TECHNOLOGY ACCEPTANCE IN ORGANIZATIONS

by

LAURIE STEWART

B.S., Kansas State University, 2011

A THESIS

submitted in partial fulfillment of the requirements for the degree

MASTER OF ARTS

Department of Communication Studies
College of Arts and Sciences

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2013

Approved by:

Major Professor
Sarah Riforgiate

Abstract

New technology has changed how people do business. With rapid development of technology, it has been difficult for businesses and organizations to successfully implement technology advancements. This problem has spurred research in the area of technology acceptance. The Technology Acceptance Model (Davis, 1989) is a dominant theory used to explain technology use. Although many researchers have copied, expanded, and altered this model through quantitative research, making it robust, this study will further the model by using qualitative methods to explore how members understand and classify technology use. This study adds to the existing knowledge of computer-mediated communication and technology acceptance by exploring information technology use within a volunteer or not-for-profit organization (NPO). In order to offer a unique perspective to exploring how organizational members understand and adopt new technology, this study employs qualitative methodology to a topic traditionally explored through quantitative surveys and measurements. Research questions specifically consider why organizational members accept or reject new technology and how organizational membership affects technology acceptance. Using the third iteration of the technology acceptance model (TAM 3), data confirm perceived usefulness and perceived ease as determinants of technology acceptance. The influencing factors of perceived usefulness and perceived ease of use were also confirmed. Two new influencing factors of perceived usefulness emerged in this study: appropriateness and information overload. Also, insight into the role of age and technology adoption calls into question stereotypical misconceptions of technology use and acceptance. Overall, this study confirms and expands on research in the area of technology acceptance.

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Acknowledgements

I would like to give a special thanks to my committee members: Dr. Sarah Riforgiate, Dr. Charles Griffin, Dr. William Schenck-Hamlin, and Dr. Noel Schulz. Thank you for all your time and investing in my success.

Chapter 1 - Introduction

Welcoming over 11 million visitors per year, Disney's theme park Epcot is home to Spaceship Earth, an attraction that captures the spirit of innovation as it takes you on a journey through time, depicting the story of human connection from the dawn of recorded time to the 21st century's cyber age (Niles, 2010). In the last minutes of the ride, hover trains, flying vehicles, self-cleaning houses, and more create a picture of what life could be in the future as technology keeps advancing.

Although one might think that the Disney ride is exaggerating the truth of innovation for the mere purpose of amusement or forecasting technology for the very distant future, if one considers the technological advances of the last ten years, it is not hard to see that technology developments are abundant. A New York Times article predicts that in as little as a year there will be automated restaurants, in less than 10 years there will be real time translating abilities, and in less than 20 years there will be flying cars (Predicting the Future, 2011). Imagining these technological advances becoming a reality is not too difficult considering a computer mouse that acts as a scanner, a 3D TV that requires no glasses, and more are current new technologies making the list of "Coolest Tech Toys of 2012" (CNBC, 2012).

As defined by the Merriam-Webster Dictionary, technology is "the practical application of knowledge especially in a particular area" (Merriam-Webster, 2012). Therefore, new technology not only impacts personal living and entertainment, but also has a dramatic influence on businesses and organizations. New technology, specifically information technology, shapes how, when, and where people do business. In particular, information technology deals with communication and information processing; it is what maintains many of the day-to-day tasks of

an organization (McKenney, 1995). The widespread influence of information technology is notable for several reasons.

First, technology has made business faster by nearly eliminating the wait time to receive information. For example, smart phones, instant messaging, video conferencing and other technology communication devices create a real time communication environment where synchronous and asynchronous messages are exchanged within seconds regardless of geography. A quick Google search provides the technology user with access to numerous websites, articles, books, and more almost instantly. This speed has led to a more flexible and responsive work environment (Global Guru, 2009) and allows for quicker product development times (Simon, 2010). Efficiency can be gained by adopting new technology (Lin, Vassar, & Clark, 1993; Cyert & Mowery, 1987; Hameed & Counsell, 2012; Alonso, Verdun, & Caro, 2010).

Furthermore, technology encourages a more collaborative environment by linking organizations, employees, and consumers in real time without regard to geography (McKenney, 1995). Without these geographical restrictions, diverse teams are able to join forces and create new ideas resulting in higher productivity and a greater blend of talents, abilities, and viewpoints (Global Guru, 2009). Cisco Systems has responded to the changing work environment to capture the spirit of collaboration by using technology. The company decided that they would reach more people by switching from in-person meetings to virtual interactions. By mandating that employees use Cisco's own video technologies and other collaborative tools, Cisco saved more than $100 million in travel and business expenses over an 18-month period. Also, an internal survey showed that 78 percent of targeted employees reported increased productivity and improved lifestyles without hurting customer satisfaction (Raj, 2011).

Innovations in technology also flatten business structures and exchanges by allowing for global market interactions, while simultaneously connecting suppliers directly with consumers (McKenney, 1995). This information technology allows buyers and sellers around the world to easily communicate, share information, provide services, and conduct business together (Global Guru, 2009). From a messenger service in Seattle to delivering packages each day for 1.1 million shipping customers to 7.7 million consignees in over 220 countries and territories, the United Parcel Service, Inc. (UPS) has taken advantage of technology to expand globally (United Parcel Service Inc., 2010). UPS was able to see the importance of electronic information to the transportation industry. With the use of technology, UPS was able to enhance communication with customers and increase efficiency by tracking over 200 data elements for every single package that they ship (Levy, 2001). Therefore, technology allows companies to reach a larger market (Lin et al., 1993).

While technology encourages business interactions and changes the hierarchy of market structure, information technology also encourages innovation by allowing people to see that there are infinite possibilities (Global Guru, 2009). Competition keeps people on their toes challenging them to create new ways of doing things, resulting in improved performance and growth in the organization (Hameed & Counsell, 2012). Technological changes improve creativity (Lin et al., 1993). As technology advances, people don't have to settle. This stretches businesses to always be thinking of ways they can improve and serve their customers better (Global Guru, 2009). Google is a prime example of a company that continues to innovate and explore these infinite possibilities. They see the future of search engines as a tool that understands human meaning, not just words. For example, Google has created a new voice search tool that will allow a user to have a conversation with the computer (Miller, 2012). As

companies continue to develop new products, services, and ideas, the information technology must also keep up if they want to be successful (McKenney, 1995).

Lastly, technology changes the relationship between the customers and businesses. Technology provides multiple channels for communication between different groups of people (Stevens, Williams & Smith, 2000). Many boundaries are removed with technology such as location, age, and language. Therefore, people who previously would not have communicated have the chance because of technology. For example, a person in Virginia can easily read a review from a person in Kansas about a company. Customers spread across the world can now share information more easily, allowing clients to come to businesses with prior access to information about the organization (Global Guru, 2009). The one-way relationship of seller to customer is collapsing due to digital technology. Technology allows for people to share their opinions openly and to be more involved in the creation or customization of products (Cramer, 2012). Consumers are much more a part of the process of product and service development than they were in the past.

Considering the extensive impact technology has in changing the way organizations and individuals conduct business, it is worthwhile to study and better understand how these technologies can be incorporated into organizations effectively. Computer-mediated communication (CMC) or use of technology to communicate with others has become a primary means of communication in organizations (Sproull & Kiesler, 1991). Because information technology allows for communication through multiple channels, giving people many communication choices, knowing why an individual chooses a certain medium or adopts a certain technology is important (Stevens, Williams, & Smith, 2000).

Furthermore, with the rapid development of technology, the need to understand what influences acceptance and use of new technology has never been greater, as businesses and organizations have found it difficult to successfully implement new technology (Venkatesh et al., 2008). For example, in 2004 Hewlett-Packard (HP) lost $160 million from a failed IT implementation (Koch, 2004). HP is not alone in facing technology implementation problems; therefore, these issues have spurred research in the area of technology acceptance. In fact, advancements in technology have led to the need to reconsider and reconceptualize the nature of work in organizations (Santra & Giri, 2009). Organizations that are slow to accept new technological tools are likely to lose money or even risk going out of business (Simons, 2010). Benefits of technology acceptance include reduced product development time, better understanding of customers, expedited innovation and new product development, and enhanced employee communication and productivity (Simons, 2010). However, knowing the benefits of technology adoption has not been sufficient for businesses and organizations to accept and implement technology consistently.

As technological innovations are not going to stop, it is necessary to better understand technology acceptance and use in organizations. Scott (2009) contends that although individuals and organizations cannot keep up with these technological innovations, scholars still need theory and models that can. The studies and findings are not helpful if they only apply to a specific technology. Broader findings are needed so they can be applied across technologies and used in the future as more technology is created. Therefore, since technology innovation is not slowing down, communication scholars need continue to study this topic to produce more encompassing theories and models.

This study hopes to add to the existing knowledge of computer-mediated communication and technology acceptance by exploring information technology use within an international volunteer or not-for-profit organization (NPO). NPOs are an important part of the economy and civil society, providing contributions to societal well-being by supporting various interests from sports to arts to social services (Zorn, Flanagin, & Shoham, 2010). Specifically, NPOs have been known to lag behind for-profit organizations in information and communication technology (ICT) investment (Schneider, 2003). However, recently this is changing as technology adoption in NPOs has been slowly increasing (Hackler & Saxton, 2007). Successful technology adoption has led to many thriving for-profit businesses such as the previous examples of UPS and Cisco. However, as will be explained in further detail below, the nature of NPOs being volunteer based presents different challenges in implementing new technology. Therefore, studying NPOs will expand the knowledge of technology acceptance.

Furthermore, this study offers a unique perspective to exploring how organizational members understand and adopt new technology by employing qualitative methodology to a topic traditionally explored through quantitative surveys and measurements. The Technology Acceptance Model (TAM; Davis, 1989) is the dominant theory used to explain technology use. Many researchers have copied (Henderickson, Massey, & Cronan, 1993; Subramanian, 1994; Szajna, 1994), expanded (Gefen & Straub, 1997; Venkatesh & Davis, 1996, 2000), and altered (Venkatesh, 2008; Venkatesh, Morris, Davis, & Davis, 2003) TAM using quantitative research designs, making it a robust model. This study seeks to further the model by using qualitative methods to explore how members understand and classify technology use, potentially offering new categories or dimensions of TAM that have not previously been conceptualized and included on surveys.

In the following section, a review of literature will be presented over technology acceptance. Next, the methodology for this study will be explained. Finally, the research findings will be reported and discussed, followed by suggestions for future research directions.

Chapter 2 - Review of Literature

As previously discussed, technology has and will continue to impact organizations and businesses, leading to extensive research on the subject of technology acceptance. In order to extend the current research regarding technology acceptance, the following discussion highlights studies that have been conducted to better understand both computer-mediated communication (CMC) and technology acceptance.

Computer-Mediated Communication

The study of communication takes into account that the content (message) and the medium (channel) in which the message is delivered are influential factors in how organizational members use and evaluate information (Rice, 1987). Technological advances create new ways for messages to be exchanged, leading to the development of a whole new field of study in communication. Computer-mediated communication (CMC) "is the process by which people create, exchange, and perceive information using networked telecommunications systems (or non-networked computers) that facilitate encoding, transmitting, and decoding messages" (December, 1996). With the advent of technology advancements, CMC has become a prime communication channel by providing different options such as email, teleconferencing, asynchronous chat tools, and more in addition to the traditional forms of communication such as letters, face-to-face (FTF), or the telephone (Stevens, Williams, & Smith, 2000). Interest in the impact of CMC has generated research to examine social psychological effects, organizational influences, human factor assessments, and education use in comparison to other channels of communication (Bordia, 1997).

Further, many CMC research studies focus on comparing FTF and CMC, noting pros and cons for organizational activities based on the message channel. CMC has become an integral

part of organizational effectiveness and changes how organizations communicate (Santra & Giri, 2009). As previously explained, benefits of incorporating CMC into business practices include allowing for greater participation, equalizing hierarchies by reducing status, connecting people in different geographical locations, and allowing for flexibility in response times (Rhoads, 2010). Essentially, the growth in technological innovations allows businesses increased ability to store, transport, and communicate information. Also, CMC changes workplace communication by offering increased flexibility. Specifically, CMC allows people in different locations to work together and coordinate activity by removing the time constraints of FTF communication that depended on physical proximity (Santra & Giri, 2009).

However, research studies note that CMC loses some of the richness of nonverbal and social cues experienced in FTF communication (Rhoads, 2010). Some technologies such as email interactions tend to lack visual and audio cues that help with message interpretation and there is no gatekeeper to manage the quantity or content of the information (Barnes & Greller, 1994). FTF interactions are associated with higher levels of satisfaction and quicker assignment completion times, but are less flexible and have increased geographical constraints (Rhoads, 2010). Studies comparing CMC and FTF communication have been beneficial to research regarding accepting new communication technology because of the importance of establishing a good fit between the medium and communication activities (Rice, 1987). Understanding the benefits and drawbacks of CMC can help organizations decide whether to implement a new technology or not (Rice 1987). However, organizations also need to consider how a new CMC will be received and adopted by members; therefore, the next section discusses explanations for how members accept and implement new technology.

Technology Acceptance

In order for organizations to reap the benefits of CMC, adoption or acceptance of new technology must occur both organizationally and individually. Organizations implement technology in order to alter worker's existing communication patterns and improve communication effectiveness for the ultimate purpose of organizational change (DeSanctis & Poole, 1994; Jackson, Poole, & Kun, 2002). This change creates three primary tensions surrounding the adoption of communication technology: espoused management values vs. mandated technological practice, integrating business process vs. alienating work relationships, and enterprise-wide practices vs. local practices (Jian, 2007). The first tension arises when managerial values do not align with technological practices. The second tension occurs when business processes intervene and hurt work relationships. The last tension occurs when there is a disconnect within the organization; a lack of cohesion of how a technology should be utilized (Jian, 2007).

Organizational tensions are not the only factor influencing technology acceptance. People's interpretations of new technology are formed from social aspects such as conversations with their coworkers or boss, as well as from direct experience with the new technology. First organizational members develop an interpretation of the new technology through social interactions (Leonardi, 2009). Before they even use the new technology they have a perception of what it should do. Then while individuals interact with the material features of the technology, they decide if their previous interpretation are supported or not (Leonardi, 2009). Both social interactions and material interactions play an important role in the process of interpretation formation.

