R^2 = determination coefficient

Table 19. Results of the Structural Model Assessment

Dependent Variable	*Hypothesis*	*Support*	*β*	*t*	R^2	Q^2
Voicing Behavior	H1a: BPN→VBH	Yes	0.149**	2.613		
	H2: VCL→VBH	Yes	0.341***	4.926	0.548	0.527
	H4: PVA→VBH	Yes	0.281***	4.608		
Perceived Voice Affordances	H1b: BPN→PVA	Yes	0.547***	12.175	0.299	0.243
Engagement	H5: VBH→ENG	Yes	0.538***	11.854	0.290	0.283
Satisfaction	H6: ENG→SAT	Yes	0.613***	10.845	0.458	0.446
Moderator	***Hypothesis***	***Support***	***Indirect Effect***	***t-Value***		***Confidence Interval***
Communication Style Preference	H3: BPN→CSP→VBH	**No**	0.010	0.784		-0.020 – 0.029

NOTE: Basic Psychological Needs (BPN), Voicing Behavior (VBH), Voicing Climate (VCL), Perceived Voicing Affordances (PVA), Engagement (ENG), Satisfaction (SAT), Communication Style Preference (CSP)
*p < 0.05, **p < 0.01, ***p<0.001, β = path coefficients, R^2 = determination coefficient, Q^2 = predictive relevance (calculated by blindfolding).

Moderation analysis was conducted to explore the potential role communication style preferences play in moderating the impact of basic psychological need satisfaction on employee voice expression. In my study, consistent with contemporary practices for testing indirect influence (Rucker, Preacher, Tormala, & Petty, 2011), I utilized the bootstrapping method, a more rigorous and powerful approach to assessing the moderating role of communication style preferences on voicing behaviors (Preacher & Hayes, 2008): To begin, the moderating effect is measured directly in the bootstrapping method, rather than simply inferred to exist through a sequence of tests. Further, the bootstrapping method does not impose an assumption of the normality of the dataset, and as such is recommended for studies with a smaller sample size. In my study, the 95% confidence interval of the moderating effect was obtained with 5,000 bootstrap resamples. The results of my analysis (see Table 19, above) revealed that communication style preference does *not* influence the relationship between basic psychological need satisfaction and voicing behaviors as originally hypothesized. Thus, hypothesis 3 was not confirmed.

Post hoc analysis revealed that there was a mediating relationship between psychological needs and perceived voicing affordances, as well as a mediating relationship of employee engagement between voicing behaviors and employee satisfaction. Both relationships were significant. This indicates that perceived voicing affordances influence voicing behaviors as do psychological needs, and further, that psychological needs influence perceptions of voicing affordances (partial mediation). Similarly, employee engagement is influenced by voicing behavior and in turn influences employee satisfaction, which is also directly influenced by voicing behaviors (partial mediation) (See Table 20, below).

Table 20. Results of Mediation Assessment

Mediator	*Path Relationship*	*Indirect Effect*	*t-value*	*Confidence Interval*	*Supported*
Perceived Voicing Affordances	BPN→PVA→VBH	0.154	3.882	0.085-0.239	Yes
Employee Engagement	VBH→ENG→SAT	0.330	7.658	0.251-0.423	Yes

Basic Psychological Needs (BPN), Perceived Voicing Affordances (PVA), Voice Behavior (VBH), Engagement (ENG), Satisfaction (SAT).

Specifically, these results confirm the role of perceived voicing affordances in mediating the relationship between basic psychological need satisfaction and voice behaviors. Similarly, the results confirmed the role of employee engagement in mediating the relationship between voice behaviors and employee satisfaction, as none of the bias-corrected 95% confidence intervals contains zero. This method is in line with previous studies on measuring affordances (Abhari, Davidson, & Xiao, Forthcoming).

5.5 Summary of Findings

This chapter presents the results obtained from my survey study. The data collection was conducted by distributing a self-report questionnaire to employees who use ESNS on a regular basis. The data were then analyzed using the PLS-SEM method in order to investigate the relationships between basic psychological need satisfaction, voice climate, and perceived voicing affordances on voicing behavior, as well as to analyze relationships between voicing behavior and its impact on employee engagement and satisfaction. The analysis of the structural model revealed that six (6) of the hypotheses were supported, while one was not. The results indicate that basic psychological need satisfaction, voice climate, and perceived voicing affordances explain a considerable amount of variance in voicing behaviors. An additional finding is that perceived voicing affordances partially mediate the influence of psychological needs on voicing behaviors. Communication style preference, however, does not exert the influence on the relationship between basic psychological need satisfaction and voicing behaviors, as originally outlined. In addition, voicing behaviors do explain the variance in employee engagement, as does employee engagement with satisfaction. The interpretation and implication of these results will be discussed in the next chapter.

CHAPTER 6

DISCUSSION

6.1 Introduction

The lines between employees' work and personal lives, the ubiquity of smart devices, as well as the pervasive adoption of social media have profoundly changed the way organizations communicate with their employees (Van Zoonan & Banghart, 2018). In the same way, employees, seeing the emergent opportunities different technologies provide for voicing, are experimenting both with their organizations' receptiveness to, as well as their corporate policies around, voicing matters. As such, it is imperative for researchers and managers alike to understand how these new methods for voice expression provide opportunities as well as challenges in managing such communication effectively. In this chapter, I address the research questions posed at the beginning of the dissertation, in light of the reported results of the empirical study.

6.2 Perceived Voicing Affordances of ESNS

One of the guiding research questions that provided the motivation for my study was, "How does the availability of Enterprise Social Networking Sites influence employees' expression of voice in a work context?" This study developed an operational definition of, and measurement instrument for technological affordances that individuals perceive as useful for voicing at work. Grounded in the research around technological affordances (Gibson, 1989; Karahanna et al., 2018), this study focused on those features within ESNS that employees perceive as helpful in enacting voicing behaviors. Specifically, my study draws from the relevant literature on employee voice (Hirschman, 1970; Van Dyne & Le Pine, 1998; Wei, Zhang, & Chen, 2015), and focused on three

different types of voicing behaviors that can be enacted via ESNS: promotive voice, prohibitive voice, and advocacy voice. It has been well established in the literature that employees engage in promotive (pro-social 'helping'), as well as prohibitive (critical) voicing behaviors within their organizations (Liang, Farh & Farh, 2012). My study confirms that employees carry over these same behaviors at work via ESNS, but also adds to this body of literature by highlighting a new type of advocacy, or 'activism' voice behavior that is also being enacted via ESNS.

Contemporary practitioners have noted how employee activism is on the rise (Gurchiek, 2019), and attribute much of the influence in expressing such advocacy behaviors to the rising number of millennials in the workforce. This new group of younger workers are joining the workforce through a values-driven approach, seeking out employers whose actions align with their own ideals, and may be much more comfortable voicing their support or dissent where necessary (Weber-Shandwick, 2019). My research results support not only that employees participate in such advocacy behaviors, but that they are doing so via ESNS as well.

Together, the dimensions of promotive, prohibitive, and advocacy voice present opportunities for employee expression using a common set of features in ESNS. Thus, they are reflective of the underlying action possibilities presented through workplace social media. These findings are consistent with the notion that employees do enact voicing behaviors via ESNS (Ewing, Men & O'Neil, 2019). In line with Men, O'Neil, and Ewing (2020) "When employees contribute… they share knowledge, opinions, and concerns by posting and commenting or by liking/sharing corporate/employees' posts ..." (p. 5). Further, my study confirms the extant literature around voicing, indicating that the ways employees voice via ESNS (i.e. in a mediated context) are similar

to the methods employees use to voice in non-mediated contexts (Van Dyne & Le Pine, 1998; Wei, Zhang, & Chen, 2015).

