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The University of Southern Mississippi

ONLINE COMMUNITIES OF PRACTICE IN
THE CONTACT CENTER ENVIRONMENT:
FACTORS THAT INFLUENCE PARTICIPATION

by

Jimmie Ray Black Jr.

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

May 2014

ABSTRACT

ONLINE COMMUNITIES OF PRACTICE IN
THE CONTACT CENTER ENVIRONMENT:
FACTORS THAT INFLUENCE PARTICIPATION

by Jimmie Ray Black Jr.

May 2014

Knowledge is a critical element of competitive advantage. More specifically, tribal knowledge developed by workers from on-the-job experiences is of significant value and is also one of the most difficult forms of knowledge to capture and leverage across the workforce. In an effort to capture, store, and share tribal knowledge, organizations have begun to adopt a concept of social learning known as communities of practice. However, low participation by community members in many organizations has resulted in mediocre results. This has been particularly evident in the contact center environment, which has its own unique culture and challenges. Without a solid knowledge and understanding of the motivators, enablers, and barriers of participation critical to the adoption of and participation in contact center communities of practice, organizations often struggle to achieve sufficient gains in competitive advantage and efficiencies to justify the investment in such an intervention.

Five research objectives guide the research in this study to identify the specific motivators, enablers, and barriers to participation in communities of practice in the contact center environment. The objectives break out participation in terms of passive use of information provided by others and active contribution of knowledge to the

community. Through an exploratory-sequential, mixed methods design, the research presented serves as a cross-sectional, non-experimental study of a finite population of nearly 9,000 customer service representatives in a large organization with contact centers across the United States. The first stage involved qualitative focus group interviews with a small sample of participants across the different lines of business supported by the centers and was followed by a quantitative survey in the second stage.

The study revealed that contact centers have many factors of participation in common with other organizations studied previously. However, it also revealed some stark differences, especially in terms of enablers and barriers to participation. The type of work and the way in which time is managed in the contact center world represented key factors specific to the environment. In addition, the team structures and the infrastructure supporting a company-wide community of practice were also significant factors that drove participation either up or down.

The study provides initial research into the specifics of the contact center environment. However, additional research with other organizations and industries is needed to further validate the findings of this study.

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for the Degree of Doctor of Philosophy

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May 2014

DEDICATION

Throughout the journey of life, there are people who inspire, encourage, and support us... people who touch our lives and make it okay to dream big and fight hard for what we want. With that in mind, this dissertation is dedicated to a very special few who had just that kind of impact on my life. First and foremost to my Heavenly Father, without whom I can do nothing. Also to my mother and father, Annita and Jim Black, who made me believe that nothing is impossible with enough hard work, determination, and trust in God; my great-grandmother, Rev. Ida Mae Timbers Kellogg, who always knew this day would come and did everything in her power to set me on the right path with a good foundation of faith; and my wife, Christina Black, who believed in me from the day we met and has loved, supported, and stood by me through the entire journey. I love you all, more than I can say! Thank you for sharing this journey with me.

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This may be my dissertation, but it has truly been a product of the support, guidance, and patience of those who were willing to invest their time, energy, and talents in my success.

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craziness at times. I really appreciate the opportunity to work with you and learn from you! My friend, Tamara Smith, having you as a sounding board and knowing that you had my back means the world to me. You've given me new hope and perspective so many times over the last few years, and I will never forget that! Likewise, my friend Angie Fischer, you have been a wonderful mentor and example for me... I truly appreciate having you in my life. Of course, Larry Myers, Andrew Fisher, Marcine Hull, Brian Brueckman, Benjamin Bratt, La Dawn Beardsley, and Bonnie Jackson, I want each of you to know how much I appreciate the freedom and support you offered. I don't know many leaders who would have been so open to my research and so willing to invest in me and make things possible. I am truly blessed to have your support and guidance!

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CHAPTER I

INTRODUCTION

In much of the corporate world, knowledge is a critical element of competitive advantage (Hall, Paradise, & Courtney, 2003). Drucker (1999) held that “the most important assets of a 20th century company were its production equipment. The most valuable asset of a 21st century institution, whether business or non-business, will be its knowledge workers and their productivity” (p. 135). Where companies used to compete with bigger and better machines or processes, they now compete in terms of talent, knowledge, and the ability to leverage those resources to accomplish business objectives (Ipe, 2003). Rather than depending on new equipment to eclipse the competition, successful organizations are fostering a knowledge culture to realize the maximum value of the knowledge held within the organization (Walczak, 2005).

The recognition of knowledge as a source of competitive advantage has led to considerable growth in the human capital development practice of knowledge management and, more specifically, the adoption in many environments of knowledge sharing interventions (Siemsen, Roth, & Balasubramanian, 2008). The move toward knowledge sharing has led to the development of what are known as “communities of practice” (Wenger, 2000). Specialized groups share information and knowledge in ways that drive the overall knowledge base of employees and help to drive innovation and other business building activities (Lee & Kang, 2005). More importantly, communities of practice provide support and structure not only for warehousing valuable information, but also for making it useful across the enterprise to drive innovation, performance, and productivity (Drucker, 1967). However, understanding that knowledge sharing is not a

spectator sport, the efficacy of communities of practice as productivity and profitability driving interventions is heavily dependent upon the level and quality of participation by members of communities (Hemassi & Csanda, 2009).

Perhaps most importantly, the organization's willingness to continue to invest in communities of practice is predicated on the financial gains expected from a successful implementation. According to Human Capital Development Theory, the organization is only going to invest in knowledge management interventions such as communities of practice if the likely outcome is an increase in productivity and greater economic outputs (Pershing, 2006). As a result, any intervention, including communities of practice, must provide a return on investment in terms of economic output in order to continue to merit the investment of time or finances from the organization.

Knowledge Management: Evolving with the Landscape

Until recent years, organizations relied on traditional knowledge management models to ensure employees had the information and decision support needed to do their jobs. These models involved significant training resources and generally included items like classroom instruction, company-written manuals, and other interventions, which require time, effort, and funding to implement. Such interventions have long been regarded as accurate and effective, though they are not quick, nimble, or particularly adaptable (Siemsen et al., 2008). Even so, that pace was acceptable and produced workable results for many years (Swanson, 1995; Zhang & Faerman, 2003).

With the ever-increasing pace of business and rate at which information and technology is constantly changing, the efficacy of the tried and true methods of corporate knowledge management has drawn a new level of scrutiny. Alavi and Leider's (1999)

discussion of emerging trends in knowledge management demonstrates the changing view of different methods for growing and maintaining knowledge. While times past were tolerant of slow, methodical, top-down models of knowledge sharing (i.e., classroom training, written materials, etc.), the current competitive landscape demands a slate of interventions that can move as fast as the business moves (Bolloju, Khalifa, & Turban, 2002; Dixon, 2000; Grant, 1996).

Thus, the quest for a more adaptive, timely, and accessible method of growing and sharing knowledge has come to life (Wenger, 1991). Another offspring of the digital age and high-speed information evolution is the resurgence of tribal knowledge (Smith, 2001; Sole & Edmondson, 2002). Siemsen et al. (2008) define tribal knowledge as, “individual work-related knowledge, which is generated from the experiences of employees engaged in organizational tasks... the undocumented tricks of the trade that make experienced workers so valuable” (p. 432). Tribal knowledge can be specific facts or procedures and is generally comprised of a collection of explicit and tacit knowledge (Siemsen et al., 2008). In other words, employees know many things about their jobs, products, services, and tools that a corporate learning machine has either not yet captured or has even failed to identify. Someone may have found a system work-around to address an issue, while another team member may know where to quickly find information customers will need, and another team member may have identified a critical issue that could possibly impact multiple customers but is not readily apparent. That kind of real-time tribal knowledge and information sharing has become a critical currency in the effort to provide differentiated experiences for customers (Ardichvili, Page, & Wentling, 2003; Bolloju et al., 2002; Hall et al., 2003; Siemsen et al., 2008).

Knowledge management systems, especially those focused on knowledge sharing, promise more flexibility and adaptability along with an ability to respond to the changing needs of the market and the organization. Systems to capture, organize, and share information across the business represent a way to access tribal knowledge and make it accessible to the entire universe of potential users of that information. Beyond that, knowledge gained through knowledge management can be linked to decision support processes to allow employees more autonomy in their decisions and increase productivity (Alavi & Leidner, 1999; Stata & Almond, 1989).

Communities of Practice: Organized Knowledge Sharing

In response to the demand for an adaptive, relevant, and effective method of knowledge management, companies are developing *communities of practice*. This relatively new intervention provides a method for sharing information and ideas, accessing critical data, and collaborating among people in similar roles and with similar needs (Guldberg & Mackness, 2009). Unfortunately, the simple act of creating a community of practice – or any knowledge sharing system – does not guarantee the free flow of information across the enterprise (Brown & Duguid, 1991). Rather, the success of such a concept is entirely predicated upon the level and quality of participation that members of such communities are willing and able to invest (Ardichvili et al., 2003). Without *active* and *quality* participation by the members of the community of practice, the entire concept begins to struggle (Sing & Khine, 2006; Zorfass & Rivero, 2005).

Given the potential benefits of a well-executed community of practice and the investment needed to create and maintain the support and infrastructure for such an intervention, organizations have a strong desire to see a return on their investment. They

are looking to improve service levels, cycle times, quality, or any other measure of performance – especially those that can be monetized to show a financial return for the cost of implementing the community of practice (Walczak, 2005). At the same time, the presumption is that employees will also want to see the community of practice succeed in order to make their jobs easier and to have the best and most current information available. Unfortunately, a significant number of these interventions are either marginally successful or failing, largely due to a lack of quality participation (Ardichvili et al., 2003; Guldberg & Mackness, 2009; Zorfass & Rivero, 2005).

Communities are Built upon Participation

Generally speaking, knowledge sharing (both in terms of communities of practice and other interventions) is driven by motivation, opportunity, and ability (Siemsen, Roth, & Balasubramanian, 2008). The first two, motivation and opportunity, form the basis for a discussion of participation. Members of communities of practice must both *choose to* participate within the community and have the *opportunity* to do so. When the two factors are present, participation can happen (Ardichvili et al., 2003; Siemsen et al., 2008).

Participation manifests in two major forms within a community of practice: active participation, which is the sharing of information or substantively joining discussions and passive participation, which is the encompassing a participant's accessing of information or discussions to draw upon the information already shared (Ardichvili et al., 2003; Zorfass & Rivero, 2005). As a result, the most effective communities have a healthy balance of contribution and passive use at high enough levels to make the information current, relevant, and useful (Sing & Khine, 2006). After all, a community in which

everyone contributes great information, but where no one accesses and uses the information contributed, could be compared to a library full of books with a locked door and no key. On the other hand, if many people access the community in search of resources but no one is adding to the knowledge base, the community becomes more like an empty cupboard surrounded by hungry mouths (Wenger, 1999). Therefore, having both strong participation and the right balance of participation should be the goal of every community of practice (Ardichvili et al., 2003; Brown & Duguid, 1991).

Assuming that balanced participation is the goal, implementing a community of practice requires taking steps to try and ensure active and appropriate participation (Corso, Giacobbe, & Martini, 2009). With that in mind, practitioners must understand that each work environment is different and presents its own set of factors influencing the amount and type of participation, either positively or negatively (Guldberg & Mackness, 2009). Various factors within the workplace can cause employees to be either more likely to participate or to avoid participation. These factors can take on a broad form and can vary from organization to organization and even from location to location within the same company. However, working environments that share common characteristics are likely to have a cadre of similar factors that influence participation (Guldberg & Mackness, 2009; Zhang & Faerman, 2003; Zorfass & Rivero, 2005).

The factors that interconnect either to drive or inhibit participation include the motivators (factors that encourage), enablers (cultural, organizational, or environmental factors that promote and create opportunities) and barriers (factors that discourage) of participation in communities of practice (Ardichvili et al., 2003; Siemsen et al., 2008). Motivators and enablers, while often complementary, are distinct concepts in that

motivators deal with the internal decision by each employee on whether or not he or she will participate. Enablers, on the other hand, represent external influences – the factors in the workplace that allow or encourage participation. Enablers allow a motivated participant to engage with a community of practice (Ardichvili et al., 2003). Barriers are generally external influences that inhibit someone who might otherwise participate from doing so (Ardichvili et al., 2003; Bolloju et al., 2002; Guldberg & Mackness, 2009).

A frequently cited study of the concepts of motivators and barriers to participation was conducted at the Caterpillar Company. In the (2003) study, Ardichvili et al. conducted interviews with a sample of employees to determine what factors influenced participation in the company's online community of practice. The findings provide significant support for the concepts that both internal and external factors can be at play in the participation choices by community of practice members.

Various motivation theories (e.g., Herzberg's Motivation-Hygiene Theory, Vroom's Expectancy Theory, McClelland's Trichotomy of Needs, and Social Exchange Theory) suggest differing reasons why employees will make the decision to participate or not, but fall short of identifying the specific factors in the workplace that will play a part in those decisions (Emerson, 1976; Herzberg, Mausner, & Snyderman, 1993; McClelland, 1987; Vroom, 1964), especially in the specific terms of communities of practice. Even so, the underlying theories are quite informative regarding the factors that may be relevant.

Contact Centers as a Unique Environment for Participation Challenges

One such environment having similar factors across locations and organizations is the contact center. As customer service has become a major part of many companies'

competitive strategy, contact centers of various forms have emerged as commonplace. In fact, industry statistics show that in the United States alone over 2.7 million agents were interacting with customers in 47,000 contact centers in 2007 (Aksin, Armony, & Mehrotra, 2007). Contact centers may take the form of a contact center where incoming or outgoing calls are handled by customer service representatives or may be more aligned to online chat and e-mail support for clients or potential clients. A similar format involves internal contact centers (IT help desks, company travel desks, etc.) where the clients are part of the internal organization. Regardless of their exact composition, contact centers exist to interact with customers and to provide a critical link between the customer and the organization. These centers are a source of information for customers and the face of the organization for businesses (Aksin et al., 2007). As a result, contact centers are the epitome of knowledge management as a form of competitive advantage (Timbrell, Koller, Schefe, & Lindstaedt, 2005; Vega & Flores, 2011).

Contact center environments share a significant number of traits that allow for reasonably reliable generalizations although there are enough unique aspects that each center or organization may have minor differences from the overall group (Raz, 2007). As a result, though certainly not all-inclusive or perfect, identifying the barriers and enablers that exist in an organization's contact centers can be, at a minimum, instructive for other contact center environments (Raz, 2007). Such generalized findings may provide a solid framework for others to review their own workplace and find trends that are either analogous enough to leverage the original findings or dissimilar enough to require further, company-specific research (Ardichvili et al., 2003; Raz, 2007).

One significant distinguishing factor between contact centers and other environments is the value and management of time (Norman, 2005). Taylor, Baldry, Bain, and Ellis (2003) referred to “the distinctive character of call handling” as a factor separating contact centers from other workplaces (p. 453). For employees in contact centers, the pace and timing of work is dictated by the ringing of a phone, the appearance of a chat window, or the chime of a new e-mail (Dutta & Pinder, 2011). Many previous studies of communities of practice focused on roles such as engineering, research and development, or manufacturing (Ardichvili et al., 2003; Hemassi & Csanda, 2009). In those environments, employees often control their own time and workload, even if within a series of deadlines. In contact centers, workloads, time management, and even break times are often controlled by the incoming calls themselves or a specific group of employees who manage the time of front line employees connecting with customers (Dutta & Pinder, 2011). Given the nature of participation in communities of practice (employees choosing to use or contribute information), the degree to which employees control their own time may well redefine factors that influence participation when compared to previous work in other environments (Guldberg & Mackness, 2009; Majewski & Usoro, 2011).

Problem Statement

Knowledge management is a critical component of the human capital value proposition (Alavi & Leidner, 1999). As competitive advantage continues to rest more and more in that realm, the adaptation of interventions that leverage institutional knowledge will continue to grow as a practice area (Brown & Duguid, 1991). At the same time, organizations supported by knowledge management initiatives are becoming

more demanding in terms of return on investment and efficacy of interventions, with a strong insistence for interventions linked directly to efficiency and profitability (Dutta & Pinder, 2011; Grant, 1996; Hemassi & Csanda, 2009).

Recent research, including the work at Caterpillar, demonstrates that communities of practice provide a strong basis for information sharing and knowledge growth (Ardichvili et al., 2003; Brown & Duguid, 1991). In addition, the financial benefits of an effective community of practice can be significant – both in terms of cost savings and competitive advantage – in meeting the demands of the organization (Bobrow & Whalen, 2002; Dixon, 2000). Achievement of an acceptable return on investment and real-life efficacy rests in the ability to generate participation in the community (Ardichvili et al., 2003; Bolloju et al., 2002; Dixon, 2000; Guldberg & Mackness, 2009).

While considerable research supports the general concepts of motivators, enablers, and barriers of meaningful participation, little to no research is available to provide insight into the specific needs of contact center environments and how those environments influence the factors that impact participation (Faran, 2008; Guldberg & Mackness, 2009). The specific motivators, enablers, and barriers vary by organization, industry, and other characteristics. Within that variation, contact centers represent a unique environment with their own special challenges and influences that do not occur in the same manner in other organizations and environments (Norman, 2005; Dutta & Pinder, 2011).

For example, contact centers exist to provide services and information to a certain client base. Competitive advantage in the contact center environment is a function of the quality of service and information provided by its employees and, therefore, a function of

the organization's ability to leverage knowledge management to improve service and information quality (Dutta & Pinder, 2011). In addition, time and resources are precious in such an environment, creating a demand that interventions provide a strong return on investment in terms of increased competitive advantage or efficiency (Dutta & Pinder, 2011). As contact centers embrace and implement communities of practice, they experienced limited success (Oracle, Inc., 2011), largely due to a marked lack of participation from community members and poor adoption of the intervention (Dutta & Pinder, 2011; Wenger, McDermott, & Snyder, 2002; Ye, Chen, & Jin, 2006). Without a solid knowledge and understanding of the motivators, enablers, and barriers of participation critical to the adoption of and participation in contact center communities of practice, organizations often struggle to achieve sufficient gains in competitive advantage and efficiencies to justify the investment in such an intervention (Ardichvili et al., 2003; Guldberg & Mackness, 2009).

Purpose of the Research

The purpose of this study is to identify and describe the perceived motivators, enablers, and barriers to participation in online communities of practice in the contact center environment, both in terms of use and contribution of information. Learning and development practitioners have a general sense that *type of work* is the major impediment to participation in contact center-based communities of practice (Guldberg & Mackness, 2009; Brenson, Edelman, Newell, Scarbrough, & Swan, 2003). At the same time, research in other industries indicates that factors outside of the type of work performed and the simple environment play at least as large a role in driving or inhibiting

participation. Therefore, additional research is needed to help resolve the differing views in the literature.

Significance of the Study

In the micro-environment of particular companies, this research becomes relevant in terms of driving the efficacy of their own interventions. At the macro level, providing a different perspective on the factors that drive participation in communities of practice adds to the knowledge base and creates additional background for further industry or job-specific research. More specifically, this study will present a basis for either generalization within the contact center industry or a starting point for more specific research into various motivators, enablers, and barriers of particular types of contact centers.

Conceptual Framework

The conceptual framework for this research is based on a study undertaken in 2003 by Caterpillar, Inc. The conceptual framework is similar, though more involved than the previous work (Ardichvili et al, 2003). However, given the unique nature of the contact center environment, there is a significant likelihood that the actual motivators, enablers, and barriers that are represented in the conceptual framework below will be markedly dissimilar (Dutta & Pinder, 2011).

As members of a community of practice, contact center employees participate and interact with the community in two basic ways: contributing information to the knowledge base of the community and accessing information from the community that others have contributed (Aulawi, Sudiman, Suryadi, & Govindaraju, 2009). These methods of interaction represent a two-way flow of information between individuals and

the community at large (Ardichvili et al., 2003). That interaction is represented by the two arrows, showing the flow of information between the individual and the community. The participatory interaction is the critical element of the study and the focal point of the conceptual framework.

In the graphic, the arrows are on top of the vertical lines because they are overcoming the barriers (vertical lines) due to the motivators and enablers that drive the participatory interaction. The top arrow shows the flow of information driven by the enablers and motivators, going from community of practice participants into the community. Similarly, the bottom arrow depicts the flow of information out of the community of practice where community of practice participants access the community to find information for their use. The vertical lines represent barriers or things that get in the way of the various levels of participation (Ardichvili et al., 2003). The study identified motivators, barriers, and enablers and describes ways in which those factors impact the interaction between employees and the community of practice.

The theoretical basis for this study's conceptual framework is depicted below the graphical representation of participation. The theories fall into three distinct categories: Human Capital Development, Motivation, and Social Learning/Structuration. Each of the theories supports and explains the interactions that take place in the graphic above.