Without considering all the factors that influence the success of technology adoption, many organizations have invested time and money into IT projects that resulted in limited

success or even at times failure (Venkatesh & Bala, 2008). Choosing and successfully implementing new technology presents a challenge for organizations seeking criteria to predict if employees will utilize a new technology. Researchers recognize the need to address this "productivity paradox" in which there is a contradictory relationship between technology investment and organizational performance created by a lack of technology adoption by members (Venkatesh & Bala, 2008) by studying and developing theories to better understand why people accept or reject new technology.

Fred Davis introduced the technology acceptance model (TAM) in 1989 as an information systems theory arising from the question of how to increase user acceptance of technology. TAM is the dominant theory used to explain technology acceptance and continues to be relevant to address the disconnect between new technology investment and usage as CMC innovations continue (Davis, 1989). Since its emersion into the field almost twenty years ago, TAM has been tested, developed, and expanded through three models.

Original TAM

TAM was created to predict user behavior and discover what motivates users to adopt new technology with the intention of assisting organizations in decision making regarding technology selection (Chuttur, 2009). TAM is influenced by Fishbein and Ajzen's (1975) theory of reasoned action (TRA), in which attitudes toward the behavior and subjective norm are determinants of behavioral intention. In terms of TRA, a behavioral intention is what a person plans to do prior to his/her actual behavior. Attitude is the positive or negative consequences a person believes will occur if he/she performs a certain behavior, which can be measured by considering all the salient beliefs about the consequences of performing that behavior. Finally, the subjective norm is a person's motivation to comply with what other people think he/she

should do (Fishbein & Ajzen, 1975). Davis (1989) removed the subjective norm from TRA to create TAM, leaving the attitude of a person as the focal point. Instead of concentrating on many salient beliefs, TAM focuses on two variables as key determinants of user acceptance: perceived usefulness and perceived ease of use (Chuttur, 2009).

Perceived usefulness is "the degree to which a person believes that using a particular system would enhance his or her job" (Davis, 1989, p. 320). Whereas, perceived ease of use is "the degree to which a person believes that using a particular system would be free from effort" (Davis, 1989, p. 320). The determinants of perceived usefulness and perceived ease of use were chosen by considering previous research. First, self-efficacy research is influential for TAM in the selection of the determinants. Bandura (1982) defines self-efficacy as "judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). According to self-efficacy, behavior is associated with outcomes (Bandura, 1982), directly relating with perceived usefulness in TAM. For example, does a person believe that using a new technology (behavior) will help them do their job better (outcome)?

Second, contingent decision behavior research shapes the choice of the key determinants in TAM, explaining how people make choices using a variety of decision-making strategies (Payne, 1982). Specifically, the cost-benefit paradigm is one area of the decision behavior research that explains why people choose certain decision-making strategies in terms of cognitive tradeoff between the effort required to use the strategy and the quality of the resulting decision (Jarvenpaa, 1989; Kleinmuntz & Schkade, 1993). In other words, are the advantages of the new technology (benefits) greater than the effort (cost) to learning how to use it?

Third, adoption of innovation is also influential to TAM, focusing on complexity or "the degree to which an innovation is perceived as relatively difficult to understand and use" (Rogers

& Shoemaker, 1971, p. 154). Adoption of innovation inspires perceived ease of use in TAM based on research by Tornatzky and Klein (1982), which indicates that complexity is negatively correlated with adoption rates. In particular, higher complexity of an innovation corresponds to fewer adopters of that innovation (Tornatzky & Klein, 1982). Knowledge of self-efficacy, contingent decision behavior, and adoption of innovations provides the theoretical support for perceived usefulness and perceived ease of use as key determinants of behavior.

The theoretic basis for TAM and resulting research led to the development of a six item psychometric scale to measure perceived usefulness and perceived ease of use (Davis, 1989). This scale provides evidence for the validity and reliability through its testing in three stages: pretesting, empirical field study, and laboratory experiment (Chuttur, 2009). The scale for a new technology (email) was administered to a group of people who were asked to self-report their usage of that new technology (see Appendix A for original model). Davis' (1989) initial study indicates that perceived usefulness is more important than perceived ease of use. Since perceived usefulness and perceived ease of use have a direct effect on behavioral intention, Davis (1989) revised the model by eliminating attitude (see Appendix B for TAM revision).

Testing of TAM

Numerous tests were done between the introduction of TAM and the expansion to TAM 2. A comparison study between TRA and TAM reports that the 6-item psychometric scale can be effectively reduced to a 4-item scale (Davis, Bagozzi, & Warshaw, 1989). These additional studies and tests of TAM 2 also affirm that perceived usefulness is the primary determinant and perceived ease of use provides a secondary determinant of behavioral intention (Davis et al, 1989). Replications of Davis' study of perceived usefulness and ease of use examine many different technology applications from email and voicemail (Subramanian, 1994), to spreadsheet

and database applications (Henderickson, Massey, & Cronan, 1993), to database management system software packages (Szjna, 1994). The findings support the model in addition to providing validity and reliability of the psychometric scales. Results indicate that the scales can be used to retrieve user feedback on different technology systems/design approaches, diagnose a problem after implementation, make selections between two systems, and understand factors that influence the success of a system (Adams, Nelson, & Todd, 1992). These replication research efforts affirm Davis's original study and conceptualization of TAM (Adams et al., 1992; Davis et al., 1989; Henderickson et al., 1993; Subramanian, 1994; Szajna, 1994).

While many studies replicate the original TAM, less was being done to explore and expand the original model. To address this concern, Venkatesh and Davis (1996) revisited Davis' model to look more closely at the antecedents of perceived ease of use. Their study finds that an individual's perception of a particular system's ease of use is grounded in the person's computer self-efficacy (Venkatesh & Davis, 1996). Computer self-efficacy is the degree of knowledge and comfort a person has with general computer use. They also report that objective usability (response time, keystroke, comparison between beginners and experts) only affects perceived ease of use after direct experience. Through the new findings, they suggest focusing on increasing people's computer self-efficacy is more effective than improving the system's design (Venkatesh & Davis, 1996).

TAM 2

While reproducible research endeavors served to consistently validate TAM, the model still did not do enough to explain factors that affect perceived usefulness and perceived ease of use. The desire to better understand additional contributing factors spurred efforts to expand and develop TAM 2 (Chuttur, 2009). A longitudinal study over four organizations and four different

technology systems provided the basis for the development of TAM 2 (Venkatesh & Davis, 2000). One goal of the longitudinal study was to include additional key determinants of perceived usefulness and perceived ease of use while also considering how time affects these determinants. TAM 2 adds social influence processes (subjective norm, voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability and perceived ease of use) (Venkatesh & Davis, 2000) (see Appendix C for TAM 2). Results indicate that perceived usefulness remains the most stable determinant in TAM 2, while subjective norms also play a role in user acceptance (Venkatesh & Davis, 2000).

Continuing TAM Testing

While TAM 2 expands the determinants of perceived usefulness, calls for studies to further understand perceived ease of use led to continuing research efforts (Venkatesh, 2000). Prior to using a new technology, perceived ease of use is based on people's general beliefs about technology. These general beliefs or anchors are computer self-efficacy, perceptions of external control, computer anxiety, and computer playfulness (Venkatesh, 2000). Computer self-efficacy concerns a person's belief in their ability to perform tasks using a computer (Venkatesh & Bala, 2008). Perceptions of external control are "the degree to which an individual believes that organizational and technical resources exist to support the use of the system" (Venkatesh & Bala, 2008, p. 279). Computer anxiety deals with the fear or apprehension one has with computer usage (Venkatesh & Bala, 2008). Finally, computer playfulness is "the degree of cognitive spontaneity in microcomputer interactions" (Venkatesh & Bala, 2008, p. 279). These general beliefs or anchors play a major role in people's perceptions before they physically encounter a new technology.

However, over time individuals adjust these beliefs as they become more familiar with the new technology. Perceived enjoyment and objective usability are two adjustments influencing perceived ease of use over time. Perceived enjoyment is "the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use" (Venkatesh & Bala, 2008, p. 279). Whereas, objective usability is "a comparison of systems based on the actual level (rather than perceptions) of effort required to completing specific tasks" (Venkatesh & Bala, 2008, p.279). When a person begins enjoying the new technology and finding it usable, their perceptions are adjusted. Venkatesh's (2000) study affirms that beliefs about perceived ease of use are first anchored using computer self-efficacy, perceptions of external control, computer anxiety, and computer playfulness, but over time beliefs are adjusted by perceived enjoyment and objective usability.

Continued expansion of TAM 2 research includes key determinants of perceptions of usefulness and ease of use, while expanding to add the variables of gender and age as important model factors. For example, Gefen and Straub (1997) report that men and women differ in their perceptions of email, but not in their use of email. In particular, women perceive the social presence of email and rate the perceived usefulness of email higher than men (Gefen & Straub, 1997). In another study conducted by Venkatesh and Morris (2000), results indicate that while men's usage of technology is more strongly influenced by their perceptions of usefulness, women are more strongly influenced by perceived ease of use and subjective norms. Also, men are more motivated by instrumental factors and women by process and social factors (Venkatesh & Morris, 2000).

To look further at age and gender a unified model was created taking tenets from TAM and seven other models about technology acceptance. The unified theory of acceptance and use of technology (UTAUT) includes four constructs, which are key determinants of user acceptance and usage behavior: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh, Morris, Davis, & Davis, 2003). Performance expectancy is the degree to which a person believes that using the system (or new technology) will increase his or her job performance. Effort expectancy has to do with how easy a person perceives the system to use. Social influence is the degree to which a person thinks that other important people think he or she should use the system. Lastly, facilitating conditions is the degree to which a person believes the organization is supporting the system use (Venkatesh et al., 2003). UTAUT also includes four moderators: gender, age, voluntariness, and experience. The moderating variables determine the strength of the relationship between behavioral intention and the four constructs. This model tests the relationship of performance expectancy, effort expectancy, social influence, and facilitating conditions moderated by gender, age, experience, and voluntariness on behavioral intention with behavioral intention leading to actual use. Therefore, the model reveals that certain relationships are affected by the moderating factors of gender, age, experience, and voluntariness with technology acceptance or use (Venkatesh et al., 2003).

First, the model shows that performance expectancy is stronger for men, especially younger men, on behavioral intention. If the new system or technology is perceived to increase a person's job performance, a person is more likely to intend to use the new technology and according to this relationship men and younger people are influenced highly by this construct (Venkatesh et al., 2003).

Second, UTAUT indicates that effort expectancy is stronger for women, older workers, and workers with limited experience in terms of behavioral intention. The easier a system is perceived to be, the more likely a person will intend to use it. In this case, women, older people, and limited experienced workers are influenced more by this construct (Venkatesh et al, 2003).

Third, the model shows that social influence will be stronger for women, older workers, workers under mandatory conditions, and workers with limited experience in terms of behavioral intention. If a person perceives that their superiors believe he or she should be using the technology, then he or she will be more likely to intend to use the technology. According to Venkatesh et al. (2003), women, older workers, and mandatory conditions strengthen this relationship.

Lastly, UTAUT indicates that facilitating conditions are stronger for older workers with increasing experience on usage. Organizational support for the technology increases the intent to use, where older workers and more experience with the technology indicating a stronger relationship between support and intent (Venkatesh et al 2003). These are the four situations in which the study reports that moderating variables affect the strength of the relationship between construct and behavioral intention.

TAM 3

A third iteration of the TAM model (TAM 3) was created, combining TAM 2 and the determinants based on perceived ease of use by incorporating the findings of previous research in order to improve acceptance rates of new technologies (see Appendix D for model and new component definitions). The TAM 3 model contains both factors influencing perceived ease of use (computer self-efficacy, computer anxiety, computer playfulness, perceptions of external control, perceived enjoyment and objective usability) and perceived usefulness (perceived ease

of use, subjective norm, image, and result demonstrability). The goal of the revised model is to produce practical guidance and suggestions to practitioners (Venkatesh & Bala, 2008).

TAM 3 longitudinal testing by Venkatesh and Bala (2008) identifies many new relationships between variables. Specifically, perceived ease of use, subjective norm, image, and result demonstrability are significant predictors of percevied usefulness at all time periods. When participants experience increasing output quality, job relevance has a strong positive effect on percevied usefulness. Additionally, with increasing experience, the subjective norm has less effect than perceived usefulness. The anchors (computer self-efficacy, computer anxiety, computer playfulness, and perceptions of external control) are significant predictors of perceived ease of use at all points in time and adjustments of perceived enjoyment and objective usability become significant at later times to perceived ease of use. Finally, perceived usefulness is the strongest predictor of technology acceptance and use at all times (Venkatesh & Bala, 2008).

While research efforts to develop TAM and TAM 2 were interested in identifying relationships between variables, TAM 3 focuses on producing actionable points for practioners. Researchers divide their advice into two stages: preimplementation interventions and postimplementation (Venkatesh & Bala, 2008). The preimplementation stage occurs during the development and deployment of a technology. Venkatesh & Bala (2008) suggest that managers/adminstrators encourage user participation by allowing the employees to help pick out new technology. Also, good managerial support of the new system is needed. Lastly, they suggest managers/adminstrators implement an incentive alignment, which entails matching the individual's perception of the new technology with his/her job requirements and value system (Venkatesh & Bala, 2008).

Postimplemntation occurs after the deployment of the technology has taken place. Venkatesh and Bala (2008) recommend that organizational members receive adequate training and support through help desks, bringing in experts, and sending employees to off-the-job training, which is linked to increasing employees' perception of usefulness of the new technology. Increases in perceived usefulness postively influence acceptance. Furthermore, an increase in peer support by having coworkers help each other also assists in technology acceptance. TAM 3 furthers the study of technology acceptance because it offers practical intervention suggestions to organizations (Venkatesh & Bala, 2008).

Although the technology acceptance model has been intensely studied and expanded to reach its current model (TAM 3), there have been limitations. One limitation noted from the studies is that it relies on participant self-reporting (Davis, 1989; Venkatesh & Davis, 2000). Past study participants filled out the psychometric scales and then later self-reported if they used the technology or not. This can be problematic for a few reasons. Self-reporting is easily fabricated or altered and individuals may provide answers that are not factual, but appear to be socially desirable. A person may base answers on perceptions which may not reflect what actually happened. Also, filling out a survey before they use the technology could change their perception of the new technology, which may affect their use.