This finding may be explained by the fact that ESNS, having grown out of the social media movement that began in people's personal lives, provides a comfortable and familiar platform for employees to express their voice. Many individuals are accustomed to sharing their thoughts and opinions online on their own personal social media channels (Liu & Bakici, 2019), and as such, may be comfortable with this type of expression in a work context as a result. Moreover, ESNS provides a means for employees to easily and conveniently share their thoughts, opinions, and concerns with others in the organization. As Leonardi and colleagues (2013) point out, ESNS allows employees to publish information effortlessly, therefore employees may see ESNS as a simple means by which to convey their thoughts, feelings, and suggestions to their employers. The motivations that spur employees to voice, however, are another important consideration.

6.3 Psychological Needs

To understand the motivations behind individual's voicing behaviors at work, my study looked to the literature on Self-Determination Theory and basic psychological need satisfaction (Deci & Ryan, 2000) for potential explanations. Specifically, it focused on three driving internal motivations to voice in a work context: autonomy, relatedness, and competence. Consistent with current literature around psychological motivations (Deci & Ryan, 2000), the results of my study indicate that psychological need satisfaction positively predicts voicing behavior via ESNS.

Specifically, the results of the empirical study support the idea that employees who have their ongoing needs for autonomy, relatedness, and competence satisfied, are more likely to voice (Huang, Shen, Yuan, & Li, 2020), in this case, via ESNS. Results also confirm prior research that basic psychological need satisfaction is related to work motivation over time (Olafsen, Deci & Halvari, 2017). Additionally, it supports research pointing out that when the workplace social context is not supportive and thwarts employees' psychological needs, they tend to be more defensive (Vansteenkiste & Ryan, 2013) making employees less likely to voice. Moreover, these findings help support relevant literature on motivations for voicing as a proactive behavior driven by psychological motivations (Wu, Qu, Zhang, Shengyue, & Tang, 2019). In short, psychological needs satisfaction, collectively, may encourage employees to enact their voice through ESNS in their organizations.

Overall, this finding may be explained by a combination of motivations around relatedness, autonomy, and competence. For example, social interaction and relationship building are highly predictive motives of ESNS usage (Liu & Bakici, 2019). Prior studies have also shown that that job autonomy influences voice expression (Wall & Martin, 1987; Wilkinson & Fay, 2011), and individual notions of competence (sometimes referred to as self-efficacy) may influence employees to voice due to their positive feelings about personal capabilities. In all, my research findings support and reinforce common conceptions about the impacts of psychological motivations on voicing.

My study also contributes notable new perspectives to the literature around voicing behaviors and psychological motivations. When examining the relationships between psychological need

satisfaction and employee voicing behaviors, my study revealed that perceived voicing affordances played an important role in mediating the relationship between basic psychological need satisfaction and voice expression. This can be explained by understanding that psychological need satisfaction motivates the search for affordances, and when employees perceive that they have an outlet to voice, they are much more likely to enact voicing behaviors.

6.4 Organizational Voice Climate

Another important question my study addressed was, "How does organizational voicing climate influence employee's motivation to voice in a work context?" The results of my study revealed that when employees perceived their organizational voicing climate to be more receptive to employee expression, they were more likely to voice on ESNS. The social cognitive theory (SCT) (Bandura, 1989), helps explain why this may be the case. Often, employees look to the behaviors of their peers to model their own behaviors (Bandura, 1989). This is especially true in a work context. As employees observe what is encouraged, well received, and acceptable on the job, they begin to understand the norms and expectations of the organization, and behave accordingly. When employees perceive that suggestions, concerns, and problem-solving efforts are well received by upper management and colleagues, they are more likely participate in, and continue voicing behaviors.

These findings substantiate prior research that has pointed out how organization-related social contexts influence employee proactivity (prosocial behaviors) through shaping proactive motivational states (Cai, Parker, Chen & Lam, 2018). It also supports research around workplace

voicing that has different attributes, which may affect how employees determine whether to use voice at work (Klaas, Olson-Buchanan & Ward, 2012).

6.5 Communication Style Preferences

In addition to the voice, or social climate of an organization, personal dispositions around voicing may impact how employees articulate voice behaviors within their organizations as well. However, contrary to my initial hypothesis, communication style preferences (under the broad umbrella of communication apprehension) did not moderate the relationship between basic psychological need satisfaction and voicing behaviors as I hypothesized. Although the question of personal dispositions and how they may influence voicing behaviors on ESNS is warranted, these preferences may be perceived differently in a mediated context. The instrument I used in my study (McCroskey, 1978) to uncover communication style preferences (PRCA-24) was originally developed for a face-to-face context and often used to probe an individuals' comfort with public speaking. Although speaking out on social media may, in some ways, be similar to public speaking (there is a potential for a large audience), the fact that these exchanges do not occur face-to-face may ease the level of apprehension on behalf of the speaker.

When having a communication exchange, individuals with different face-to-face communication style preferences may have those preferences satisfied in similar ways in a mediated context. For example, when communicating in a mediated context, individuals can take the time necessary to think about, edit, and carefully curate messages. They also have the added benefit of being able to respond at their own pace, instead of having to respond immediately—all advantages one does not have in an in-person encounter. As such, it is possible that a different method of measuring

communication style preference, following theories specifically focused on computer mediated communication, may be warranted. Walther's Hyperpersonal Computer-Mediated-Communication Model (Walther, 2007), for example, may be a more appropriate measurement method as this model suggests that computer mediated communication differs from face-to-face communication due to its host of communicative advantages over traditional face-to-face interaction.

Another reason why communication style preferences may not act as a moderator could be that as personal social media interaction has become ubiquitous in our personal lives (boyd, 2015), speaking out on social media channels, in general, may produce less apprehension than initially hypothesized. Communicating via social media may now be such a commonplace behavior that it does not produce the same type of apprehension as face-to-face encounters. Furthermore, it may be that levels of apprehension decrease when participants cannot physically "see" their real or perceived audience, thus lowering the extant level of anxiety associated with a communication exchange.

Bringing these concepts together, my study examines these phenomena as they impact the relationship between voicing behaviors and, ultimately, on employee engagement and satisfaction—important concerns for contemporary management practitioners and scholars, alike.

6.6 Employee Engagement and Satisfaction

Consistent with other studies around voice, my research supports the notion that voicing behaviors strongly influence employee engagement (Hyman, 2018). The results of my study illustrate, that as hypothesized, voicing behavior positively predicts employee engagement and satisfaction. It may be that employees who exercise their voice do so because they perceive themselves to be more connected to their firms, thus engendering a greater sense of engagement and satisfaction. This notion confirms previous research that has shown how voicing drives engagement and satisfaction (Pohler & Luchak, 2014; Wilkinson et al., 2004), and this is also true for voicing on ESNS.

Not only that, my study goes on to point out how engagement plays an important role in the relationship between voice behaviors and satisfaction. During post hoc analysis, I tested the relationship directly between voice behaviors and employee satisfaction to assess if employee engagement did, in fact, play a role in levels of employee satisfaction. The impact of the direct relationship between voice behaviors and satisfaction was smaller ($\beta = 0.107$) than the relationship between engagement and satisfaction ($\beta = 0.613$). When examining the overall ESNS Voicing Model, employee engagement explained almost 46% of the variance in overall satisfaction. This indicates that employee engagement has an important role in facilitating employee satisfaction. Taken together, this may indicate that employees who are more engaged likely feel more affiliation for their organization, which in turn increases their overall levels of satisfaction. Engagement, as a form a prosocial behavior, is enacted by employees who deeply care about their organizations' well-being; enough to participate in such extra-role behaviors as voicing via ESNS. As such, employees with higher affiliation for their organizations are likely more satisfied as well.