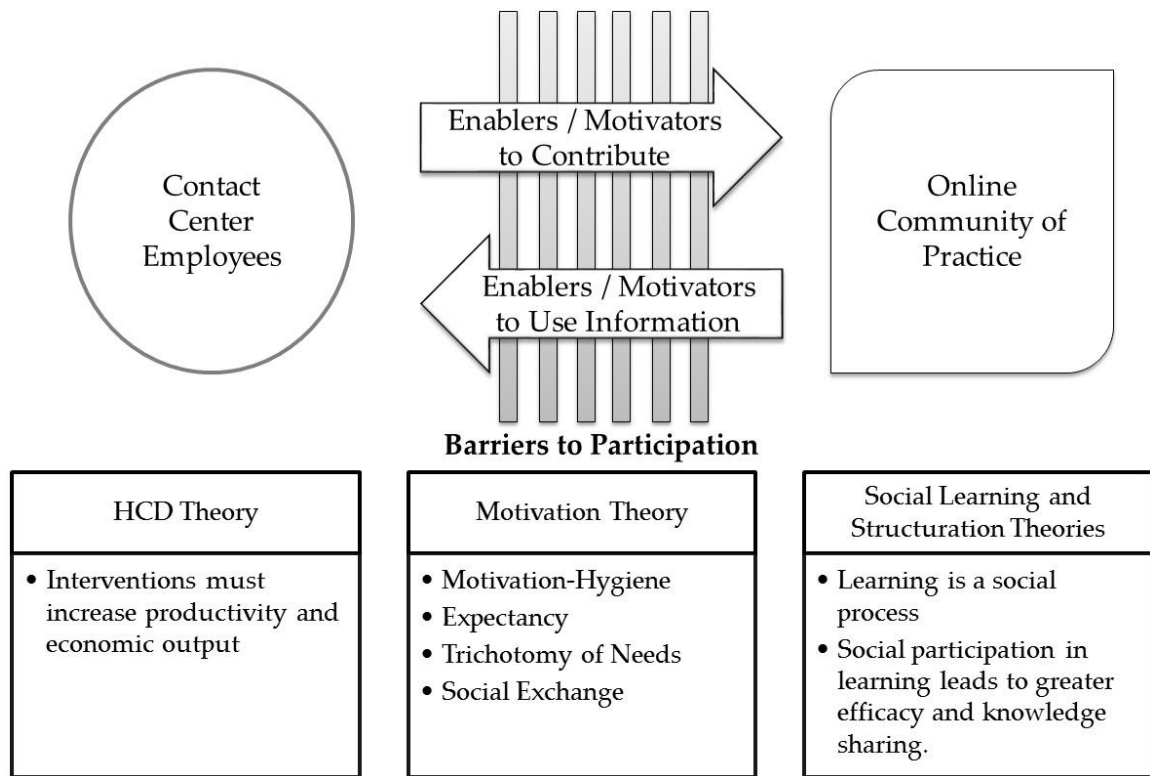


Figure 1. Conceptual Framework.

Research Objectives

- RO1: Describe the demographic characteristics of the sample in terms of gender, age, organizational tenure, prior contact center experience, present level of participation in the community of practice, and work characteristics.
- RO2: Identify the motivators and enablers that drive contact center employee contributions to internal online communities of practice as perceived by participants.
- RO3: Identify the motivators and enablers that drive contact center employee use of internal online communities of practice as perceived by participants.

RO4: Identify the barriers that inhibit contact center employee contributions to internal online communities of practice as perceived by participants.

RO5: Identify the barriers that inhibit contact center employee access and use of internal online communities of practice as perceived by participants.

Limitations

A number of limitations impacted this research. The first limitation is the lack of an instrument to measure motivators, enablers, and barriers to online communities of practice participation in a contact center setting. To partially address this limitation, the researcher adapted an existing process developed for inventorying communities of practice participation in a manufacturing setting (the Caterpillar Study by Ardichvili, Page, and Wentling).

Another limitation arises from the developmental process outlined in this study. The resulting contact center instrument will have large sections that allow for generalization across contact center settings. However, the instrument is largely company specific in the results that it generates. While efforts can be taken to reduce this impact, the driving force for the instrument is the needs of the subject company. With that in mind, some degree (even a large degree) of company specificity in the instrument provides more relevant information for the specific population and environment being studied. The last limitation relates to the purpose of the instrument. The contact center instrument is intended to inventory motivators, enablers, and barriers to participation in the online community of practice. It is beyond the scope of the instrument to identify methods to foster motivation or remedies for barriers. Future qualitative work (semi-

structured interviews) will be needed to identify specific change mechanisms for the contact center environments.

Definitions of Key Terms

Active Participation – See *contribution*.

Barrier – Environmental, organizational, and cultural factors that tend to discourage, interfere with, or prevent participation in online communities of practice (Ardichvili et al., 2003).

Community of Practice – “...a unique combination of three fundamental elements: a domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practice they are developing...” (Wenger et al., 2002, p. 27). Communities of practice are not defined by job title, company, work group, or other characteristics of their job. Instead, they are defined by the common knowledge, interest, and collaborative effort that grow the knowledge of their members (Wenger, 1999).

Contact Center – “Also called a contact center, is defined as a specific location that handles, directs and processes inbound and outbound calls. The term contact center is being used more frequently to describe a broader number of tasks that are being performed at these locations. Contact centers may be help desk, customer support, lead generation, emergency response, telephone answering service, inbound response and outbound telemarketing,” (Customer Management IQ, 2013).

Contribution – the act or process of adding information to the knowledge base of the community of practice. Contribution may also be termed as active participation or knowledge sharing (Ardichvili et al., 2003). Those engaged in contributing to a

community of practice may be called *contributors, suppliers, or active users*.

Contribution represents the *supply side* of participation (Majewski & Usoro, 2011).

Customer Resolution Time (CRT) / Average Handle Time (AHT) – CRT/AHT is a contact center term used to quantify average time spent by representatives on each call during a given period of time. It represents both an efficiency measure of the representative's performance and also a financial indicator in terms of the cost per call or contact.

Customer Service Representative (CSR) – Employees within contact centers who engage in telephone calls or other interactions with customers to provide service or issue resolution.

Enabler – factors with which members of communities of practice interact that make participation in the community easier or more direct (Guldborg & Mackness, 2009)

Knowledge – “any data, skill, context, or information that enables high quality decision making and problem solving to occur” (Walczak, 2005, p. 331). Knowledge may be any information, regardless of source or type that can be used to support the work being done.

Knowledge Management – “... a systemic and organizationally specified process for acquiring, organizing, and communicating both tacit and explicit knowledge of employees so that other employees may make use of it to be more effective and productive in their work” (Alavi & Leidner, 1999, p. 7).

Knowledge Worker – an employee who leverages knowledge as a key part of productivity and organizational performance. This person may be an executive or front-

line employee. The real defining characteristic is the use of knowledge to drive performance (Drucker, 1967).

Motivator – factors with which members of communities of practice interact that cause a desire or willingness to participate within the community (Ardichvili et al., 2003).

Online Community of Practice – A community of practice that is based, at least in large part, on sharing information through some sort of online interaction (synchronous or asynchronous) (Lee & Kang, 2005).

Participation – the act of engaging with the community of practice, either actively by providing information into the base of knowledge or passively by collecting information from the community for one's own use (Ardichvili et al., 2003; Guldberg & Mackness, 2009). This overarching term encompasses both the supply side (contribution) and the demand side (use/consumption) of the overall balance of activity within a community of practice (Majewski & Usoro, 2011).

Passive Participation – See *use*.

Schedule Compliance / Schedule Adherence – A contact center measurement that indicates how effectively employees utilize their working time and comply with the requirements of their schedule.

The Community – The proper name of the subject company's online community of practice for customer service representatives.

Tribal Knowledge – The knowledge held by employees that is not part of formalized training and is often undocumented or closely guarded by those who have the knowledge. The tacit or explicit knowledge that comes from employee experiences within the organization (Siemsen et al., 2008).

Use – Compared to *contribution* (see above), use is the passive participation of simply taking information from the community of practice rather than providing a contribution of information and knowledge to the community (Ardichvili et al., 2003; Guldborg & Mackness, 2009). Those who access information from a community of practice may be called *users, consumers, or passive users*. Use is also referred to as the *demand* side of participation (Majewski & Usoro, 2011).

Summary

Online communities of practice represent a very timely and relevant performance intervention for many organizations, especially for organizations where the ability of their employees to access and share real-time and near-real-time information is a key element of competitive advantage. Unfortunately, in many such companies, participation in communities of practice has not been strong enough to fully realize the desired level of benefits and return on investment.

One of the keys to improving the efficacy of communities of practice is to identify and leverage motivators and enablers of participation while identifying and minimizing the barriers that prevent employees from engaging fully in the communities. This study seeks to identify and describe the motivators, enablers, and barriers involved in contact center environments. While the study has some limitations, it has a broad potential for use across many industries where contact centers are employed, especially as a tool of competitive advantage, and may inform other research in different environments.

The first step in exploring the factors that influence participation is a review of the literature. Understanding the basic concepts of knowledge sharing and management

along with communities of practice provides significant support for the study presented here.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Human resource development is a practice area concerned with developing the systems and processes that support organizational effectiveness, among other areas, to improve human performance (Swanson, 1995). In that pursuit, human resource development practitioners often rely on systems theory in order to support efforts to solve organization problems (Jacobs, 1989). One of the key areas of research and practice is knowledge management (Hall et al., 2003).

As companies search for ways to be more effective in the marketplace, reliance on human resource development as a key tool has grown. At the same time, the drive to leverage knowledge as a valuable resource has led organizations to look for ways to identify and preserve the tacit knowledge of the workforce – to make it available to contemporary and future co-workers as a way to support increased productivity and performance (Smith, 2001). That drive to leverage tacit knowledge as part of an overall knowledge management strategy has led to the adoption of communities of practice in many organizations as a significant tool for sharing knowledge in real time and accessing tribal knowledge within the organization (Brown & Duguid, 1991).

However, the reality that a successful community of practice must include a sufficient quality and quantity of participation in terms of both contribution of information and use of the information provided by others, has led to organizations struggling to achieve maximum efficacy in their communities of practice (Alavi & Leidner, 1999; Ardichvili et al., 2003). As a result, much of the literature around

communities of practice has turned its attention toward understanding the factors that influence participation – from motivation theories to understanding the environmental enablers and barriers – in an effort to ensure the effective and efficient sharing of knowledge through communities of practice (Corso et al., 2009; Guldborg & Mackness, 2009).

Adding another layer of complexity, the environments where communities of practice have been implemented can be a factor in participation (Dutta & Pinder, 2011; Faran, 2008; Wenger et al., 2002). One specific environment, the contact center, represents a unique set of environmental and organizational considerations that play a role in how effectively participants are able to contribute and access information within an online community of practice (Dutta & Pinder, 2011).

Human Capital Development Theory

For years, the saying, *knowledge is power*, has been thrown around in pop-culture media and public school systems across America. In the business world, knowledge is actually competitive advantage (Ipe, 2003). Those companies that can effectively leverage their knowledge base can potentially gain the upper hand against the competition (Hendricks, 1999).

According to Human Capital Development Theory, the relative value of any intervention is based on its ability to improve economic output and productivity (Pershing, 2006). As a result, when organizations make decisions about funding and implementing various human capital interventions, the key decision point is often the return on investment anticipated for the proposed intervention (Pershing, 2006). In order to be viable to the organization, the implementations must result in an increase in

productivity and output. Given the mainstream view that knowledge sharing is a key to competitive advantage, getting concepts like communities of practice funded should be easily accomplished (Hendricks, 1999).

Organizational Learning and Knowledge Management

Organizations are beginning to view knowledge management as an area of competitive advantage. Peter Drucker, a well-known author in business and leadership, described this evolution by saying, "... power comes from transmitting information to make it productive, not from hiding it" (Alavi & Leidner, 1999, p. 4). The concept that information or knowledge can be *made* productive suggests the presence of significant value that can be monetized and added to the organization's ability to compete in a hypercompetitive landscape (Grant, 1996). When that knowledge is used to improve on tasks and processes already familiar to the workers and organizations, it becomes productivity. When it leads to new concepts, tasks, and processes, that knowledge becomes innovation. It is the actual knowledge that allows for both productivity and innovation, which lead to the generation of value and wealth in the organization (Drucker, 1992). This process knowledge leading to innovation and productivity connects directly to Human Capital Development Theory, which holds that economic output is necessary to justify investment in human capital (Pershing, 2006).

As far back as 1959, Drucker introduced the concept of the "knowledge worker" – a member of the organization who "by virtue of his position or knowledge, is responsible for a contribution that materially affects the capacity of the organization to perform and obtain results" (Drucker, 1967, p. 5). Over time, that concept has grown to encompass the human capital development practice areas of knowledge management and

organizational learning. Companies have begun to invest more heavily in the concepts of knowledge growth and in the idea of accessing knowledge across geographical spans and corporate divisional structures to maximize the value of knowledge to improve productivity (Alavi & Leidner, 1999).

With that new paradigm, the previous divisions of organizational learning and technology are giving way to technology-supported and enabled knowledge management as part of a much more holistic approach to knowledge sharing within the enterprise (Hall et al., 2003; Zhang & Faerman, 2003). As a result, knowledge management has begun to move from a focus on individual knowledge to driving the collective knowledge of the enterprise (Zhang & Faerman, 2003). Going even further, Hall et al., (2003) maintain that, “there has been increasing interest in a firm's intellectual capital and collective knowledge, and the means by which to increase it (organizational learning), store it (organizational memory), and manage it (knowledge management). Although often discussed separately, these three concepts are tightly interwoven” (p. 65). Much like companies manage financial and fixed assets in the organization, the assets of knowledge and learning are becoming just as highly prized and carefully guarded. After all, without the ability to access an organization's intellectual capital and knowledge and make it useful, that intellectual capital provides little to no value to the organization (Alavi & Leidner, 1999).

In further evolution, organizations are now beginning to build decision support into that combined concept of knowledge management and organizational learning (Bolloju et al., 2002). The premise is that effective knowledge management systems grounded in organizational learning models will produce a more nimble organization that

can act quickly in support of decentralized decision-making, thus being more competitive and able to react to situations within the business (Hall et al., 2003). Drawing on systems theory, Bolloju et al. (2002) discuss the creation of a knowledge management system or KMS. To be effective, “KMS must support the acquisition, organization and communication of both tacit and explicit knowledge of employees” (p. 165). In other words, to support the competitive advantage, knowledge management systems must provide a vehicle to collect knowledge from various sources and make it readily accessible for use. In discussing the concepts of organizational knowledge and organizational wisdom (and arguing that *wisdom* is the next evolution of organizational knowledge), Hays (2007) concluded that the system for managing organizational knowledge must be a living, breathing, dynamic system that supports the sharing and acquisition of knowledge across the organization.

As the corporate landscape moves to a more collaborative, decentralized structure with fewer walls and silos, the ability to share knowledge across different parts of the organization (departments, locations, job functions, etc.) has increased considerably (Bolloju et al., 2002). With knowledge being the new competitive advantage, the ability to access and leverage all knowledge within the organization has become the focus of many learning and decision support initiatives (Alavi & Leidner, 1999).

Knowledge Sharing

A subset of knowledge management, knowledge sharing has recently gained acceptance as companies have not only embraced the value of knowledge as competitive advantage but also began to recognize the human side of knowledge – that much of the key tribal knowledge that is most valuable in driving competitiveness exists not within

technological repositories but in the minds of people (Ipe, 2003). Tribal knowledge has limited value in the mind of a single person or a handful of people. Rather, it gains its primary value when shared among many, even to the point of sharing with the whole organization (Bobrow & Whalen, 2002; Hendricks, 1999; Ipe, 2003). The ability to effectively create and maintain knowledge sharing within an organization is a significant part of modern knowledge management and driving human performance improvement (Ipe, 2003).

Unfortunately, employees are not always willing or able to share knowledge as openly and easily as the organization desires. For as long as companies have hired and fired employees based, at least in part, on what they know, employees have had a predisposition to keep knowledge for themselves (Riege, 2005). In fact, the fear that one's job could be at risk if an employee shares too much of what he or she knows is an often-cited barrier to knowledge sharing (Lelic, 2001; Riege, 2005). More often than not, organizational culture plays a significant role in either reinforcing or overcoming that fear (Hendricks, 1999; Riege, 2005). Likewise, the organization's structure, culture, and other factors play a role in encouraging or discouraging the sharing of knowledge (Riege, 2005).

The overall ability to drive knowledge sharing in the organization can be captured, to a large degree, by the motivation-opportunity-ability (MOA) framework (Siemens et al., 2008). This framework suggests that the sharing of knowledge within an organization is a function of the motivation employees experience, the opportunities provided within the organization to share information, and their actual abilities (Rothschild, 1999). The MOA framework explains the pieces that positively influence

the sharing of information but falls short of accounting for the barriers or things that get in the way of knowledge sharing (Siemsen et al., 2008). Siemsen et al. present their *constraining-factor model*, which incorporates and explains the constraining factors or *bottleneck* that occurs when barriers get in the way of knowledge sharing (Siemsen et al., 2008).

If, for example, an employee is highly motivated and has ample opportunity to share information but has no ability to do so because he or she has not learned the information, then no amount of increase in motivation or opportunity will cause the employee to share knowledge more effectively (Siemsen et al., 2008). Likewise, employees may know every piece of knowledge that should be shared and have strong motivation to do so. Despite both of those factors, if the opportunity for knowledge sharing is not available because organizational practices or culture interfere with the knowledge sharing process, a training class or increased motivation will have no effect on employee behavior (Siemsen et al., 2008).

Both the MOA and constraining factors models provide strong support for the concepts and factors that influence knowledge sharing in many forms including communities of practice. In many ways, implementing a community of practice can be an ideal intervention to aid in knowledge sharing. The implementation of a community of practice is one way to minimize barriers, create broad access to information within an organization, and create a structure where the sharing of knowledge can take place (Brown & Duguid, 1991). However, as discussed in the constraining factor model, communities of practice will only increase knowledge sharing if the constraining factor is opportunity (Siemsen et al., 2008).

Communities of Practice

Time, money, and other resources continue to be precious. In answer to those pressures, companies have become more and more interested in pursuing social learning as a way of accessing and sharing information efficiently and effectively. One such social learning intervention was defined by Wenger (1991) as a community of practice. In these communities, organizational learning is accomplished through direct and open information sharing between individuals with shared goals, interests, or other connecting characteristics. (Wenger, 1991). This type of learning community often helps employees to overcome the hesitance they feel in contributing to more traditional knowledge management interventions (Dixon, 2000). These communities may exist within a department, organization, community, region, or industry. For example, a department within an organization might create a community of practice for information sharing between its members or a group of companies within the same industry might create a community to share certain information between their common functions (Wenger, 1991).

To be considered a community of practice, group members must share and have a specific commitment to a particular area of interest, be related to each other in a way that allows them to collaborate, and actually engage in active sharing of information, stories, and other information. These factors allow various peer groups access to the base of knowledge within the group either in an ongoing dialogue or to gain answers to specific questions (Hemassi & Csanda, 2009).

Organizations have realized significant benefits as communities of practice have gained acceptance and become part of their DNA. Zorfass and Rivero (2005) citing

Wenger and Snyder found that, “Beginning in the business world, communities of practice have been found to help employees manage change, access new knowledge, build trust, develop a sense of common purpose, generate new knowledge, and decrease the learning curve for new employees” (p. 51).

In its simplest form, organizations like local chapters of the Society for Human Resource Management where human resource professionals gather at scheduled meetings to share information and network present examples of the community of practice concept. In recent years, technology has exploded the ability to grow communities of practice across geographical boundaries and time constraints on busy calendars (Hemassi & Csanda, 2009). What once required a face-to-face meeting or a conference call can now be accomplished through synchronous or asynchronous collaboration in an online environment through e-mail, text message, blogs, and many other technology-supported ways of communicating across an office or around the world (Zorfass & Rivero, 2005). In a demonstration of Swanson’s Human Resource Development Theory, online communities of practice are creatures of all three of the legs on Swanson’s stool: psychological theory (social learning), systems theory (the underlying structure and framework of the community of practice as a system interwoven with the larger organizational systems), and economic theory (investment in human capital as a means to driving growth in economic output) (Swanson, 1995).

The super-geographical nature of an online community of practice has given way to teams collaborating and sharing information across cities, states, continents, and around the world. What was once locally-held information can now be made available globally across the organization (Sole & Edmondson, 2002). The global reach of online

communities of practice, for example, allows people working on the same kind of job or project in one state to collaborate with those in another state, sharing information that used to be kept in-location. While being able to share that information across geography creates value, there must also be a support system to drive effective collaboration (Sole & Edmondson, 2002). Depending on the type of organization and the work being done, the nuances of local information may be lost in the translation without good collaboration among peer members of the community from site-to-site (Sole & Edmondson, 2002).