Another limitation is that researchers have done a significant amount of testing on student populations (Davis 1989; Davis & Bagozzi, 1989; Henderickson, 1993; Szjna, 1994). Student populations tend to represent a younger demographic with less work experience. One goal of the study of technology acceptance is to find how organizations can implement technology more effectively; therefore, it would be beneficial to test the model on a population that matches organizations (older workers with greater work experience).

Lastly, perceived ease of use and perceived usefulness have been thoroughly studied; however, there has not been any consideration for other determinants of technology acceptance. As the TAM studies moved forward, the model was only expanded to include factors that influenced perceived ease of use and perceived usefulness. More consideration for expanding the determinants of technology acceptance could prove useful in enhancing technology adoption.

Volunteer/Not-For-Profit Organizations

NPOs are an important part of the economy and civil society, providing contributions to societal well being by supporting various interests from sports to arts to social services (Schneider, 2003). Most large NPOs have a large diverse membership that spans many geographical locations; therefore, limiting face to face interactions. Also members voluntarily belong to these organizations and they likely have other higher priorities such as family and careers. Limited face time and balancing other commitments are constraints of many volunteer members. These limitations influence the important role communication technology can play in NPOs. CMC allows organizations to work around geographical restraints by connecting members via email, conference calls, video conference calls, or more (Santra & Giri, 2009). CMC also allows for flexibility, which caters to the busy volunteer members (Santra & Giri, 2009). Therefore, communication technology acceptance is critical to these organizational members who are limited in their ability to meet face to face due to the geographical dispersion of members and their time availability due to work and personal commitments.

Organizational progress and viability is dependent on some technology acceptance so that members can maintain communication. The findings from TAM 3 offer practical suggestions for technology implementation that voluntary organizations can use (Venkatesh & Bala, 2008). However, in a voluntary organization mandating technology use or training is difficult, providing

another important reason to examine member technology acceptance within voluntary organizations.

Research of information and communication technology (ICT) use in the NPO sector can be categorized by three types of influences: organizational characteristics, environmental characteristics, and pressures to establish legitimacy (Zorn, Flanagin & Shoham, 2010). The first category ICT use in NPOs is organizational characteristics. Research in this area has focused on tangible resources such as size, budget, and ICT support affecting technology acceptance (Hikmet, Bhattacherjee, Menachemi, Kayhan, & Brooks, 2008; Hackler & Saxon, 2007; Schneider, 2003). The underlying view is that technology is an efficiency-enhancing tool and NPOs should seek efficiency-enhancing tools to "stretch their dollar", expand their market reach by using the internet, and enhance communication with stakeholders (Elliott, Katsioloudes & Weldon, 1998).

The second category of influence on ICT adoption in NPOs is environmental characteristics. Research finds that as competition heightens there is more pressure to adopt new technologies; the competitive environment drives technology acceptance (Corder, 2001; Hackler & Saxton, 2007; Schneider, 2003; Ticher, Maison, & Jones, 2002). The last category of influence is legitimacy. In this area of research, technology is seen as a way to establish legitimacy. Most stakeholders only fund and support NPOs with a certain organizational reputation and the use of technology can influence the organizational reputation (Schneider, 2003). Therefore, by adopting ICT, nonprofits can increase efficiency, fit in with the environment, and establish legitimacy (Zorn et al, 2010).

Zorn, Flanagin, & Shoham (2010) expand the forces behind the acceptance of information and communication technology (ICT) in nonprofit organizations to include

institutional forces. The institutional forces of the decision makers' IT knowledge, expected practice, competitor scanning, and leadership in the field are also consistent predictors of successful technology adoptions (Zorn et al., 2010). Organizational characteristics, environmental characteristics, pressures to establish legitimacy, and institutional forces play a role in technology acceptance in nonprofit organizations.

Although there has been much research done in the area of technology acceptance, research can be expanded in three ways. First, although this research has been conducted in organizations (Adams et al, 1992; Segars, 1993; Venkatesh, 2008) many studies have used student populations (Davis 1989; Davis & Bagozzi, 1989; Henderickson, 1993; Szjna, 1994). This is problematic because the general student population is a younger demographic with little work experience. The younger demographic also tends to be more "tech savvy" or at least has been exposed to technology from an early age, which increases their overall comfortableness with technology. The student demographic does not match that of an organization and the main goal of this research in technology acceptance is to help organizations implement new technology successfully. Therefore, this study looks at professionals in an existing organization who represent a wide age range. Looking at a different demographic could result in different results of why people accept new technology, possibly expanding the theory.

Second, the organization for this study represents an international population. Organizations and businesses continue to expand into international markets. CMC has played a major role in globalization as it encourages global participation; communication across the globe is easier now. Today's marketplace is one that is globalized and internet-driven (Global Guru, 2009). Therefore, international populations are an important player in technology acceptance and

it will be interesting to see if this model is truly transcendent, upholding in international populations.

Lastly, examining technology acceptance in volunteer organizations offers new insight and could possibly expand the model. NPOs are volunteer-based, which makes mandating use of new technology practically impossible and the organization may miss out on the many benefits CMC brings. Therefore, this research considers an important population to study because there may be other factors driving technology acceptance amongst members of nonprofit organizations, allowing for potential expansion of TAM 3.

Adding these three dimensions (age variation, an international population, and volunteers) to the study of technology acceptance, the researcher hopes to extend the technology acceptance model. Therefore, the first research question asks:

RQ1: In addition to perceived ease of use and perceived usefulness, why do organizational members accept or reject new technology?

Furthermore, TAM 3 offers practical suggestions to organizations about how to implement new technology successfully among members. One of these suggestions is increased peer-to-peer support (Venkatesh & Bala, 2008). In order to address this suggestion and verify the importance of peer support through research, the second research question asks:

RQ2: How do organizational members influence each other's technology acceptance and use?

Chapter 3 - Method

Technology acceptance has predominantly been studied quantitatively (Adams et al, 1992; Segars, 1993; Venkatesh, 2008; Davis 1989; Davis & Bagozzi, 1989; Henderickson, 1993; Szjna, 1994). These quantitative research endeavors have made significant contributions to the study of technology acceptance with the most substantial findings being that perceived ease of use and perceived usefulness are strong predictors of technology acceptance. These quantitative studies relied on surveys to collect their data; however, surveys are limited because they ask specific questions and do not capture information that is not contained in the survey. Specifically, existing quantitative research has focused on studying perceived ease of use and perceived usefulness, which does not allow for expanding the determinants of technology use. While this existing research is beneficial it provides a snapshot, where incorporating qualitative methodology is better suited to address processes (Charmaz, 2000).

Qualitative research allows for field observations, interactions, and opportunities for participants to talk about technology in relation to others. This study expands on the previous research by examining actual interactions and asking questions that may uncover additional determinants of technology acceptance. Therefore, this study uses thematic analysis, a qualitative method, to identify other themes that were not considered in the previous quantitative studies (Aronson, 1994; Braun & Clark, 2006).

Participants

For this study, the researcher was granted access to observe and interview members of an international, volunteer run NPO. The researcher assumed a participatory-observant role by becoming a student member of the organization. In addition, the researcher was invited to observe meetings of leadership in the organization that a typical student member would not have

access to normally. Approximately 29,000 members pay dues to this organization, volunteering their time and expertise in running a range of meetings, including local, regional, national, and international meetings, events, and conferences. A small paid staff (approximately 15 individuals) provides support for technical communication, event planning, and daily operations. The organization strives to be the leading developer of standards and the newest research for their field. It is a highly technical society. With membership split between professional paid careers in academia and industry, the organization provides an interesting dynamic to study.

The international non-profit organization (NPO) of study is a predominately United States based organization with slightly over 50% of its membership residing in the U.S. Over 80% of members are male and approximately 65% of the membership is over 40 years old. Therefore, the average member of this organization is an older American male. However, the sample included all types of people from early career to retired, people in both academia and industry, and from the tech savvy to the tech illiterate. Canada, Singapore, Sweden, and Greece are just a few of the countries represented in this study. Women were also included, providing a diverse sample to capture all membership demographics.

In order for members to be interviewed and participate in focus groups, IRB approval was attained. Before data collection began, members were asked to sign an informed consent form bringing to their attention several things: they would be recorded, no names or identifying information would be shared by the researcher, and the interview/focus group data would be used for research purposes. Also, participants were informed that they could choose to stop their participation at any time and they could remove their data from the study upon request.

Procedures

The researcher began this study by collecting field observations. Observations were used to gain the trust of the leadership team in the organization and also to get a better understanding of the organizational structure. The observations were beneficial to help shape the questions asked during the next stage of data collection: interviews and focus groups. Another benefit of observing was that actual technology use among members could be observed and noted in field notes. Further, observations served to provide prompts to inquire about technology use during conversations and interviews. Extensive field notes were taken during and after meetings to capture interactions with group members. As interesting events or comments triggered questions, informal conversations were used to explain or clarify the observations.

Observations

Observations included attending six organizational meeting series and related events (each approximately five days long) to observe the members of the volunteer organization. This activity resulted in 240 hours of observation and 196 pages of typed single-spaced notes. These notes were gathered by collaboration; therefore, some observed events resulted in field notes by two researchers, which gave two perspectives on the same event. At these meetings the researchers had the opportunity to attend a variety of meetings from the governing board of the organization to specialized working groups. Governing board meetings represent the most involved volunteer members; these are the people who decide the future directions of the organization. Governing board meetings usually had 20-30 attendees and were conducted as formal meetings. Working groups are responsible for producing the standards for the organization's field; these groups are more focused on specific tasks and are not as concerned with organizational initiatives or planning. Working groups can range from a small group of

people to a very large group; however, observations indicated that the participation level of members in the meeting varied greatly from actively participating to sitting along the wall in the back of the room. Observations were also made in casual social events sponsored for members by the organization, including lunches, dinners, and opening receptions.

The researchers also attended main sessions open to all members and interacted with the general membership that attends large conferences. These open events provided an opportunity to observe and interact with less involved members who were not volunteering in the organization; generally these participants pay their dues and attend conferences to consume information. Therefore, the researchers were able to observe different types of member involvement and technology use by attending different meetings and observing different demographic groups.

Interviews

In order to obtain more detailed information on technology use, interviews were used. Interviews allowed the researcher to ask participants open-ended and follow-up questions. The interviewer had the opportunity to ask for more clarity or more details, which cannot be done in open-ended survey questions (Lindlof & Taylor, 2011). Open-ended questions about communication practices that participants liked or did not like allowed for emergent data in regards to technology use.

A majority of the interviews were audio taped. Each interview lasted approximately 45 minutes with the shortest interview lasting 20 minutes and the longest 90 minutes. Eleven individuals participated in the interviews. The transcripts resulted in 142 typed single-spaced pages. The researchers did not collect any additional demographic information to ensure the anonymity of the participants.

The interviews were not focused specifically about technology acceptance, but rather, were designed to look at the organization's communication practices as a whole. Data regarding technology acceptance was largely emergent and generated by participants. For the interviews, participants were asked to share their story of how they became a member of the organization and to explain their organizational involvement. This prompt allowed the participants to share information about themselves and open up while building rapport. As the interviews progressed, interview questions were asked that addressed the research questions.

The first research question asked, "In addition to perceived ease of use and perceived usefulness, why do organizational members accept or reject new technology?" Some interview questions that addressed this research question were "how do you find information about the organization's conferences and activities?" or "do you use Facebook, LinkedIn, Twitter, or any other social media to get information about the organization?" or "what communication technology do you use most frequently and why?" or "would you like to see a greater use of technology at conferences?" These interview questions were asked to determine how members gain organizational information and perceive communication technology, allowing for data to emerge about technology acceptance.

The second research question asked, "How do organizational members influence each other's technology acceptance and use?" To address this, some interview questions included "what's working/not working in terms of communication in the organization?" or "if there was one thing you would change about the organization's communication practices, what would it be?" The intent of these interview questions was to determine the overall impressions of communication within the organization; however, as the organization utilizes technology to disseminate information, the topic of technology acceptance among fellow organizational

members was frequently discussed. An expanded listing of the questions asked during the interviews and focus groups can be found in Appendix E.

Focus Groups

Focus groups were the last means of data collection employed. Focus groups allow participants to "cultivate new kinds of interaction dynamics and thus, access to new kinds of information" (Kamberelis & Dimitriadis, 2005, p. 903). This dynamic allows for participants to build off one another's experiences. As one person shares a story, it can spark an idea in another person and allow more data to emerge (Kamberelis & Dimitriadis, 2005). Another reason that focus groups are a beneficial technique is that they allow for a greater number of participants. The use of focus groups for this study was crucial to answering the second research question "how do organizational members influence each other's technology acceptance and use?" Focus group interactions allowed the researchers to observe interaction and influence behaviors between members. According to TAM 3, image, which is how other people perceive a person based on that individual's use of technology, influences technology acceptance (Venkatesh & Bala, 2008). As members of the organization sat face-to-face with other members and heard their opinions about using technology, realizations about image emerged in member conversations.

A majority of focus group responses were audio taped. Thirteen focus groups were conducted, with each lasting approximately 60 minutes. Eighty individuals participated in the focus groups averaging four to five people per focus group, with two participants in the smallest group and 10 participants in the largest group. The transcripts resulted in 261 typed single-spaced pages of data. The researchers did not collect any additional demographic information to ensure the anonymity of the participants.

Questions asked in focus group interactions were not specifically geared towards technology acceptance; however, this provided a benefit because the topic of technology use, acceptance, and perceptions of peers occurred naturally. The theme of technology emerged from questions asked in the focus groups such as "what is working well in terms of communication for the organization?" or "what do you think is not working well in terms of communication in the organization?" These questions were followed up with probing questions about different channels of communication including face-to-face and CMC. Questions on the focus group guide were created to look at the broader communication practices of the organization; however, technology was a theme that arose frequently in terms of communication. A listing of the focus group questions can be found in Appendix E.

