COLUMBIA SOUTHERN UNIVERSITY

The Effect of Email-related Obligation and Stress on Job Productivity

by

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has been approved

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Abstract

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers within a Fortune 500 aerospace defense firm. The research focused on understanding how the effect of email influences the perception of productivity and work tasks by managers within a company. Theoretical foundation for the study is the Modernization Theory of Communication. Twenty-two managers were interviewed in the study. Two themes emerged from this research: obligation and stress. The finding indicated that managers felt an obligation to reply to all incoming email messages regardless of subject, importance, or sender. This obligation extended to replying to all incoming email messages results in time-away from performing daily work tasks. In addition, the constant interruption of incoming and outgoing email messages increase managers’ stress levels. The findings of the study indicated managers feel overloaded with the number of e-mail messages received daily. Recommendations for future research include understanding how a manager’s work ethic influences productivity, and how the perceived email-related obligation and stress influences job productivity.

Keywords: Adaptation, Email overload, Email overload-triggers, Information overload, Loss productivity, Pervasive communication
Dedication

I dedicate this dissertation to the Holness-family (Roslyn, Valty, Hilary, and Madge), Linton-family (Daisy, Desmond, Jayden, and Marsha), and Mason-family (Rebertha and Vernal), who have supported and encouraged me to never stop learning.
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Chapter 1: Introduction to the Study

From 2004 to 2014, employees within many organizations have had email capability on personally owned mobile phones, personal digital assistants, blackberries, and laptops (Singleton, 2008). Email provides numerous organizational benefits, including increased information accuracy, increased colleague interaction, and creates information permanency (Jackson & Van Den Hooff, 2012). According to Smith (2013), electronic communication is the primary method of communication in most workplaces, and email surpassed telephone use as early as 2007. Smith’s work on email, illustrated that employees use email for authorized purposes, which contribute towards a productive work environment. Ninety-four percent of all online adults use e-mail, 53% of working adults in the United States have both personal and work e-mail accounts, and 37% of people with work e-mail accounts check messages constantly (Capra, Khanova, & Ramdeen, 2013).

The greater portion of online adults use email for both personal and professional purposes (Capra et al., 2013). Accessibility to email from mobile devices and home computers extends the workday and blur the line between work and personal life (McMurtry, 2014). The purpose of the study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers in an organization. The study was completed using qualitative study methodology consisting of face-to-face interviews and a focus group.

Chapter 1 includes an overview of the study. The overview includes an explanation of the research problem, a brief history, and current state of the research problem, purpose of the study, significance of the study, and the research design and
methodology for the study. The Chapter 1 summary provides a description of the remaining chapters in the dissertation.

**Background of the Study**

Historically, scholars conducted email-research with the examination of the effect of email-related obligation and stress on job productivity as perceived by managers. Bell (2000) examined effects of information overload on managers and concluded email plays a role. The research of email and the effect email has on productivity, as perceived by managers, led to the growing concern of the health and well-being of organizational managers (McMurtry, 2014). Continuous monitoring of email by managers do not increase productivity but instead affect effectiveness, concentration, and productivity (Ramsay & Renaud, 2012). The results of the study may serve as a foundation for future research, as well as for gaining perspectives of the effect of email-related obligation and stress on job productivity as perceived by managers.

**Information Overload.** Information overload cost the U.S. economy $997 billion in 2010 (Robinson, 2014). A major area of unstructured information delivery in Information Technology is email (McKeen & Smith, 2013). The volume of information exchanged in the workplace during a live communication is vast and underestimated (Powell, 2012). The barrages of messages from outside corporate boundaries in combination with personal use of corporate email are presenting information technology managers with the issue of unwanted information (McKeen & Smith, 2013). Email overload in the workplace impact productivity and threatens to take over the work day (Powell, 2012).
Over reliance on email and poorly constructed email within organizations is endemic and a cultural shift is required for improvement (Powell, 2012). Employees sending unnecessarily poorly constructed and improperly email messages add to the collective workday (Smith, 2013). Email communication received in the form of spam rapidly fills an employee’s inbox (Chunta, 2013). Email overload triggers, such as spam, is a major problem in the workplace and is partially attributed to the rise of mobile-email use (Jackson & Van Den Hooff, 2012).