Participation as a Key Element in Successful Communities of Practice

A key dependency for the success or failure of these communities of practice is the participation of their members after the community launches (Hemassi & Csanda, 2009). Etienne Wenger, one of the most prolific writers on communities of practice, uses very active words in defining and describing a community of practice: words such as *share, create, accumulate, develop, deepen, interact, and ongoing* among others (Wenger et al., 2002). In fact, if one removes the participatory language, the entire character of a community of practice is changed such that it no longer meets the definition and begins to sound more like a bookshelf than a social learning intervention (Guldberg & Mackness, 2009).

Aside from being an integral part of being a community of practice, participation has another aspect that is necessary for the long-term success of communities. Unlike other resources, the sharing of knowledge does not reduce the available supply. Instead, the act of sharing increases the overall supply and adds to the whole each time it is passed along (Majewski & Usoro, 2011). This is so because, as Davenport and Prusak (1998) concluded, “ideas breed new ideas and shared knowledge stays with the giver while it

enriches the receiver,” (pp. 16-17). From a theoretical perspective, Social Learning Theory suggests that the interactions themselves between participants play a significant role in learning (VyGotsky, 1978). That is to say that learning is a social event, especially in terms of a community of practice where the sharing of information is the ultimate goal (Corso et al., 2009). Therefore, one of the central goals of a successful implementation of a community of practice is the “active participation of a substantial part (ideally, all) of its members,” (Ardichvili et al., 2003, pp. 65-66).

Because the knowledge that is sought in a community of practice is held by social and work groups within the population, finding ways to get these social groups and their members to contribute to the sharing of knowledge is both a challenge and a necessity (Brenson et al., 2003). One method of gaining participation is to create an online or virtual solution that supports knowledge sharing and participation. At the same time, these electronic tools can be excellent options for providing a more accessible storehouse for organizational memory (Corbett, Faia-Correia, Patriotta, & Brigham, 1999).

Unfortunately, simply creating a system that allows or even *supports* knowledge sharing within and across groups in the enterprise is not sufficient (Tarmizi, de Vreede, & Zigurs, 2007). A knowledge management system may be an element of a successful solution, but without active participation, the community of practice will succumb to the Constraining Factor Model where simply providing a method or opportunity to share information does not ensure the open flow of information.

One classic example was the promise of technologies such as Lotus Notes in the late 1990s (Vandenbosch & Ginzberg, 1996). That platform was a collaboration tool, designed to give employees the ability to work together across space and time. It opened

the doors and took down the silos between employees – at least in the technology space. However, Vandenbosch and Ginzberg (1996) found that it had a random effect, at best, on the actual sharing of knowledge. Those who were more likely to share information and did so at a higher level prior to Lotus Notes continued to share more actively and at a higher level by using the tools provided. Those who were more likely to avoid sharing information and did so on a more limited basis also maintained their pattern of behavior despite the introduction of such a tool.

Vandenbosch and Ginzberg's findings suggest that there is more to knowledge sharing than simply setting up a community of practice or other technology-enabled system. Rather, a fully developed knowledge management approach is needed (Alavi & Leidner, 1999; Vandenbosch & Ginzberg, 1996). More importantly, that system must drive participation in the selected intervention in order to realize the competitive advantage that is sought through increased knowledge sharing (Alavi & Leidner, 1999).

Outside of the actual community of practice, the organizational culture must support the adoption of the community. According to Walczak (2005), the culture must facilitate and encourage sharing and creating knowledge as a precursor to a successful implementation. A supportive culture is needed largely due to the character of the knowledge to be shared and utilized in the community of practice. Since the majority of the knowledge will be informational and tacit – tribal knowledge based on the experiences, know-how, and previously undocumented ideas of the workforce – having a culture that embraces the value of that knowledge and encourages sharing that value broadly is a key component of success (Bobrow & Whalen, 2002). Both the culture and

the knowledge management approach within an organization have direct impacts on participation by knowledge worker-members of communities of practice.

Even with the right systems and the right organizational culture and support, effective participation has been elusive in many cases (Szulanski, 1996). Employees may still be unwilling to share what they know for any number of reasons (Ciborra & Patriota, 1998). The ability of an organization to recognize the factors (either organizational, individual, cultural, or systemic) that are either driving or hindering participation and to leverage the drivers while mitigating the hindering factors is one of the primary determinants of success for a community of practice as a learning and performance intervention (Ardichvili et al., 2003).

Participation as a Balanced System

A further consideration in understanding participation and its factors is the realization that participation must strike a bi-directional, bi-dimensional balance (Corso et al., 2009; Dixon, 2000; Guldberg & Mackness, 2009). Participation comes in the forms of active or contributory participation where members share information and engage with others in discussions, and passive or access-only participation where members simply use information within the community without adding any new information of their own (Blanchard & Markus, 2004).

Said differently, participation in a community of practice is not unlike the economic model of supply and demand. In that model, both the economic climate and the levels of supply and demand must be in alignment to achieve the ultimate balance and most healthy economy. Similarly, participation in communities of practice can either be on the supply side (contributing information) or the demand side (accessing and using the

information as consumers) with a proper balance being important for long-term success (Faran, 2008). As Faran (2008) notes, much of the research in communities of practice has focused on the supply side – the need for contribution of information to the community. Little specific research has been completed on the demand/use side. While Ardichvili et al. (2003) briefly addressed the consumer side in their work and certainly acknowledged its impact on overall participation, that study still fell short of fully investigating the consumer side of the balance. Where both sides are considered, the demand side is almost always simply implied rather than receiving full treatment (Majewski & Usoro, 2011).

Studying the enablers, motivators, and barriers of participation in communities of practice requires separating the roles of contributor (supply side) and consumer (demand side) in order to analyze the factors that impact one or both sides (Majewski & Usoro, 2011). Some factors may overlap between the roles, others may be dichotomous, while still others may variably effect the participant depending on their momentary role dictated by the task at hand (Ardichvili et al., 2003; Faran, 2008; Majewski & Usoro, 2011). Thus, a full exploration of the factors influencing participation requires both the separation of the roles and the analysis of the roles as interacting and co-existing.

Motivation Theory and Communities of Practice

From a theoretical perspective, a few theories stand out as potentially explaining why employees either participate or do not participate in communities of practice: Herzberg's Motivation-Hygiene Theory, Vroom's Expectancy Theory, McClelland's Trichotomy of Needs, and Homan's Social Exchange Theory.

Vroom's (1964) Expectancy Theory suggests that employees will be motivated to take an action (such as either contributing information or accessing information in a community of practice) when they believe that doing so will accomplish their own goals. More specifically, the theory suggests that motivation rests on three expectancies which lead to the accomplishment of a goal or the realization of a desired outcome: (1) that the effort they expend will, in fact, lead to getting what they want; (2) achieving the desired outcome will result in getting something they want; and (3) that the desired outcome and resulting personal benefit has an actual value to the subject (Watson & Hewett, 2006).

Applied to knowledge management and communities of practice, Expectancy Theory suggests that employees will participate in the community of practice if they perceive that by doing so they will be able to access information, that it will be the information they need, and that it will have value (Vroom, 1964; Watson & Hewett, 2006). Watson and Hewitt's study suggested that increasing the perception of any of the three expectancies among participants would result in higher participation and greater satisfaction. They also found that, consistent with Vroom's theory, the ease of accessing relevant and useful information would directly impact the overall expectancy and motivation to participate (Watson & Hewett, 2006).

Similarly, Herzberg's Motivation-Hygiene Theory suggests that employees will act to either increase satisfaction (internal motivation to accomplish a desired outcome) or reduce dissatisfaction (desire to avoid an undesired outcome) (Herzberg et al., 1993). Herzberg, in response to significant criticism of his work, drew a distinction between motivation and what he called *movement*, or the innate desire to avoid pain from the environment. This concept of movement is both supportive of the hygiene portion of his

theory and also instructive in terms of organizationally created communities of practice (Basset-Jones & Lloyd, 2005).

In the community of practice arena, employees will either have an internal motivation to participate in order to find satisfaction in the result or engage in movement to avoid a sanction or undesired result such as harder work, discipline for failing to participate, or having to search harder elsewhere to get answers (Basset-Jones & Lloyd, 2005). Despite the changes in society, Basset-Jones and Lloyd found that Herzberg's theory remains viable in contemporary organizational settings and can provide insight into why employees do what they do – or fail to do other things.

McClelland's (1987) Trichotomy of Needs Theory suggests that people are motivated by a need for achievement, power, or affiliation. Those who are motivated by achievement will be high performers and overachievers who act in order to be competitive and better than others. Others, motivated by power, are looking for control over others and the ability to influence their world and the people in it. They will have a higher motivation to act in cases where they think doing so will enhance their influence among their peer group. However, the last group has a very different type of motivation. They do not necessarily want to be the best or most powerful – they just want to belong to the group. They will act to remain in the mix and involved with their peers. They are the most likely to act out of a sense that doing so is what is expected among their group and to do so in order to fit in with others (McClelland, 1987).

In Social Exchange Theory, the motivations and behaviors of individuals are essentially reduced to a transactional view. Blau (1964) argued that behavioral exchanges were based on the concept that people will engage in behavior with others

only when they perceive that their counterpart will engage in similar and complementary behavior at the same or greater level. Within that context, the decision of whether or not to share information is based upon whether or not the person believes they will get something of equal value in return. The theory holds that the behavior between two people is a transaction that is “two-sided, mutually contingent, and mutually rewarding” (Emerson, 1976). Thus, participants in a community of practice would only share information if they believed that those who receive the information would provide some sort of reward commensurate with the information shared.

Each of the motivation theories discussed above provides a certain context for why participants would be motivated to engage with a community of practice. In reality, there is a strong possibility that each of the theories may have some role in specific participation behaviors. Even so, having a basis for understanding the motivations influencing participant interactions with communities of practice will provide a starting point for considering how they impact behaviors among participants.

Social Learning Theories and Communities of Practice

Social learning theories come in several varieties. Common to each of them is the underlying notion that learning is a social enterprise, requiring interaction among people (Swan & Shea, 2005). Social learning theories suggest that people learn together, either from each other or as a function of shared experiences (Swan & Shea, 2005). The concept of learning as a social act directly supports the concept of communities of practice (Wenger, 1991). The interactions needed for an effective community of practice are entirely social in nature – involving the sharing of information among peers to learn from each other. In addition, learning activities require relationships and trust between

members of the community in order for learning to be effective (Johnson, 2001).

Members of the community must be willing to share what they know, learn from others, and even correct each other at times; all of which are hallmarks of social learning as part of a shared learning experience (Edmondson, 1999).

Etienne Wenger (2000), one of the most prolific researchers and writers on social learning and communities of practice, explains that social learning involves the *interplay* between experienced and competent members of a social group and those who are newcomers or novices in the subject matter. She explains that those who are more competent in the group tend to increase the competency of those who are novices through knowledge sharing and skills demonstration. In other words, group members learn from each other within the social environment.

In terms of communities of practice, social learning is a powerful part of the equation (Edmondson, 1999). Effective communities of practice require three key social learning components according to Wenger. The components include enterprise, mutuality, and repertoire (Wenger, 2000, p. 230). Enterprise refers to the common goals of learning and developing knowledge. The members have to be focused on the development of common knowledge as part of their shared work in order to be effective (Wenger, 2000). Mutuality is a function of social capital (Edmondson, 1999). Participants must have enough of a connection to know about each other's abilities and trustworthiness. Moreover, they must also be able to depend on each other to be mutually engaged and contributing. The more one contributes in a valuable way, the more social capital he or she develops. That social capital, in turn, develops into trust and reliability (Wenger, 2000). Finally, repertoire refers to the self-awareness of the

individuals within the community and that of the community as a whole. How well one understands one's role and that of one's community has a direct bearing on social learning (Wenger, 2000).

Motivators, Enablers, and Barriers to Participation

Considering the different motivation theories at work alongside the realities of the workplace, there are a number of factors that can influence participation. Certainly, motivation and motivating factors play a role. In addition, there are things in the environment and the work being done that can cause participation to grow or can stand in the way and make it difficult for employees to join in the communities of practice (Ardichvili et al., 2003).

Brenson et al. (2003) found several factors that impacted knowledge sharing in communities of practice including: (1) Organizational Structure, (2) Culture and Change Climate, (3) Participant Skill Levels, (4) Communication and Information Flow, (5) Technology, and (6) Objectives and Outputs. Similarly, in the Caterpillar Study, Ardichvili et al. (2003) identified trust as a key enabler and the lack of trust as a key barrier. That study also identified some additional barriers around things like corporate security and a feeling of discomfort in sharing ideas to a large audience. In both cases, the studies showed a significant impact to the effectiveness of the community of practice as well as its return on investment when the barriers outweighed the motivators and enablers (Ardichvili et al., 2003; Brenson et al., 2003). That balance between motivators, enablers, and barriers also aligns with the MOA (motivation, opportunity, and ability) framework discussed previously in knowledge sharing. When barriers exist that outweigh the motivation, opportunity, or ability of the participants, knowledge sharing

and participation in the community is stifled or even brought to a standstill (Siemsen et al., 2008).

Ling, Kehong, and Haixia (2011) found that knowledge sharing in virtual teams was the result of trust and five other major factors: (1) human networks – especially the ability to connect virtually and without the benefit of face-to-face interactions, (2) social capital – including elements of trust, cohesion, motivation and satisfaction, (3) technology level – largely related to having the right systems to support knowledge sharing, (4) change management – focused on how well the change was introduced and managed when the program was implemented and when it was adjusted along the way, and (5) intellectual capital – primarily around competence, skill level, and best practices. While structured very differently, the concepts align to a certain degree with the Caterpillar study and Brenson's findings.

Majewski and Usoro (2011) broke down trust to its component levels – something the above studies had not done to the same degree. They found that trust (including its components of integrity, competence, and benevolence) was the most prominent of the factors effecting participation and knowledge sharing. They further found that the perception of trust was “highly and positively correlated with the level, density and quality of knowledge sharing” (p. 388). As factors of participation, they list risk, perceived rewards, reciprocity, community (social ties and networks), supervision and incentives offered, perceived effectiveness of the sharing of knowledge, and perceived compatibility of knowledge sharing goals with their own. These tie into both the previous findings and the discussion of the three motivation theories previously defined.

In a recent literature review published in the *Journal of Applied Sciences Research*, Aulawi et al. (2009) bucketed the enablers of knowledge sharing into four major groups. The first consisting of teamwork, trust, and management support was labeled, “culture.” The second, “structure,” encompassed centralization and the reward system for sharing information, while “people” or self-efficacy and “information technology” rounded out the remaining two (p. 2262). Their research suggested, in very broad terms, that by positively impacting these four main buckets, organizations could enhance knowledge sharing throughout the enterprise (Aulawi et al., 2009).

Similarly, Ye et al. (2006) found the following variables to be significant in the participation and actual sharing of knowledge within a community of practice: reciprocity, reputation, knowledge self-efficacy, enjoyment in helping others, and commitment. The variables they found represent egoism, altruism, collectivism, and principalism. Along those same lines, Guldberg and Mackness (2009) found that engagement and participation levels were influenced by emotion, technology, connectivity, understanding norms, and learning tensions. Again, the findings are quite comparable to the others.

One of the few studies available that are specific to contact centers involved introducing a wiki (think Wikipedia – knowledge sharing through a common repository that comprises answers to questions and presents data based on what has been contributed by users) to a contact center environment. The study, relayed in a master’s thesis, also noted a trust/accuracy/efficacy of information barrier. Unfortunately, the author failed to identify any contact-center-specific issues (Vega & Flores, 2011)

Overall, in looking at the body of research connected to motivators, enablers, and barriers to participation, Brenson (2003) and Ardichvili et al. (2003) provide a fairly comprehensive view of the general factors for participation. However, the fact that each study landed in a slightly differing place suggests that there is no one-size-fits-all listing of factors and that each kind and type of working environment and learning structure will play a significant role in determining which factors apply.

Regardless of the reasons that cause high or low participation and utilization, in order for knowledge sharing in a virtual community of practice to remain effective, participation (not just reading content, but actually contributing to the discussions and adding knowledge to the mix) is critical (Lee & Kang, 2005). Under-utilization of the community of practice can actually lead to knowledge stagnation and a lack of necessary knowledge to meet the demands of the job (Wenger, 1991)

The Contact Center as a Unique Learning Environment

In a general business sense, contact centers are a unique environment. Centers require a unique approach to resource management, staffing, time management, decision making, and many other leadership tasks (Aksin et al., 2007). These types of workplaces have their own unique challenges and requirements. High employee turnover and cycles of hiring and layoffs to meet operational demands create challenges in learning, training, skill development, and many other areas (Aksin et al., 2007).

In most businesses, workloads and demands are dictated by a sales process that spans time. Sales are made, inventory ordered, work completed, and so on – taking place over days, weeks, or even months and years (Aksin et al., 2007). In the contact center, workloads and demands are the result of a ringing phone. Employees must be available

to answer calls when customers need them. As a result, managing employees' time and other resources is driven, not by a long-term evolution of work as in many businesses, but by a forecasted estimate of when calls will come in (Askin et al., 2007; Dutta & Pinder, 2011). The ability to maximize the use of human capital in a contact center is often the make or break issue for profitability (Dutta & Pinder, 2011). As a result, training, learning, meetings, and many other activities that are normal in most environments are regarded as a significant impediment to profitability, thus creating a challenge for learning practitioners to implement interventions within contact centers (Askin et al., 2007; Dutta & Pinder, 2011).

In a case study analysis, Downing (2004) very capably described the contact center environment in terms of knowledge management and the tools that support it. Noting the demands of call volume, call handling times, and other metrics and factors unique to contact centers, Downing addressed the innate value of well-implemented knowledge management in terms of contact center applications. Downing also notes the fact that many contact center demands and even innovations can be barriers in and of themselves to the use of knowledge management tools.

In addition, Hemasi and Csanda (2009) presented the contact center as a unique environment in their study of communities of practice. The way in which representatives in a contact center are coached and trained as well as the demands of their jobs and the types of information they need access to during particular times all play a role in their use of communities of practice (Hemassi & Csanda, 2009). Timbrell, Koller, Schefe, and Lindstaedt (2005) also recognized the contact center (or call center) as a unique learning environment needing its own infrastructure and knowledge management approach.

Though Raz (2007) went a step further and considered ethnic culture issues as part of his work, he also found that contact centers are a unique environment and that customer service representatives have unique needs and motivators.

Common among all but the Raz study discussed above is the concept that contact centers are a unique and distinguishable concept from other types of organizations. Both the uniqueness of the contact center environment in general, and the commonality among various contact centers in terms of key environmental variables as discussed above, lend the contact center environment to a certain degree of generalization. However, differences from company to company and even location to location can cause centers to vary, at least to some degree, in the factors that influence participation within a center.

Summary

The relevant literature is highly supportive of knowledge management as a key factor in competitive advantage. In addition, evidence confirms that knowledge sharing can be a powerful tool in accessing the tacit/tribal knowledge held by employees, which is the knowledge that makes them the most valuable. One method for facilitating and promoting knowledge sharing is through the creation of a community of practice that allows employees to share knowledge directly. Online communities of practice can go even further by allowing employees to collaborate across geographical and other boundaries.

Unfortunately, because communities of practice have their strongest value in the actions taken by employees, participation is a critical component. Judging from the volume of literature on participation in communities of practice, increasing participation has been a consistent area of concern. However, one area not as heavily studied is

participation within a contact center environment. As a very unique workplace, contact centers have their own motivators, enablers, and barriers of participation. That unique character results in a limited applicability of the research completed in other environments.

In an effort to increase the data available on community of practice participation in contact centers, this study will provide a different look at what drives employees to engage with a community of practice. Through an exploratory mixed-methods approach, this study will examine the applicability of the themes identified in the literature to the contact center environment and explore other factors that may be unique to contact centers.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

The purpose of this study is to identify and describe the motivators, enablers, and barriers to participation in online communities of practice in the contact center environment, both in terms of use and contribution of information. In the micro-environment of particular companies, this research becomes relevant in terms of driving the efficacy of each company's individual interventions. At the macro level, providing a different perspective on the factors that drive participation in communities of practice adds to the base of knowledge and creates additional background for further industry or job-specific research.

This study addresses the following research objectives:

- RO1: Describe the demographic characteristics of the sample in terms of gender, age, organizational tenure, present level of participation in the community of practice, and work characteristics.
- RO2: Identify the motivators and enablers that drive contact center employee contributions to internal online communities of practice as perceived by participants.
- RO3: Identify the motivators and enablers that drive contact center employee access and use of internal online communities of practice as perceived by participants.
- RO4: Identify the barriers that inhibit contact center employee contributions to internal online communities of practice as perceived by participants.

RO5: Identify the barriers that inhibit contact center employee access and use of internal online communities of practice as perceived by participants.

Population

The population for this study included 8,747 front line customer service representatives in seventeen contact centers of one of the four largest wireless communication providers in the United States. The organization expects all employees in customer service functions to participate actively in its community of practice. In practical application, front line representatives (Customer Service Representatives or CSRs 1-4) are the most likely to engage fully with the community and are the most impacted by the unique facets of the contact center environment (Raz, 2007; Timbrell et al., 2005; Vega & Flores, 2011). While other roles exist in each of the centers, their work environment and characteristics are more similar to a non-contact-center workplace, and they would not have the same types of interactions with the community of practice that exist in the study population. Therefore, the front line, customer-facing roles are the most appropriate for this research.