Analysis

Upon completion of observations, interviews and focus groups, the data was then sent out for transcription. Once the data was transcribed, the researcher carefully listened to each transcript to review, correct any inaccuracies, and immerse herself in the data. As detailed earlier, the combined transcriptions from the interviews and focus groups totaled 403 single-spaced pages of data and the field notes totaled 196 single-spaced pages of data for a combined total of 599 typed single-spaced pages of data.

To explore this rich data set, qualitative analysis began by sorting the information into two groups: 1) information pertaining to technology acceptance and 2) data not pertaining to technology acceptance to save for future research. Once the initial data had been sorted, three interviews included no pertinent information; therefore findings used in this study included eight interviews and 13 focus groups for a total of 88 participants.

The researcher then used open-coding to identify themes (Charmaz, 2006; Saldana, 2012) contained in the comments and observations specifically related to technology acceptance and use. This process was important in order for the researcher to become immersed and familiar with the data, allowing the researcher to know the depth and breadth of the content (Braun & Clarke, 2006). The research questions were considered individually in the transcripts and field notes. Specific quotes or observations were retained to address each of the research questions.

Following the sorting of the initial data and clustering related quotations, data themes were compiled using memo writing (Charmaz, 2006) as a way to analyze and code the data early in the research process. Then the researcher theoretically sorted, diagramed, and integrated the memos to create robust categories and penetrating analyses (Charmaz, 2006). Reoccurring codes were grouped together and given a theme or category. All the quotes that related to that category were gathered and carefully read again. Then the researcher used the emerging themes to answer the research questions. The following chapter discusses these emerging themes as the findings from this data set.

Chapter 4 - Findings

As previously discussed, technology has and will continue to shape and influence how organizations are run. Successful technology adoption in organizations is therefore critical. While research has been conducted to explain technology acceptance, this study expands on the original research to look at technology acceptance in a not-for-profit, international organization using qualitative research methods. While the study supports previous research findings, three additional prominent themes arose that add to the understanding of the technology acceptance process. Specifically, the themes of appropriateness, information overload, and generational misconception surfaced throughout participant interactions and were strongly supported both in field observations and discussions with participants. This section details the study's findings in relation to the research questions and is followed by a discussion of the finding implications and directions for future research.

Technology Acceptance and Rejection

Research question one asked: In addition to perceived ease of use and percevied usefulness, why do organizational members accept or reject new technology? It is important to note that data collected for this study confirm previous research findings in technology acceptance, solidifying the theoretical conceptualizations of TAM 3 (Venkatesh & Bala, 2008). First, qualitative findings in support of TAM 3 are presented. Second, additional qualitative themes not explained by TAM 3, including appropriateness and information overload are described and supported through participant examples.

Qualitative Support for TAM 3

From the beginning, perceived ease of use and perceived usefulness have been the focal point of technology acceptance research. The most recent iteration TAM 3, expands on the model by providing factors that influence perceived ease of use and perceived usefulness (Venkatesh & Bala, 2008). As previously explained, perceived ease of use is influenced by computer self-efficacy, perceptions of external control, computer anxiety, computer playfulness, perceived enjoyment, and objective usability (Venkatesh & Bala, 2008). Whereas, perceived usefulness is influenced by subjective norm, image, job relevance, output quality, and result demonstrability (Venkatesh & Bala, 2008). Data collected throughout observations, interviews, and focus groups in this study confirm these primary (i.e. perceived ease of use) and influencing (i.e. computer self-efficacy) factors represented in existing TAM 3 conceptualizations. The following section highlights supporting data validating the model. Additionally, a more detailed description and support for new emerging themes follows.

Perceived Ease of Use

Perceived ease of use determines if a person believes that using a certain technology will be free from effort (Davis, 1989). Interview and focus group participants consistently validated this TAM 3 determinant by explaining how they want technology that is easy to use. This theme was confirmed in 10 of the 13 focus groups, one of the eight interviews, and throughout field observations. For example, Jerry shared that he personally would use the technology and the volunteer organization could accomplish more if there were "a couple of really basic things to use, those tools, and an easy to use collaboration site that you don't have to be a super wiz-bang webmaster to use." Jim echoed this affirmation for ease when he said how he liked that the "organization's website is user-friendly." Participants repeatedly stated that they shouldn't be

expected to learn very complicated, technical skills to get tasks done for the organization. This again was confirmed by Jacob's concern about technology that is "not entirely intuitive".

This study also confirms the influencing factors of perceived ease of use in TAM 3. *Computer anxiety* refers to a person's uneasiness about the possibility of using a computer (Venkatesh & Bala, 2008). Closely related is another influencing factor, *computer self-efficacy*, which refers to a person's belief in their own ability to use a computer (Venkatesh & Bala, 2008). Participants explained their apprehensions and disbelief in their ability to accomplish tasks using certain technologies. For example Paul questioned, " I wonder, what's the best way to communicate? I created a group in LinkedIn and invited all the chapter chairs, but I observed that some of them are not using computers, they do not feel comfortable using computers." In this quote, Paul's indication of people's discomfort (computer anxiety) and their refusal to use a computer (computer self-efficacy) highlight his experience of other's perceived ease of use, providing support for TAM 3. Again, lack of belief in ability and hesitation was demonstrated when Greg confessed, "But I realize that I'm probably behind," referring to his discomfort in using Twitter.

The data also indicated participant's desire for adequate training and support, which supports *perceptions of external control* as an influencing factor. Perceptions of external control refers to an individual's belief that the organization supports a technology (Venkatesh & Bala, 2008). For example, Robert explained:

> I'll be honest if we really want to do that action I should recommend some training. I had a hell of time. I was on the phone with the help desk twice for like an hour trying to get on it. They didn't really understand how to use it.

Robert's statement demonstrates a desire for proper support from the organization and the connection between using a new technology and available training. Further, the relationship between use and perceived support from the organization was affirmed by Megan's observation that "I think those tools are available through the organization, but people don't know how to get at them and that's not communicated all that well."

The influencing factors of *computer playfulness* and *perceived enjoyment* were easily confirmed through participants excitement about implementing new technologies into the organization. Computer playfulness describes a person's spontaneity with computers (Venkatesh & Bala, 2008). This was confirmed as participants described how they were "open" and willing to "try" new technologies out. Perceived enjoyment describes a person's liking of a new technology (Venkatesh & Bala, 2008). This was confirmed as participants described new technology as "fun", "cool", and "neat". For example, Molly stated "I do think the tweeting, the Facebook linking, all those new tools we're doing pretty well. I think the fact that we're embracing the LinkedIn groups is a hugely positive thing and a step in the right direction." Participants' openness and enjoyment of new technology is confirmed by these positive comments.

Lastly, many participants were able to talk about their direct exposure with using a new technology and how that experience affected their use, confirming *objective usability* as an influencing factor of perceived ease of use. Objective usability refers to a person's actual interaction with a system to complete a task (Venkatesh & Bala, 2008). For example, Craig shared:

> And you'd be amazed how well people self maintain…we've got the 700 participants…we've got a dozen or more calls a day going simultaneously, go-to

> meetings, the only thing that the project is providing is those services support and it has empowered people because it has reduced the barrier of entry.

As Craig notes, his direct experience with the technology allows him to really understand the robustness of the system and how technology can be used effectively. On the other hand, Kyle described how he didn't use instant messaging because he found people bothered him more and it created more work. So his direct experience with the technology averted him from continued use. Overall, data support perceived ease of use and its influencing factors as a determinant of technology acceptance.

Perceived Usefulness

Perceived usefulness represents how a person views a technology in terms of assisting with and improving task completion (Davis, 1989). Participants confirmed the importance of technology usefulness frequently by expressing how they use technology to complete tasks more efficiently. Perceived usefulness was confirmed in eight of the 13 focus groups, in four of the eight interviews, and throughout field observations. Specifically, participants explained the need to understand the value of a technology prior to their willingness to use the technology. For example Philip explained, "I think you show people the value of the technology that they'll move to it…I have yet to tweet. I haven't seen the value of it." Sally also echoed a desire for useful technology to improve work efforts in her wish for "a simple computer program that could help the administrators." She saw that there would be value in adding an easy new technology which would help the administrators be more effective in their tasks. Again Peter described how people that use new technology "seem to think they are useful tools for these things," affirming the link between usefulness and technology adoption. Philip, Sally, Peter, and many other participants described a link between seeing value or usefulness in a technology and the acceptance.

In this study, data confirm the influencing factors of perceived usefulness. The first influencing factor, *subjective norm*, is how much an individual is influenced to use a system by people they view as important (Venkatesh & Bala, 2008). Participants expressed how their behavior was influenced by people of importance such as their colleagues or superiors, confirming that subjective norms play a role in influencing perceived usefulness. For example, Mason explained, "You can say that I showed up because of her personal email." In this example, Mason's behavior (opening, reading, and responding to email technology) was directly influenced by a person he viewed as important. Not only individuals, but also groups of individuals with influence in the organization drove technology use. Susan noted this influence, explaining, "Now some committees do a good job….as sort of a poster child" for the use of new technology. In this case Susan's comment highlights that influential committees' effective technology use drives the expectations and behaviors of others in the organization through their example. While subjective norms were prevalent throughout the data, there were also additional relational influences in technology acceptance which are explored further by the second research question and will be discussed later in this section.

Image is the belief that adoption of a certain technology will enhance an individual's status (Venkatesh & Bala, 2008). Throughout field observations of meetings and participant interactions, as the volunteer organization sought to recruit new members, participants expressed the need to adopt social media to attract the "younger generation". Participants expressed that the younger generation, specifically students, are using social media to engage with one another. Participants were concerned that if they did not use social media, they would not be able to adequately reach younger members who they needed to recruit for organizational viability. For example, Lane stated, "Maybe perhaps we should ask the students to promote their stories or

experience with the organization using hashtags. So then you have multiple stories and shared experience." Behind Lane's suggestion is a belief that using a technology would enhance the organization's image with students. This thought is also echoed by Jane's comment, "I have seen that younger generation, they want to see Facebook." These statements were repeated by participants who contended that using social media would enhance their status with students; therefore, demonstrating that image is influential in terms of perceived usefulness.

Participants also described how they select technology that makes sense for their job, using what they need to accomplish their tasks well. *Job relevance* and *output quality* are indicated by these descriptions. Job relevance determines if an individual thinks that a technology makes sense for their job, while output quality determines if an individual thinks the technology helps them do their job well (Venkatesh & Bala, 2008). Volunteer members in this international organization often work from several locations and time zones. Evan noted the importance of both the relevance and quality of technology for organizational members, explaining, "You could do that today without ever leaving your house, you can do it all on the web because we only had 10 or 12 people, so that's easy to do on a web meeting. You can have a document going through it & editing it on the fly that everyone can see." In this statement, Evan expresses how technology use makes sense for these organizational members in accomplishing their tasks and increasing efficiency. On the other hand, when an administrator of the organization asked Mark to learn a highly technical skill to maintatin a website he said, "I'm not going to learn Joomla!" Mark went on to explain that it did not made sense for him to learn a highly technical skill as part of his volunteer role; particularly because his volunteer position was not about technology and websites, but about leading regional members. In both of these examples, job relevance and output quality impact perceived usefulness.

Lastly, while many participants thought new technology might have benefits in recruiting younger members and improving volunteer processes, they had a difficult time seeing immediate tangible results from using technologies such as social media or online communities. The perception of tangible, observable outcomes describes the influencing factor of *result demonstrability* (Venkatesh & Bala, 2008). Participants understood these additional technologies as places to exchange and retrieve information; however, many felt email and websites already met the organizational needs. Participants expressed that they didn't see the tangible benefits of implementing more technology. For example Haik insisted, "No it's only email. I don't know Facebook…but in the future things might change." He was definite in his preference for technology and just didn't see the benefits of using Facebook. Although he was aware things might change in the future, no adoption will occur until he views a new technology as beneficial and necessary. Again Luke echoed this in the following quote, "You might look at how many people actually are reading the blog. Is it really reaching out to people?" He could not see consistent results when using specific forms of communication technologies. Many participants just didn't see the tanglible benefits in newer technologies, affirming that result demonstrability is an important influencing factor for perceived usefulness.

It is a positive sign that the data in the current study confirm previous research; however, as indicated in the first research question, the purpose of this study is to determine if there are any additional determinants of technology acceptance. Next, the new emerging themes will be discussed.

Emerging Themes

Qualitative methods were specifically chosen to allow themes to naturally emerge in the data and uncover patterns that may have been overlooked in quantitative surveys using close-

ended response sets. The previous findings from quantitative studies were confirmed, indicating the robustness of TAM 3. However, while analyzing this data set, two new themes emerged relating to the first research question: appropriateness and information overload.

Appropriateness

As defined by the Merriam-Webster Dictonary, appropriateness is "the quality or state of being especially suitable or fitting" (Merriam-Webster, 2012). The theme of appropriateness emerged in five of the 13 focus groups, in three of the eight interviews, and throughout field observations. At first glance, appropriateness does not seem to be a new emerging theme. One might say that job relevance, which is defined as "the degree to which an individual believes that the target system is applicable to his or her job" is the same thing (Venkatesh & Bala, 2008, p. 277). However, a technology might be "applicable" in terms of task function, but may be perceived as inappropriate to use. After close reading and coding of the data, appropriateness is differentiated from job relevance based on three sub-themes: respect, official, and professional versus personal. As will be demonstrated and supported in discussion of the three sub-themes, findings suggest that appropriateness is distinguishable from job relevance and hence should be acknowledged as a new influencing factor of perceived usefulness.

Respect

The first of the sub-themes, respect, is showing admiration; it is a proper behavior to show for those in authority positions (Merriam-Webster, 2012). In certain situations respect is required or at least expected as the appropriate behavior. For example, Jose commented:

> I teach classes and one of the first slides I put up at the start of the semester is a one strike policy. If I hear a cell phone go off, one of them Facebooking or tweeting, they are out of my class. Get it! I think that is a *basic courtesy* to the person that is presenting, because I

> don't want somebody tweeting…If you want to tweet then please leave the room. That's basic courtesy that I can tell.