These findings substantiate prior research on employee engagement that call attention to "work communication on social media playing a critical role in constructing employee engagement rather than merely representing or demonstrating it" (Van Zoonan & Banghart, 2018, pp. 287-288). Researchers have also pointed out that social media not only facilitates information-sharing, but can also serve as a model for generating engagement (Van Zoonen & Banghart, 2018). In addition, scholars on engagement have called attention to the fact that employees are active agents who participate in constructing their own work environments and engagement (Bakker et al., 2011) and use social media to do so.

6.7 Summary

In sum, the empirical test of the proposed ESNS Voicing Model confirmed that basic psychological need satisfaction, perceived voicing affordances, as well as voicing climate influenced overall employee voice behaviors (H1a, H2, H4). It showed support for the notion that basic psychosocial need satisfaction positively impacted perceptions of voicing affordances (H1b). And, it supported the idea that voicing behaviors significantly influence employee engagement and satisfaction (H5, H6). Results of my study did not, however, show support for communication style preference as a moderator of the relationship between basic psychological need satisfaction and voice expression via ESNS (H3). While these results can be useful to management scholars and practitioners as they develop policies and practices around voicing on workplace social media, theoretical contributions, limitations of my study, and suggestions for future research will be discussed in the following chapter.

CHAPTER 7

CONCLUSION

7.1 Introduction

Modern organizations attempting to capitalize on social media for organizational productivity need to understand both the benefits and drawbacks of using social technologies, including being prepared for unintended consequences. It is important to note that as traditional voice systems like trade unions have declined, this "'representation gap' has not been filled by alternative non-union forms of indirect representation," (Wibberly & Saundry, 2016, p. 128). In fact, data from a WERS 2011 survey showed that a majority of employees felt they were better suited to represent themselves, rather than union representatives, as this use of direct voice signaled higher engagement with the organization (Wibberly & Saundry, 2016). In organizations that have implemented ESNS, employees may choose to use or appropriate ESNS for voicing behavior to directly express support or concerns with mixed results.

7.2 Contributions to Theory

My research provides important contributions to theory. While many studies on social media at work have looked at knowledge management (Ellison et al., 2015; Leonardi, 2014) and the social benefits of such technologies (boyd & Ellison, 2007; Leonardi, 2013), my research around voicing on ESNS provides a new dimension to the extant literature, while simultaneously supporting its exploration, as well.

First, my study developed and verified a measure of ESNS affordances for voicing behavior, which can be used to support future research into how employees utilize social media at work for voicing and related behaviors. While several social media affordances have been identified in the literature (Treem & Leonardi, 2013; Ellison et al., 2015; Karahanna et al., 2018), to date, none have looked specifically at those affordances for how they may support and/or create new paths for direct employee voice. This may be, perhaps, the first empirical study to explore the perception of voicing affordances on ESNS. As such, testing and refining these affordances fills important gaps in research about how employees are using social media to voice within an organization and supports future research studies in management, human resources, information systems, and computer mediated communications fields.

Additionally, my research presents and empirically tested a model that helps explain the motivations and considerations that impact employee voice behavior on ESNS. While the process of why employees voice or not has drawn much attention in the last decade, more studies have focused on the decision-making aspects of voicing instead of the underlying motivations (Morrison, 2014). I theorized that basic psychological need satisfaction would motivate employees to voice via ESNS. Not only did my research support that hypothesis, but it also provided evidence for the important role perceived voicing affordances play in providing opportunities for employees to enact voicing behaviors. Thus, my research both enriches current literature on voicing (Liang, Farh & Farh, 2012; Morrison et al., 2011; Van Dyne & Le Pine, 1998), but also highlights the important mediating role of perceived technological voicing affordances in the relationship between psychological motivations and voicing behavior as well. Furthermore, from a broader perspective, my study also supports recent research that suggests perceived technological

affordances mediate the influence of needs, motivations, and goals on behaviors to fulfill those goals via social platforms (Abhari et al., forthcoming).

Further, my research contributes to the literature around how voicing may influence engagement and satisfaction (Cox et al., 2006, 2009; Rees, Alfes & Gatenby, 2013), by asserting the idea that voicing does positively influence engagement, as well as satisfaction. Additionally, the results of my research strengthen the literature around employee engagement and satisfaction by pointing out the role employee engagement plays in mediating the relationship between voicing behavior and job satisfaction. Prior research has called attention to engagement as an antecedent to satisfaction (Cox et al., 2006, 2009), and my research affirms that this is also true in the context of ESNS. Finally, my research contributes important new applications of the Social Cognitive and Self-Determination Theories as they relate to voicing, affordances, and ESNS.

7.3 Contributions to Management Practice

Finally, my ESNS Voicing model has important practical implications. Many firms are using social technologies for knowledge management and collaboration (Ellison et al., 2015; Leonardi, 2014, 2015, 2017), but my study also introduces the concept of voicing via ESNS, and highlights the possibilities ESNS present for voicing within an organization. Voicing can have both positive and negative implications for organizations, generally, and management, specifically. Although voice can be a supporter of engagement and satisfaction (Cox et al., 2009; Holland, Cooper & Sheehan, 2017; Hyman, 2018) which generally have positive outcomes, it can also open the door to forms of dissent, and even inappropriate behavior (Wakabayashi, 2018) that can be very problematic. In fact, a spate of recent news stories has focused on the particularly problematic

voicing behaviors of employees on various forms of ESNS, causing PR crises firms must navigate carefully (Ghaffary, 2020; Seattle Times, 2020; Wakabayashi, 2020).

Understanding the unintended consequences when implementing ESNS, managers should be sure to thoroughly vet any ESNS product(s) they use, or plan to use, so they are familiar with the host of features for interaction, especially voicing. It is also important to clearly communicate corporate policy guidelines around ESNS use, including use examples and trainings on how employees should (and should not) engage ESNS, prior to allowing access. Organizations that choose to implement ESNS should be prepared to facilitate opportunities for promotive, prohibitive, and advocacy voice on ESNS. Taking these initial steps before allowing employees to use corporate ESNS are critical, as attempts to curtail voicing practices on ESNS as an afterthought could be perceived as attempting to suppress employee voice and lead to negative PR outcomes for the organization as a whole.

It's important to also point out that this research study was conducted during the COVID-19 pandemic. During this time, many people were working from home, so the use of ICTs and ESNS were more common, and perhaps more important to workers attempting to stay connected in distributed work situations. This circumstance did provide a highly relevant research landscape from which to examine ESNS use for voicing in a time when these products were gaining much more popularity and use within organizations.

In all, the results of my study can serve as an important resource to practitioners and managers who have already, or are contemplating implementation of ESNS. Managers should be aware of the behavioral possibilities that workplace technologies present when they implement them. Understanding the benefits and consequences of ESNS for voicing behavior will lend important insight into organizational policies (Banghart, Etter, & Stohl, 2018), helping managers create norms that avoid suppressing employee voice, but also assist in engaging employees through productive voicing behaviors.

7.4 Limitations

While analytically useful to inform studies of ESNS on voicing (Lee & Baskerville, 2003), my study does include limitations that should be noted. As previously stated, my study utilized a paid survey panel. As such, the population was limited to those individuals who work with Qualtrics. As researchers have pointed out, survey vendors often don't disclose their matching algorithms, which makes generalizing the results to a broader population difficult (Berent, 2018). Additionally, while using a survey panel with prepaid incentives often increases the response rates, in some cases it may be that paid participants do not always respond as thoughtfully (Singer, 2018). Moreover, my study is based on a self-report of several different types of behaviors and motivations, which may contain sources of cognitive bias such misinterpreting the question, misremembering the behavior, reporting based on typical rather than actual behavior, or intentional lying due to social desirability biases (Berent, 2018). Given that voicing affordances via ESNS is an emerging topic with very limited research, more in-depth quantitative and qualitative studies should be conducted to provide more details about motivations in voicing and voicing behavior via ESNS, as well as to better assess the validity of my proposed ESNS Voicing Model.