**Email Use.** Employees using email for authorized purposes, contribute towards a productive work environment (Smith, 2013). Organizations provide a list of permissible and unacceptable personal email uses to employees for clarification (Ahmed, 2008). Managers are confused and stressed about how to deal with employees sending poorly constructed and improperly composed emails (Beach, 2007). The average business-person sends and receives approximately 109 emails per day and the rate is growing each year by 7 percent (Robinson, 2014). Marshall, Cardon, Goings, and Humphries (2009) stated mass email messages contribute towards lost time in the workplace. Organizational employees who use email often complain about feeling overwhelmed by the large volume of messages received (Marshall et al., 2009).

**Problem Statement**

The problem is a lack of knowledge regarding the effect of email-related obligation and stress on job productivity within organizations (McMurtry, 2014). The problem of email overload in the workplace, the feeling of being overwhelmed by the constant flow of messages appearing in managers’ inbox, and the inability to manage high volume of messages efficiently, can affect productivity. Further qualitative studies
enrich the body of knowledge surrounding email overload and the productivity effect (McMurtry, 2014). The population affected by this problem are managers at a Fortune 500 aerospace defense consulting firm who utilize email to conduct daily work tasks.

Managers receiving a large volume of email messages complain about feeling overwhelmed (Marshall et al., 2009). A concern of information overload is apparent concerning email and the direct link to information overload on managers. In spite of the practical attention to the topic of information overload, a diminutive amount of empirical research is conducted relating information overload to email use (Jackson & Van Den Hooff, 2012). The broader population affected by the problem are managers from small, medium, and large organizations utilizing email to conduct daily work tasks. The lack of research on information overload still exists, even though a significant number of people with work e-mail accounts check email constantly (Capra et al., 2013).

Jackson and Van Den Hooff (2012) indicated factors contributing to information overload and the number of email messages sent and received lead to employee fatigue and loss productivity. Bell (2000), in a mixed methods study, indicated the need for research study on the effect of email-related obligation and stress on job productivity as perceived by managers within an organization. An example of managers experiencing information overload stems from inappropriate use of the courtesy copy function within email messages.

The research of email and productivity effect within organizations influenced the growing concern of the health and well-being of organizational managers (McMurtry, 2014). According to Ramsay & Renaud (2012), continuous monitoring of email by managers does not increase productivity but instead affects effectiveness, concentration,
and productivity. The study contributes to solving the problem by adding knowledge (i.e. email use, information overload, business communication systems, and impact of information technology) to the worldwide body of literature.

**Purpose of the Study**

The purpose of the qualitative descriptive study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers. The goal is to increase the understanding of how an organization’s managers obligation and stress is perceived based on responding to 10 or more email messages on a daily basis. The population for the study was chosen from employees at a Fortune 500 aerospace defense consulting firm. Twenty-two (22) managers were interviewed in this research.

Because technology is prevalent in today’s society, its use develops into a process of interaction among the technology, the users, and the institutional context (Jackson & Van Den Hooff, 2012). While new technologies such as email are used as a support system for managers, the information overload adds more pressure. Email overload is associated with stress due to the challenge of managing high quantity of messages (McMurtry, 2014). Stress is very useful in situations presenting physical danger, but modern-day threats are more likely to be psychological or emotional: deadlines, overload, interpersonal conflict, or needing to solve complex problems (Popovic, 2013).

Employees within organizations have email capability on personally owned mobile phones, personal digital assistants, and laptops (Singleton, 2008). The negative impact on work productivity caused by email overload threatens to take over the workday (Powell, 2012). A manager’s inability to organize email inbox messages based on priority contributes to email overload (McMurtry, 2014). Due to the lack of current, related
research in the State of Texas about the effect of email-related obligation and stress on job productivity as perceived by managers, the study adds knowledge to the world wide body of literature. The phenomenon of the study is to understand the effect of email-related obligation and stress on job productivity as perceived by managers.