Here Jose expresses how the use of some technologies (cell phones, Facebook, twitter) are inappropriate for the classroom and disrespectful. While it is possible that the technology could be "applicable" to enhance learning by sharing lecture information with other students, Joseph went on to discuss his doubts that students would actually be using the technology to be more engaged in his lecture; therefore rather than assisting with the task at hand, the technology is not useful and quite possibly has a detrimental effect. Considering this example of technology use in terms of respect, the theme of appropriateness represents a new and distinct factor of perceived usefulness.

The sub-theme of respect also was seen throughout observations of executive level and other organizational meetings. Throughout field note observations, most people multitasked during face-to-face meetings by using computers, Ipads, and smart phones to access emails, documents, presentations, news, and more. While the majority of people engaged in this, there was also an outcry for multitasking to stop. For example in one of the executive level meetings, a volunteer leader exclaimed, "We have limited time, please keep your focus and refrain from emailing and texting so we can move quickly." Multitasking using various time saving technology devices was slowing down the meeting. Members expressed that multitasking was inappropriate and disrespectful to the presenter both in verbal comments and through non-verbal expressions noted throughout field observations. Just as participants felt it was rude and disrespectful to carry on a conversation during a meeting, conducting other business via technology was perceived as equally as distracting and inappropriate. So, while the technologies

organizational members used were relevant for completing tasks and work, they were seen by participants as inappropriate, disrespectful, and distracting.

Members who multitasked in meetings knew that their behavior was not ideal. However, rather than refraining from the behavior, they said things like “I know I shouldn’t” or “If I wasn’t so busy” or “I try not to”. Based on the negative comments from participants about technology use in meetings and the acknowledgement from offenders that multitasking with technology was not appreciated, technology multitasking was deemed inappropriate. Even members who continued to use the technology, despite acknowledging it was inappropriate, minimized their technology use except for tasks they felt were “essential”.

Further, while the technology may fit the job, it can still be used inappropriately. Observations of misusing technology can also deter technology use. For example Aaron described,”Facebook was too stressful. My youngest son was on there, you’ve got people posting stuff that has got him in tears. I’m not going there… It just isn’t worth it.” In this case, Aaron could no longer see the usefulness after witnessing people’s complete lack of respect for others, demonstrating how the disrespectful or inappropriate use of technology can also deter technology acceptance.

Respect is one way the new factor of appropriateness emerged in the data set. Participants saw value in respecting one another and openly were appalled when others used technology in ways that they viewed as disrespectful. Therefore, if a technology is not used respectfully or appropriately, technology adoption is hindered.

Official

Another way that the new influencing factor of perceived usefulness, appropriateness, materialized was through the idea of being official. Something that is official is approved,

validated, and accepted (Merriam-Webster, 2012). For organizations it is appropriate to present information to its members that is official, based on the idea that the information is a representation of the organization and should be reflective of the organizations professional identity. For example, Jabar referenced his concerns about putting more information on Facebook, commenting, "It's maybe not an appropriate thing to do because it's not an official announcement." Jabar's hesitation and concern demonstrates how technologies may appear to be more or less official. In this case, Jabar deems announcements through email and websites as more official and reliable; in turn, this causes him to question other forms of technology and reduces his acceptance of organizational information from some sources.

Another participant echoed her distrust of information obtained using specific technology when she cautioned, "when its Facebook there are a lot of unofficial things as well." In both of these cases, hesitancy towards some technologies (Facebook) occurred because participants felt unable to distinguish between official and unofficial information. Other participants explained that when they did use technology to view information, they were uncertain that the information was up-to-date and all-inclusive. Questions and uncertainties about how official and accurate information about the organization was on certain technological channels caused participants to determine that some technology was inappropriate to use.

Many members agreed that websites, whether it be for the organization, a conference, or chapter provided an appropriate, official channel to obtain information. When asked how they acquired information participants said, "it's the website", "I go to the website", or "the website is our front door". Members saw the websites as an official, appropriate channel; however, participants were not impressed with the current state of many of the websites affiliated with the organization. Michael commented, "Because, if you look at the chapters websites, they are such

a mess…I'm embarrassed of my chapter website." Several participants expressed that they did not feel some of the organizational websites were meeting expectations and were concerned that their public image was being tainted by this poor use of technology. Members wanted improvement in the websites and desired "a consistent image" across websites to enhance perceptions of the official communication channel. Throughout focus groups and field observations of meetings, the organizational members viewed websites as an official, appropriate channel, and shared concerns and frustrations about the current state of many websites.

Official connotation is another way that the new theme appropriateness surfaced in the data set. Participants viewed a technology as appropriate for the organization when it appeared to be official. Therefore, if the technology blurs the line between official and non-official, technology adoption was hindered.

Professional verses Personal

Finally, the idea of professional verses personal was a predominant way the new factor of appropriateness emerged in the data set. This dichotomy separates professional (work, school, organizations) and personal (friends and family) activities. Participants repeatedly explained how they would use one technology for professional and another for personal activities. Additionally, participants justified the divide because professional and personal activities consisted of different tasks, people, and expectations, which influenced which technology was useful. For instance, Aarushi mentioned the professional task of job searching, noting that LinkedIn was an appropriate technology because "people go there to look for a job". On the other hand, participants explained that personal tasks such as "catching up with friends" were more appropriate using other technologies, such as Facebook, where they could message, chat, and share photos. Another example is Adam's explanation for selecting LinkedIn over Facebook for

professional activites because “my mom isn’t on it”. Also, participants noted professional and personal expectations were different. Kim shared, “Well, I check my email every day. Facebook I might check once or twice a week.” In Kim’s example, she noted an expectation that people check their work or school email very frequently, but personal email or Facebook was used at whatever frequency an individual chose. Various tasks, audiences, and expectations created and sustained the different uses of technology according to personal versus professional characterizations.

Further, data indicated certain technologies were more appropriate for either professional or personal tasks. Vandana shared, “Facebook, for me anyway, is more about family and friends versus professional and school-type stuff. I don’t want school and work on my Facebook.” While Vandana didn’t want to mix work and school, Robert couldn’t even fathom the two in tandem, “I can’t imagine mixing Facebook with a professional career.” Nathan said, “I would like to keep work on something else, and then, Facebook to where it’s family and friends.” Lyle also didn’t like the idea of “having the organization with his friends” on Facebook, to him it “just seemed too personal and it would feel strange.” Tom agreed with the personal/professional distinction when he stated: “Emails, because it’s more professional and Facebook mainly for private.” Participants, who viewed technologies such as Facebook as something they do for fun, also viewed the technology as inappropriate for work. Therefore, the new theme of appropriateness arose in this data set in considering participant’s perceptions of professional versus personal appropriateness in using different technologies.

Consistently data support the emerging theme of appropriateness, which manifested in three ways: respect, official connotation, and assessments of professional versus personal use. Therefore, appropriateness is an additional influencing factor for perceived usefulness.

Participants noted that if they viewed a technology as appropriate to use, then it became useful and led to technology adoption. On the other hand, technology that was seen as inappropriate was actively rejected for specific tasks or as not worth adopting at all.

Information Overload

With predictions of flying cars, automated restaurants, and real time translating capabilities in the near future, it is no shock that technology innovation is on the rise (Predicting Future, 2011). This increase in technology usage has also enhanced the availability and accessibility of information. In 10 of the 13 focus groups, seven of the eight interviews, and throughout field observations, people expressed that they were overloaded with information. Participants frequently confessed that they could barely manage the information they already had from current technology and could not fathom adding another technology that would add to the burden of information, creating one more source they would need to manage. Throughout the data, information overload emerged as a predominant new influencing factor for perceived usefulness in two main ways: email overload and adding new technology.

Email Overload

In the focus groups, interviews, and field observations participant comments demonstrated that email is the primary technology used for communication purposes among organizational members. As email was brought up constantly, there are a few important points worth noting about email and information overload. First, participants echoed each other's cries over email overload "too much", "large volume", "bombarded", "10 to 12 a day from the organization", and "a thousand emails in my inbox". Sam said, "We get flooded with so much…it's hard to sift through." Participants felt bombarded by the volume of daily email they received. This overload of information led participants to one of two options.

One approach to handling email overload was to create quick decision rules for deleting information. Naime's comment is representative of many participants: "I guess we saw the rise of email and how helpful it was, helpful, helpful. It can overload and then people start – delete, delete, delete." As participants received large amounts of email, one heuristic they used was to delete anything that wasn't directly addressed to them and appeared to be a mass email. It was simple for participants to skim sender names in order to delete full emails.

Another decision rule considered slightly more information, but was a quick way to eliminate excess emails by reading the subject line only. Sally described, "I know personally that a lot of emails that I get that say from 'the organization', I read the subject line and then I delete them." As a result of feeling overloaded by emails, participant deleting resulted in very little of the sent information being read. So although the technology was perceived as useful, the participants used aspects of the technology to filter messages, ultimately making the organization's use of the technology ineffective. In this particular organization, the members' response to email overload is highly problematic because email is used as the primary channel to disseminate information.

On the other hand, some participants dealt with excessive emails by saving them. These participants never deleted any messages, holding them to read in the distant future – if ever. For instance, Heidi mentioned:

> You go to my Inbox there'll be thousands of emails that I've not even read sitting there because I know they are not of use to me, but I won't delete them because there maybe something in there that I might need later on.

Many participants mirrored this behavior. For example, when talking about emails Calvin said,

"I usually try and always move them over to the folder, so that they are still there just in case." He didn't delete emails because he didn't want to miss anything; however, in not reading them he was also not aware of what he was or wasn't missing.

Whether participants deleted or stored every email they received, both types of participants were adamant that the amount of email was overwhelmingly large and they were not able to read every piece of information sent to their inbox. As a result of the quantity of messages on a given technology, in this case email, participant focus turned from using the technology as intended into creating decision rules and systems to reduce their technology use to a manageable state. For example, several management strategies included creating "separate email accounts," "automatic filters," and even "color coding". As discussed in the next section, this abundance of information overload from email technology influenced people's willingness or unwillingness to adopt new technology.

Adding New Technology

Managing so much information already, participants expressed how they were not interested in adding more technology into their daily lives. The thought of adding one more thing to check sounded unappealing to many participants. Information or technology overload was seen as an inhibitor of technology acceptance.

For example, Caleb noted, "But for people in our society, what is it that each communication media offers to me that the other can't? Because I can't see five at the same time." Caleb recognized that adding extra commmunication channels was not the answer to improving his access to information; he did not want to manage more accounts. In order to adopt a new technology, he needed it to offer greater benefits than the existing technology. Another participant echoed this concern when asked if she could have two Facebook profiles, one for

work and one for personal use. She replied, “You can probably, but it’s just more to maintain” in order to explain why she was not going to start a second account. According to organizational members, maintenance was a prime issue when new technology was adopted. Participants evaluated technology options based on the question: Does the new technology replace others or create additional work? When a new technology is added without removing another, participants expressed that information overload was a reason for rejecting the technology.

Interestingly, participants explained they were aware of tools to help manage communication, but this awareness did not produce adoption. For instance, Fred commented:

> I know you can put these things so you have one login and then you subscribe to the different feeds. I'm saying that for myself, my day to day job requires me to check e-mails. They have a much better chance of reaching me.

In this case, even though Achmed knows there is a better way to manage information using a different technological tool, he felt overloaded and rejected the technology by dismissing it as just one more login to remember. Achmed’s constant and extensive use of email, as well as his proficiency in the tool, contributes to his decision to reject adding another technology system to learn and manage.

At an organizational level, management of technology and information was eluded to as one participant exclaimed, “We’ve got so many different things out there, you almost have to have someone to manage all of that, like we need a VP of communications or something like that.” Even at the organizational level of technology adoption there were struggles. Participants explained that maintaining what was already in place was difficult and time consuming, without adding anything new. Adding new technology may have been even more salient for this

volunteer organization, where members donate their time to working on behalf of the organization without tangible compensation.

Also, an unwillingness to participate in new technology arose because organizational members already felt they were getting enough, and sometimes too much, information. Bob describes this:

> With me, with something like LinkedIn, I will not sign up because while I like the information and communication from the organization to me through them, but once I've signed up to those I've basically opened up a gateway. I have enough problem with just emails… if I am away for a few days I need a good 24 hours when I get back to just read through my emails, so I don't want Facebook, LinkedIn and Twitter.

Participants repeatedly expressed feeling "overwhelmed" and "bombarded" with information, making the thought of adding another channel unwelcomed.

Consistently the data suggests that although the new technology could potentially help members better manage information (perceived usefulness), participants felt too overloaded to even consider adding something new. Therefore, technology information overload is another influencing factor of perceived usefulness. Information overload is distinct from the other influencing factors of perceived usefulness. The factors of percevied usefulness can be broken into two categories: task completion and perception. Job relevance, output quality, and result demonstrability all have to do with completing job tasks. Subjective norm and image both have to do with the perceptions of others and technology acceptance. Information overload concerns the threshold of information or technology management. According to the data, even members who recognized others using the technology (subjective norm) and how the technology might enhance the way others saw them as technologically savvy (image) would not adopt new

technology if they were overloaded with their current devices. No matter how relevant the new technology appeared, participants were unwilling to accept it if they already felt overwhelmed with trying to manage what they already used.

In summary, the qualitative findings of research question one resulted in the addition of two new influencing factors of perceived usefulness: appropriateness and information overload. Appendix F displays where the new additions fit into the existing model (TAM 3).

Member Influence & Technology Acceptance

Research Question two asked: How do organizational members influence each other's technology acceptance and use? Previous research on technology acceptance does consider relational influence and technology acceptance. For example, TAM 3 offers subjective norms as an influencing factor of perceived usefulness, which accounts for the influence other people have on an individual's adoption of a system (Venkatesh & Bala, 2008). However, when looking at organizational member influence, a curious finding arose that adds further understanding to subjective norms and computer self-efficacy. While the data confirm that subjective norm is an influencing factor of perceived usefulness and computer self-efficacy is an influencing factor of perceived ease of use, this study also supports the emergence of a new theme: generational misconception.

Generational Misconception

One stereotype that is often repeated when discussing technology is the idea that age plays a major factor in technology adoption. A common perception noted by Haederle (2011) is that technology adoption appears to be more rapid in the younger generation and older generations are lagging behind. However, one of the more popular social media sites, Facebook, has reported that its demographics have expanded to represent a wider age range. People over 55

are now the second largest user group of Facebook; older people are starting to flock to this technology (Kerr, 2012). Recent trends suggest that technology is not just being utilized by the young.