The overall population has highly variable participation in the community as evidenced by archival data obtained from the company, which tracks the detailed usage of each participant. Within the contact centers and even within skill groups inside contact centers, there are varying levels of participation evidenced in the archival data, providing a good cross-section of influences to consider.

Sample

This study employs an exploratory-sequential, mixed methods design. That format requires two separate samples – one for the initial qualitative (exploratory) phase and another for the subsequent quantitative phase.

Stage One Qualitative Sample

Selection of the Stage One sample was driven, in large part, by the make-up of membership in the community of practice. At the subject company, three major lines of business are served by the company's contact centers. These include General Care, Technical Care, and Financial Care. All three lines of business contribute to the same community of practice but may use different areas of the community. Furthermore, they are likely to share some of the same factors influencing participation and display other unique factors. As a result, the focus group samples were distributed across all three lines of business by conducting one focus group in each of three centers representing the three lines of business.

A purposeful sample of representatives was selected based on levels of use (accessing information) and contribution (sharing/adding information) to the online community of practice. Based upon archival data regarding participation behavior, each representative was classified as either high usage (top 25% of all representatives), medium usage (middle 50% of all representatives), or low usage (bottom 25% of all representatives). The same process was followed to classify representatives as either high contributors, medium contributors, or low contributors.

Twelve individuals were randomly selected (using a random number generator) from the different participation categories (usage - high, medium, or low and contribution

- high, medium, or low) as shown in the table below and invited to participate in one of the three focus groups (See Appendix F). The selection process resulted in a total of 36 participants in the focus groups – similar to the number of interviews conducted in the Caterpillar study (Ardichvili et al., 2003). The locations chosen were based on convenience of geographic distance and ease of travel for the researcher.

Table 1

Planned Distribution of Focus Groups

Location	Center Type	Contribution	Use
Site 1	General Care	2 High 2 Medium 2 Low	2 High 2 Medium 2 Low
Site 2	Technical Care	2 High 2 Medium 2 Low	2 High 2 Medium 2 Low
Site 3	Financial Care	2 High 2 Medium 2 Low	2 High 2 Medium 2 Low

Stage Two Quantitative Sample

Stage Two used a quantitative instrument with the goal of developing a list of the motivators, enablers, and barriers present in the contact center environment that can be generally applied to all customer service representatives in the organization. This stage employed an online survey of a representative random, cross-sectional sample taken from the 8,747 customer service representatives at the company's seventeen contact centers and specifically excluded any other job titles or roles within the community of practice. In addition, to ensure all participants had full exposure to the community and a similar

opportunity to participate, only those with at least one year of tenure with the company were considered for random selection. To account for the company's three different call types that represent different applications of the community of practice, the sample was stratified based on the type of calls handled (general care, technical care, or financial care). Each sample group was sized proportional to the make-up of the total population according to archival data from company records. Individual participants were selected at random from within each stratified group using a random number generator.

To account for employees who might elect not to participate in addition to vacations, leaves of absence, and other scheduling factors that might potentially impact participant availability, 100 additional names were selected as back-up participants, creating a sample pool of 700 total names. The 700-member sample pool was provided to the company's resource planning team for scheduling, and invitations were sent to the selected representatives (See Appendix F).

Sample Size and Confidence Level / Interval

Due to fluctuating staffing in contact centers, the employee population can change from day to day. In order to establish the population (N) for purposes of calculating an appropriate sample size, the researcher used the actual number of active employees of the subject company on the date the survey launched, which was 8,747. For a 95% confidence level with a confidence interval of +/- 5%, that population required a sample (n) of 369, as calculated using the Raosoft web-based sample size calculator (<http://www.raosoft.com/samplesize.html>). To ensure representation of low, medium, and high participating (use and contribution) members of the community of practice a

goal sample size of 600 was established. That larger sample provided for a more robust view across the levels of participation and across locations within the organization.

Research Design

The key to answering the research questions lies in an appropriately designed research model. The selection of a method and approach to the research is a critical step in gaining a full and accurate view of the data and drawing valid conclusions (Cresswell, 2003). Often, in traditional research, previous published works can provide a basis for knowing the questions to ask on a survey or the particular characteristics of a population to be studied. In those cases, a more traditional qualitative or quantitative approach is generally serviceable (Creswell & Plano Clark, 2011).

In the present study, there is a marked lack of research into the motivators, enablers, and barriers that exist specifically in contact centers. While there is certainly anecdotal information around what contact center leaders believe are challenges to participation in contact center communities of practice, no actual data exists, nor is there current research to determine the appropriate questions to ask. As a result, the potential motivators, enablers, and barriers had to be determined for the researcher to develop an instrument to validate factors identified in order to draw conclusions about the community of practice as a whole (Cresswell, 2003). In other words, the fact that the researcher does not know what he or she does not know until after the initial stage of qualitative exploration is the primary reason for employing an exploratory-sequential mixed methods approach (Creswell & Plano Clark, 2011). Such a design can provide “breadth and depth of understanding and corroboration” (Johnson, Onwuegbuzie, & Turner, 2007, p. 123).

While a lack of research supports the subject matter of this study, significant research supports using mixed methods research in understanding learning and knowledge interventions. Specifically focusing on communities of practice, a clearly established need for both types of data exists. Quantitative research can draw correlations between communities of practice and learning or communities of practice and business results (Zhang & Faerman, 2003; Zorfass & Rivero, 2005). Likewise, qualitative research can provide valuable insights into what causes learning to happen in communities of practice (Ardichvili et al., 2003; Bolloju et al., 2002). To have a full and effective picture of what drives participation in a community of practice, a more exhaustive research method is needed.

Martinez et al. (2006) demonstrated the need for both qualitative and quantitative research methods, including social networking research, to fully answer their objectives. Another study, however, said it best: “Online interaction, as a form of discourse, is a complex and discursive phenomenon. Researchers in this field generally agree that mixed method multidimensional analysis is necessary to provide in-depth understanding” (Sing & Khine, 2006, p. 251). No one method is clearly indicated to provide a complete picture. Instead, Martinez directly supports the use of mixed methods research to answer questions about online communities of practice (Martinez et al., 2006).

The mixed methods approach is further supported in a British study looking at almost exactly the same concepts as the current research study, only in a different environment. Guldberg and Mackness (2009) found a number of dimensions to motivators and barriers in communities of practice. Their research also demonstrated the

need for mixed methods to more fully understand the factors at work in community of practice participation.

Based on the above, a non-experimental, exploratory-sequential mixed method design was utilized for this study. Narrative research, where subjects were interviewed to understand their experiences was followed by a quantitative survey to measure and generalize the experiences of the population (Cresswell, 2003). Both stages were non-experimental because the researcher did not manipulate any variables but simply observed them as they occurred without interference (Johnson, 2001a).

In both stages of the design, the data collected was cross-sectional in that it measured the state of the population at a particular point in time (Focus groups took place over a three week period, while the quantitative survey was collected over a subsequent period of several days) and did not involve the measurement of change over time (Johnson, 2001a). In addition, the data is descriptive, providing a view of the overall characteristics of the population, essentially describing the population and its environment (Cresswell, 2003).

Threats to Validity and Reliability

Validity and reliability are important aspects of a well-executed research study. While no study is without threats to validity, there are certainly steps that can be taken to mitigate for any such threats. In this study, several potential threats were identified and proactively addressed as part of the design process.

Internal Validity

Internal validity refers to the degree to which the relationships identified in the study can actually be substantiated. While several potential threats to internal validity are

discussed below, steps were taken to mitigate internal validity threats. Among these were selection bias, experimenter expectancy, researcher bias, low statistical power, and history.

Selection bias is a potential threat, especially in terms of a purposive sample (Shadish, Cook, & Campbell, 2002). To minimize this risk at each step of the process, the selection of participants was randomized to the extent possible. For example, despite the purposive sample of high, medium, and low participants for the focus groups, the actual participants from each group were randomly selected. This randomization helped to provide a more representative and valid sample (Shadish et al., 2002).

Another threat to internal validity arises in terms of experimenter expectancy. Specifically, since the researcher is an executive leader in the company, risk for participants to say what they believe the researcher wants to hear exists. This threat raises some concern for the design presented (Shadish et al., 2002). The study population is part of a community of practice only moderately successful thus far compared to expected results, and the company has been clear in its desire for success. The corporate culture is also one of open feedback across levels. As a result, experimenter expectancy was significantly mitigated by providing instructions, introductions that clearly outline the purpose of the study (to identify and describe the motivators, enablers, and barriers), and the desire to have an honest view of the situation. Participants were assured that there is no *right* answer. In addition, focus group questions were specifically designed to avoid any indication of an expected or desired answer to minimize the risk of participants trying to guess the desired answer.

Similarly, an additional threat came in terms of the researcher's own bias in evaluating qualitative responses as part of the coding exercise and thematic analysis. Some risk of the researcher seeing what he or she wants to see in the responses and influencing the coding cannot be ignored. This bias can be significantly reduced by the use of at least one additional, independent coder. Having inter-coder agreement and reaching consensus on coding discrepancies allows for a measure of validity in terms of ensuring that the themes identified are representative of the data collected (Patton, 1990; Sandelowski, 1995).

Another potential threat in any situation where survey responses are needed is that of low statistical power. Having enough valid responses to the instrument is a necessity in order to reach a reliable conclusion. In this case, the subject organization provided an environment where this threat is greatly minimized. By scheduling participants to take the study during work time, the study saw a completion rate of 89.9%, over one and one-half times the number of surveys needed. The high response rate resulted in a statistically powerful data set at levels beyond what is generally targeted for social sciences research (Shadish et al., 2002).

Finally, in this particular study, a threat developed during the administration of the survey. Of the 17 contact center sites in the organization, one site suffered a significant winter weather event that kept the location closed for nearly the entire time the survey was open. As a result, participation from that location was significantly lower than in other sites, creating a history threat (Shadish et al., 2002). Fortunately, the impacted site was one of many sites taking the same kinds of calls, and the other sites had high enough participation to offset the loss of those responses. While the threat cannot be

eliminated, it is largely minimized by the strong response in other sites with the same call type.

External Validity

In most research on motivators, enablers, and barriers for communities of practice, there is a significant issue with external validity. Specifically, studies are usually done in a particular company or industry, presenting significant challenges to external validity (Shadish et al., 2002). For example, this study utilizes the contact center population of a major national wireless service provider. The question arises as to whether or not the results might be different in a different company or industry or in a different work environment. The intent for this study was to provide initial research into the specific motivators, enablers, and barriers present in the contact center environment. Additional discussion of external validity can be found in the recommendations portion of chapter five.

Institutional Review Board Approval

The researcher submitted the proposed study, including the focus group questions and an outline of the planned survey instrument to the University of Southern Mississippi Institutional Review Board (IRB) along with the appropriate approval letters from the dissertation committee/chair and the subject company for the board's approval. The application packet also included proposed informational letters, e-mail invitations for the actual survey instrument, informed consent forms, and the script for an informational overview to be presented at each focus group. Approval for the overall study was received on December 5, 2013 and was subject to a modification once the actual survey instrument was developed. Once the focus groups were completed and the survey

instrument was finalized, the instrument was submitted to the IRB for a modification and approved on February 5, 2014. Approval documents may be found in Appendix D.

Data Collection

As part of the exploratory-sequential design, data collection took place in two stages (Creswell & Plano Clark, 2011). Each stage is separate, and the first stage had to be fully completed before the second stage could begin (Cresswell, 2003). The figure below provides a view of the process followed.

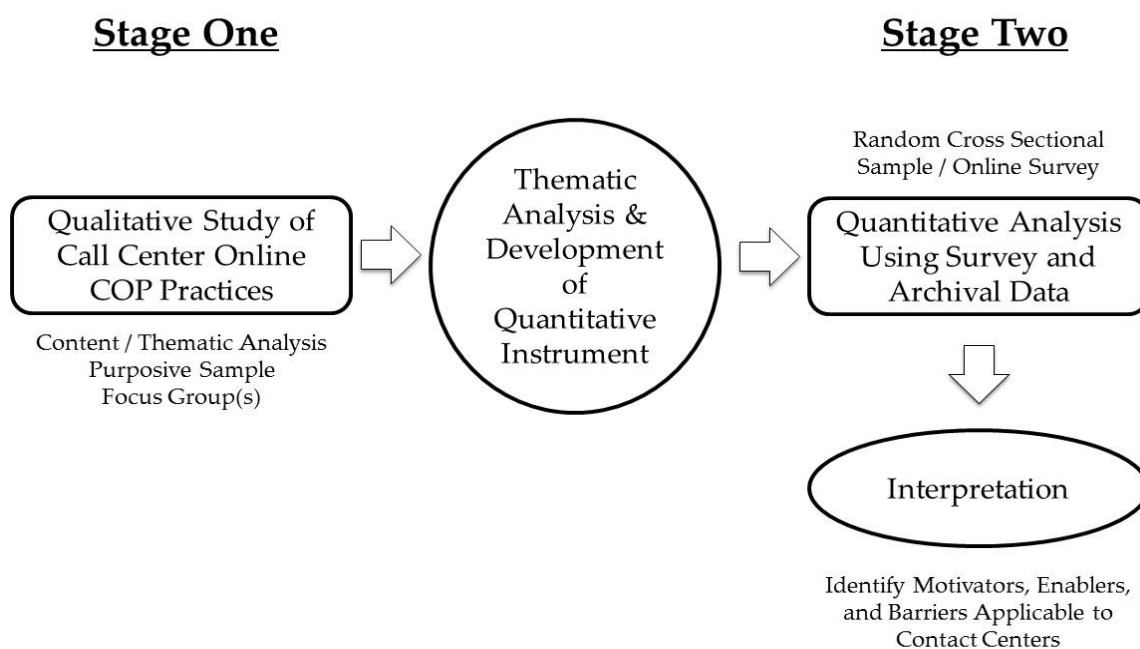


Figure 2 Mixed Methods Approach.

Archival Data

The subject company provided a data file of relevant information on all employees. From that file, sample subjects who were customer service representatives with at least one year on job were randomly selected. Certain demographic data was captured from that employee data file for use in the Stage Two survey. That data

included name, job title, personnel number, location, date of birth, gender, time on the job, time in position, and detailed use data for the community of practice. The data was secured in a password protected file stored electronically on the company's network and was deleted after anonymous data for the survey sample pool was downloaded to the survey tool.

Stage One Data Collection

Stage One provided a qualitative exploration of the motivators, enablers, and barriers to participation in the contact center environment as perceived by contact center employees. Following the general process outlined by Ardichvili et al. (2003), the qualitative analysis employed three semi-structured focus group interviews to confirm the themes identified in the Caterpillar Study and other relevant literature, to identify additional themes unique to the contact center environment.

Each focus group consisted of twelve participants randomly selected from a pool of high, medium, and low volume participants in each of three contact center locations. Focus groups were scheduled by the contact center's resource planning department as part of the company's scheduling process, resulting in 100% participation. None of the selected participants declined to participate once the study was explained, and they were offered the informed consent document.

Each focus group was scheduled to take two hours. In two cases (general care and financial care), the groups finished a few minutes ahead of schedule. However, the technical care group took slightly longer than the two hour planned time due to a more robust participant discussion. The sessions were recorded on a digital audio recorder

with the written permission of the participants. The researcher was assisted in each session by a note taker to help capture themes and notable quotes.

The questions presented in the focus groups were intentionally non-specific and open-ended to allow for a full exploration of the factors influencing participation. Based on the concepts and themes identified by Brenson et al. (2003), Ardichvili et al. (2003) and Guldberg and Mackness (2009), questions were related to motivations, environmental and cultural issues (enablers), and elements that may inhibit participation (barriers) in the community of practice. The researcher carefully avoided questions that would potentially lead the discussion in a certain direction and avoided making any assumptions about what might be identified to allow for a full exploration of any possible factors that might arise.

Prior to conducting the focus groups, the questions were reviewed by a panel of five long-time participants in the community of practice who were not part of the focus groups or the survey. That review provided their perspective on how the focus group members would react to the questions and whether or not the experts believed the questions would lead to information that would identify motivators, enablers, and barriers to participation. Their feedback was incorporated in the final questions used in the focus groups.

Each focus group was asked the same questions (See Appendix A) in the same order. Each group was encouraged to provide as much detailed information on each topic as possible. All three groups were highly engaged and shared significant information and experiences. As a result, the questions prompted significant discussions with only a few

instances where the researcher was prompted to ask probing questions to facilitate the discussion.

Focus group questions were directly linked to the research objectives. In each case, questions were designed to provide themes for evaluation in Stage Two. To ensure the relevance of each question to the research objectives, individual questions were mapped to specific objectives and then mapped in the reverse direction, resulting in a Qualitative Data Collection Map below. The map demonstrates connections between the research objectives and focus group questions, as well as serving as the basis for designing the subsequent survey instrument to validate the themes identified.

Table 2

Qualitative Data Collection Map

	Research Objective	Focus Group Question(s)	Type of Data	Method
RO1	Describe the demographic characteristics of the population in terms of gender, age, organizational tenure, present level of participation in the community of practice, and work characteristics.	F1 F2	Categorical	Focus Group Interview
R02	Identify the motivators and enablers that drive contact center employee contributions to internal online communities of practice as perceived by participants.	F4 F5 F6 F8 F9 F10 F11 F16	Narrative Qualitative	Focus Group Interview
RO3	Identify the motivations and enablers that drive contact center employee access and use of internal online communities of practice as perceived by participants.	F3 F5 F7 F8 F9 F10 F11 F16	Narrative Qualitative	Focus Group Interview

Table 2 (continued).

R04	Identify the barriers that inhibit contact center employee contributions to internal online communities of practice as perceived by participants.	F8 F9 F10 F13 F14 F15 F16	Narrative Qualitative	Focus Group Interview
R05	Identify the barriers that inhibit contact center employee access and use of internal online communities of practice as perceived by participants.	F8 F9 F10 F12 F14 F15 F16	Narrative Qualitative	Focus Group Interview

Research Objective One (RO1)

Research Objective One provides for a demographic description of the sample. The focus group setting addressed the first two (F1 and F2) questions by asking each participant to classify themselves in terms of their active contribution and passive access or use participation in the community of practice. As a practical matter, the first two questions were also designed as individual response questions to elicit the full participation by every group member.

Research Objective Two (RO2)

Research Objective Two explores the motivators and enablers of contributing information in the community of practice. Themes relative to this objective are addressed in questions: F4, F5, F6, F8, F9, F10, F11, and F16 in the qualitative portion of the study. This data is all relative to themes and common factors that influence the decision to actively contribute information.

Research Objective Three (RO3)

Similar to Objective Two, motivators and enablers that drive basic access and use of the information in the community of practice were considered. Themes relative to this objective are addressed in questions: F3, F5, F7, F8, F9, F10, F11, and F16 in the qualitative portion of the study. These questions are designed to uncover themes and common factors that influence the decision to actively access and use the information available in the community of practice.

Research Objective Four (RO4)

Taking the opposite approach from the previous two objectives which explored motivators and enablers, Research Objective Four investigates barriers that inhibit contributions to the community of practice. Themes relative to this objective are addressed in questions: F8, F9, F10, F13, F14, F15, and F16 in the qualitative portion of the study. These questions look for themes and common factors that influence the decision not to contribute information to the community of practice.

Research Objective Five (RO5)

Similar to Objective Four, the final objective is concerned with the barriers that inhibit use and access of the community of practice. Themes relative to this objective are addressed in questions: F8, F9, F10, F12, F14, F15, and F16 in the quantitative portion of the study. These questions were used to identify themes and common factors that influence the decision not to access and use information in the community of practice.

Interim Data Analysis Between Research Stages

The focus group interviews were transcribed by the researcher. Content analysis identified alignment and divergence from the themes identified in the Caterpillar study as

well as other literature. The analysis identified motivators, enablers, and barriers specific to participation in online communities of practice in the contact center environment as follows.

For theme identification, Ryan and Bernard (2003) suggest examination of repetitions, transitions, similarities, and dissimilarities as coding strategies for use with the rich narrative, verbatim, textual data captured from focus groups. This approach is consistent with Ardichvili's et al. (2003) approach of not only analyzing the responses to questions specifically related to a particular research objective, but also reviewing all of the statements for relevant information about a particular theme in the response. The final themes were identified through a cutting and sorting exercise (Ryan & Bernard, 2003). The thematic coding was conducted by two independent coders (the researcher and a member of the subject company's human resources staff) to provide a measure of validity. Sandelowski (1995) provides that strong inter-coder agreement suggests theme validity, a view seconded by Patton's (1990) idea of "triangulation through multiple analysts" (p. 468). Once individual coding was complete, the two coding results were reconciled. In the few cases where there was disagreement or misalignment between coding results, coders discussed conflicting views and ultimately reached agreement on final placement of themes. The strong similarities between the themes identified in this study and those present in the previous studies in other environments indicated a likelihood that the themes were valid and appropriate for the next stage of quantitative research.