**Research Question**

Managers using email reap the benefits, including the ability to create timely information, increase information accuracy, create information permanency, and increase colleague interaction (Jackson & Van Den Hooff, 2012). Information overload relates to the complaint most often heard in relation to e-mail in practice: people just receive too many e-mails (Jackson & Van Den Hooff, 2012). For the purpose of the study, the phenomenon is to understand the effect of email-related obligation and stress on job productivity as perceived by managers. One research questions guided this study:

How does email influence productivity as perceived by managers in an organization?

The research question was designed to assess the study’s problem statement. Email is a core communication tool for the majority of organizational users (Judd, 2010). Numerous organizational benefits are identified using email, including increased information accuracy, increased colleague interaction, and creating information permanency (Jackson & Van Den Hooff, 2012). Based on the research question, the phenomenon of the study is to understand the effect of email-related obligation and stress on job productivity as perceived by managers.
Advancing Scientific Knowledge

Bell (2000) conducted research pertaining to managers and the role of email contributing to information overload. The work environment continues to change because in modern organizations, information and data are rapidly increasing yearly (Sarka, 2014). Email over time became a tool providing organizational users with time-saving capabilities, efficiency, and reliability (Bakker & Derks, 2010). Managers gaining insight will be beneficial to learning about the effect of email-related obligation and stress on job productivity.

From 2005 to 2015, no research studies were found that focused on the effect of email-related obligation and stress on job productivity as perceived by managers in the State of Texas. A current need exist to address the effect of email-related obligation and stress on job productivity as perceived by managers because of a larger problem regarding the hidden impact on work productivity (Smith, 2013). The study fits within related studies, such as Bell (2000), which focused on managers and the role of email contributing to information overload. The results of the research findings may add to the current body of knowledge (i.e. email use, information overload, business communication systems), and impact of information technology.

Modernization theory of communication (Inagaki, 2007), is the theoretical foundation for the study. Organizations increasingly are leveraging a combination of technical solutions to enhance worksite communications. In doing so, leveraging allow managers to perform assigned duties at any moment or location (Barbour, 2014). Determining the effect of email-related obligation and stress on job productivity as
perceived by managers provides supplementary information for the theoretical foundation.

**Significance of the Study**

A gap in the literature exists regarding the effect of email-related obligation and stress on job productivity as perceived by managers. Bell (2000) contributed to the body of knowledge pertaining to managers and the role of email contributing to information overload by shedding light on the way email messages are handled in modern organizations. Bell (2000) stated information overload is perceived as a reality among managers and a policy on email use is warranted to guide managers in writing email messages. When managers write large email messages, this increases the read-and-response time. Due to the lack of related research on participants living in the State of Texas, this study will add to the existing literature. Organizations utilizing email to conduct day-to-day work functions will benefit from the literature by learning how managers respond to large numbers of email messages on a daily basis and information overload resulting from excessive email. In an organization, the importance of having managers’ accustomed to organizational structure is paramount (Jackson & Van Den Hooff, 2012). The use of technology, such as email, evolved into a process of interaction between the institutional technology, the users, and the institutional context (Jackson & Van Den Hooff, 2012). Due to a problem in the business world regarding the hidden impact on work productivity caused by email (Smith, 2013), the study adds knowledge to the worldwide body of literature; hence the significance of the study.

The disruptions caused by email and other incoming data cost large organizations billions of dollars annually in lower productivity and hamper innovation. An example of
disruption is in the form of emails arriving when managers are working on organizational tasks, i.e. projects (Brandel, 2008). Email is not a new communication medium, although wireless email systems facilitated by smartphones enable organizational users to engage in emails in new ways (Bakker & Derks, 2010). Email overload in the workplace negatively impact productivity. The quantity of information produced today is unprecedented (Powell, 2012).