In eight of the 13 focus groups, one of the eight interviews, and throughout field observations, the stereotypical idea of a generational divide was brought up spontaneously; however, after close analysis of the data, participants indicated information that dispels a true generational divide. Although participants referenced "younger" members as more technologically savvy and willing to adopt new technology, this belief was not supported by comments from participants in younger demographic groups. While this theme does not add a new component to TAM 3, it does elaborate on the importance of subjective norms and computer self-efficacy. First, the generational divide will be discussed in relation to the role it plays in terms of creating a subjective norm. Then the relationship between the subjective norm of generational divide and computer self-efficacy will be explored. Lastly, the generational divide will be challenged as a misconception.

In focus groups, interviews, and throughout field observations, the idea of a generational divide was repeatedly mentioned. Generational divide, as defined in this study, is the idea that newer technologies are accepted and come naturally to the younger generation, while the more senior generations have greater difficulty in learning technologies and do not have a need or desire to adopt new technologies. Many participants easily rationalized not adopting new technology because of their age; they were simply too old. When asked if they used technology such as Facebook, Twitter, online communities, participants over 40 years old had similar responses: "people don't do that at my age", "my kids do it for me", "people my age…we just

don't use it", and "for the older generation…they don't use it". These initial responses indicate a stereotypical generational divide that inhibits people from adopting new technology.

Importantly, this generational divide represents a subjective norm for organizational members. In this case many participants believed that there was a generational divide, where some technology is reserved and better suited for the younger generations. This belief in turn was reflected consistently in communication between members. It was not unusual for multiple members of focus groups to build off ideas of generational divide once one member initiated the topic. For instance, once Jill mentioned she didn't use Twitter because she was "old", Peter was quick to support that and further noted that it was for the "younger" members, the "students" who wanted or used that technology. Also, in meetings, technology discussions that emphasized the need to adopt new technology perpetuated the perception that a generational divide existed and was a viable reason for lack of technology adoption among older adults. Therefore, in terms of member influence and technology adoption, this subjective norm of generational divide played a role in inhibiting technology acceptance.

Not only does the generational divide act as a subjective norm influencing perceived usefulness, it also effects computer self-efficacy, an influencing factor of perceived ease of use. As discussed earlier, computer self-efficacy deals with a person's belief in their skills with a computer (Venkatesh & Bala, 2008). As the interviewer asked probing questions after age was given as a reason for not using technology, participants expressed that they were not confident in their technology skills. This lack of confidence was connected with the belief in the generational divide, the subjective norm. For instance, Louis said, " okay, so I'm not technology super savvy." Louis thought that in order to try a new technology he needed to know more; this lack of confidence in his technology skills inhibted him from using new technology. In the discussion, it

was revealed that his lack of confidence came from the belief that older people are not as tech savvy as younger people. When Ariel, a participant who occupies the "younger" category, mentioned, "they don't really understand how simple it is" in relation to using technology to accomplish group tasks more efficiently, she eludes that the reason these older groups don't accept new technology is because they think that it is hard to use and they don't feel they have the skills needed to use the technology. These beliefs are influenced by the perpetuation of the generational divide. According to the data, member influence not only impacted perceived usefulness (subjective norm), but also perceived ease of use (computer self-efficacy).

While the "idea" of a generational divide repeatedly was communicated and used by members to influence others technology usage, it was often inaccurate in describing technology use among members. When those subscribing to the generational divide norm were pressed further about why they didn't accept new technologies, different "actual" reasons for technology rejection surfaced. For example, Caleb said, "Yes, I think it would be a useful tool for me...but for people in our society what is it that each communication media offers to me that the other can't." Age didn't mean he could not learn or adopt the technology; Caleb saw that this tool used by his sons could actually be useful to him, but he needed to see the tangible benefits (perceived usefulness).

In some cases, generational divide was drawn on as an excuse for lack of awarness of technology. Due to the norms perpeutated that new technology is hard to use and not useful, awareness of technology dwindles. Further, if one does not know about a technology, then there is no way for them to understand if it is useful. Timothy mentioned his excitement when he learned about a new technology in his company, "I didn't even know about it. I can do internal instant messaging on my phone without being at the computer." Timothy's belief that he was too

old for technology, hindered him from looking at tools that were readily available to him. As soon as his awareness of the new technology (instant messaging via phone), he immediately saw the usefulness of using the technology to conduct business when he was away from his desk. Therefore, technology acceptance is dependent of the view of usefulness – a view of usefulness that may be hindered by subscribing to inaccurate generational expectations.

Again the generational divide was debunked as participants in the under 40 focus group began to share their opinions on technology. “I don’t use that” or “I don’t see the need” were common responses from this younger population when asked if they used technologies such as Facebook, Twitter, and more. Some participants acknowledged the misperceptions, commenting “it’s not necessarily age correlated” or “they are not necessarily for kids”. Therefore, both the rejection of technology among the younger participants and the acknowledgement that the technology is not just for younger generations removes support for the stereotype of the generational divide.

While the generational misconception does not add a new component to TAM 3, it does give substantial insight into understanding the previous influencing factors: subjective norm and computer self-efficacy. The generational divide acts as a subjective norm, influencing people’s technology use and their belief in their computer abilities (computer self-efficacy). However, the generational divide did not hold up as participants in the under 40 focus groups had similar technology usage as the older participants. There was little to no difference in the opinion of technology usage from young to old among this group of participants. Therefore, this study found that a generational divide is more of a façade that reinforces inaccurate beliefs of technology use.

This study contributed to the understanding of technology acceptance. The data confirm the previous findings of TAM 3, all determinants and influencing factors were supported. Also, the new themes of appropriateness, information overload, and generational misconception emerged, giving new insight into technology acceptance. The next section will discuss the theoretical and practical implications of these findings.

Chapter 5 - Discussion

This study explored technology acceptance in a large international volunteer organization. Specifically, research questions considered why members accept or reject new technology and the role of member influence in technology acceptance. It was a worthwhile study to better understand how organizations can better implement technology considering the extensive impact technology has had on how business is conducted in organizations. Also, considering volunteer organizations was valuable due to the important role NPOs play in the economy and civil society. This study focused on the latest technology acceptance model, TAM 3, which combines and adds to the previous TAM models by displaying the influencing factors of both perceived usefulness and perceived ease of use (Venkatesh & Bala, 2008).

Lastly, this study contributes to communication research. As shared in the results, communication was central in creating meaning for members to understand and make decisions regarding technology adoption. How people talk about technology influences behavior. Also, technology is a communicative medium; therefore, it is important to study through a communication lens. This chapter will discuss the theoretical and practical implications of the study followed by the limitations and future directions.

Theoretical Implications

As technological advances are not slowing, technology acceptance will continue to be important. This study confirms the previous research in the area of technology acceptance and expands the theory as well. Technology acceptance was examined in two ways in this study. First, it sought to determine if there were any additional factors besides perceived usefulness and perceived ease of use effecting technology acceptance. Findings were examined to see if they fit within TAM 3, which shows that perceived usefulness and perceived ease of use are the primary

determinants of technology acceptance. However, there are multiple influencing factors of perceived usefulness (subjective norm, image, job relevance, output quality, and result demonstrability) and perceived ease of use (computer self-efficacy, perceptions of external control, computer anxiety, computer playfulness, perceived enjoyment, and objective usability) that play a role in technology acceptance as well (Venkatesh & Bala, 2008). Second, this study considered member influence in terms of technology acceptance. The previous chapter described the confirmation of TAM 3 as well as two additions to the model and the implications of this will be discussed below.

Theory Confirmation

Perceived ease of use and perceived usefulness have been the focal point of technology acceptance research and the most recent iteration TAM 3 expands on the model by providing factors that influence perceived ease of use and perceived usefulness (Venkatesh & Bala, 2008). Data collected in this study confirm these primary (i.e. perceived ease of use) and influencing (i.e. computer self-efficacy) factors represented in existing TAM 3 conceptualizations.

This validation of the model is important for several reasons. First, study findings are consistent with previous research, allowing the technology acceptance research to gain greater credibility. Furthermore, this study employed qualitative research methods to a model that has predominantly been studied using quantitative methods. This is also known as triangulation of methods, which is conducting a study with another methodology to increase the validity of the results (Guion, Diehl, & McDonald, 2011). Therefore, this change in methodology helps increase the validity of the study. Previous research tested the components by asking specific survey questions. While survey methodology is extremely useful to build a generalizable data set, this information is limited by the questions included. One strength of this study was the additional

information that emerged spontaneously in observations and conversations to confirm the components of the model and enhance understanding of areas for future inclusion. Lastly, the confirmation of the model suggests that the primary and influencing factors are still viable and relevant even with new technology advancements. Therefore, it is worthwhile to continue research in this area using the model as a guideline or base.

Theory Expansion

As found in the previous studies (Davis, 1989; Adams et al, 1992; Szajna, 1994; Venkatesh & Davis, 2000; Venkatesh & Bala, 2008), perceived usefulness is a robust predictor of technology acceptance. This section will describe the two additional influencing factors of perceived usefulness: appropriateness and information overload. Also, this section will discuss why these factors help predict perceived usefulness in new ways, distinct from the other influencing factors. Because perceived usefulness is such a strong predictor, revealing additional influencing factors allows for greater understanding of how and why a person views a technology as useful.

Appropriateness or "the quality or state of being especially suitable or fitting" is a new influencing factor of perceived usefulness (Merriam-Webster, 2012). Although appropriateness is close to the influencing factor of job relevance, which is a person's perception that technology will help them perform job tasks, it is distinct and offers another prediction of perceived usefulness (Venkatesh & Bala, 2008). The data indicate that a technology can be applicable for a job task, but seen as inappropriate to use. For example, Facebook is a tool that can be used to communicate with people; a job task for a volunteer in the organization could be to communicate with members. However, if the organizational members view Facebook as something for personal use; the technology would not be characterized as professional, making it inappropriate

for communicating to members. So, although Facebook is a job relevant tool, people are hesitant to use it because they view it as inappropriate.

Second, it extends the model by showing that usefulness is not just about doing a task well, which the influencing factors of job relevance, output quality, and result demonstrability show (Venkatesh & Bala, 2008). This influencing factor is more in line with subjective norm and image, indicating that perception plays a role in usefulness. Appropriateness is a judgment formed by people's perception of the technology. A technology may be perceived as appropriate for one person and inappropriate for another. This study confirms the two dimensions of perceived usefulness, task completion and perception, and extends the influencing factor of perception by adding appropriateness.

Discovering that appropriateness influences perceived usefulness is important to the expansion of the model and communication studies. First, this new finding provides an additional factor to predict usefulness. Perceived usefulness is the strongest predictor of technology acceptance. This additional influencing factor may enhance predictive abilities of perceived usefulness, in turn allowing for better practical implementation of technology in organizations.

Also, revealing appropriateness as an influencing factor of perceived usefulness highlights the communicative aspect of technology acceptance. Data indicate that appropriateness is determined by a person's perception of the technology. Further, the data also suggest that technology perceptions are highly communicative, as members form opinions based on how other organizational members and peers talk about the technology. Weick's (1995) theory of sensemaking supports this finding. Sensemaking is the process of giving meaning to experiences, where communication is the central in creating understanding of experiences

(Weick, 1995). As members in an organization talk about their experience with technology, they are building meaning. Therefore, the perception of a technology is influenced by communication.

This study also identifies information overload as a second new influencing factor of perceived usefulness. Information overload is distinct from other influencing factors and expands TAM 3. The current influencing factors in TAM 3 focus on either task completion (job relevance, output quality, and result demonstrability) or perception (subjective norm and image). Information overload adds another focus: threshold. People have different thresholds for how much information they are able to handle, in turn shaping individual behaviors about how much technology they believe they can manage. This finding fits nicely with the conservation of resources theory (COR), which states that people strive to obtain and maintain resources that help them accomplish their desired goals (Hobfoll, 1989). In this case, individuals use technology resources that help them complete their work and volunteer responsibilities well. Therefore, if a person feels overloaded with information and technology they will reject a new technology because they are unable to see the usefulness.

The addition of information overload to the TAM 3 model is important for several reasons. First, it increases the predictability and understanding of perceived usefulness. Also, researchers should include information overload in the development of methods and assessment tools for ways to better evaluate members' technology acceptance. Further, organizations can use communicative exchanges to determine the extent that people are overwhelmed. Open communication about how people are experiencing technology in regards to time spent, effort expended, and volume of information will allow for greater prediction when implementing a new technology. Therefore, in terms of theoretical implications for technology acceptance, this study

confirms previous research and expands TAM 3 to include two additional influencing factors of perceived usefulness. Next, practical implications of the study will be discussed.

Practical Implications

Critiques of the technology acceptance studies contend that there is a lack of practical suggestions for businesses and organizations (Chuttur, 2009). Venkatesh and Bala's (2008) study was the first to offer practical suggestions to help businesses implement new technology. This study continues in the footsteps of Venkatesh and Bala's (2008) research by offering many practical recommendations to organizations in general and volunteer organizations specifically. Practical implications in regards to email communication, social networking, technology etiquette, volunteer implications, and age will be discussed next.

Email Communication

According to the data, this volunteer organization uses email as the predominant communication channel. Further, participants discussed the prevalence of email in their full time work as well, highlighting the importance and pervasive nature of email. Although participants found email to be highly useful, they also indicated feeling overloaded with information, which led them to delete or just filter messages into folders unopened. In either case, the information was not being read or reaching the intended audience. Also, data indicate that the perception of the message was a central determinant for participants in deciding what to do with an email. Participants explained that they were more willing to read a message that was personally addressed to them and appeared official. Sender name and subject line information were used as decision rule prompts to determine if the email had an official connotation and was worth reading. These findings provide insight leading to practical recommendations in regard to email usage.

First, findings indicate that "blast" or mass emails were often deleted. However, the organization in this study frequently sent important information via mass, impersonalized emails. One detrimental result evident in focus groups was that participants often complained about never seeing the information, which was often due to unopened email messages. Participants also shared that they were more likely to open, read, and act on, email messages that were personally addressed, particularly if they recognized the sender name. Therefore, the organizational leadership should be cautious of mass emails and be sure to personally address email correspondence, which is "important" or requires a direct response, such as an RSVP or questions. Further, the email is more likely to be read if the recipient knows the sender and even more if the sender is seen as an authority figure to the recipient.