Specifically, using methods such as a case study or in-depth interviews may shed light on personal and organizational dynamics that influence the motivations of employees to voice, the perceptions of voicing affordances, as well as how they influence overall employee voicing behavior. Additionally, as the study was conducted across individuals from different organizations where voicing climate, practices, and social norms around technology use are likely quite different, it may be valuable to conduct in-depth survey studies in one or two organizations, specifically. Examining specific organizations in conjunction with case study and/or in-depth interviews may help contextualize how individual organizational dynamics impact employee voicing on ESNS.

Next, my sample population was limited to the geographical context of North America. As such, the perspectives represented in my results are influenced by organizational practices, values, and ideologies that are specific to western culture. These cultural and contextual differences may limit the generalizability of the results to other populations (Hofstede, 2001).

Moreover, my research study bounded voicing as an explicit, verbal (written) or similar type of visible or tangible action taken by employees on ESNS. As noted in the literature review, voice and silence are not dichotomous concepts; rather, they can be conceptualized as existing on a spectrum where voice and silence may both be used strategically for different reasons (Milliken, Morrison, & Hewlin, 2003). Additionally, researchers have pointed out how silence can be a strategic action on the part of employees who choose to refrain from enacting overt behaviors as a form of acquiescent, defensive, or prosocial silence (Van Dyne, Ang, Botero, 2003), which this study did not consider. Study of silence as strategic voicing in ESNS could thus be valuable.

Finally, my study asked respondents, in general, which ESNS they used. It did not, however, look to differences in practices or affordances on specific ESNS platforms. Future studies may consider looking at a particular ESNS within different organizations to examine how organizational climate, technology, and business practices interact with voicing on ESNS. In addition, it may be valuable for future studies to look to the differences between employer supplied, as opposed to employee instigated adoption of ESNS. For example, some ESNS, such as Slack, are free sites where employees may create groups and discussion areas on their own, which they share with other coworkers. In this case, the ESNS has not been provided by management, and management may or may not participate. These differences in context and privacy may reveal differences in motivations for, and in enacted voicing behaviors.

7.5 Suggestions for Future Research

Because there is minimal investigation into voicing via ESNS within organizations, several areas of future research are recommended. First, to make the proposed ESNS Voicing Model more generalizable, it would be valuable to survey employees without geographical constraints. Having a more geographically broad survey sample may explain how employee voicing behavior differs across cultural contexts, and whether cultural values may influence motivations to voice, as well as perceptions of voicing affordances and how they interact with employees' voice behaviors. In addition, a larger sample size is needed to evaluate the empirical significance of my findings as well as the relevance of these concepts to other settings. Moreover, other research approaches such as in-depth interviews or case studies, perhaps within one organization (or compared across two) may reveal additional important personal and organizational dynamics that play a role in voicing on ESNS.

Next, people have differing inherent natures that may shape the way employees think about and enact voicing behaviors, in general, as well as on ESNS. Future studies should investigate how personality differences shape motivations for, and enacting voicing behaviors on ESNS, including silence as a type of voicing. For example, in some cases, silence may be seen as disinterest or inattention, while in other cases a failure to "like," comment on, or more overtly express voice may be a signal of silent disagreement or even passive resistance.

Along the same lines, additional research examining the dimensions of voicing more closely is warranted. Looking more closely at individual voicing behaviors such as promotive, prohibitive, as well as advocacy voicing could lend important insights into how employees enact these types of behaviors on ESNS. Further, there is potential to examine if different features of ESNS relate more closely to one type of voicing than another, as well as whether differing psychological needs may be aligned with different types of voicing. It would also be promising to investigate if specific affordances make certain dimensions of voicing on ESNS more conveniently expressed.

Further, it would be interesting to note how organizational adoption of ESNS may affect voicing behaviors. For example, in organizations where ESNS is formally rolled out, looking to the communication and training practices around their implementation and use policies may provide interesting context for how employees perceive and use ESNS for voicing behaviors. Key questions might include, "When organizations implement ESNS, do they convey to employees that their use simply as a knowledge management tool, a social tool, or something else?" or, "How do initial conversations around the way ESNS is supposed to be used influence voice practices on

ESNS?" and, "How does corporate policy around ESNS use influence voicing practices on these systems?"

Moreover, it would be worthwhile to examine the connections between employee voice behaviors and other well studied concepts in the literature. For example, from an organizational behavior perspective it may be helpful to continue studies related to voice as an organizational citizenship behavior (Dekas et al., 2013). Connecting voicing on ESNS with organizational citizenship behaviors may provide more important context for the motivations and dimensions of voicing. Additionally, within a more specific ICT context, it would be interesting to study voicing via ESNS in relation to other well studied concepts on ESNS such as knowledge sharing (Leonardi, 2014, 2017) and innovation (Abhari, Davidson, & Xiao, 2017). Understanding the relationships between voicing behaviors and whether there are positive connections to knowledge sharing and innovation could be very useful to organizations who specifically deploy ESNS for these purposes. This would also complement emerging research, specifically in areas such as platform affordances and open innovation (Abhari et al., forthcoming).

In bodies of literature around social media, generally speaking, the idea of anonymity has been a concept that has received much attention (Scott & Orlikowski, 2014). Within ESNS, generally there is no anonymity, meaning that employees are readily identified and their activities on ESNS are visible to others within the organization. Future research studies may consider comparing voicing without anonymity as well as voicing with anonymity to consider if both options should be made available within ESNS. Having the ability to remain anonymous under some circumstances on ESNS may mimic traditional face-to-face organizational practices such as

anonymous ‘suggestion boxes’, and could have the potential to encourage employees to take action they may not take if they were hesitant, or afraid of being identified in some way.

Finally, while my study did collect general demographic information of the survey population to understand important background characteristics of respondents, it may be productive in future research to control for demographics such as gender or age. For example, literature sites that millennials are a values-driven population regarding corporate social responsibility (Chatzopoulou & de Kiewiet, 2020). It could be interesting to control for age to see if behavior patterns for expressing voice vary generationally. Further, controlling for normative expectations within organizations that have high technology use could shed light on whether the phenomena around voicing on ESNS may be more evident in specific high-tech industries.

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APPENDIX A

SUPPLEMENTAL ESNS VOICING AFFORDANCE DATA

The following appendix presents detailed results of the pilot test that was conducted to identify and validate perceived voicing affordances as mentioned in section 4.3 *Development of Voicing Affordance Measures* in the research design and methods, chapter 4. Specifically, it provides additional statistical support to accompany the 3-factor solution presented in Table 12, on page 65.

To begin identifying voicing affordances, first exploratory factor analysis was run to check the dimensionality of the proposed voicing constructs using Maximum Likelihood with Varimax rotation. Varimax rotation was used to preserve the unique variance of each measure, achieve more generalizable results, and render a more optimum solution. Results indicate that the Kaiser-Meyer-Olkin measure of sampling adequacy is 0.656 (above the recommended value of 0.6) and that Bartlett's test of Sphericity is significant (χ^2 = 198, p < 0.00) signifying that the correlations between items are sufficient for EFA.

After removing poor performing items, the final rotation matrix suggests a three-factor solution with 12 items. An examination of the eigenvalues reveals that these three components with eigenvalues greater than 1 explain 67% of the variance in total. The three-component solution was adopted because of the theoretical support, the "leveling off" of eigenvalues on the screen plot after three factors, and the insufficient number of primary loadings for any subsequent factors. Items with factor loadings higher than 0.4 (±0.30=minimal, ±0.40=important, ±.50=practically significant) were retained. Overall, these analyses reveal three distinct dimensions for employee voicing in ESNS channels: perceived promotive, prohibitive, and advocacy affordances.