**Rationale for Methodology**

The examination of research methods led to selection of the qualitative method to understand the effect of email-related obligation and stress on job productivity as perceived by managers. A qualitative research method was chosen for the study, as opposed to a quantitative method, because qualitative researchers use numerous forms of data in any single study (Leedy & Ormrod, 2010). Qualitative and quantitative researchers utilize different methods and have different goals. At the level of methods, quantitative researchers criticize qualitative researchers for not performing null hypothesis significance tests (Trafimow, 2014). Hogan, Dolan, and Donnelly (2011) indicated the qualitative approach to research adopts a multifaceted approach, which examines culture, behavior, and society. One of the main features of quantitative approaches is the encompassing generation of numeric measures for effective and simple comparison, selection, and ranking. While quantitative methods provide an important toolset for project proposal evaluation and selection, a growing sense of frustration among managers of complex and technologically advanced undertakings (Thamhain, 2014).
The qualitative methodological framework for the study is the best approach to addressing the problem statement and answering the research question because qualitative research achieves an in-depth understanding of a situation (Cooper & Schindler, 2011). Qualitative research is based on the epistemological assumption social phenomena and are interwoven and complex, and cannot be reduced to isolated variables (Yilmaz, 2013). The reliance solely on quantitative methods does not always produce the most useful reliable inputs for decision-making (Thamhain, 2014). Qualitative researchers mainly do not perform tests of statistical significance while quantitative researchers often do. Quantitative researchers argue, findings presented by qualitative researchers are based on chance and is without significance tests; a current means does not exist to eliminate the null hypothesis regarding no actual effect (Trafimow, 2014). The phenomenon of the study is the effect of email-related obligation and stress on job productivity as perceived by managers.

**Nature of the Research Design for the Study**

The research design selected to answer the research question was a qualitative study intended to understand the effect of email-related obligation and stress on job productivity as perceived by managers (Creswell, 2008). Studies are bound by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time (Creswell, 2008). The data collected from interviews and the focus group was reviewed and analyzed using ATLAS.ti 7 for Windows. ATLAS.ti7 is a qualitative data analysis software tool.

The qualitative research design is the best possible choice because the research data gathered will be crucial for answering the research question. Qualitative researchers
are known to use numerous forms of data in any single study (Leedy & Ormrod, 2010). Quantitative and qualitative research designs differ in terms of epistemological, theoretical and methodological underpinnings. According to Yilmaz (2013), “quantitative research is informed by objectivist epistemology and thus seeks to develop explanatory universal laws in social behaviors by statistically measuring what it assumes to be a static reality” (p. 312).

Researchers tend to use different approaches such as interviews, objects, observations, electronic data, audiovisual materials, or written documents as part of the data collection methods (Leedy & Ormrod, 2010). In contrast, the qualitative approach to research adopts a multifaceted approach, which examines culture, behavior, and society (Hogan et al., 2011). The results of the study on approaches to qualitative research led to new means of conducting qualitative research, such as utilizing emails, text messages, instant messages, twitter, online chats, and online blogs and forums.

Definition of Terms

The list includes defined terms to ensure an understanding of the primary concepts in the study.

Adaptation. The end-result of managers adjusting to email use within an organization as the preferred communication tool versus face-to-face communication. The immediate consequence is a managers’ inbox becoming inundated with email messages (Ramsay & Renaud, 2012).

Email overload. The feeling of being overwhelmed by the constant flow of messages appearing in the inbox and the inability to manage the high volume of messages effectively (McMurtry, 2014).
Email overload-triggers. Email communication received in the form of spam and is capable of rapidly overloading an inbox (Chunta, 2013).

Information overload. The condition where email information received by managers is exceeded by the manager’s information processing capability (Jackson & Van Den Hooff, 2012).

Loss productivity. The monitoring of email by managers leading to detrimental effects on concentration, productivity, and effectiveness (Ramsay & Renaud, 2012).

Pervasive communication. Utilizing email as a mechanism for both work and personal settings. The mechanism allow users to make frequent and subtle decisions about keeping/archiving, deletion, and filing, and distinctions between work and personal communication (Capra et al., 2013).