Additionally, because emails were frequently discarded, members of this organization indicated that they relied on other available technology outlets, such as websites, to obtain information. Therefore another practical implication of this study is the need for effective use of multiple technology channels to accommodate member preferences. Participant frustration over incomplete and unprofessional web pages, links that were not operational, and old information on websites warrants attention and adjustments to reflect accurate information. While this practical implication may seem specific to the organization of study, the fact that these volunteer members come from multiple types of professional organizations has implications for organizations more broadly. Effective use of communication channels can be highly beneficial. For example, if there is a technical difficulty that prevents sending email messages, having all the information on the organizational website allows for an alternate channel to distribute information to members.

Lastly, findings indicate that the purpose of an email is important. The purpose of the email should be stated clearly and in the subject line to increase the likelihood that members will open and read the message. Participants frequently explained that they only scan the subject line in order to determine the action to take (open, discard, or file). Further, if an email requires action, it is an important detail to state in the subject line. For example, an effective message line might state: "Mid-Year Reports Action Needed 3/1/13". A clear message in the subject line increases the chances of an email being read and acted upon.

Social Networking

Social Networking emerged throughout the data as a hot topic of conversation among organizational members. Participants questioned and discussed if they should adopt Facebook, LinkedIn, Twitter and more. Data suggest that the perception of the channel in terms of private/personal or public/professional is important in terms of use and readership. Participants in this study predominantly indicated that Facebook is perceived as a personal site reserved for friends and family, not for work or organizations. However, the organization was interested in expanding its social media presence and participants were not against this expansion. Two practical implications came out of these findings.

First, the research reveals a divide between LinkedIn and Facebook. LinkedIn has different professional and official connotations. Participants explained that LinkedIn is appropriate for job searching, discussing professional topics, and communicating with colleagues and superiors. Participants expressed that they would go to LinkedIn for information and would trust the information they found there because they perceived the technology to be more official and professional. On the other hand, Facebook was described as a tool that was used to share personal photos and messages with friends and family; participants viewed Facebook as a

personal tool, not a professional tool. Data indicate that LinkedIn was preferred heavily over Facebook in relation to organizational activity and information seeking. Therefore, the focus of the organization in using social media should be to concentrate on using technology which best fits the organizational function for enhancing professional identity and portrays the most professional and official connotation. In this case, LinkedIn is perceived as offering the most professional and appropriate technological channel and should be used by the organization. As the organization chooses to expand its reach in the social networking sites, the professional perception should be of first priority.

The current findings in this study indicate a positive professional perception of LinkedIn; however some participants acknowledged that social media and other technology based platforms are constantly changing and advancing. Therefore, this organization should be aware that appropriateness is a critical factor in evaluating social media use in the future. Careful consideration of the specific characteristics and targeted audience of the social media site is critical in technology selection. An organization can do some preliminary research to see the current user statistics and the purpose of the site before implementation. Different sites have various purposes and adding an additional site could help reach a wider audience or expand its purpose. However, if organizations do choose to use multiple channels they need to be careful about the content. Findings indicate that participants are overloaded with information; they do not need one more thing to check. Having designated channels for specific information would not be helpful because it would add to the information overload. Therefore, content needs to be consistent across channels. People can then choose which channel they would like to retrieve the organization's information from.

Technology Etiquette

This study found that not only is there a range in technology acceptance, but there is also a range in technology etiquette. Although findings indicate a general agreement that multitasking via technology was inappropriate during meetings, all participants did not adhere to the behaviors they felt were appropriate, often acknowledging their own violations. For some individuals, technology to multitask during meetings and presentations was viewed as necessary in order to be able to participate in volunteer activity. Although these participants explained that multitasking was inappropriate and distracting, their job demands won their attention. Others refrained from multitasking using technology and were quite bothered by those who chose not to refrain. These varying behaviors of technology etiquette caused some tension within the group and had an impact on the communication between the members. While the members agree with the inappropriateness of multitasking in meetings, behavior did not always follow. The ability to work was also hindered by members noting a lack of focus and resulting in longer or inadequate discussion in meetings. Lastly, technology adoption was inhibited for some members based on their perceptions of the inappropriate use of technology.

One way to address member discrepancies both in perceptions of appropriateness and in variations of technology use would be to explicitly state technology etiquette policies. Technology etiquette policies should be different from organization to organization based on the culture and needs of the organization. An organization that operates around tight deadlines might need a more rigid policy, where a more social organization may thrive with a less rigid policy. A uniformed, communicated set of technology guidelines for meetings, conferences, and other organizational activities would be beneficial in reducing misunderstandings between members.

Volunteer Implications

Volunteering is an extra activity that individuals do in addition to their job and personal responsibilities. Volunteering can hold benefits for individuals. For example, in the case of this organization, volunteering brings together a wide range of people with various personality, professional, and cultural backgrounds from an international community. Many volunteer organizations have become dependent on CMC in order to allow for communication among geographically dispersed members. CMC enables volunteer organizations to connect via email, conference calls, video calls, and more (Santra & Giri, 2009). While a work organization has the ability to require employees to use a technology, volunteer organizations do not have the same authority to direct behavior. Mandating certain technologies is tricky in volunteer situations where members can freely disengage at any time, bringing a unique challenge to technology acceptance in volunteer organizations.

First, the findings indicate that volunteers are overloaded. Although specific to this organization, the findings are likely applicable to other volunteer organizations. Many participants explained how they were juggling a full time job with a full time volunteer role and other personal obligations. Because volunteers had multiple demands, they also perceived difficulty in managing technology because of information overload. This overload contributed to volunteer resistance to accepting new technology.

Second, the findings indicate that volunteers come from a variety of backgrounds and jobs, where experience with technology varied greatly. Some participant workplaces offered access to technologies while other workplaces did not offer the same technologies. Experience variation has led to heavy dependence on email because it is one of the few technologies that is compatible and supported worldwide. These are two very important findings to realize when

trying to get the organizational members to use a new technology, which leads to the next practical implication.

Support and training should be a priority when implementing a new technology. Organizations should provide comprehensive training for any level of experience and it should be easy to access in a variety of formats. Video tutorials, help documentation, and a help desk that people could email or call are just a few resources that should accompany new technology implementation. Organizations cannot assume that there is equal base knowledge, particularly when members come from very different backgrounds. Therefore, training and support is needed.

Age

In this study participants used age as a common excuse to explain a lack of technology adoption. However, when pressed further, data revealed more of a generational misconception than a generational divide. While age might play a small role in technology acceptance, it is not the main reason organizational members accept or reject a technology. Previous research supports this finding showing that age and gender act more as moderating variables which change the strength of the relationship. Age and gender do not create the relationship (Venkatesh et al., 2003). Data indicate that a person's perception of technology as useful and easy to use improves technology adoption, while age and gender only strengthen or weaken that relationship.

While this finding does not expand the model, it gives greater understanding to why people do not accept new technology. Individuals communicatively construct social perceptions of access and ability in terms of technology. This idea is supported by the theory of sensemaking; the process of creating meaning through communication for experiences (Weick, 1995). How people talk about technology creates and sustains a perception. Demographic

misperceptions based on a generational divide are perpetuated through communication, but are not always accurate. Organizations would be well served to bridge the understanding of the role of communication in creating meaning and to provide training to remove this perceived divide. An organization can help their members become aware of this perception, by increasing individuals' confidence with technology usage through greater training and support and by demonstrating how a technology improves task accomplishment.

This study provided many practical implications for technology acceptance in regards to email communication, social networking, technology etiquette, volunteer implications, and age. The following section explains the limitations and future directions of the study.

Limitations & Future Directions

As technological developments are not slowing down, research in the area of technology acceptance will continue to be important. While this study provides many theoretical and practical implications, it is important to note the limitations of this research endeavor and suggest future directions.

First, both a strength and a weakness of this study is the research structure. The focus groups and interview questions were not created to ask specifically about technology acceptance. Participant's open and emergent responses validated existing research and allowed for new themes to emerge in the data set. However, in order to allow for open responses, some questions were not asked that may have provided more targeted information on technology acceptance. One future direction of this study would be to have questions more specifically oriented to technology acceptance, which would allow for confirmation of the data that emerged in this study.

Second, despite collecting a substantial data set for a qualitative study, the participants in this study only represented a small portion of the organizational membership. With over 29,000 members, it is difficult to obtain a large representative sample of the whole organization by conducting interviews and focus groups. Although the study included over 80 participants, the participants tended to be the more involved members of the organization, male, and over the age of 40. Therefore, a future research should also consider smaller volunteer organizations allowing for a more accurate sample or an increased sample size and diversity of large organizations.

Finally, the organization that was used in this study represents a technical field. The participants all had undergraduate degrees and a majority had advanced graduate degrees in a highly technical field. The participant's professional technical training and education levels may have had an influence on member technology acceptance. For instance, some participants worked for large companies that required use of certain technologies. This technology use requirement increased their knowledge of technology use, making them more comfortable with technology. Therefore, technology acceptance research could be extended by also examining nontechnical volunteer organizations.

Chapter 6 - Conclusion

As technology continues to advance and change how people communicate and conduct business, technology acceptance will remain an important topic of study. If helpful technology is created, but is not adopted it becomes useless. However, implementing new technology has been a challenge for many businesses and organizations. This challenge has spurred research in the area of technology acceptance. The technology acceptance model (Davis, 1989) is the predominant theory used to explain technology use. Although many researchers have copied, expanded, and altered the TAM model through quantitative study making it robust, this study furtherd the model by using qualitative methods to add to the existing knowledge of technology acceptance in a volunteer organization. This study analyzed why organizational members accept or reject new technology and how organizational membership affects technology acceptance.

Using the third iteration of the model (TAM 3) as its guide, the study sought to confirm and expand the model. The data confirm that perceived usefulness and perceived ease of use are determinants of technology acceptance, as well as the influencing factors of each determinant (subjective norm, image, job relevance, output quality, result demonstrability, computer self-efficacy, perceptions of external control, computer anxiety, computer playfulness, percevied enjoyment, and objective usability). Therefore, the model has been confirmed via quantitative and qualitative methods.

Importantly, the qualitative methods allowed for data to emerge, instead of only testing components already identified in past technology acceptance research. A unique perspective of technology acceptance was viewed in this study, adding to the model. In relation to why people accept or reject new technology, two findings emerged. First, data confirm that appropriateness is an influencing factor of perceived usefulness. If a person sees a new technology as appropriate

or suitable for a situation that affects the person's perception of the technology's usefulness. Second, the data confirm that information overload is an influencing factor of perceived usefulness. People have a threshold for the amount of information or technology they can handle and once they are overloaded, adding a new technology no longer seems useful. Therefore, this study expanded TAM 3 to show that appropriateness and information overload affect technology acceptance.

In relation to how organizational membership affects technology acceptance, a curious finding emerged. The data confirm that people perpetuate the stereotype that older people do not want to accept new technology nor possess the skills necessary to adopt new technology. This belief has become a subjective norm that influences computer self-efficacy and technology acceptance. Therefore, this study provides greater insight into the debate of whether age is an influencer of technology acceptance. Overall, this study offers a unique perspective to exploring how organizational members understand and adopt new technology.

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Appendix A - Original TAM

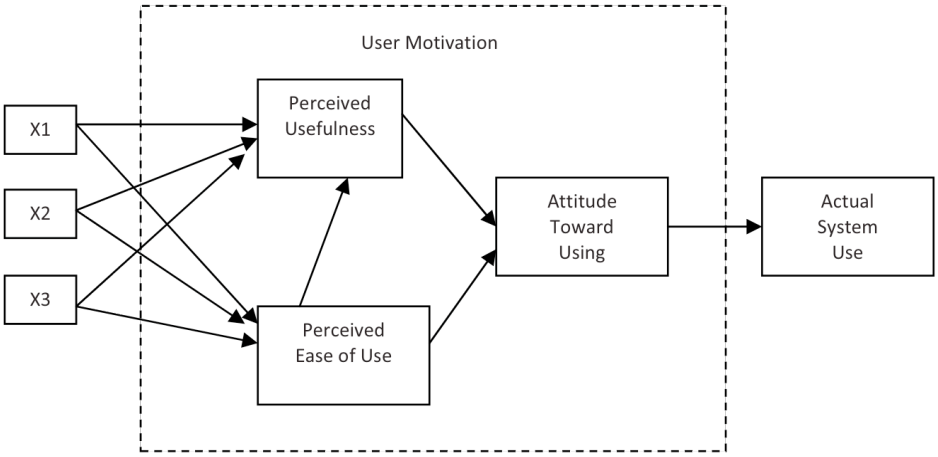

Figure A-1 Original TAM

(Chuttur, 2009)

Appendix B - Revised TAM

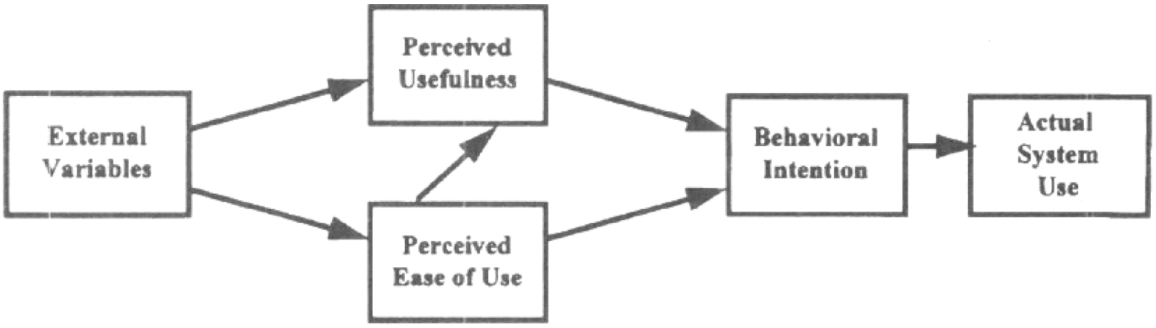

Figure B-2 Revised TAM

(Chuttur, 2009)