Next, confirmatory analysis was run to assess the reliability and validity of the three identified dimensions. This test was conducted using SmartPLS 3. Tables 1 and 2 present the overall quality of the measurement items for the three first-order reflective constructs. As presented in Table 1, all constructs were found to have good to very good factor loading (above 0.7). Internal consistency reliability (construct reliability) was assessed by examining the Composite Reliability (CR) and Cronbach's alpha of the constructs. Each measurement met the reliability criteria.

Table 21a. Factor Loadings for Voicing Affordances

	PRM	PRH	ADV
PRM1	0.804		
PRM2	0.802		
PRM3	0.730		
PRM4	0.892		
PRM5	0.859		
PRH1		0.700	
PRH2		0.855	
PRH3		0.758	
PRH4		0.767	
ADV1			0.857
ADV2			0.750
ADV3			0.741

The convergent validity of each dimension was tested by examining Average Variance Extracted (AVE). All dimensions met the threshold of 0.5 (Table 2, below). Multicollinearity among indicators was also calculated for the constructs by computing the Variance Inflation Factor (VIF) of each indicator. All computed VIF values are well below the threshold of 5.0, suggesting that multicollinearity is not a threat to the validity of the study's findings (Table 2, below). Moreover, all the pathological VIFs resulting from the full collinearity test were lower than 5.

Table 21b. Internal Consistency Reliability of Voicing Affordances

	AVE	Composite Reliability	Cronbach's Alpha	VIF
PRM	0.671	0.910	0.876	1.215
PRH	0.594	0.854	0.775	1.458
ADV	0.615	0.827	0.707	1.231

Discriminant validity was tested using the Fornell–Larcker criterion and the examination of cross-loadings. Comparing the loadings indicated that an item's loadings in its own construct are in all cases higher than all of its cross loadings with other constructs. Additionally, the AVE of each construct was higher than the construct's highest squared correlation with any other construct. The HTMT (Heterotrait–Monotrait) ratio of correlations values was also below 0.90. The results of these tests indicate adequate discriminant validity.

Table 21c. Discriminant Validity, Fornell-Larcker Criterion for Voicing Affordances

	ADV	PRH	PRM
ADV	**0.784**		
PRH	0.420	**0.771**	
PRM	0.156	0.432	**0.819**

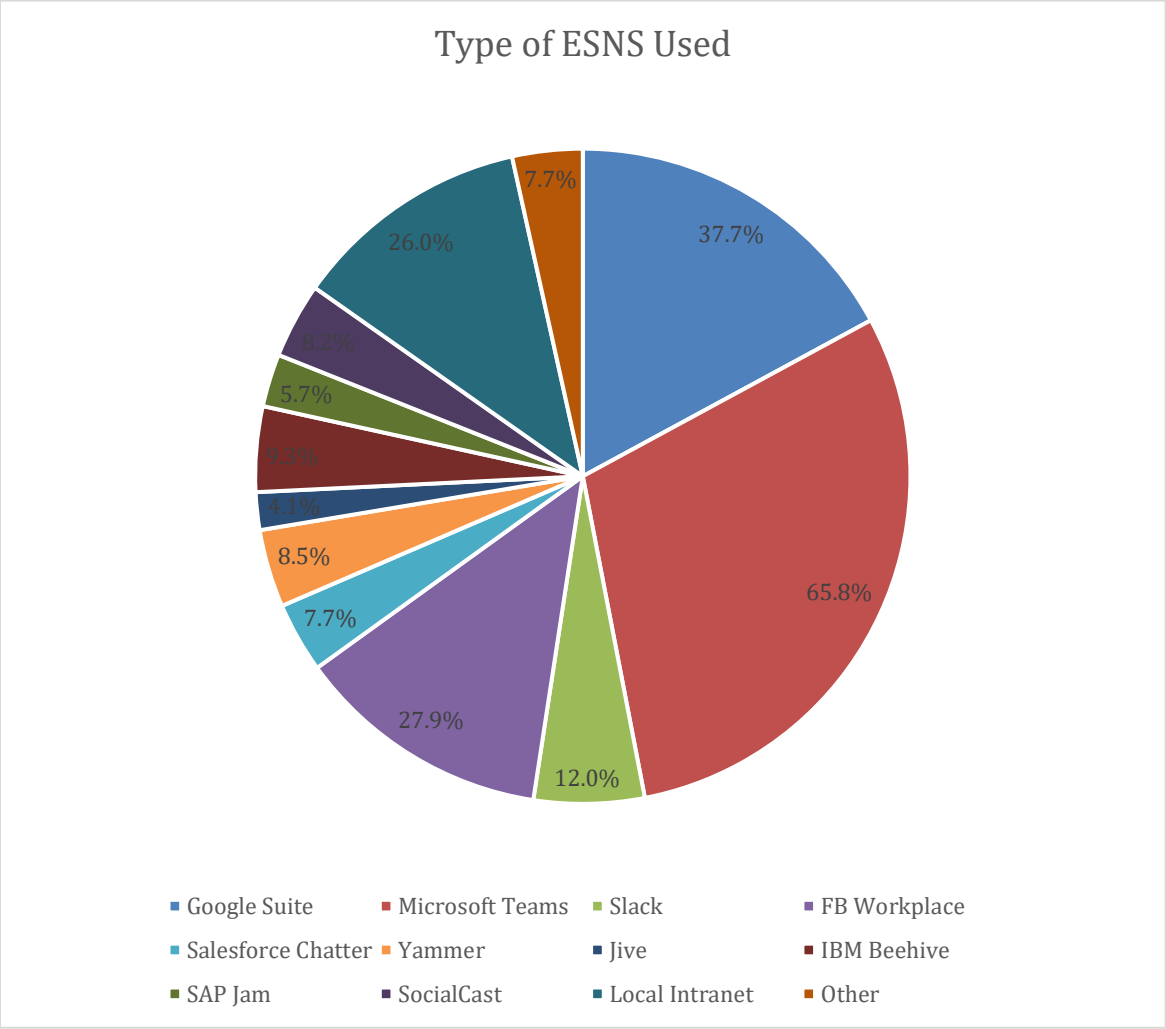
APPENDIX B

SUPPLEMENTAL DESCRIPTIVE DATA FOR SURVEY POPULATION

This appendix presents descriptive data about use of ESNS for voicing. While the survey population is not generalizable, the descriptive data provides insight into how some employees use and perceive ESNS for voicing purposes.

First, survey respondents answered the question, "What type of workplace social media do you use in your organization? [select all that apply]."