Assumptions, Limitations, Delimitations

Assumptions. The assumptions must be valid or else the research is meaningless (Leedy & Ormrod, 2010). The following assumptions were present in the study:

1. Permission would not be granted to interview the entire aerospace defense consulting firm due to managers’ national security classification levels. A security clearance grants managers permission to classified information and impacts whether a manager is authorized to participate in research interviews.

2. The qualitative study approach encompasses a manager’s inability to admit unbiased experiences of information overload. Advantages to the use of email include ease of use and speed of delivery. The advantages consequently contribute to a high daily volume of messages sent and received (McMurtry, 2014).
3. Managers inherit the inability to recognize the symptoms of information overload. At a certain point, managers will exceed the capacity of dealing with large amounts of work-related information resulting into information overload (O'Callaghan, 2014).

4. Managers inherit the inability to recognize the effect of email-related obligation and stress on job productivity. One criteria for combating information overload is to reduce exposure to work-related information (Brandel, 2008).

Limitations. Research studies have limitations, and the researcher must recognize the readers need aid in judging the study’s validity (Cooper & Schindler, 2011). The following limitations were present in the study:

1. The lack of geographical diversity limited the scope of the study. One example of limited geographical diversity is the study only has one Fortune 500 aerospace defense consulting firm. The geographical diversity is affected by the firm’s organizational structure.

2. The lack of greater number of managers limited the scope of the study ($N = 81$). The limited number of employed managers is due to the firm’s internal managerial structure.

Delimitations. The problem statement contains information on what a researcher intends to do. What the researcher is not going to do is stated in the delimitations (Leedy & Ormrod, 2010). The following delimitations were present in the study:

1. The population of managers was delimited to only managers from a Fortune 500 aerospace defense consulting firm. An example is the selection of only
one firm. Non-selection of managers from similar sized firms results in obscured participant feedback.

2. The study included managers with more than one year of experience utilizing email to conduct daily work tasks. Selecting managers with less than one year of experience would have made the scope of research diluted.

Summary and Organization of the Remainder of the Study

Key factors contributing to information overload and the number of email messages sent and received lead to employee fatigue and loss productivity (Jackson & Van Den Hooff, 2012). The lack of conducted research on information overload still exists even though 94% of all online adults use e-mail and 37% of people with work e-mail accounts check email constantly (Capra et al., 2013). Employees in an organization sends and receives roughly 109 emails per day (Robinson, 2014). Modernization theory of communication (Inagaki, 2007), was the theoretical foundation for the study. A qualitative research method was chosen for the study because, according to Cooper and Schindler (2011), qualitative research aims to achieve an in-depth understanding of a situation. The research design is a qualitative study intended to understand the effect of email-related obligation and stress on job productivity as perceived by managers.

Chapter 1 included an overview of the study. The overview included an explanation of the research problem, a brief history and current state of the research problem, purpose of the study, significance of the study, and the research design and methodology for the study. The research of email and the effect email has on productivity as perceived by managers led to the growing concern of the health and well-being of managers (McMurtry, 2014). A diminutive amount of empirical research is carried out
regarding information overload and email use in spite of the attention given to
information overload (Jackson & Van Den Hooff, 2012). The examination of research
methods led to selection of the qualitative method to understand the effect of email-
related obligation and stress on job productivity as perceived by managers. The
subsequent chapters include detail about the study. Chapter 2 includes the review of
current research on communication through email and information overload. Chapter 3
includes a description of the research methodology, research design, and data collection
procedures.
Chapter 2: Literature Review

Introduction to the Chapter and Background to the Problem

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers at a Fortune 500 company. The current chapter includes the theoretical foundation and the review of literature for the study. The theoretical section includes an introduction of the modernization theory of communication (Inagaki, 2007), and an understanding of how the effect of email-related obligation and stress on job productivity as perceived by managers relates to the theory. The literature review section includes an overview of the existing literature related to the research topic. The research topics relevant to the study are email use, information overload, business communication systems, and impact of information technology.