Appendix C - TAM 2

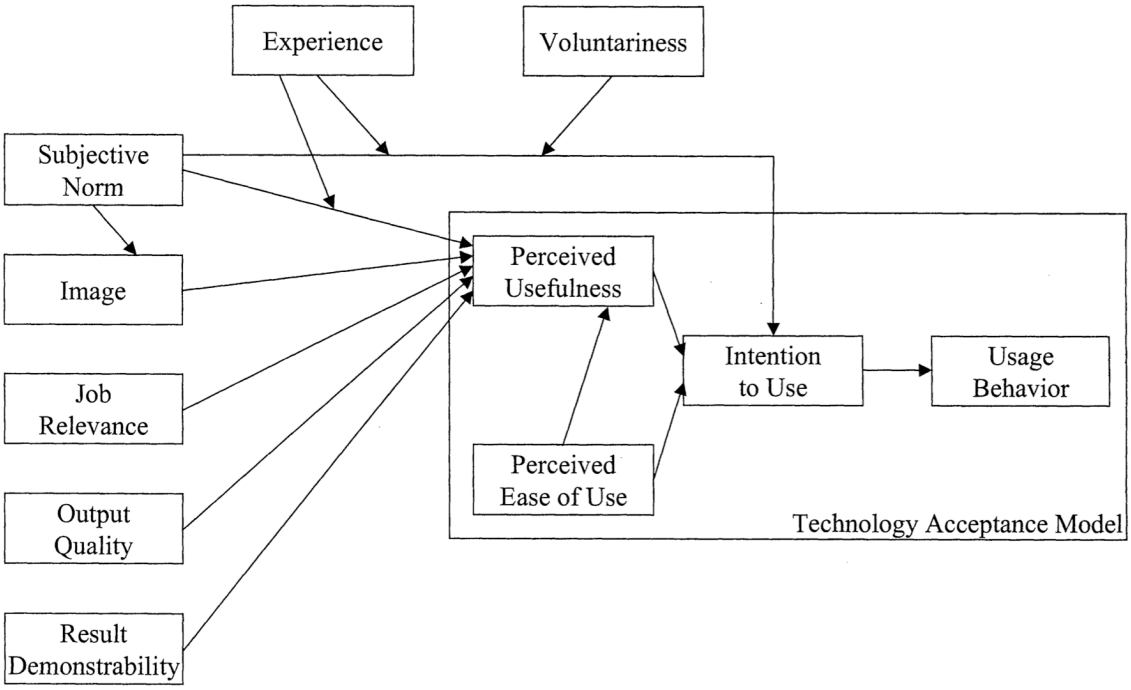

Figure C-3 TAM 2
(Venkatesh & Davis, 2000)

Component Definitions

Subjective Norm: "The degree to which an individual perceives that most people who are important to him think he should or should not use the system" (Venkatesh & Bala, 2008, p. 277).

Image: "The degree to which an individual perceives that use of an innovation will enhance his or her status in his or her social system" (Venkatesh & Bala, 2008, p. 277).

Job Relevance: "The degree to which an individual believes that the target system is applicable to his or her job" (Venkatesh & Bala, 2008, p. 277).

Output Quality: "The degree to which an individual believes that the system performs his or her job tasks well" (Venkatesh & Bala, 2008, p. 277).

Result Demonstrability: “The degree to which an individual believes that the results of using a system are tangible, observable, and communicable” (Venkatesh & Bala, 2008, p. 277).

Appendix D - TAM 3

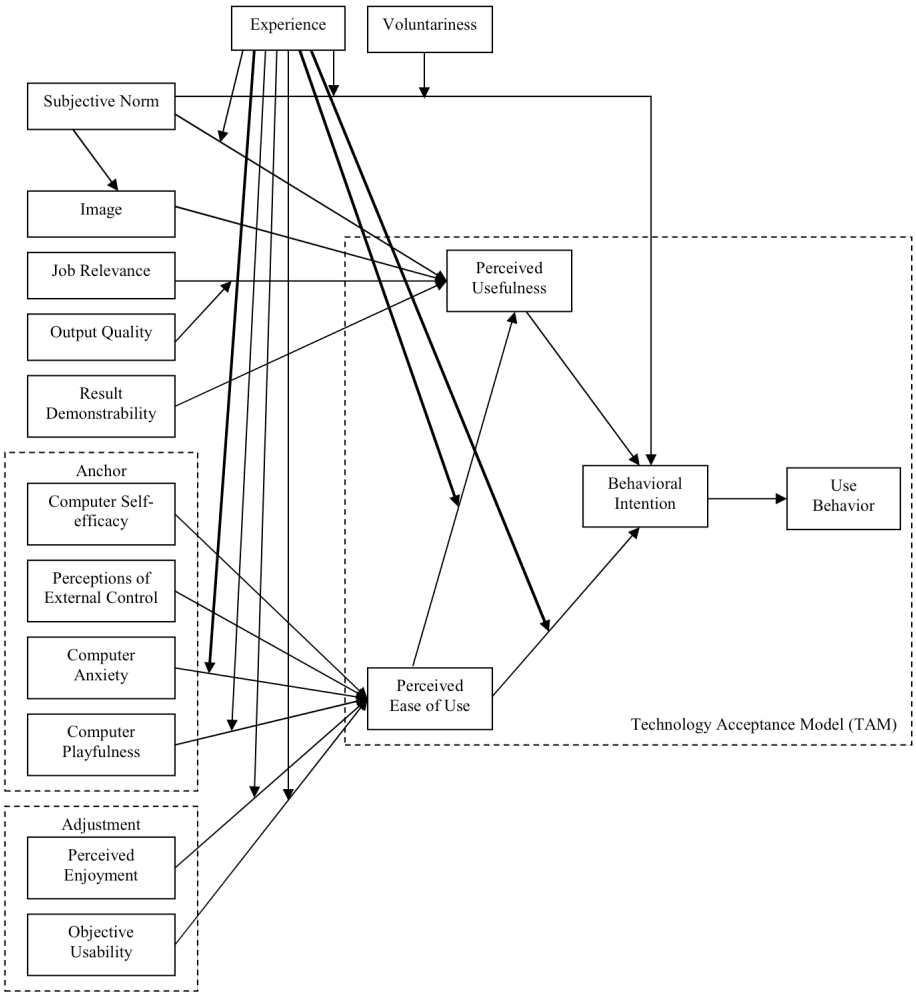

Figure D-4 TAM 3

(Venkatesh & Bala, 2008)

Component Definitions

Computer Self-efficacy: "The degree to which an individual believes that he or she has the ability to perform a specific task/job using the computer" (Venkatesh & Bala, 2008, p. 279).

Perceptions of External Control: "The degree to which an individual believes that organizational and technical resources exist to support the use of the system" (Venkatesh & Bala, 2008, p. 279).

Computer Anxiety: "The degree of an individual's apprehension, or even fear, when she/he is faced with the possibility of using computers" (Venkatesh & Bala, 2008, p. 279).

Computer Playfulness: "The degree of cognitive spontaneity in microcomputer interactions" (Venkatesh & Bala, 2008, p. 279).

Perceived Enjoyment: "The extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use" (Venkatesh & Bala, 2008, p. 279).

Objective Usability: "A comparison of systems based on the actual level (rather than perceptions) of effort required to completing specific tasks" (Venkatesh & Bala, 2008, p. 279).

Appendix E - Interview & Focus Group Questions

Questions about Organizational Practices and Procedures

1. Let's begin with a top-of-mind response to the overarching question: what's working? In your opinion, what is working well, in terms of communication in the organization?

2. What's not working? What are some areas of communication you believe could be improved in the organization?

3. I would like you to focus on specific communication tools and channels used by organization, and share your opinions about the following:

    - *Publications—(magazine, journals, e-newsletter)*
    - *Conferences—(quality of presentations, ability to communicate with peers, etc.)*
    - *Reports and Presentations—(quality, quantity of information, clarity)*
    - *Board and/or Committee Meetings—(agendas, productivity/staying on task);*
    - *Conference Calls*
    - *Web-based communication and information sharing*
        - *Website content (i.e., online calendar, e-newsletter, committee information)*
        - *LinkedIn*
        - *Twitter*
        - *On-line discussion boards*
        - *Video Conference Calls (i.e., Skype)*
    - *Email—(professionalism/subject lines/ organization of content/ use of cc's)*
    - *Phone—(facilitation of conference calls, direct conversations)*
    - *Face-to-face conversations*

4. Tell me what you think about the volume of information that is shared through the various communication channels just discussed. What is your opinion of the amount of necessary information and data you receive?

5. Overall, do you think the organization's formal communication materials (publications, reports, e-newsletters) are presented in a clear and useful manner? *(What are the main areas for improvement? What should remain as it is? Is there anything missing?)*

6. What are your perceptions about how the organization compares to other groups or other technical groups or organizations you are familiar with, in terms of communication?

7. When you think about a normal day at a conference or committee meetings, how would you describe people's interaction with each other? Do you see any behaviors or interactions that you would describe as problematic?

8. Would you like to see greater use of technology during panels and sessions at conferences (e.g., using technology to pose questions to panels in real time)?

9. If there were one thing you would change about the organization's communications if you could, what would it be?

Question for Volunteer Leadership

1. Overall, do you think the organization communications practices and procedures are serving the organization well? *(What are the main areas for change or improvement and why?)*

2. What do you think should be the highest priority for the organization's board moving forward, in terms of communication? *(What is the timeframe you would expect for changes to be made?)*

3. Do you think the board communicates effectively in working to achieve its goals to help fulfill the broader mission and vision of the organization?

4. When you think about your own personal development goals and your goals in your position in the organization, how would you describe the connection between the two?

5. How would you "grade" communication between meetings?

6. How do we leverage the energy from our face-to-face encounters in between those opportunities to be together?

7. Is there anything else you would like to share or suggest we look into as part of this communications audit?

Questions for the Organization's Staff

1. What does the regular change in volunteer leadership do to work flow or the ability to get things done?

2. What are the systems or processes that could be in place that could improve work flow even amidst changes in volunteer leadership?

3. Do you have the volunteer support that you need to do your job? Are you sometimes hindered in making progress because you don't have the volunteer input you need?

4. Please talk about the committees and staff and the communication dynamic?

5. How do you feel about collaborative decision-making where multiple people are included in the process?
    - In general, do you think the volunteer leaders value your perspective? How about members?

Appendix F - TAM 3 Additions

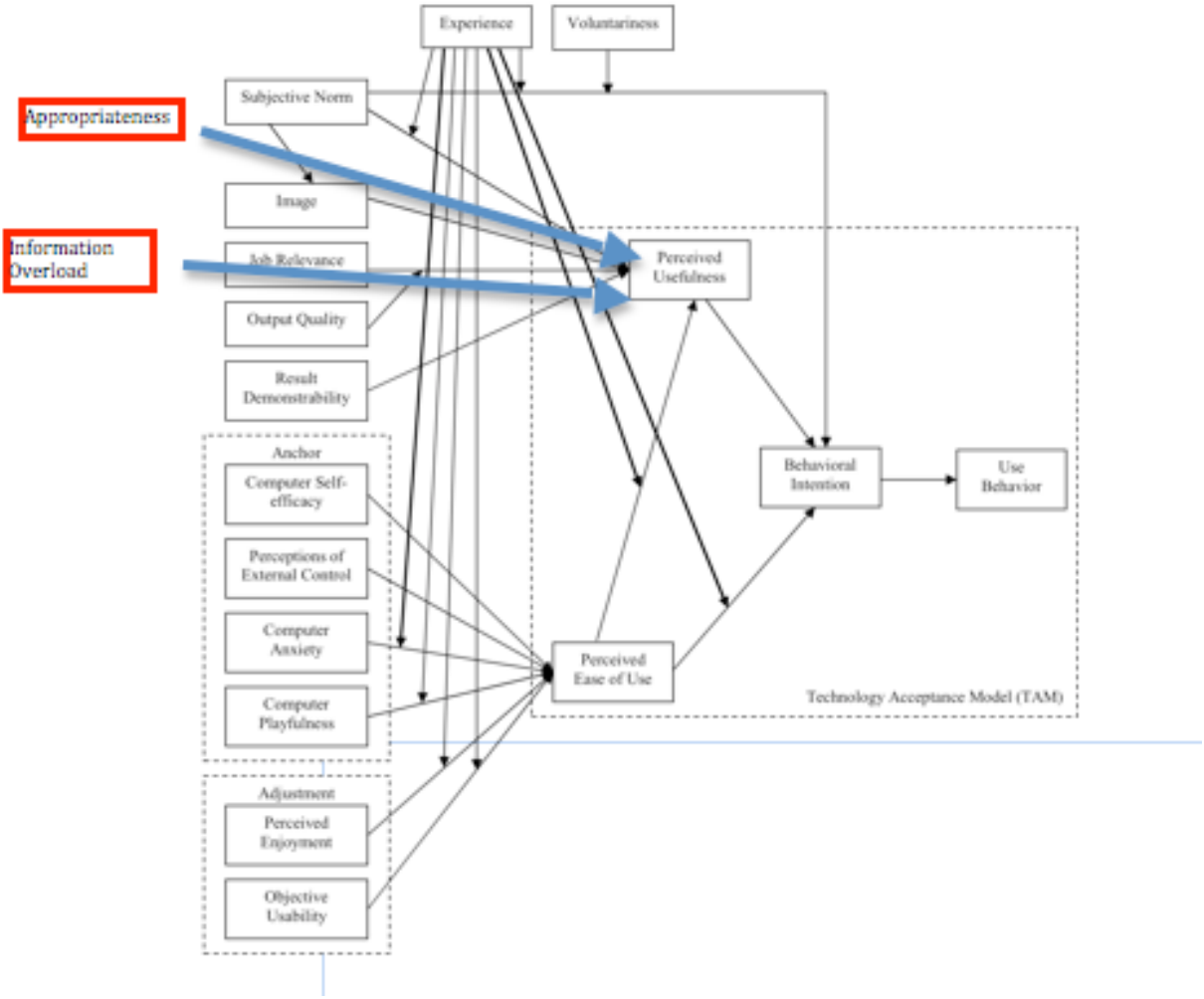

Figure F-5 TAM 3 Additions

(Venkatesh & Bala, 2008)