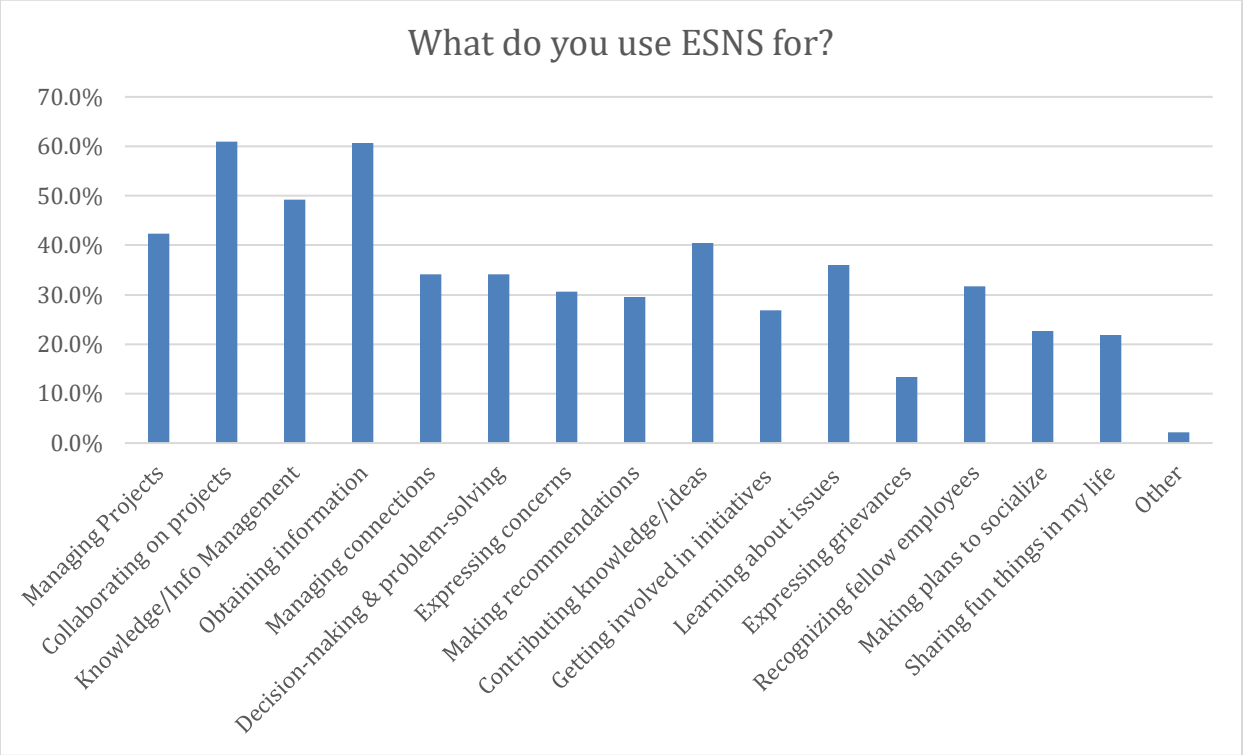
Figure 5. Types of ESNS Used



The data above indicate that a majority of survey participants use Microsoft Teams (65.8%) and/or Google Suite products (37.7%) as the most common form of ESNS used in the workplace. This was followed by Workplace by Facebook (27.9%), and/or a local intranet (26.0%).

Next, survey respondents answered the question, "What do you use workplace social media for? [select all that apply]."

Figure 6. Reasons for Using ESNS



The data above indicate that an overwhelming majority of respondents used ESNS for collaborating on projects (60.9%) and for obtaining information (60.7%). Further, 49.2% of respondents reported using ESNS for knowledge/information management, followed by managing projects (42.3%), and contributing knowledge or ideas (40.4%). Participants reported that they also used ESNS to participate in decision-making or problem-solving efforts, as well as developing/managing connections (relationships) in their network. This was followed closely by expressing concerns (30.6%).

In all, the data show support for extant literature around employees use of ESNS for project collaboration, management, and obtaining information (Leonardi & Vaast, 2017). The data also show, however, that beyond knowledge management and related activities, that at least one-third (or more) of the surveyed participants use the social features of ESNS for voicing behaviors such as participating in decision-making and problem-solving (34.2%), contributing knowledge and ideas (40.4%), as well as expressing concerns (30.6%). In addition, this survey population also reported using ESNS for more socially related activities such as congratulating and recognizing fellow employees (31.7%), making plans to socialize outside of work with fellow employees (22.7%), and sharing fun things in their personal lives with fellow employees (21.9%). While the sample is not representative of any specific population, it does shed light on the possibilities that ESNS provide outside of simple knowledge management tasks, and into voicing behaviors as well.

Finally, survey respondents answered the question, “To "voice" at work means to advance organizational or personal interests, contribute knowledge, express concerns or grievances, participate in decision-making processes, or engage in problem-solving to help achieve organizational goals.

Please indicate the features of workplace social media that you feel are most useful to your voicing at work.”

Table 22. Useful ESNS Features for Voicing

Usefulness of ESNS Features for Voicing		
	Mean	**Standard Deviation**
Group Chat	4.88	1.261
Direct Messaging	5.25	1.040
Liking Content	4.24	1.445
Sharing Others’ Content	4.55	1.262
Posting Own/Original Content	4.82	1.180
Scheduling Events	5.16	1.134
Creating a Profile	4.56	1.401
Viewing Others’ Content	4.68	1.219
Security/Privacy Controls	5.01	1.231
Following Other Users	4.52	1.394

The data above reports the mean and standard deviation for the usefulness of each feature according to the survey population. While not generalizable to all populations, the responses show support for existing literature regarding how material features of a technology relate to its perceived affordances (Karahanna et al., 2018). In this case, the modal responses for the affordances of ESNS technology such as direct messaging, scheduling events, and group chat were listed as “extremely useful,” suggesting that certain features within an ESNS technology are perceived by the survey population as useful for voicing practices within the organization.

In addition, while all the features were generally viewed as useful, it is interesting to note that the features where "extremely useful" was the modal response were more controlled (e.g. group messaging, direct messaging, scheduling events). It seems suggestive, then, that when voicing, people appear to want to control to the degree to which they voice, as well as where the voicing goes. The idea of control is also echoed in the responses to features such as security/privacy controls. Here, the modal response is, again, “extremely useful,” providing support for the idea that employees may feel a certain risk in voicing and want to be able to control when, and where their voicing occurs on ESNS.

APPENDIX C

FULL SURVEY INSTRUMENT

Using Workplace Social Media for Organizational Voicing

Hello! My name is Pam Estell. I am a graduate student at the University of Hawai'i at Mānoa in the Department of Social Sciences. As part of the requirements for earning my graduate degree, I am doing a research project. You are invited to take part in this research study.

What am I being asked to do?
If you participate in this project, you will be asked to fill out a survey designed to find out how you feel about your work experiences, communication, and use of workplace social media in your organization.
Taking part in this study is your choice. Your participation in this project is completely voluntary. You may stop participating at any time. If you stop being in the study, there will be no penalty or loss to you. Your choice to participate or not participate will not affect your rights to services at the University of Hawai'i.

Why is this study being done?
The purpose of my project is to evaluate internal communication dynamics within organizations. I am asking you to participate because you work in an organization.
What will happen if I decide to take part in this study? The survey will consist of both multiple choice and open-ended questions. It will take approximately 20 minutes to complete. The survey will include questions like, “How do you choose to communicate at work?" and “What channels do you use to communicate at work? Why?”

What are the risks and benefits of taking part in this study?
I believe there is little risk to you for participating in this research project. If you become uncomfortable with any question(s), you can take a break or skip the question(s). You can also stop taking the survey or you can withdraw from the project altogether. There will be no direct benefit to you for participating in this survey.

Confidentiality and Privacy:
I will not ask you for any personal information, such as your name or address. Please do not include any personal information in your survey responses. I will keep all study data secure in a locked filing cabinet in a locked office/encrypted on a password protected computer. Only my University of Hawai'i advisor and I will have access to the information. Other agencies that have legal permission have the right to review research records. The University of Hawai'i Human Studies Program has the right to review research records for this study.

Future Research Studies:
Even after removing identifiers, the data from this study will not be used or distributed for future research studies.

Questions: If you have any questions about this study, please call me at 808-956-8881 or email me at pestell@hawaii.edu. You may also contact my faculty advisor, Dr. Elizabeth Davidson, at edavidso@hawaii.edu. You may contact the UH Human Studies Program at 808.956.5007 or uhirb@hawaii.edu to discuss problems, concerns and questions, obtain information, or offer input with an informed individual who is unaffiliated with the specific research protocol. Please visit http://go.hawaii.edu/jRd for more information on your rights as a research participant.