Following analysis of the qualitative research results, the final step for Stage One was to compare and relate the results of the qualitative study with the themes identified in

the previous research. This comparison formed the basis for investigating the communality of themes and identifying the presence of themes potentially unique to the contact center environment. This analysis led to a final set of contact center online community of practice themes addressing motivators, enablers, and barriers for evaluation in Stage Two.

Stage Two Data Collection

Stage Two moved from the exploratory phase of qualitative data to the collection of quantitative data to evaluate the applicability of themes identified earlier by the small focus groups to the full population of the subject company. This evaluation was accomplished through the development and administration of a survey to a representative sample of the population.

Developing the instrument. A survey is a valid and appropriate tool to use in collecting data that is otherwise unavailable. Further, having a carefully developed instrument will help ensure that the right type and quality of data can be collected to address the research objectives (Yount, 2006). The themes identified during the Stage One data analysis were used to develop a quantitative instrument to test the relevance of the themes identified to the larger contact center population for use in Stage Two. The questions, which were developed after the conclusion of Stage One, were composed in the following forms:

(1) Demographic data, collected via multiple-choice questions, to place the participants in categories based on call type. However, most demographic data, including location, age, gender, participation rates, time on the job, and time in their current role was collected from archival data provided by the subject company and joined with their

responses using an online tool in Survey Monkey to provide a full view of each anonymous participant. Participants were asked to rate their level of participation in the community of practice and to describe their use in terms of how often they accessed various material.

(2) Responses indicating the respondent's level of agreement or disagreement with the various themes identified in Stage One. Participants responded using a five-point Likert scale (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree). Throughout the literature, various research has used either a four (strongly agree to strongly disagree, without a neutral option) or five point scale. The five point scale was chosen here to allow for the full range of opinions, including being neutral and to avoid forcing participants to agree or disagree, given that participants may not have an opinion on a given question.

(3) Open-ended questions allowing for comments or additional themes to be identified.

Survey Administration

Based on typical participant availability within the subject company, a two-week period of online data collection was planned for the survey. However, as is often the case in contact center environments, call patterns are unpredictable. Decreased call volume led to significantly higher than expected customer service representative availability to complete the survey, resulting in a five day period of data collection in February, 2014. Respondents were contacted by email and provided a link to the survey. Each individual received a unique link to the survey with embedded coding to provide demographic data to the survey tool without any identifying information. Respondents were scheduled by

the company's resource planning team for specific times to complete the survey during their regular paid work day. The company's regimented process for scheduling customer service representatives' activities facilitated the automatic rescheduling of anyone who missed their scheduled time to complete the survey. Because the scheduling process prompted employees to take the survey at a predetermined time, the follow-up, which had been planned at regular intervals as outlined by Bourque and Fielder (2003), was not necessary.

Survey Monkey was selected for this research because it was readily accessible inside the subject company's firewall and also for its flexibility to collect and analyze data, including providing a data file of compiled results that can be loaded directly into IBM's SPSS statistics suite. Using the embedded coding in individual survey links, respondents were connected to their online community of practice participation rates (use and contribution), and demographic data that had been retrieved from company records. Individual participation rates were coded high, medium, and low using the same metrics utilized to draw the qualitative sample in Stage One.

In order to protect the anonymity of respondents, survey records received a unique system generated participant identification number to preserve individual data without identity. All previous versions of demographic and participation data with identifying information were destroyed prior to administration of the survey, and only the anonymized data was available thereafter.

Data Collection Action Plan

Given the complex nature of mixed methods research and the intervening approvals needed to facilitate a two-stage approach, the need for a strong data collection

action plan increases. The plan, contained in the table below, provided for timely completion of steps involved in the study, once initial approvals were secured, to ensure each step takes place as needed. However, several steps were accomplished ahead of the initially planned deadlines.

Focus group and survey participants received a welcome e-mail from the researcher asking for their participation in the respective phases of the study (See Appendix F). They were scheduled a time to participate and received Outlook calendar requests confirming scheduled times directly from the company's Resource Planning team. At the conclusion of the focus groups and the survey administration window, everyone who was asked to participate received a thank you note via electronic mail from the researcher as an acknowledgement of their time and effort.

Table 3

Data Collection Action Plan

Action Step	Deadline
Send welcome e-mail to selected focus group participants	Day 1
Send Outlook calendar request to focus group participants	Day 1
Conduct General Care Focus Group	Day 7
Conduct Technical Care Focus Group	Day 8
Conduct Financial Care Focus Group	Day 10
Transcribe and Code Data from Focus Groups	Day 15

Table 3 (continued).

Complete qualitative analysis and identify themes	Day 21
Compile survey items	Day 25
Submit survey for approval of committee	Day 26
Submit survey for approval of IRB	Day 33
Send welcome e-mail to survey participants	Day 65
Distribute online survey via e-mail	Day 66
Send first follow-up via e-mail	Day 69
Send second follow-up via personal e-mail	Day 73
Send final request via phone call	Day 76
Close online survey	Day 80
Download data to SPSS	Day 80
Complete Data Analysis	Day 90

Focus group notes and transcripts did not include any names or other identifying information. All paper notes were destroyed once electronic versions were created. Each focus group transcript has been stored in password protected files on a dedicated USB drive, which has remained in the researcher's locked office safe along with the written consent forms for focus group participants. All survey responses were electronic. The downloaded files were kept on the same dedicated USB drive. All retained data will be destroyed after one year.

Data Collection Instrument

The survey instrument (See Appendix B) followed the three types of themes being studied: motivators, enablers, and barriers. The survey was intentionally brief and direct. While the organization is very open to surveys and collecting data from employees, opportunity for survey fatigue and having too long of an instrument could serve to discourage completion (Groves, Cialdini, & Couper, 1992).

After informed consent was obtained, the subjects were asked brief questions about their type of work, their perceived participation in the community of practice, and their use of various types of information within the community of practice. Research indicates that demographic questions are better placed at the end of the survey to avoid respondent privacy concerns causing them to opt-out (Yount, 2006). However, most of the personal demographic data was acquired from company records, and the questions asked in the initial section of the survey were much more about attitudes and actions than about potentially identifiable data.

After completing the demographic questions, respondents were taken to a series of Likert-like questions asking the respondents to agree or disagree with statements that characterized the motivators identified in the focus groups. At the end of that section, a free-form comment box was provided to include any additional comments or other motivators not addressed in the themed questions. The same followed for enablers and barriers, with each offering an opportunity for free-form sharing.

As suggested by the overall design, each question in the survey instrument was aligned to one or more research objectives, similar to the linkage of focus group

questions to research objectives in Stage One. Each objective is discussed below along with questions associated with that objective.

Research Objective One (RO1)

The first objective is to describe both the quantitative sample in terms of demographic characteristics including age, gender, job title, work location, line of business, tenure with the company, tenure in the participant's current assignment, level of participation, and line of business served. Most of this information was collected directly from company records and encoded into the individualized survey link provided to each participant. However, certain pieces were collected directly from respondents in the survey. These included the line of business that the respondent serves (Q1), the respondent's own perception of their participation in the community of practice (Q2-5), and the respondents' estimation of their use of various resources in the community of practice (Q6). While the respondent's estimation of their various use characteristics is not a traditional demographic measure, for the purposes of this study, these details describe the respondent and allow for his or her classification in much the same way that age, gender, job title, etc. would classify him or her. With the exception of Q6, the data captured here is categorical. However, Q6 collects interval data to classify the respondents' use of resources.

Research Objective Two (RO2)

Research Objective Two explores the motivators and enablers to contributing information in the community of practice. In the quantitative portion, this data consists of five-point Likert-type responses to the themes developed in Stage One. Participants were asked to respond to a battery of Likert-like questions using a scale of strongly

disagree to strongly agree. The questions relevant to motivators were Q7, Q8, Q10, Q11, Q12, Q13, Q14, Q15, Q20, Q21, Q22, Q23, Q24, Q25, Q28, and Q29. Those relevant to enablers were Q28, Q29, Q30, Q31, and Q34. In each case, the data is ordinal.

Questions at the end of the motivators section (C1) and the enablers section (C2) of the survey instrument allowed for free-form entry of additional comments or the identification of other motivators and enablers that may not have been part of the questions posed to the respondent.

Research Objective Three (RO3)

Similar to Objective Two, this objective considers the motivators and enablers that drive basic access and use of the information in the community of practice. In the quantitative portion, this data consists of five-point Likert scale responses to the themes developed in Stage One. Participants were asked to rate their level of agreement or disagreement with statements that represent each of the potential motivators and enablers. Some crossover exists between RO2 and RO3 because many of the things that enable and motivate access and use also motivate or enable contribution. However, there are some factors that only apply to one form of participation or the other. The questions for motivators were Q7, Q8, Q9, Q10, Q11, Q16, Q18, Q23, Q26, Q27, Q28, and Q29. Those relevant to enablers were Q28, Q29, Q30, Q31, and Q32. In each case, the data is ordinal. Questions at the end of the motivators section (C1) and the enablers section (C2) of the survey instrument allowed for free-form entry of additional comments or the identification of other motivators and enablers that may not have been part of the questions posed to the respondent.

Research Objective Four (RO4)

Taking the opposite approach from the previous two objectives which explored motivators and enablers, Research Objective Four investigates the barriers that inhibit contributions to the community of practice. In the quantitative portion, this data consists of five-point Likert-type responses to the themes developed in the first stage of research. Participants were asked to rate their level of agreement or disagreement with statements that represent each of the potential barriers identified in the focus groups using a scale of strongly disagree to strongly agree. The questions that tied to the contribution barriers were Q19, Q33, Q35, Q36, Q38, Q45, Q46, Q47, Q51, Q52, and Q53. In each case, the data is ordinal. A question at the end of the barriers section (C3) of the survey instrument allowed for free-form entry of additional comments or the identification of other barriers that may not have been part of the questions posed to the respondent.

Research Objective Five (RO5)

Similar to Objective Four, the final objective is concerned with the barriers that inhibit use and access of the community of practice. In the quantitative portion, this data consisted of five point Likert-type responses to the themes developed in the first stage of research. Participants rated their level of agreement or disagreement with statements representing the barriers previously identified using a scale of strongly disagree to strongly agree. These appeared in questions Q19, Q33, Q35, Q36, Q37, Q38, Q39, Q40, Q41, Q42, Q43, Q44, Q46, Q47, Q48, Q49, Q50, Q52, and Q53. In each case, the data is ordinal. A question at the end of the barriers section (C3) of the survey instrument allowed for free-form entry of additional comments or the identification of other barriers that may not have been part of the questions posed to the respondent.

Instrument Review

Having a valid and reliable design provides a basis for reliable conclusions (Shadish et al., 2002). The instrument needs both face and content validity in addition to the overall study having both internal and external validity. Since the questions are not part of an established instrument, it was appropriate to have the questions reviewed by a panel of subject matter experts and piloted with a small group of community of practice members (Fink, 2003).

In this study, a panel of five long-term community of practice users who did not participate in either stage of the study reviewed the questions. The five community of practice users, acting as subject matter experts, evaluated the proposed instrument in terms of (1) ability of the instrument to be understood by a typical customer service representative, (2) applicability of the questions to the research objectives, and (3) any material that is unnecessary or inappropriate or was not included. Having the expert review by members of the community of practice helps to ensure that the instrument actually measures what it is intended to measure and provides a measure of reliability and consistency within the instrument (Sprinthall, 2007).

After revisions from the panel's feedback, questions were piloted with a group of three different non-participating members of the community of practice, one from each line of business (Dillman, 2007; Fink, 2003). Panel feedback confirmed the researcher's estimate of time required to complete the instrument (eight to ten minutes), as well as providing additional feedback on the questions. Both the expert panel and the pilot group provided only minimal revisions and those were included in the final version submitted to the dissertation committee and Institutional Review Board for approval. Even though the

revisions were minimal, the use of an expert panel and a small pilot group provided valuable feedback for the instrument and allowed for minimizing potential threats to validity.

Data Analysis

Once data was collected from both the qualitative and quantitative stages of the study, it was analyzed and tested to determine the results for each research objective. Much of the quantitative data has been derived from Likert-type responses on a five point scale (where 1 is strongly disagree and 5 is strongly agree). Because Likert-type responses provide non-interval data where there is no defined distance between the ratings (i.e., strongly agree is not a defined amount greater than agree), the statistical tests available are limited to those appropriate for ordinal data (i.e., non-parametric tests and descriptive statistics). Central tendency and variability are measured in terms of medians rather than means and frequencies rather than standard deviations (Boone & Boone, 2012). In addition, the *percent positive* or percentage of responses that were either strongly agree or agree is presented as a measure of the prevailing level of agreement (or disagreement) with a particular theme. This method solves for the challenge in Likert-type data where having only five response options (1-5) results in limited differentiation in mean responses. By employing a percent positive measurement, there can be significantly greater variation and distinction between the responses on various questions (Robbins & Heiberger, 2011; Vazanna, Chan, Wenzel, & Yao, 2013). Mean values have been included for context but is not relied upon for evaluating the results of the survey.

Summary

A cross-sectional, descriptive, non-experimental design that included a two-stage mixed methods approach was employed to accomplish the five research objectives of this study. In the qualitative stage (Stage One), a purposive convenience sample of 36 online community of practice participants was used to conduct three focus groups that identified potential motivators, enablers, and barriers for participation in online communities of practice in the contact center environment. The survey instrument was developed and approved for the quantitative portion of the study (Stage Two). A stratified, random sample of 700 potential survey respondents that eventually resulted in 602 completed and usable surveys was taken to generalize findings about an overall population of approximately 9,000 customer service representatives who are expected to participate in the community of practice as part of their jobs. This process was carefully planned and developed to ensure questions in both stages were relevant to the research objectives and would provide meaningful data. In addition, proactive steps were taken to mitigate potential threats of validity and reliability, including those that are inherent in researcher-developed surveys. Finally, the researcher obtained IRB approval for both stages at the appropriate times, and was able to implement the data collection plan ahead of schedule and collected over one and one-half times the number of complete and usable surveys needed for a statistically valid sample.

CHAPTER IV

RESULTS

Introduction

This chapter provides a detailed view of the results from both stages of the research, including the qualitative data gained in Stage One and the quantitative data from Stage Two. This study provides critical insight into the factors that influence community of practice participation in contact centers. Utilizing a combination of interview data, archival information from company records, and respondent ratings from an online survey, the data presents a picture of what drives employee choices in either passively using information within the community of practice or being an active participant who contributes information to the group. While the data in this study is almost exclusively the opinions and perceptions of the participants, that level and type of data is appropriate in determining the motivators, enablers, and barriers that cause them to make decisions about participation.

Stage One: Qualitative Exploration

In Stage One, three focus groups consisting of twelve customer service representatives per group were asked to discuss their experiences with the community of practice in their workplace. The semi-structured focus group interviews followed a prescribed set of questions that were transcribed, analyzed, and used to develop themes for further quantitative research.

Participation

With the support of executive leadership at the subject company, focus group participants were made available to the researcher. As a result, the focus groups yielded 100% participation. In total, 36 employees participated in three focus groups.

For the financial care site, the population of available high contribution employees on the scheduled day with at least one year of experience with the organization was limited. As a result, the next highest contributor from the medium participation group was substituted. That slight shift from the original collection plan is detailed in Table 4:

Table 4

Actual Focus Group Participants

Location	Center Type	Contribution	Use
Site 1	General Care	2 High	2 High
		2 Medium	2 Medium
		2 Low	2 Low
Site 2	Technical Care	2 High	2 High
		2 Medium	2 Medium
		2 Low	2 Low
Site 3	Financial Care	1 High	2 High
		3 Medium	2 Medium
		2 Low	2 Low

Focus Group Results

A collection of 38 unique concepts or themes were identified through thematic analysis of focus group transcripts. Comments or views of individual participants not supported by others across the three focus groups were not included. Similar themes and

concepts were aligned and funneled into a list of 24 motivators, enablers, and barriers. When the list of 24 factors was compared to the literature, the researcher found that although the terminology differed significantly between the literature and the responses from the focus groups, the underlying concepts are consistent with general factors in the literature (see Table 5 below).

Table 5

General Factors of Participation Identified in the Literature

Factor	Primary Author
(1) Organizational Structure (2) Culture and Change Climate (3) Participant Skill Levels (4) Communication & Information Flow (5) Technology (6) Objectives and Outputs	Brenson et al. (2003)
(1) Trust (2) Corporate Security (3) Discomfort with Large Audiences	Ardichvili, Page, and Wentling (2003)
(1) Human Networks (2) Social Capital (3) Technology Level (4) Change Management (5) Intellectual Capital (6) Trust	Ling et al. (2011)

No effort was made to further reduce the 24 identified factors to broader categories in order to preserve the level of contact center detail received. The final list of 24 are displayed in Table 6:

Table 6

Factors Identified in Focus Group Interviews

Factor	Type of Factor
Participation Seen as Valuable	Motivator
Desire to Help Others	
Comfortable Team Environment	
Compliance with Rules/Employer Demands	
Desire (or lack thereof) for Personal Gain	
Desire for Approval	
Desire Participate in Team Learning	
Desire to Meet Expectations	
Fear of failure or ridicule	
Necessity	
Social Exchange	
Team Obligation/Desire to Fit In	
Company Support for the Community	
Leadership Support for the Community	
Technology Supports Collaboration	
Team Size Conducive to Sharing	
Inadequate Time to Participate	Barrier
Information is Not Relevant	
Lack of Response from the Community	
Lack of Trust in Others' Contributions	
Technology is not efficient for finding information	
Interface is not user friendly	
Overwhelming Size of the Community	
Policies Conflict with using the Community	

These 24 identified factors formed the basis to develop the survey instrument for Stage Two. Each question addressed a different facet of a particular motivator, enabler, or barrier. Given the underlying themes and concepts identified from the focus groups, some factors were represented by multiple questions in the survey.

Stage Two: Quantitative Validation

In Stage Two, the motivators, enablers, and barriers identified in Stage One were captured in a survey instrument and distributed to a stratified, random sample of the population of customer service representatives in one of the four largest cellular phone companies in the United States.

Response Rate

The company's rigorous scheduling system accounts for each minute of the day for contact center employees. This level of detailed time management afforded a data collection process that allowed for maximum participation. The total population of customer service representatives in the company (N) was 8,747. Of the 700-member sample pool, 670 began the survey, but only 612 provided complete responses. Of those, an additional 10 had data issues in the result file and were discarded, leaving 602 complete, usable surveys for a response rate of 89.86%.

The statistical power of the sample is summarized in Table 7. Based on the population and sample size, the results can be said to either have an increased confidence interval at the standard 95% confidence level or an increased level of confidence at the standard +/- 5% interval. In either case, the statistical power of the sample is sufficient to overcome any threats to validity based on sample size.

Table 7

Statistical Power

Population (N)	Sample (n)	Confidence Interval	Confidence Level
8,747	602	3.86%	95.00%
		or 5.00%	98.89%

Research Objective One (ROI)

Data collected for Research Objective One described the sample in terms of demographics. Confidentiality requirements at the host company prohibit disclosure of specific demographic data. However, based on a comparison of the sample to the full employee data set provided to the researcher, the sample was generally representative of the 8,747 customer service representatives employed on the day the survey began. Further, the sample was stratified based on the three lines of business (General Care, Technical Care, and Financial Care) to represent the populations of each line. The distribution of respondents was within 1-2% of the distribution of the employee population, resulting in a valid stratified sample. Table 8 below details the responses.

Table 8

Frequency of Gender, Age, Line of Business, and Job Title (n=602)

Variable	Value	Frequency	%
Gender	Male	232	38.5%
	Female	370	61.5%
Age	18-24	76	12.6%
	25-34	356	59.1%
	35-44	117	19.4%
	45-54	40	6.6%
	55+	13	2.3%
Line of Business	General Care	356	59.1%
	Technical Care	179	29.7%
	Financial Care	67	11.2%
Job Title	CSR 1	343	57.0%
	CSR 2	88	14.6%
	CSR 3	170	28.2%
	CSR 4	1	0.2%

More than half (n = 370, 61.5%) of the 602 employees completing the survey were female with the remaining 38.5% (n = 232) being male. With an average age of 32.7 years, nearly three-quarters of the respondents (n = 462, 71.7%) are under the age of 35, and all but 53 (8.8%) respondents were under 45 years old. Over half of the respondents held the CSR 1 job title (n=343, 57.0%), and only one CSR 4 completed the survey. The original data file provided by the company revealed that only 18 employees in the organization are titled as CSR 4's, so the single response is not concerning.

Further validation of the stratified sample can be found in the distribution of responses across the 17 contact center sites in the organization (see Table 9). Comparison to the initial all-employee data set provided by the company shows the sample distribution aligns with the actual population of customer service representatives in each center. However, one site (Site "Q") experienced significant weather issues during the survey administration window and was closed for most of the time that the survey was open. Fortunately, Site Q is one of several General Care sites and one of the smaller locations. Because the other General Care sites provided higher than anticipated survey counts, the overall distribution across lines of business was not negatively impacted.