The literature review begins with an examination of email use. The literature review concludes with an examination of the impact of information technology as it relates to managers workload. Chapter 2 is organized with sections: Email Use, Information Overload, Business Communication Systems, and Impact of Information Technology. Chapter 2 is also organized with subsections: Communication through Email, Lost Productivity Associated with Email Communication, Email Security, Email Management, Managers Communicating through Email, Communication with Software Tools, Information Overload with Email, Managing Work Related Email, Adverse Effects of Email Use, Organizational Communication, Communicating through Cloud Computing, Organizations Dependency on Information Technology, and Implementing Information Technology.
The review of literature began with the research topics, email use, information overload, business communication systems, and impact of information technology to conduct a preliminary examination of the existing literature. A prolonged examination of email use and impact of information technology literature occurred using the key words: email use, communication tools, email, electronic mail, organizational communication, and email policies. A prolonged examination of business communication systems and information-overload literature occurred using the key words: email overload, excessive email, technology, business systems, and information overload. Access to the Columbia Southern University online library and the following electronic databases enabled the search: ABI/Inform Complete, Academic OneFile, Academic Search Complete, Business Source Complete, General OneFile, ProQuest Dissertations & Theses Volume A: The Humanities and Social Science Full Text, and ebrary.

Historically, scholars conducted email-research examining the effect of email-related obligation and stress on job productivity as perceived by managers. Bell (2000) conducted prior research utilizing a qualitative and quantitative approach to understand effects of information overload caused by email. Research conducted on the effect of email-related obligation and stress on job productivity as perceived by managers led to the growing concern of the health and well-being of managers (McMurtry, 2014). Continuous monitoring of email by organizational users do not increase productivity but instead affecting effectiveness, concentration, and productivity (Ramsay & Renaud, 2012). The result of the study may serve as a foundation for future research, as well as for gaining perspectives of the effect of email-related obligation and stress on job productivity as perceived by managers.
Theoretical Foundations

**Modernization theory of communication.** Modernization theory of communication (Inagaki, 2007), is the theoretical foundation for the study because the theory directly aligns with the research topic: the effect of email-related obligation and stress on job productivity as perceived by managers. The modernization paradigm is premised upon vertical, one-way transmission of messages that are intended to trigger attitudinal and behavioral changes (Inagaki, 2007). While the process of communication may be common to managers, the complexity of communication for managers’ presents a challenge to perform effectively; telecommunication based services such as email are considered to be interactive and asynchronous (Chopra & Pradhan, 2008). The phenomena being investigated is the effect of email-related obligation and stress on job productivity as perceived by managers. The study’s problem under investigation relates to the modernization theory in terms of communication. Managers utilize email as a communication mechanism established originally to replace traditional paper-based systems (Ramsay & Renaud, 2012). Communication theory depicts communication as the transfer of information from one person to another person (Chopra & Pradhan, 2008). Examining the effect of email-related obligation and stress on job productivity as perceived by managers provides additional information for the modernization theory foundation.

Inagaki (2007) related the modernization theory of communication as a foundation for the effect of email-related obligation and stress on job productivity because managers experience information overload when excessive amount of information received exceeds a manager’s personal processing capacity (Ji, Ha, &
Sypher, 2014). Theoretical considerations on information overload by Ji et al. (2014) suggested a person could only digest certain amount of email information at any moment. Powell (2012) indicated email overload in the workplace negatively impact productivity and threatens to diminish productivity during a workday. People make poor decisions when presented with increased amount of information (Ji et al., 2014). As the level of information increases, a manager’s capacity to process and retain information decreases (Goldsborough, 2009). When dealing with information overload, people become more selective and efficient in searching for email information (Ji et al., 2014). Email is one of the main causes of information overload in managers affecting effectiveness and efficiency (Kristjansson, Mikalef, Versendaal, & Ravesteyn, 2009). The quantity of email information produced today is unprecedented (Goldsborough, 2009). Professional users of email receive between 100 and 200 email messages a day resulting in information overload (Kristjansson et al., 2009).