To Access the Survey: If you wish to participate in this survey, please click the "next" arrow at the bottom right of the page. Clicking on the "next" button to access the first page of the survey implies your consent to participate in this study. Please print or save a copy of this page for your reference.

Thank you!

*****The following 2 questions are qualifying questions**. ***

Some organizations have implemented workplace social media. These sites resemble social media that many people use in their personal life. Most of these sites allow users to do some or all of the following: create a profile, post content, view and comment on others' content, identify 'friends' or coworkers to 'follow,' 'liking' content, and so on.

Workplace social media are exclusively provided by the company and are only available to people who work for the company to access, post, or view content. Some examples of workplace social media include:

- Workplace by Facebook	- Microsoft Teams	- Google Apps
- Chatter	- Yammer	- Jive
- Slack	- SAP Jam	- SocialCast

- Your organization's intranet that has tools for communicating among employees (such as discussion boards)

Do you use any form of workplace social media on some type of technological system provided by your employer in your current job?

- ○ Yes
- ○ No

Do you live **AND** work in North America?

- ○ Yes
- ○ No

In which country do you reside?

- United States of America
- Canada
- Other

This section pertains to your own thoughts and feelings. Please indicate the degree to which you agree or disagree with the following statements.

I feel that employees in my workplace are encouraged to...

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	No Opinion
Make recommendations about issues that affect the organization.	o	o	o	o	o	o	o
Speak up about issues that affect the firm.	o	o	o	o	o	o	o
Communicate their opinions about work issues, even if their opinion is different and others may disagree with them.	o	o	o	o	o	o	o
Stay informed about organizational issues that are relevant to them, where their opinions may be useful.	o	o	o	o	o	o	o
Get involved in issues that affect the quality of work life in the organization.	o	o	o	o	o	o	o
Speak up with new ideas, or with ideas for changes in products, services, or procedures in the organization.	o	o	o	o	o	o	o

The following items relate to **your personal communication behaviors at work**. Please indicate the degree to which you agree or disagree with the following statements.

At work I...

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	No Opinion
Develop and make recommendations about issues that affect my organization	o	o	o	o	o	o	o
Speak up and encourage others in the organization to get involved in issues that affect the firm.	o	o	o	o	o	o	o
Communicate my opinions about work issues to others in the organization even if my opinion is different and others in the organization may disagree with me.	o	o	o	o	o	o	o
Stay informed about organizational issues that are relevant to me, where my opinions may be useful.	o	o	o	o	o	o	o
Get involved in issues that affect the quality of work in the organization.	o	o	o	o	o	o	o
speak up with ideas for new projects or changes in procedures in the organization	o	o	o	o	o	o	o

Some organizations have implemented social media for work. These sites resemble social media that many people use in their personal life. That is, most of these sites allow users to do some or all of the following: create a profile, post content, view and comment on others' content, identify 'friends' or coworkers to 'follow,' 'liking' content, and so on. Workplace social media are used only by the people who work for the firm to access, post, or view content.

What type of workplace social media do you use in your organization? [select all that apply]

- ☐ Google Suite Applications
- ☐ Microsoft Teams
- ☐ Slack
- ☐ Workplace by Facebook
- ☐ Salesforce Chatter
- ☐ Yammer
- ☐ Jive
- ☐ IBM Beehive
- ☐ SAP Jam
- ☐ SocialCast
- ☐ Your organization's intranet
- ☐ Other (please specify): _____

Approximately how often do you use workplace social media for *any* reason?

- ○ Daily
- ○ 4-6 times a week
- ○ 2-3 times a week
- ○ Once a week
- ○ Once a month

What do you use workplace social media for? [select all that apply]

- ☐ Managing projects
- ☐ Collaborating on projects with others
- ☐ Knowledge/ Information Management
- ☐ Obtaining information
- ☐ Developing and/or managing connections (relationships) in my network
- ☐ Participating in decision-making or problem-solving efforts
- ☐ Expressing concerns
- ☐ Developing and making recommendations
- ☐ Contributing knowledge or ideas
- ☐ Getting involved with initiatives in my organization
- ☐ Learning about issues within my organization
- ☐ Expressing grievances
- ☐ Congratulating or recognizing fellow employees
- ☐ Making plans to socialize outside of work with fellow employees
- ☐ Sharing fun things in my life with fellow employees
- ☐ Other (please specify): _____

Please think of your experience with workplace social media and indicate the extent to which you agree or disagree with each of the following statements.

I use workplace social media to...

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Does not apply
Influence work-related decisions	o	o	o	o	o	o	o
Suggest improvements at work	o	o	o	o	o	o	o
Voice constructive suggestions.	o	o	o	o	o	o	o
Organize actions to bring about change.	o	o	o	o	o	o	o
Criticize or defend my employers' stance on controversial issues.	o	o	o	o	o	o	o
Communicate my opinions about management actions.	o	o	o	o	o	o	o
Raise red flags about actions or decisions I observe.	o	o	o	o	o	o	o
Take visible action to show my values.	o	o	o	o	o	o	o
Give feedback on policies or procedures.	o	o	o	o	o	o	o
Please click "strongly agree" here	o	o	o	o	o	o	o
Speak up about how decisions or actions affect particular groups.	o	o	o	o	o	o	o
Share my expertise to help others.	o	o	o	o	o	o	o
Join in activities to bring about change at work.	o	o	o	o	o	o	o
Speak up to my employer about issues that impact society.	o	o	o	o	o	o	o
Suggest new project strategies or actions.	o	o	o	o	o	o	o
Point out problems about work related processes.	o	o	o	o	o	o	o
Tell my employer my stance on social or political issues.	o	o	o	o	o	o	o
Share my ideas to help the organization.	o	o	o	o	o	o	o
Work out solutions to problems in the workplace.	o	o	o	o	o	o	o
Take sides on an issue.	o	o	o	o	o	o	o
Join in conversations about problems at work.	o	o	o	o	o	o	o
Participate in solving problems at work.	o	o	o	o	o	o	o
Speak up to managers about employee needs	o	o	o	o	o	o	o

To "voice" at work means to advance organizational or personal interests, contribute knowledge, express concerns or grievances, participate in decision-making processes, or engage in problem-solving to help achieve organizational goals.

Please indicate the features of ***workplace social media*** that you feel are most useful to **your voicing at work**.

	Extremely Useless	Moderately Useless	Slightly Useless	Slightly Useful	Moderately Useful	Extremely Useful	Does not apply
Group Chat	o	o	o	o	o	o	o
Direct Messaging	o	o	o	o	o	o	o
Liking Content	o	o	o	o	o	o	o
Sharing Others' Content	o	o	o	o	o	o	o
Posting original/own content	o	o	o	o	o	o	o
Scheduling Events	o	o	o	o	o	o	o
Creating a Profile	o	o	o	o	o	o	o
Viewing Others' Content	o	o	o	o	o	o	o
Security/Privacy Controls	o	o	o	o	o	o	o
Following Other Users	o	o	o	o	o	o	o

The following questions relate to how you plan on using workplace social media. Please indicate the extent to which you agree or disagree with each of the following statements.

In my organization, I will use workplace social media to:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Does not apply
Participate at work	o	o	o	o	o	o	o
Express my voice at work	o	o	o	o	o	o	o
Contribute to my organization	o	o	o	o	o	o	o
Influence my organization	o	o	o	o	o	o	o

Thinking of your current employment experience, please indicate the extent to which you agree or disagree with each of the following statements about your communication style preferences.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Does not apply
I try to avoid participating in group discussions at work.	o	o	o	o	o	o	o
I am comfortable while participating in a group discussion at work.	o	o	o	o	o	o	o
I like speaking up in conversations with my coworkers.	o	o	o	o	o	o	o
I feel unsafe speaking up in conversations with my coworkers.	o	o	o	o	o	o	o
Please select "strongly agree" here	o	o	o	o	o	o	o
I like taking part in group discussions about work.	o	o	o	o	o	o	o
I feel comfortable when participating in group discussions at work.	o	o	o	o	o	o	o
I am very tense and nervous in conversations with my coworkers.	o	o	o	o	o	o	o
I am comfortable in conversations with my coworkers.	o	o	o	o	o	o	o

The following questions concern your feelings about your job. Please indicate how true you feel each of the following statements are about your experiences in your job.