Table 9

Representation by Location (n = 602)

Site	Line of Business	Frequency	%
A	Technical Care	55	9.1%
B	General Care	52	8.6%
C	Technical Care	49	8.1%
D	General Care	49	8.1%
E	General Care	47	7.8%
F	Technical Care	45	7.5%
G	Technical Care	42	7.0%
H	Financial Care	39	6.5%
I	General Care	38	6.3%
J	General Care	37	6.1%
K	General Care	32	5.3%
L	Financial Care	29	4.8%
M	General Care	25	4.2%
N	General Care	25	4.2%
O	General Care	24	4.0%
P	General Care	11	1.8%
Q	General Care	3	0.6%

For the 602 employees responding to the survey, the average tenure with the company across all jobs and locations was 4.1 years. The largest group of those responding have been employed by the company either (a) one to two years (n = 261, 43.4%) or (b) over five years (n= 210, 34.9%). Nearly three-quarters of the respondents (n = 435, 72.2%) had been in their role three years or less (according to data provided by the company). Overall, the average tenure in the representative's position is 2.4 years. This finding was consistent with the averages for the entire organization from the original data set provided by the company (See Table 10).

Table 10

Tenure with Subject Company and Tenure in Current Job Title (n = 602)

Tenure Group	---- Company Tenure ----		---- Job Tenure ----	
	Frequency	%	Frequency	%
< 12 Months			43	7.1%
12-24 Months	261	43.4%	322	53.5%
25-36 Months	32	5.3%	70	11.6%
37-48 Months	56	9.3%	56	9.3%
49-60 Months	43	7.1%	34	5.6%
> 60 Months	210	34.9%	77	12.9%

Table 11 displays the final demographic view of the respondents in terms of both usage (passive participation) and contribution (active participation) of information to the community of practice by respondents.

Table 11

Frequency of Participation Rates (n = 602)

Rate	Usage	Contribution
High	153 (25.4%)	155 (25.7%)
Medium	309 (51.3%)	303 (50.4%)
Low	140 (23.3%)	144 (23.9%)

Percent Positive as a Measurement of Agreement

The *percent positive* or percentage of responses that were either strongly agree or agree is presented as the primary measure of respondents' prevailing level of agreement (or disagreement) with a particular theme. This measurement solves for the challenge in Likert-type data where having only five response options (1-5) results in limited differentiation in median responses. By employing a percent positive measurement, a more accurate representation of levels of agreement is presented (Robbins & Heiberger, 2011; Vazanna, Chan, Wenzel, & Yao, 2013). Mean and median measurements are also presented as additional measures of central tendency.

Research Objective Two (RO2)

Research Objective Two examines the motivators and enablers that drive contact center employee contributions to internal online communities of practice as perceived by participants. A total of 19 questions related to motivators and enablers for active participation. Each question called for an ordinal, Likert-like response to a statement about the motivator and enabler themes identified by the focus groups. Respondents rated their agreement on a scale of 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree. The responses revealed a number of highly rated motivators or enablers:

12. I enjoy helping my fellow CSRs find the information they need to be successful (95.0% positive).
31. Team Chats provide an effective way for employees to share information and ideas (91.2% positive).
13. I feel like I should be willing to share information if I am willing to get information from others (89.4% positive).
22. My fellow CSRs are actively engaged in team chats (84.4% positive).
25. I contribute to the Community or team chats as a way of supporting my team (84.2% positive).
14. I am not afraid of being ridiculed for the questions I ask in team chat (82.7% positive).
30. The Community provides an effective way for employees to share information and ideas (80.1% positive).

7. The company expects me to actively participate in the Community (78.6% positive).
20. If I ask a question in team chat, I know someone will share the right answer (77.7% positive).
29. My leader expects me to actively participate in Team Chats (76.6% positive).

Three questions receiving the lowest ratings were:

10. My fellow CSRs expect me to actively participate in the Community (47.7% positive).
21. My fellow CSRs are actively engaged in the Community discussions and threads (32.7% positive).
23. I do things in the Community to earn points and badges (27.4% positive).

Table 12 summarizes the perceptions of respondents regarding the motivators and enablers of active (contribution) participation in the contact center environment, listed in order of the percentage of positive responses received for each question.

Table 12

Responses to Questions Regarding Motivators/Enablers of Contribution (n = 602)

Q#	Associated Motivator/Enabler	Mean	Median	% Positive
Q12	Desire to Help Others	4.57	5.00	95.0%
Q31	Technology Supports Collaboration	4.32	4.00	91.2%
Q13	Social Exchange	4.40	5.00	89.4%

Table 12 (continued).

Q22	Team Obligation/Desire to Fit In	4.11	4.00	84.4%
Q25	Desire to Participate in Team Learning	4.20	4.00	84.2%
Q14	Comfortable Team Environment	4.20	4.00	82.7%
Q30	Technology Supports Collaboration	4.01	4.00	80.1%
Q7	Compliance with Rules/Demands	4.04	4.00	78.6%
Q20	Participation Seen as Valuable	3.98	4.00	77.7%
Q29	Compliance with Rules/Demands	4.02	4.00	76.6%
Q15*	Fear (or lack of) of Failure/Ridicule	2.08	2.00	74.4%
Q8	Compliance with Rules/Demands	3.94	4.00	74.3%
Q28	Leadership Support for COP	3.87	4.00	68.8%
Q11	Team Obligation/Desire to Fit In	3.65	4.00	64.0%
Q24	Desire for Peer Approval	3.54	4.00	56.5%
Q34	Team Size Conducive to Sharing	3.62	4.00	55.5%
Q10	Team Obligation/Desire to Fit In	3.31	3.00	47.7%
Q21	Team Obligation/Desire to Fit In	3.05	3.00	32.7%
Q23	Desire (or lack of) for Personal Gain	2.65	3.00	27.4%

* Percent Positive for Q15 has been inverted to reflect the fact that the ratings indicated a lack of fear of being wrong. 14.6% agreed or strongly agreed. 74.4% disagreed or strongly disagreed and that value has been substituted for the percent positive as the *positive* response was actually to disagree with the statement.

Individual questions were mapped to overall factors of contact center employee participation in online communities of practice. Questions associated with different

facets of the same motivator/enabler combined to create a list of factors presented in Table 13 below by percentage of positive responses. The top five motivators and enablers rated by respondents most likely to drive contact center employee contributions to internal online communities of practice are: desire to help others (95.0% positive), social exchange (trading one's help for actual or anticipated help from others) (89.4% positive), technology supports collaboration (85.7% positive), desire to participate in team learning (84.2% positive), and a comfortable team environment (82.7% positive).

Table 13

Motivators and Enablers for Active Participation Based on Key Question Responses (n = 602)

Motivator / Enabler	Mean	Median	% Positive
Desire to Help Others	4.57	5.00	95.0%
Social Exchange	4.40	5.00	89.4%
Technology Supports Collaboration	4.17	4.00	85.7%
Desire to Participate in Team Learning	4.20	4.00	84.2%
Comfortable Team Environment	4.20	4.00	82.7%
Participation Seen as Valuable	3.98	4.00	77.7%
Compliance with Rules/Demands	4.00	4.00	76.5%
Fear (or lack of) of Failure/Ridicule*	2.08	2.00	74.4%
Leadership Support for COP	3.87	4.00	68.8%
Team Obligation/Desire to Fit In	3.53	4.00	57.2%

Table 13 (continued).

Desire for Peer Approval	3.54	4.00	56.5%
Team Size Conducive to Sharing	3.62	4.00	55.5%
Desire (or lack of) for Personal Gain	2.65	3.00	27.4%

* Percent Positive for Q15 has been inverted to reflect the fact that the ratings indicated a lack of fear of being wrong. 14.6% agreed or strongly agreed. 74.4% disagreed or strongly disagreed and that value has been substituted for the percent positive as the *positive* response was actually to disagree with the statement.

Research Objective Three (RO3)

Research Objective Three examines the motivators and enablers that drive contact center employee use (accessing and using existing information) of internal online communities of practice as perceived by participants. A total of 15 questions were related to motivators and enablers for access and use of information. Each of these called for an ordinal, Likert-like response to a statement about the perceived motivator and enabler themes identified in the focus groups. Respondents rated their agreement on a scale of 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree. Six questions were rated agree or strongly agree over 80% of the time:

27. I am required to access the community as part of my job (95.7% positive).
31. Team chats provide an effective way for employees to share information and ideas (91.2% positive).
32. The work environment at the company is supportive of employees accessing the community and team chats (91.2% positive).

26. If I was not required to use the Community, I would still use it on my own (84.7% positive).
18. Information that my fellow CSRs provide in team chats is usually valuable (83.2% positive).
30. The Community provides an effective way for employees to share information and ideas (80.1% positive).

Though the themes from the focus groups suggested that the three questions below would also be agreed with frequently, they actually resulted in very low levels of agreement from survey participants:

9. I may get in trouble if I do not actively participate in the Community and/or team chats (28.1% positive).
23. I do things in the Community to earn points and badges (27.4% positive).
16. The only way to get information I need is through the Community or Team Chats (23.1% positive).

Table 14 summarizes the perceptions of respondents regarding the motivators and enablers of passive (access and use) participation in the contact center environment, listed in order of the percentage of positive responses received for each question.

Table 14

Responses to Questions Regarding Motivators/Enablers of Access and Use Participation (n = 602)

Q#	Associated Motivator/Enabler	Mean	Median	% Positive
Q27	Compliance with Rules/Demands	4.49	5.00	95.7%

Table 14 (continued).

Q31	Technology supports collaboration	4.32	4.00	91.2%
Q32	Company Support for the COP	4.35	4.00	91.2%
Q26	Compliance with Rules/Demands	4.15	4.00	84.7%
Q18	Desire (or lack of) for Personal Gain	4.07	4.00	83.2%
Q30	Technology supports collaboration	4.01	4.00	80.1%
Q7	Compliance with Rules/Demands	4.04	4.00	78.6%
Q29	Compliance with Rules/Demands	4.02	4.00	76.6%
Q8	Compliance with Rules/Demands	3.94	4.00	74.3%
Q28	Leadership Support for the COP	3.87	4.00	68.8%
Q11	Team Obligation/Desire to Fit In	3.65	4.00	64.0%
Q10	Team Obligation/Desire to Fit In	3.31	3.00	47.7%
Q9	Compliance with Rules/Demands	2.76	3.00	28.1%
Q23	Desire (or lack of) for Personal Gain	2.65	3.00	27.4%
Q16	Necessity	2.47	2.00	23.1%

Individual questions mapped to overall factors of contact center employee participation in online communities of practice. Questions associated with different facets of the same motivator/enabler were combined to create a list of factors, presented in the table below by percentage of positive responses. Only two factors were indicated as having an impact by 75% (n = 452) or more of respondents. These included company

support for the community of practice (91.2% positive) and technology supporting collaboration (85.7% positive).

Table 15

Motivators and Enablers for Access/Use Participation Based on Key Question Responses (n = 602)

Motivator / Enabler	Mean	Median	% Positive
Company Support for the COP	4.35	4.00	91.2%
Technology supports collaboration	4.17	4.00	85.7%
Compliance with Rules/Demands	3.90	4.00	73.0%
Leadership Support for the COP	3.87	4.00	68.8%
Team Obligation/Desire to Fit In	3.48	3.00	55.9%
Desire (or lack of) for Personal Gain	3.36	3.00	55.3%
Necessity	2.47	2.00	23.1%

Open-Ended Questions on Motivators and Enablers

Respondents were offered an opportunity to provide additional comments and to cite motivators/enablers that may not have been addressed in the questions. Responses included:

- “My job would be impossible without the community and the chat. I use both on every call.”
- “If I am sharing valuable experi[en]ce with the team... it would be nice to have that recognized at times.”

- "...I look to team chat if there is a specific issue"
- "The community is too 'social.' It's not Facebook, and we need to use it as a knowledgebase."
- "I share in team chat because it's easy."
- "I like to share what I know!"
- "No one has time to earn badges and points. It might motivate me if I had time."
- "I am motivated to best assist my customers with the right information."
- "Slow responses are a 'de-motivator' for me."
- "I share in team chats to be part of what's going on with my time. I like to be in the know and part of the group."
- "I believe sharing 'tribal knowledge' is crucial to get a consistence sense of what processes work and what issues are pain points for not only myself but my fellow associates. I rely on chat to get a quick resolution to help resolve for immediate issues. I use [the Community] to research the correct policies handsets as outlined to make sure my knowledge is accurate and I'm doing the correct things in my calls. If I get incorrect info from chat questions and find out after researching policies in community, then I share with doc number and correct info in chat and via email."
- "More training would help me do a better job with the community."
- "I push myself and my team to be better by sharing what we know."
- "Chats are so immediate... I can get my answers fast."

- “Our coach wants us to use the community to find our answers and share with others.”
- “The systems are very simple and make it easy for me to share what I know.”
- “It’s comfortable to share with my team. Not as much with the whole world in the community.”

Research Objective Four (RO4)

Research Objective Four examines the barriers that inhibit contact center employee contributions to internal online communities of practice as perceived by participants. A total of 11 questions related to the barriers to contribution. Each question used an ordinal Likert-like response to a statement about the barrier themes identified in the focus groups. Respondents rated their agreement on a scale of 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree. Barriers perceived by respondents as most likely to inhibit contributions to the community of practice were:

- lack of real-time response to questions posted in the community (64.1% positive)
- balancing the need for call efficiency (CRT or Call Resolution Time) with the time needed to use the community (53.3% positive), and
- general lack of time in the day to participate fully (49.2% positive).

The table details the responses to each of the questions relating to barriers that inhibit contribution, listed in order of percentage of positive responses:

Table 16

Responses to Questions Regarding Barriers to Active Participation (n = 602)

Q#	Associated Barrier	Mean	Median	% Positive
Q45	Inefficient Technology	3.75	4.00	64.1%
Q46	Inadequate time to participate	3.41	4.00	53.3%
Q52	Inadequate time to participate	3.30	3.00	49.2%
Q51	Inadequate time to participate	3.16	3.00	46.2%
Q38	Overwhelming size of The Community	3.14	3.00	43.4%
Q48	Inadequate time to participate	2.99	3.00	36.0%
Q53	Inadequate time to participate	2.62	2.00	24.3%
Q35	Interface is not user friendly	2.63	2.00	21.1%
Q47	Policies conflict with Community use	2.28	2.00	15.8%
Q19*	Lack of responsiveness from Community	3.56	4.00	12.3%
Q33*	Interface is not user friendly	3.93	4.00	10.3%
Q36	Interface is not user friendly	1.82	2.00	3.0%

* Percent Positive for Q19 and Q33 has been inverted to reflect the fact that, while the question was worded positively, the high score reflected that it was *not* a barrier where other questions were just the opposite. The value for strongly disagree and disagree has been substituted for these questions in place of the strongly agree and agree that normally makes up the percent positive calculation.

Individual questions were mapped to overall factors of contact center employee contribution to online communities of practice. Questions associated with different facets of the same barrier combined to create a list of factors, presented below by percentage of

positive responses. Despite repeated discussions across focus groups about concerns with each of the barriers listed, only three of the identified barriers appear to be significant in the perception of the 602 respondents:

- Inefficient Technology/search function (64.1% positive)
- Overwhelming size of the Community (43.4% positive)
- Inadequate time to participate (41.8% positive)

Less than 20% (n = 121) of respondents either agree or strongly agree that the remaining factors were a barrier to contributing information to the community.

Table 17

Barriers for Active Participation Based on Key Question Responses (n = 602)

Barrier	Mean	Median	% Positive
Inefficient Technology	3.75	4.00	64.1%
Overwhelming size of The Community	3.14	3.00	43.4%
Inadequate time to participate	3.10	3.00	41.8%
Policies conflict with Community use	2.28	2.00	15.8%
Lack of responsiveness from Community*	3.56	4.00	12.3%
Interface is not user friendly*	2.79	3.00	11.5%

* Percent Positive for Q19 and Q33 has been inverted to reflect the fact that, while the question was worded positively, the high score reflected that it was *not* a barrier where other questions were just the opposite. The value for strongly disagree and disagree has been substituted for these questions in place of the strongly agree and agree that normally makes up the percent positive calculation.

Research Objective Five (RO5)

Research Objective Five examines the barriers that inhibit contact center employee access and use of internal online communities of practice as perceived by participants. A total of 18 questions related to the barriers to access and use participation. Each of these used an ordinal, Likert-like response to a statement about the barrier themes identified in the focus groups. Respondents rated their agreement on a scale of 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree. The perceived barriers that received the highest percentage of agreement were:

- balancing the need for call efficiency (CRT or Call Resolution Time) with the time needed to use the community (53.3% positive),
- general lack of time in the day to participate fully (49.2% positive),
- experiencing information overload due to the volume of data in the community (43.4% positive),
- Slow searches (41.5% positive), and
- Poor quality searches (41.0% positive)

Table 18 summarizes responses to questions relating to perceived barriers of access and use in order of positive responses.

Table 18

Responses to Questions Regarding Barriers to Access and Use (n = 602)

Q#	Associated Barrier	Mean	Median	% Positive
Q46	Inadequate time to participate	3.41	4.00	53.3%

Table 18 (continued).

Q52	Inadequate time to participate	3.30	3.00	49.2%
Q38	Overwhelming size of The Community	3.14	3.00	43.4%
Q40	Inadequate time to participate	3.11	3.00	41.5%
Q39	Inefficient Technology	3.14	3.00	41.0%
Q37	Inefficient Technology	3.07	3.00	37.0%
Q48	Inadequate time to participate	2.99	3.00	36.0%
Q50	Inadequate time to participate	2.89	3.00	34.4%
Q53	Inadequate time to participate	3.62	2.00	24.3%
Q35	Interface is not user friendly	2.63	2.00	21.1%
Q47	Policies conflict with use	2.28	2.00	15.8%
Q43	Information is not relevant	2.29	2.00	15.0%
Q41	Lack of trust in others' contributions	2.37	2.00	12.8%
Q19*	Lack of responsiveness from Community	3.56	4.00	12.3%
Q33*	Interface is not user friendly	3.93	4.00	10.3%
Q44	Information is not relevant	2.05	2.00	7.6%
Q42	Lack of trust in others' contributions	2.06	2.00	5.1%
Q36	Interface is not user friendly	1.82	2.00	3.0%

* Percent Positive for Q19 and Q33 has been inverted to reflect the fact that, while the question was worded positively, the high score reflected that it was *not* a barrier where other questions were just the opposite. The value for strongly disagree and disagree has been substituted for these questions in place of the strongly agree and agree that normally makes up the percent positive calculation.

The researcher mapped individual questions to overall factors of contact center employee participation in online communities of practice. Questions associated with different facets of the same barrier combined to create a list of factors presented in Table 19 by percentage of positive responses. Interestingly, none of the overarching barriers identified received even a 50% positive response. The top three perceived barriers identified by respondents included:

- Overwhelming size of the Community (43.4% positive)
- Inadequate time to participate (39.8% positive)
- Inefficient Technology (primarily the search function) (39.0% positive)

The remaining barriers resulted in less than 20% (n = 121) of respondents either agreeing or strongly agreeing that such barriers inhibited their participation.

Table 19

Barriers for Access and Use Based on Key Question Responses (n = 602)

Barrier	Mean	Median	% Positive
Overwhelming size of the Community	3.14	3.00	43.4%
Inadequate time to participate	3.22	3.00	39.8%
Inefficient Technology	3.11	3.00	39.0%
Policies conflict with use	2.28	2.00	15.8%
Lack of responsiveness from Community*	3.56	4.00	12.3%
Interface is not user friendly*	2.79	3.00	11.5%

Table 19 (continued).

Information is not relevant	2.17	2.00	11.3%
Lack of trust in others' contributions	2.22	2.00	9.0%

* Percent Positive for Q19 and Q33 has been inverted to reflect the fact that, while the question was worded positively, the high score reflected that it was *not* a barrier where other questions were just the opposite. The value for strongly disagree and disagree has been substituted for these questions in place of the strongly agree and agree that normally makes up the percent positive calculation.

Open-Ended Questions on Barriers

Respondents were offered an opportunity to provide additional comments and to cite barriers that may not have been addressed in the questions. Responses included:

- “Too much conflicting information.”
- “I avoid searching in the Community. Nobody has time for that.”
- “My CRT is too important to waste time answering someone else’s questions.”
- “I type too slowly to be able to help much in team chats.”
- “We get marked down on our quality scores if we use team chat during a call – even if we’re looking for an answer for THAT CUSTOMER.”
- “It’s too disorganized – I can’t find anything.”
- “Posting to the community is too slow. That’s why we use chat for real time answers.”
- “The search function is cumbersome. It gives you wrong information unless you know exactly what to ask for.”
- “Time and performance stats are the biggest barriers for me.”