	Not true at all	Not true	Somewhat untrue	Somewhat True	True	Very True	Does not Apply
I feel like I can make a lot of inputs on deciding how my job gets done.	o	o	o	o	o	o	o
I like my coworkers.	o	o	o	o	o	o	o
I feel very competent in doing my job.	o	o	o	o	o	o	o
People at work tell me that I am good at my job.	o	o	o	o	o	o	o
I do not feel pressured at work.	o	o	o	o	o	o	o
I get along with my coworkers.	o	o	o	o	o	o	o
I can be myself when I am at work.	o	o	o	o	o	o	o
I am free to express my opinions in group discussions at work.	o	o	o	o	o	o	o
I consider the people I work with to be my friends.	o	o	o	o	o	o	o
I have been able to learn new skills in my job.	o	o	o	o	o	o	o
Most days I feel a sense of accomplishment from working.	o	o	o	o	o	o	o
My co-workers and supervisors take my feelings into consideration at work.	o	o	o	o	o	o	o
At work, there are opportunities to show others how capable I am at my job.	o	o	o	o	o	o	o
Please click "Does not apply" here	o	o	o	o	o	o	o
People at work care about me.	o	o	o	o	o	o	o
I have close relationships with some coworkers.	o	o	o	o	o	o	o
I feel like I can pretty much be myself at work.	o	o	o	o	o	o	o
Most of my coworkers seem to like me.	o	o	o	o	o	o	o
When I am working, I often feel very capable in completing the tasks I am responsible for.	o	o	o	o	o	o	o
At work, I have reasonable autonomy to decide how I go about getting my job done.	o	o	o	o	o	o	o
My coworkers are friendly to me.	o	o	o	o	o	o	o

Thinking of your current employment experience, please indicate the extent to which you agree or disagree with the following statements about your involvement in your organization.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	No opinion
I put in extra effort when necessary at work.	o	o	o	o	o	o	o
I am quick to take advantage of opportunities at work (e.g. new job responsibilities, networking opportunities, volunteering for committees).	o	o	o	o	o	o	o
I take initiative in solving problems at work.	o	o	o	o	o	o	o
My work gives me a feeling of personal accomplishment.	o	o	o	o	o	o	o
I like the kind of work I do.	o	o	o	o	o	o	o
Overall, I am satisfied with my job.	o	o	o	o	o	o	o
I am likely to still be working in this organization in 5 years' time.	o	o	o	o	o	o	o
I can see a future for myself in this organization.	o	o	o	o	o	o	o

Thinking of your personal experience in your organization, please indicate the extent to which you agree or disagree with each of the following statements.

In my organization, I have the opportunity to:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	No Opinion
Gain new knowledge/expertise	o	o	o	o	o	o	o
Test my capabilities	o	o	o	o	o	o	o
Please click "disagree" here	o	o	o	o	o	o	o
Come up with new ideas	o	o	o	o	o	o	o
Have fun	o	o	o	o	o	o	o
Enjoy the work I'm doing	o	o	o	o	o	o	o
Minimize my stress	o	o	o	o	o	o	o
Strengthen my relationships with others at work	o	o	o	o	o	o	o
Feel a sense of belonging	o	o	o	o	o	o	o

Meet others with whom I share similar interests	o	o	o	o	o	o	o
Make others aware of my knowledge and ideas	o	o	o	o	o	o	o
Represent the effort I put in	o	o	o	o	o	o	o
Control the quality of my work	o	o	o	o	o	o	o
Make a good impression on other people in the organization	o	o	o	o	o	o	o

Please provide any additional details on experiences you may have had with voicing on workplace social media in your organization.

_____
_____
_____
_____
_____

Finally, we would like to have some background information for statistical purposes. The following questions will not be used to identify participants.

What is your gender?

- Male
- Female
- Other
- Prefer not to answer

What is your age?

- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 - 74
- 75 and older
- Prefer not to answer

Please indicate the race that best describes you:

- White non-Hispanic
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or other Pacific Islander
- Two or more races
- Other (please specify): _____
- Prefer not to answer

Please indicate the ethnicity that best describes you:

- Hispanic or Latino
- Not Hispanic or Latino
- Prefer not to answer

What is your highest level of education?

- Less than high school
- High school diploma
- Some college
- Associates degree
- Bachelor's degree
- Master's degree
- Doctorate or professional degree
- Prefer not to answer

What type of organization do you work for?

- Agriculture, Forestry, Fishing, or Hunting
- Arts, Entertainment, Recreation, or Tourism
- Broadcasting, Media, or Publishing
- Construction
- Education
- Finance or Insurance
- Government or Public Administration
- Healthcare
- Information services or data processing
- Legal services
- Manufacturing
- Military
- Real estate, rental, or leasing
- Restaurant, Food service, Cooking, or Catering
- Scientific or Technical Services
- Software
- Technology
- Telecommunications
- Transportation and Warehousing
- Utilities
- Wholesale or Retail
- Other (please specify): _____
- Prefer not to answer

Which of the following best describes your role in your organization?

- Executive
- Management
- Professional
- Technical worker (i.e. skilled trades)
- Customer-service
- Administrative or support
- Operations
- Other (please specify): _____
- Prefer not to answer

How long have you worked in this organization?

- 0-2 years
- 3-4 years
- 5-6 years
- 7-8 years
- 9-10 years
- 11 or more years
- Prefer not to answer

What is the approximate size of your organization?

- 0-500 employees
- 501-2000 employees
- 2001-5000 employees
- 5001-8000 employees
- 8001 or more employees
- Not sure

Are you a manager?

- Yes
- No

If yes, do you supervise other employees?

- Yes
- No

If yes, do you supervise other employees?

- Yes
- No

If yes, how many?

- 0-5 employees
- 6-10 employees
- 11-15 employees
- 16-20 employees
- Over 20 employees

APPENDIX D
IRB

UNIVERSITY of HAWAIʻI MĀNOA

Office of Research Compliance
Human Studies Program

DATE: March 02, 2021
TO: Davidson, Elizabeth, University of Hawaii at Manoa, Information Technology Management Estell, Pamela, University of Hawaii at Manoa, School of Communications
FROM: Rivera, Victoria, Dir, Ofc of Rsch Compliance, Social&Behav Exempt **PROTOCOL TITLE:** Employee Engagement, Voice Mechanisms and Enterprise Social Network Sites (ESNS) **FUNDING SOURCE:** None
PROTOCOL NUMBER: 2019-00170
Approval Date: March 02, 2021 Expiration Date: N/A

NOTICE OF APPROVAL FOR HUMAN RESEARCH

This letter is your record of the Human Studies Program approval of this study as exempt.

On March 02, 2021, the request for IRB approval of changes to your exempt project noted above has been reviewed and approved. The proposed amendments will be added into your current project file. The proposed changes do not alter the exempt status of your project. The authority for the exemption applicable to your study is documented in the Code of Federal Regulations at 45 CFR 46.101(b) 2.

This approval does not expire. However, please notify the Human Studies Program when your study is complete. Upon notification, we will close our files pertaining to your study.

If you have any questions relating to the protection of human research participants, please contact the Human Studies Program by phone at 956-5007 or email uhirb@hawaii.edu. We wish you success in carrying out your research project.

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