Summary

This study successfully implemented a mixed methods design to address five research objectives relative to the motivators, enablers, and barriers of participation in an online community of practice in the contact center environment. The population included 8,747 customer service representatives in a large national wireless communications company. The sample consisted of 602 completed surveys from employees with at least one year on the job.

In Stage One, focus groups revealed a large number of themes and concepts. While many of the themes and concepts were supported by the results of the survey instrument that followed, other themes and concepts appeared isolated to a few people who mentioned them in the focus groups. Nevertheless, the purpose of the exploratory work in Stage One was accomplished in that it provided much-needed data upon which to base the survey questions.

In Research Objective One, the data showed that the sample was well-rounded and representative of the population. Over half ($n = 370$, 61.5%) of the sample was female, and 71.5% ($n = 432$) were under the age of 35 with an average age of 32.7 years. The respondents represented various lines of business, job titles, and locations. The participation rates of the respondents represented a good mix of low, medium, and high participants.

In Research Objective Two, the motivators and enablers for active contribution were discussed. Among the clear motivators and enablers were an altruistic desire to assist one's peers and a social exchange ideology that suggests that employees contribute

either as repayment of a previously received contribution from someone else or in an expectation that someone will eventually return the favor.

On the other hand, Research Objective Three revealed that passive (access and use) participation is much more motivated by motivation-hygiene theory, which suggests that people will do things to avoid discomfort (such as responding to a demand or requirement of their job or acting to satisfy a co-worker's expectations of peer participation). The data further suggested that access and use is largely driven by the need for information and the relative lack of alternative resources for getting the information outside the community.

In Research Objectives Four and Five, the barriers showed some similarities but also significant contrasts. Active contribution (RO4) was largely inhibited by issues of time and balancing the needs of the business. Access and use participation (RO5) saw some influence from time but also saw significant barriers in terms of the technology supporting the community online, specifically around poor search functions.

Chapter V will present a view of the results in terms of findings, conclusions, and recommendations. This view will provide additional context as to how the data presented in this chapter can help drive improved practice behaviors.

CHAPTER V

SUMMARY

Chapters I through IV discussed the need for additional information on the motivators, enablers, and barriers of participation in online communities of practice in the contact center environment. From the problem statement and purpose of the research to citing specific research objectives and providing a conceptual framework along with a strong basis in the literature and a detailed methodology, this document has presented the full course of research into a problem with significant potential impact for both practice and future research. This chapter will discuss in detail the conclusions and implications of the research as well as recommendations for use in the real world and future research to take the concepts presented here a step further.

The purpose of this study was to identify and describe the motivators, enablers, and barriers to participation in online communities of practice in the contact center environment, both for use and contribution of information. The research applied a mixed-methods, exploratory-sequential design to first conduct qualitative research into the potential motivators, enablers, and barriers to participation by interviewing a purposive sample of customer service representatives in various contact centers across a major large communications company. A survey instrument was developed to confirm what was learned in the focus groups with a larger sample of the population. The two stages together served to provide robust data to address the five research objectives identified in Chapter I.

Community Member Profile

The members of the community represent a cross-section of the typical service industry workforce (Dychtwald, Erickson, & Morison, 2006). With an average age of 32.7 years, nearly three-quarters of the respondents in this study (n = 462, 71.7%) are under the age of 35, placing a large portion of them within the so-called millennial, X and Y generations (Dychtwald et al., 2006). Most are young in their career with the company, having an average of 4.2 years on the job, though nearly half (n = 293, 48.7%) have less than three years with the organization. Members of the community perform substantially similar roles across seventeen company contact centers from coast to coast. According to published job descriptions, their roles are to answer customer questions and provide timely and efficient service to callers who often call in back-to-back succession throughout an eight or even ten hour work day. Their time is highly regimented, often down to individual minutes of each hour that they work. At the same time, their performance and work product are under constant measurement and tracking (Dutta & Pinder, 2011). Calls are recorded and reviewed for quality and compliance with expectations. Their efficiency is measured in multiple metrics to provide a picture of how they use their time and what value they bring to the organization through their efforts (Aksin et al., 2007). In addition, they work in an industry where change is a constant part of their environment and where accuracy and timeliness in the face of constant change and customer demands is a top priority (Dutta & Pinder, 2011).

To provide representatives with assistance in meeting those demands, a community of practice was established in an online environment, accessible to all employees in the subject organization. The community provides a repository for policy

and procedure information as well as user-created content to capture tribal knowledge and support discussions and searches for answers that may not exist in the corporate documents (Ardichvili et al., 2003). Within that community, company records show members engage in varying degrees of participation – from doing the absolute bare minimum needed to perform their basic job duties, to being regularly engaged in finding and sharing information, to investing significant effort and time into answering questions for others and sharing new information as it becomes available. Their level of activity is often relative to their experience, and the community has a broad range of experience levels from those who started yesterday to others (albeit a smaller population) who have been with the company for the better part of a decade or longer.

Maintaining the knowledge of those in that latter category of over five years is a key knowledge management priority for the organization. Given the constant change, those who have been with the company a shorter period of time may never have been exposed to things that have generated significant knowledge for those longer-term workers (Bobrow & Whalen, 2002; Wenger, 2000).

Motivation: A Critical Factor

Motivation drives the behaviors of the workforce in most every situation. Employees make decisions several times each day about whether or not to do certain things in their jobs (Herzberg et al., 1993). Few places exist where motivation plays a lesser role than in processes and interventions such as communities of practice. Here, the organization is asking employees to engage in something that is not directly a job duty and does not often yield an immediate reward. That lack of clear line-of-sight motivation

adds to the complexities of getting employees to engage in a community of practice (Brown & Duguid, 1991).

Findings

In this study, focus group participants spoke about their motivations for either contributing information or accessing and using the information in the community of practice. They discussed feeling that using the information in the community was a requirement of their job and that failure to do so would cause them to get into trouble. Participants also spoke of a social transaction involving the expectations of their team mates and the exchange of information between them as well as a desire to help others. In the survey, a few key motivators for accessing and using information received significant support from the respondents:

- Social Exchange (89.4% positive)
- Desire to Participate in Team Learning (84.2% positive)
- Participation Seen as Valuable (77.7% positive)
- Compliance with Rules/Demands (76.5% positive)
- Simply part of the job (multiple comments in open ended questions)

The study found significant themes in the motivators identified by participants as driving their decision to contribute information to the community. These motivators may cause a member of the community to actually engage in sharing information with others or to *actively* participate in the community. These are the motivators that cause someone to see a question being asked online and choose to answer it or to post a work-around online for everyone to see, etc. The most often cited among the contribution-related motivators include:

- Compliance with Rules/Demands (73.0% positive)
- Team Obligation/Desire to Fit In (55.9% positive)
- Desire (or lack of) for Personal Gain (55.3% positive)

Conclusions

Because communities of practice are social learning interventions (Hendricks, 1999), the researcher does not find it surprising to see the top motivators for both forms of participation fall directly into the realm of social interactions and behaviors. Wanting to help, wanting to learn, and trading information are all hallmarks of social learning behaviors (Brenson et al., 2003). Other elements are involved as well, including concepts of social capital (sense of obligation and wanting to fit in) and a personal feeling that what one shares is valuable and is viewed as such by others in the community. In the focus groups, one participant explained it this way, “The community reminds me of my dining room table as a kid. I knew my dad wanted to hear what I had to share about my day, so I shared and was excited to share it. My sister never thought Dad cared, so she barely spoke.” That description, while not particularly *scholarly*, actually provides a very vivid picture of the social interaction elements that either motivate or de-motivate one to participate. Further, that view is consistent with characteristics of the millennial/Generation X and Y population prevalent in the organization (Dychtwald et al., 2006).

In both contribution and access/use participation contexts, these identified motivators align closely with the findings from previous community of practice participation studies. The literature supports the proposition that the degree to which each person experiences these factors connects directly to the degree to which he or she

will participate either actively (by contributing information) or passively in the access and use of information provided by others (Ardichvili et al., 2003; Dixon, 2000).

With that in mind, the motivators of contact center participation are aligned with those of other studies in other industries and situations. In both the existing literature and the present study, trust, comfort, and social capital were key motivators. In the present study, additional motivators such as peer and leadership expectations, desire to fit in, and compliance with rules and demands of the employer evidenced strong support in the survey and the focus group discussions. In other words, the findings suggest quite clearly that people in contact centers tend to participate because they want to, they feel obliged to join their teammates, or they feel obligated to the organization through rules and job demands. The *want to* motivation was generally prompted by a desire to learn or a desire to share information with others.

Recommendations

Once companies make the decision to implement communities of practice, the next step is to ensure meaningful participation. Given the results above, efforts must include strong change leadership that demonstrates to employees why they should care and what they can gain from participation. Having a strong culture of expecting both access/use and contribution to the community will also help drive the motivation in terms of compliance and seeking to meet leadership expectations. As leaders work through the process of increasing participation, understanding how motivators impact employee decision-making will help them address needs for increased participation on their teams or elsewhere.

Along those same lines, leaders must understand the motivations of their workforce. As the workforce is changing, so are motivations (Dychtwald et al., 2006). For companies to effectively leverage their investment in communities of practice through motivating the right behaviors, the correct brand of motivation must be selected to fit the population at hand. While this study did not undertake an investigation of the linkage between age or other demographics and specific motivators, such research would present next steps to further develop an understanding of the motivators that impact individual groups of employees.

Enablers Translate Motivation into Action

Findings

As the literature suggests, simply having a desire or motivation to participate and having something to share or a question to ask is not enough (Faran, 2008). Rather, the environment and infrastructure (enablers) have to provide a vehicle for sharing information, while the opportunity to engage in sharing must exist. The focus groups discussed a number of potential enablers that exist in the environment at the subject organization including good technology infrastructure, an open and sharing team environment, rules that encourage participation, appropriate team sizes, and ease of access.

In the survey, the following emerged as the list of enablers for contributing information:

- An appropriate technological solution for sharing
- A team that accepts the contributions of others without ridicule
- Leadership support of participation

In terms of accessing and using the information from others, the enablers looked slightly different.

- A technological solution that supports finding information quickly
- Leadership and company support

In both cases, the study revealed that having the right systems to support the expected activity is critical to success. Representatives revealed in the open-ended questions and focus group discussions that system challenges exist. These include the inadequacy of the search function for finding relevant information quickly and the need to access answers in seconds rather than days. They also spoke about either being encouraged or discouraged to participate and about how their leaders' opinion of the value of participation impacted their own willingness to engage with the community.

Conclusions

Overall, in terms of enablers for participation, the themes concentrated on feeling safe and having the right systems and support. Specifically, respondents wanted an environment where employees feel safe to share information without fear of what others will say or think – especially if the employee happens to be wrong. They also felt strongly about having a system that is quick, reliable, and actually produces the right information efficiently. Finally, they wanted support from the employee's direct leader and the company (through policies and procedures) for their efforts.

Again, findings are consistent when comparing enablers identified in this study with those in the literature. While some of the focus group comments were more specific than the literature has presented, comments could still be aligned with the overarching themes present in previous studies. The literature routinely discussed the environment,

trust, and a level of support from leaders which were all evident in the findings of this study. However, as the employee profile above suggests, the contact center environment is unique in the degree to which systems and processes can be enablers to participation. A great example was when participants found the standard community software was not conducive to quick answers, and the participants' solution was to move the same discussions to an alternative platform for team chats. The motivation was clearly present, but the employees had to locate a technology to enable access to the tribal knowledge in a useful timeframe.

Recommendations

For an online community of practice to be successful, especially in the contact center environment, a technology platform that supports goals without inhibiting the exchange of information is critical. Companies must, therefore, invest appropriately in the development of technology to support any contemplated or existing community of practice intervention. Whether an instrument like the one developed in this study is used or the company employs some other method of assessing the technology available, integrating research (assessment tools) will yield significant results when evaluation findings are addressed.

Barriers Create Obstacles to Full Participation

Findings

Research Objectives Four and Five took a different view of the whole online community of practice intervention and asked about factors that actively get in the way or prevent participation altogether. Barriers create obstacles that can either reduce or completely bar participation by those who might otherwise engage in the community of

practice (Ardichvili et al., 2003). In this study, a clear list of barriers – including some of the most contact center-specific factors in the study were identified. Barriers included the size of the community, volume of information, lack of time to participate, technology challenges, and conflicting policies. Aligning the survey and focus group information for context, the barriers that appeared to have the most impact were:

- Too many people involved (9,000 customer service representatives all use the same community).
- Lack of time to participate, driven by back-to-back incoming calls, regimented control of time, and performance metric demands that constrain time use for activities like participating in the community.
- Technology concerns including inefficient searching and inaccurate results in searches.
- Policies conflict with using the community – especially in terms of contribution of information when call quality scores are negatively impacted when an employee contributes information during a call.
- Getting responses in the actual online community can take too long to be effective (one of the reasons for the genesis of team chats).

Conclusions

Barriers such as those identified in the findings can have a stifling effect on participation rates. Especially when motivators are not particularly strong, employees may lack the wherewithal to overcome barriers and simply not participate or do so at an impaired level. Barriers like the size of the group participating in the online community of practice or a policy that effectively punishes employees for participation are design

choices by the organization that can be evaluated and adjusted at the organization's discretion.

In the contact center environment, particularly, time is a critical barrier. While there are ways to effectively allow contact center employees to participate, many are not often well received and are very difficult to implement by leadership, given the extremely high value of time as a commodity (Dutta & Pinder, 2011). As long as time remains a critical currency within contact centers, the management of time will almost certainly remain a barrier to full participation.

Many of the barriers identified in this study were particularly linked to the contact center world. For example, in much of the previous research, the populations studied were white collar professionals (i.e., architects, engineers, etc.). In those cases, the demands of regimented time control, back-to-back calls, and the demands for answers in a matter of minutes were not present. However, such demands are extremely impactful to the contact center environment. Additionally, policy and timing concerns are significantly more evident in contact centers due to the type of work and the overall environment.

Given the number of barriers inherent to contact centers (time constraints, metrics, demands for fast and accurate information, etc.), this research prompts the question of whether to continue to pursue communities of practice, especially across entire organizations. Where the local team chats seem to be providing value and prompting the sharing of information more globally, the larger community of practice seems to be suffering. This study did not seek to answer the question as to whether or not continued pursuit of communities of practice in contact centers is viable, but the data

most certainly raises the question. This study does conclude, however, that there are vast differences in the type, intensity, and applicability of barriers within the contact center compared to other organizations or industries. While most of the generally accepted barriers from the literature hold true in the contact center environment, the specific applications are different.

Recommendations

The study revealed that having a single community spanning 9,000 people is not realistic for driving high participation. Whether an issue of employee discomfort, lack of trust in others, or a slow response time from a mammoth community, employees are less likely to participate if the group is too large. Therefore, it is recommended that practitioners find a way to limit the size to something more manageable than the entire organization within a single group.

For companies either struggling with or planning to start a community of practice, a wise first step is to evaluate whether the organization can remove sufficient barriers for successful implementation. If so, the next consideration is the cost and disruption of removing the barriers compared to the anticipated value of implementing the community of practice. If the potential benefits exceed the costs of making the organization ready, the community of practice may well be a viable solution. If not, another intervention may be more appropriate.

Implications of Limitations

The lack of an established instrument created some limitations for this research. Having to create a new survey introduces a level of complexity and potential for validity threats. While the instrument developed is grounded in previous research as well as the

results of Stage One and was properly tested and piloted, using a researcher-developed instrument remains a limitation to the study.

The use of only one organization presented a limited view of the contact center environment. While the literature suggests substantial similarities between contact centers in various organizations and industries, the reality is that a single company view does not allow for generalization beyond its walls. Having a broader view of the participation and its factors in multiple sites would provide a more complete picture.

Data limitations were also a factor. Because it was discovered that much of the sharing takes place in team chats as opposed to the *official* community, having usage and contribution data for that tool would have provided a more complete and robust view of actual participation. Even so, comparing the factors to what was known of participation still provided a novel view. Another data limitation was the lack of data on *quality of contribution*. Given that participation data is based on a count of transactions with the community (page views, number of comments posted, number of documents created, etc.) the volume is well documented. However, whether or not the contribution was two words or a full discussion is not captured. Therefore, the view of participation is rather one-dimensional.

Recommendations for Research

- Examine the correlations between actual participation and the motivators, enablers, and barriers identified in this study.
- Examine the correlations between age/gender and other demographics and the factors identified by employees in those groups.

- Conduct a follow-up study to further explore some of the barriers and understand how they can be reduced or eliminated within the subject organization.
- Replicate the research at other contact centers in the same and divergent industries to examine the factors that can be generalized across organizations and industries. Having additional studies will enhance external validity and provide for additional views of the factors influencing participation.
- Replicate this study in other non-white-collar environments to identify if the contact center environment is the distinguishing factor or if something else is driving the differentiation between this research and the generally presented information in the literature.
- Replicate this study in smaller and less diverse environments to examine the impact on barriers and other factors and to consider the question of scale as both an enabler and barrier.

Summary

The study highlighted a number of similarities and differences between the existing research into motivators, enablers, and barriers to participation in communities of practice. More importantly, it has demonstrated the marked difference between contact center environments and the organizations typically studied in this context. The results reveal some tangible motivators that exist and are supported in theories such as Expectancy Theory, Social Exchange Theory, and Motivation-Hygiene. Likewise, some tangible enablers were evident and largely aligned with those identified in other research. However, this study found significant divergence between the existing research and the

contact center environment in terms of barriers to participation – with particular emphasis on barriers to contributing information.

This research reveals implications for those either considering or currently using a community of practice as a learning and performance intervention. Specifically, the research highlighted and demonstrated the competitive advantage of knowledge sharing and the need for any intervention to be supported by as many enablers as possible while minimizing barriers in order to maximize that advantage. The research also raises the question of whether a community of practice, especially across a large organization, can truly be effective.

As with any research, this study experienced limitations. In this case, being tied to a single organization provided significant benefits in terms of data collection and access to a study population but was limited by that sample being narrowly tied to the company. Despite similarities in contact center environments across companies, threats to external validity remain inherent in a sample pulled from a single organization. In addition, limitations in terms of available usage and participation data had to be addressed. While the available data was better than having none, the lack of data about team chat usage leaves additional questions unanswered.

The author recommended several possible next steps for both practice and research. In the practice arena, those already engaged in or considering a community of practice in a contact center environment can use the data and framework here to consider the motivators, enablers, and barriers in their own organization. Likewise, practitioners can leverage the enablers that are common across most all of the research (company support, etc.) to help drive their own participation levels.

In terms of future research, several opportunities emerge to replicate the work in other organizations that may be of different industries, size, configuration, work types, and so on. More research could be conducted within the subject organization to further understand the barriers described here though that was not part of this study.

Overall, this study presents an emerging view into the factors influencing participation in communities of practice by looking at a particular environment (contact centers). Through the exploratory mixed methods design, the study was able to examine factors beyond what exists in the available literature. By doing so, the researcher has provided another layer to the available data on community of practice participation and a possible framework for practitioners to use in evaluating their own learning challenges within an organization.

Most of all, this research challenges the one size fits all approach often taken with interventions like communities of practice. Human capital development, as a field of study and practice, is about leveraging interventions in the workplace to improve human performance and increase competitive advantage. Unfortunately, practitioners and business leaders tend to jump headlong at new innovations that promise to reach untapped resources like the tribal knowledge that drives innovation and service. They want to quickly replicate what another organization has accomplished, often without giving the proper consideration to what will drive effective implementation within their own company. Then, when the intervention falls flat or even fails, it is often classified as a poor intervention rather than a poorly conceived use of the intervention. By investigating beyond the white collar, professional worlds that are usually studied for communities of practice, the researcher demonstrates that one size does not fit all and that

different organizations and industries will respond differently to each intervention. However, with the right approach such as developing the enablers needed and minimizing barriers, companies *can* effectively find success with many interventions and achieve the return on investment they seek.

The key is asking the right questions and understanding the environment that is involved so that the right interventions can be selected and effectively implemented. When that happens, organizations have an opportunity to realize true performance improvement and to increase competitive advantage through human capital-building interventions that actually make an impact.

APPENDIX A

FOCUS GROUP QUESTIONS

(F1) How would you characterize your level of participation in the community in terms of accessing information to help you in your job? *(Each person will be asked to provide about his/her own experience.)*

(F2) How would you characterize your level of participation in the community in terms of contributing information to the group? *(Each person will be asked to provide about his/her own experience.)*

(F3) When you choose to access the community for information to do your job, what causes you to make that decision? What is your purpose or reason for engaging with the community?

(F4) When you choose to contribute information to the community, what causes you to make that decision? What drives your choice to add to the body of knowledge?

(F5) Thinking back to your previous jobs (if any) which of the reasons for engaging in the community that you've shared would have been different if you didn't work in a contact center?

(F6) What are the things about the company's culture or your work environment that help you to engage with the community in order to contribute to the body of knowledge?

(F7) What are the things about the company's culture or your work environment that help you to use information in the community to do your job?

(F8) How important do you think it is to participate in the community?

(F9) What do you think your peers expect from you with regard to the community and your participation?

(F10) What do you think leadership expects from you with regard to the community and your participation?

(F11) What are some things the organization does to either encourage or discourage your participation?

(F12) When you choose not to access information in the community to do your job, what causes you to make that decision?

(F13) When you choose not to contribute information to the community, what causes you to make that decision?

(F14) Thinking back to those same previous jobs, which of the things you identified as causing you not to participate would be different in a non-contact-center environment?

(F15) What changes in your job or your environment would allow you to be more active in the community?

(F16) To what extent do you find value in the community?

APPENDIX B
SURVEY INSTRUMENT

**ONLINE COMMUNITIES OF PRACTICE IN THE CONTACT CENTER
ENVIRONMENT: FACTORS THAT INFLUENCE PARTICIPATION**

Welcome!

Thank you for taking the time to participate in this research study! As you read in the e-mail invitation, this study is to understand what factors influence employee participation in communities of practice, such as the Community. The questions you will be asked in the next fifteen minutes are based on feedback from your peers in several sites and designed to gauge how closely that feedback matches the experience of the broader population of CSRs.

On the following screen, you will be asked to provide your consent to participate in this study. Before you do, please read the following:

Your participation is 100% voluntary. You are not required to participate in this study and you are free to end your participation at any time without penalty.

Your individual responses will not be shared with anyone outside the research project. No identifying information will be connected with your responses. This means that your answers are totally anonymous.

Based on the above processes, there are no known risks associated with your participation.

The results of this study will allow companies that use call centers to investigate ways to improve the experience of employees participating in communities of practice, like the Community.

Thank you for your participation!

THE UNIVERSITY OF SOUTHERN MISSISSIPPI
AUTHORIZATION TO PARTICIPATE IN RESEARCH PROJECT

Consent is hereby given to participate in the research project entitled “ONLINE COMMUNITIES OF PRACTICE IN THE CONTACT CENTER ENVIRONMENT: FACTORS THAT INFLUENCE PARTICIPATION.”

All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained at the beginning of the survey. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. All personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project, should be directed to Jim Black at 316-993-0118 or jimmie.black@eagles.usm.edu.

This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to

Chair of the Institutional Review Board
The University of Southern Mississippi
118 College Drive #5147
Hattiesburg, MS 39406-0001
(601) 266-5997.

A copy of this form will be e-mailed to you upon request.

- Accept and Continue Decline and Exit the Survey

Some Information About You

*1. Please select the line of business for which you currently handle calls.

- Financial Care
- Technical Care (Including 214/Device General)
- General Care (All Other Call Types)

*The Community is used for a variety of purposes. Sometimes, CSRs access information that others have made available. Other times, CSRs have the opportunity to add information to a discussion/thread or to create other content that might help others in the organization. With that in mind, please respond to the below items regarding your use of the Community.

	Less Often Than Most of my Peers	About as Often as Most of my Peers	More Often than Most of my Peers
2. I use the Community to access information placed in the community by others, including policies, documents, discussions, threads or other information			
3. I use the Community to contribute information of my own to ongoing discussions or to add content for others to access.			

*Similarly, CSRs interact in team chats at varying levels. Please use the same scale to describe your interactions with team chats

	Less Often Than Most of my Peers	About as Often as Most of my Peers	More Often than Most of my Peers
4. I use the team chats to ask questions or get information from my peers.			
5. I use the team chats to answer questions or provide information to others.			

*6. When I need to find information or learn about something for my job, I tend to use the various methods listed below about ____% of the time. (Enter a whole number from 1-100 next to each option and ensure that your answers add up to 100).

	% of the time
Community Documents	
Community Discussions, Comments, or Threads	
Team Chat in Communicator	
Other	

Accessing Information

Using the Community and the team chats can take many different forms. Sometimes, you just need to get information and will simply go to the Community or a team chat to ACCESS INFORMATION or find something out. Other times, you may want to gather opinions or offer your own thoughts, ideas, insights, or information. In those cases, you may go to the Community or a team chat to participate more actively in SHARING information rather than simply gathering data.

On the pages that follow, you will be asked to indicate your agreement or disagreement with a series of statements about your experience either accessing information or contributing information to your peers via the Community or team chats.

Please pay attention to the particular system each question asks about. Some ask specifically about the Community or team chats, while others ask about your overall interaction with both.

*Please indicate your level of agreement with the following:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. The company expects me to actively participate in The Community.					
8. The company expects me to actively participate in team chats (via Communicator).					
9. I may get in trouble if I do not actively participate in the Community and/or team chats.					
10. My fellow CSRs expect me to actively participate in the Community.					
11. My fellow CSRs expect me to actively participate in team chats.					
12. I enjoy helping my fellow CSRs find information they need to be successful.					
13. I feel like I should be willing to share information if I am willing to get information from others.					
14. I am not afraid of being ridiculed for the questions I ask in team chat.					
15. I sometimes have information to share, but choose not to because I am afraid of being wrong.					
16. The only way to get information I need is through the Community or the team chats.					
17. Information that my fellow CSRs provide in the Community is usually valuable.					
18. Information that my fellow CSRs provide in team chats is usually valuable.					

*Indicate your level of agreement with the following:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19. If I ask a question in The Community, I know someone will share the right answer.					
20. If I ask a question in team chat, I know someone will share the right answer.					
21. My fellow CSRs are actively engaged in the Community discussions and threads.					
22. My fellow CSRs are actively engaged in team chats.					
23. I do things in The Community to earn points and badges.					
24. I contribute to The Community and/or team chats because I want my fellow CSRs to see me as knowledgeable.					
25. I contribute to The Community or team chats as a way of supporting my team.					
26. If I was not required to use The Community, I would still use it on my own.					

C1. List any other items that motivate you to access or share in the Community or Team Chat that are NOT listed in the questions above.

Enablers

Consider things in your work environment that make it easy for you to access and share information in the Community and team chats.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
27. I am required to access The Community as part of my job.					
28. My leader expects me to actively participate in The Community.					
29. My leader expects me to actively participate in Team Chats.					
30. The Community provides an effective way for employees to share information and ideas.					
31. Team Chats provide an effective way for employees to share information and ideas.					
32. The work environment at the company is supportive of employees accessing The Community and the team chats.					
33. I have enough training on The Community to use the system effectively.					
34. I feel more comfortable in the small group of team chat than I do in the larger Community space.					

C2. List anything else about the environment that helps you engage in the Community or Team Chat that are NOT listed in the questions above

Barriers

Finally, consider the things that get in the way of effectively participating in the Community and team chats.

*Indicate your level of agreement with the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
35. The online system for The Community is difficult to use.					
36. The online system for team chats is difficult to use.					
37. Information within The Community moves too often for me to be able to find it quickly.					
38. I experience information overload when I look for information in The Community.					
39. The search function in The Community does not provide what I need.					
40. Using the search function in The Community takes too long.					
41. I don't trust the information that my fellow CSRs put on The Community.					
42. I don't trust the information that my fellow CSRs share in team chats.					
43. Much of the information on The Community is not relevant to my job.					
44. Much of the information in team chat is not relevant to my job.					

*Indicate your level of agreement with the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
45. Posting a question in The Community is not real time and I need a real-time answer.					
46. Balancing the need for right information and keeping CRT down prevents me from using The Community to its full potential.					
47. I get in trouble if I use team chats during phone calls.					
48. Having back-to-back calls keeps me from fully using The Community to find information.					
49. Having back-to-back calls keeps me from fully contributing information to The Community.					
50. Having back-to-back calls keeps me from fully using team chat to find information.					
51. Having back-to-back calls keeps me from fully contributing information to team chat.					
52. There is not enough time in my day to fully engage in The Community.					
53. There is not enough time in my day to fully engage in team chats.					

C3. List anything else that is a barrier or prevents you from being able to access or share information in the Community or team chats.

Thank You

Thank you for your responses and for taking the time to help! Your feedback will be extremely valuable!

Just a quick reminder that everything you shared is confidential and anonymous.

Should you have any questions, please feel free to reach out to Jim Black at (316-993-0118) or jimmie.black@eagles.usm.edu.

APPENDIX C

SURVEY MAP TO RESEARCH OBJECTIVES

Enabler, Motivator, or Barrier	Theme or Concept from Focus Groups	Stage Two Survey Question	Q#	Research Objectives
MOTIVATORS				
Participation Seen as Valuable	The Community is a valuable tool for me.	Information that my fellow CSRs provide in The Community is valuable and appreciated.	17	RO3
	When I ask a question in team chat, I get an answer immediately.	If I ask a question in team chat, I know someone will share the right answer	20	RO2
Desire to Help Others	I want to help my peers and share what I know.	I enjoy helping my fellow CSRs find information they need to be successful.	12	RO2
Comfortable Team Environment	I feel comfortable asking my team for help or information.	I feel comfortable asking questions and knowing I won't be ridiculed.	14	RO2
Compliance with Rules/Employer Demands	I get in trouble if I don't use The Community	I am required to access The Community as part of my job.	27	RO3
	My coach encourages us to share information.	My leader expects me to actively participate in Team Chats.	29	RO2, RO3
	It's my job to use The Community, or I wouldn't.	The company expects me to use and contribute to The Community.	7	RO2, RO3
		The company expects me to use and contribute to team chats.	8	RO2, RO3
		I may get in trouble if I do not use The Community.	9	RO3
		If I was not required to use The Community, I would still use it on my own.	26	RO3
Desire (or lack thereof) for Personal Gain	I want to earn points.	I do things in The Community to earn points and badges.	23	RO2, RO3
	The point system is stupid.			
Desire for Approval	Team Chats are a valuable tool for me.	Information that my fellow CSRs provide in team chats is valuable and appreciated.	18	RO3
	I want to be thought of as knowledgeable.	I want my fellow CSRs to see me as knowledgeable.	24	RO2
Desire to Participate in Team Learning	If we don't help each other, we won't get the information.	I contribute to The Community or team chats as a way of supporting my team.	25	RO2
	We're a team, and I want my team to be successful.	I enjoy helping my fellow CSRs find information they need to be successful.	12	RO2

Enabler, Motivator, or Barrier	Theme or Concept from Focus Groups	Stage Two Survey Question	Q #	Research Objectives
Fear of failure or ridicule	If I don't know for sure, I won't jump out there cause I don't want to be wrong.	I sometimes have information to share, but choose not to because I am afraid to be wrong.	15	RO2
Necessity	I will look for policy information if I can't find it somewhere else.	The only way to get information I need is through The Community and team chats.	16	RO3
Social exchange	People help me when I need it and I want to return the favor.	I feel like I should be willing to share information if I am willing to get information from others.	13	RO2
Team Obligation/Desire to Fit In	My team expects everyone to participate.	My fellow CSRs expect me to use and contribute to The Community.	10	RO2. RO3
		My fellow CSRs expect me to use and contribute to team chats.	11	RO2. RO3
	My team participates and I don't want to be left out.	My fellow CSRs are engaged and active in The Community discussions and threads.	21	RO2
		My fellow CSRs are engaged and active in team chats.	22	RO2
ENABLERS				
Company support for The Community	The company encourages us to share information.	The work environment is supportive of employees accessing The Community and team chats.	32	RO3
Leadership support for The Community	My coach encourages us to share information.	My leader expects me to actively participate in The Community.	28	RO2, RO3
Technology supports collaboration	The Community is a good system, just too much in it.	The Community provides an effective way for employees to share information and ideas.	30	RO2, RO3
	Team Chats are awesome for getting answers fast and right.	Team Chat provides an effective way for employees to share information and ideas.	31	RO2, RO3
Team Size Conducive to Sharing	Team chat is only 15 people... The Community is 9,000.	I feel more comfortable in the small group of Team Chat than I do in the larger community.	34	RO2

Enabler, Motivator, or Barrier	Theme or Concept from Focus Groups	Stage Two Survey Question	Q #	Research Objectives
BARRIERS				
Inadequate time to participate	I don't have time to search for information.	Using the search function takes too long.	40	RO5
	I have to balance getting correct information with getting them off the phone.	Balancing getting right information... CRT down prevents me from using The Community...	46	RO4, RO5
	There are not enough hours in the day to participate.	There is not sufficient time in my day to fully engage in The Community.	52	RO4, RO5
		There is not sufficient time in my day to fully engage in team chats.	53	RO4, RO5
	There are too many calls in the day to do anything with The Community.	Having back-to-back calls keeps me from fully contributing information to The Community	48	RO5
		Having back-to-back calls keeps me from fully using The Community to find information.	49	RO5
		Having back-to-back calls keeps me from fully contributing information to team chats.	51	RO4
		Having back-to-back calls keeps me from fully using team chats to find information.	50	RO5
Information is not relevant	So much of the information is not relevant to what I need.	Much of the information on The Community is not relevant to my job.	43	RO5
		Much of the information on Team Chats is not relevant to my job.	44	RO5
Lack of responsiveness from The Community	I asked a question once and no one answered it, so I don't use it.	If I ask a question in The Community, I know someone will share the right answer.	19	RO4, RO5
	When I ask a question in The Community, it can be days if ever before I get a response.			
Lack of trust in others' contributions	I don't trust the information people put out there.	I don't trust the information that my fellow CSRs put in The Community.	41	RO5
	Some of the people on my team don't know what they are talking about.	I don't trust the information that my fellow CSRs put in Team Chat.	42	RO5

Enabler, Motivator, or Barrier	Theme or Concept from Focus Groups	Stage Two Survey Question	Q #	Research Objectives
Technology is not efficient for finding information	I cannot find anything in The Community.	The search function does not provide what I need.	39	RO5
	I don't have time to wait for an answer to a thread, I have to get it right now.	Posting a question in The Community is not real-time, and I need a real-time answer.	45	RO4
	Information moves locations constantly.	Information moves too often for me to be able to find it quickly.	37	RO5
Interface is not user friendly	The Community is too difficult to use.	The system itself for The Community is difficult to use.	35	RO4, RO5
		The system itself for the Team Chats is difficult to use.	36	RO4, RO5
		I have enough training on The Community and Team Chats to use them effectively.	33	RO4, RO5
Overwhelming size of The Community	The Community is too big to be useful.	I experience information overload when I look for information in The Community.	38	RO4, RO5
Policies conflict with using The Community	I get in trouble if I use the team chat during calls.	I get in trouble if I use team chat during phone calls.	47	RO4, RO5

APPENDIX D
IRB APPROVAL



INSTITUTIONAL REVIEW BOARD
118 College Drive #5116 | Hattiesburg, MS 39406-0001
Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional-review-board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 13112204
PROJECT TITLE: Online Communities of Practice in the Contact Center Environment Factors that Influence Participation
PROJECT TYPE: New Project
RESEARCHER(S): Jimmie Black, Jr.
COLLEGE/DIVISION: College of Science and Technology
DEPARTMENT: Human Capital Development
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 12/05/2013 to 12/04/2014

Lawrence A. Hosman, Ph.D.
Institutional Review Board


INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001

 Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional-review-board
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: CH13112204
PROJECT TITLE: Online Communities of Practice in the Contact Center Environment Factors that Influence Participation
PROJECT TYPE: Change to a Previously Approved Project
RESEARCHER(S): Jimmie Black, Jr.
COLLEGE/DIVISION: College of Science and Technology
DEPARTMENT: Human Capital Development
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 02/05/2014 to 02/04/2015
**Michael Madson, Ph.D.
Institutional Review Board**

APPENDIX E

APPROVAL FROM SUBJECT COMPANY LEADERSHIP

October 30, 2013

Dr. Cyndi Gaudet, Ph.D.
University of Southern Mississippi
Gulf Coast Campus
730 East Beach Boulevard
Long Beach, Mississippi 39560

RE: Permission for Dissertation Research
Jim Black

Dear Dr. Gaudet:

This letter shall serve as documentation that we have reviewed Jim Black's proposed dissertation entitled, "Communities of Practice in Contact Center Environments: Factors that Influence Participation," and have granted permission for him to conduct the research contemplated in that proposal at _____ and involving _____ employees.

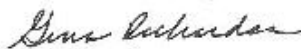
Specifically, we have granted permission for access to company records, focus groups, and online survey administration consistent with the dissertation proposal.

Should you have any questions, please feel free to contact us.

Regards,



Brian Brucekman
Senior Vice President
Customer Service



Gina Richardson
Vice President
Human Resources

APPENDIX F

COMMUNICATION DOCUMENTS

E-Mail Invitation for Focus Groups

Greetings!

My name is Jim Black. I am working to complete my Ph.D. in Human Capital Development. As part of that process, I am conducting a research study to understand the factors that drive participation in online communities of practice, such as The Community.

I would like to ask you to join a focus group with some of your peers to talk about your experiences with The Community. The focus group will be held here at the center at ____:____ am/pm on __/__/2013 in the _____ conference room. There are a couple of things you should be aware of:

- This is 100% voluntary. We will allow you time off the phones to participate, but you are free to decline the invitation without penalty.
- The session will be digitally recorded so that I can ensure that all the necessary data is captured for my study.
- As with all focus groups at the company, your responses will not be connected with your name, nor will they be reported out individually.
- Before participating, you will be asked to sign a consent form at the beginning of the focus group.

If you would be willing to assist with my research, please simply accept this meeting request. Once you accept, I will work with Resource Planning to have the meeting added to your E-Schedule Planner. If you would prefer not to participate, simply decline.

Thank you in advance for your help! I look forward to meeting with you next week.

Regards,
Jim Black

Focus Group Overview (Oral Script)

Welcome!

Thank you for joining me today!

As you read in my e-mail inviting you to this session, my name is Jim Black. I am a student at the University of Southern Mississippi and am completing the requirements for my Ph.D. in Human Capital. My study is on the factors that influence participation in communities of practice (such as The Community) with a particular emphasis on the contact center environment.

Today, I'd like to ask you a series of sixteen (16) questions about your experiences with The Community. My hope is that you will all participate in the discussion so that I can capture as much of your individual insights as possible. Once I collect and analyze the data from today's session and similar sessions I am conducting in other sites, I'll build a survey that will go out to your peers to see how much of what we discuss today applies to the larger population. That data will help us understand ways we can make it easier and more effective for you to participate in The Community.

There are a few details I need to share with you before we begin:

- Your participation is 100% voluntary. You do not have to participate and you are free to end your participation at any time without penalty.
- I will be recording our session so I can go back and transcribe the information for analysis. I will not be documenting names or which of you made which comments. Once the recording has been transcribed, it will be destroyed.
- As with all focus groups at the company, your responses will not be connected with your name, nor will they be reported out individually.
- Since this session is much like other focus groups you participate in regularly at the company, I do not believe there will be any inconveniences, risks, or discomforts associated with your participation. I do, however, believe you may benefit by hearing other employees' perspectives on The Community and how they interact with each other.
- I am happy to answer any questions you may have before we proceed.

If I've answered all your questions, I'd like you to take a few moments to read over and sign these consent forms. If you would prefer not to participate, you can simply return your form to me and return to your normally scheduled duties.

THE UNIVERSITY OF SOUTHERN MISSISSIPPI
AUTHORIZATION TO PARTICIPATE IN RESEARCH PROJECT

Participant's Name _____

Consent is hereby given to participate in the research project entitled "ONLINE COMMUNITIES OF PRACTICE IN THE CONTACT CENTER ENVIRONMENT: FACTORS THAT INFLUENCE PARTICIPATION."

All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained by JIM BLACK. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. All personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project, should be directed to JIM BLACK at 316-993-0118.

This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to

Chair of the Institutional Review Board
 The University of Southern Mississippi
 118 College Drive #5147
 Hattiesburg, MS 39406-0001
 (601) 266-5997.

A copy of this form will be given to the participant.

 Participant Signature

 Date

 Person Explaining the Study

 Date

E-Mail Invitation for Surveys

Greetings!

My name is Jim Black. I am working to complete my Ph.D. in Human Capital Development. As part of that process, I am conducting a research study to understand the factors that drive participation in online communities of practice, such as The Community.

A few weeks ago, some of your peers were kind enough to join a focus group to share some of their experiences and insights about participating in The Community. Now, I'd like to take an opportunity to gather your opinions and to understand the degree to which their opinions apply to the larger population of CSRs.

In the next few days, you will receive a link via e-mail to participate in an online survey. It will take about fifteen minutes to complete and we will schedule time through Resource Planning for you to complete the survey during your normal work day. There are a couple of things you should be aware of:

- This is 100% voluntary. We will allow you time off the phones to participate, but you are free to decline the invitation without penalty.
- Your survey responses will be linked with records of your actual Community activity and other demographic data from company records. However, no one, including myself, will know which records belong to which employees as the data will not include your name, P-Number, or any other way of identifying you. Your responses will remain anonymous.
- Before participating in the survey, you will be asked to electronically sign a consent form. If you are willing to assist with this research, simply agree to the consent form and you'll be taken to the survey. If you'd prefer not to participate, all you have to do is decline the consent form on the first screen of the survey and return to your normal duties.

Thank you in advance for your help with my research! I really appreciate it!

Regards,
Jim Black

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