**Review of the Literature**

**Email use.** The review of literature begins with an examination of email use performed by managers. The phenomena depicted in the study is the effect of email-related obligation and stress on job productivity, as perceived by managers. Prior research on the phenomena was conducted by Bell (2000). Bell (2000) indicated email became a popular means of communication within organizations and a potential limitation is information overload in managers caused by excessive email. Email originated solely as a tool to communicate over long distances, but over time became a tool providing organizational users with reliability, efficiency, and time-saving capabilities (Bakker & Derks, 2010). Email is a core communication tool for the majority of organizational users
Email offers benefits within organizations when used as an alternative to traditional meetings. Benefits include the potential to reach people and enhance relationships (Riquelme, Solera-Ruiz, & Poblacion-Garcia, 2014).

Email emerged from the United States Advanced Research Projects Agency Network (US ARPANET), and quickly displayed the potential to speed up communication between individuals and organizations (Ramsay & Renaud, 2012). From 2005 to 2010, email messages (both sent and received) have increased significantly in number (Leedy & Ormrod, 2010). On average, employees send or receive about 50 e-mail messages per day, which is an equivalent of more than 1,200,000 messages a year for an organization of 100 employees (Sipior & Ward, 2009). Email supports formal and informal communication equally between organizational users.

Forty four percent (44%) of American adults send or read email on a daily basis (Judd, 2010). Email is not a new communication medium, but the wireless email systems facilitated by smartphones enable organizational users to engage in emails in new ways (Bakker & Derks, 2010). Employees who use email for authorized purposes contribute towards a productive work environment (Smith, 2013). Providing a list of permissible and unacceptable personal uses will be helpful to employees (Ahmed, 2008).

Communication tools in the workplace impact employees’ productivity levels both negatively and positively. Email is a communication mechanism established originally to replace traditional paper-based systems (Ramsay & Renaud, 2012).

Historically, managers are confused and stressed about how to deal with employees and uncovered a greater need exists for managers to know day-to-day people problems as opposed to only policy (Beach, 2007). The average employee sends and
receives approximately 109 emails throughout the workday (Robinson, 2014). Mass email messages contribute towards loss time in the workplace (Marshall et al., 2009). Email users often complain about feeling overwhelmed by the large volume of messages received (Marshall et al., 2009). The review of literature continues with an examination of communication through email.

**Communication through email.** Employee use of communication technology is more strongly influenced by organizational culture versus technology design or managers’ intentions in implementing the technology (Bakker & Derks, 2010). Managers coordinate work tasks and use organization sources efficiently and effectively to reach objectives and goals (Binjaku, Luarasi, & Binjaku, 2013). In an organization, the importance of having managers’ accustomed to organizational structure is paramount. To improve communications within organizations, managers should be aware email overload is associated with stress due to the challenge of managing high quantity of messages (McMurtry, 2014).

The use of technology, such as email, matured into a process of interaction between the technologies itself, the user, and the institutional context. Applying a structurationist perspective, a stance was taken by organizations on process-of-adaptation where users of email adapt to the medium of individual needs. From a management perspective, a theoretical model was created identifying the correlation between personalization of email and negative email effects (Jackson & Van Den Hooff, 2012). In theory, determining the way in which managers personalize emails can influence the degree that the effects emerge. Email is a pervasive communication mechanism in both work and personal settings requiring users to make frequent and
subtle decisions about keeping/archiving, deletion, and filing, and distinctions between work and personal communication (Capra et al., 2013).

The accessibility to email from mobile devices and home computers blur the line between work and personal life and thus extend the workday (McMurtry, 2014). Technologies do not have deterministic effects on organizations, but can be regarded as a facilitating or contributing factor to certain outcomes in complex interactions (Jackson & Van Den Hooff, 2012). Managers are faced with the dilemma of choosing between multiple tools to communicate and conduct work tasks within organizations.

The Orlikowski Structurational Model of Technology (Jackson & Van Den Hooff, 2012), and the Adaptive Structuration Theory (Jackson & Van Den Hooff, 2012), focus on resources and the process of appropriation of rules embedded in a technology. As a result, the process creates specific uses of the technology (Jackson & Van Den Hooff, 2012). Adaptation, used by Orlikowski, describes the way in which users amend a technology to suit specified needs (Jackson & Van Den Hooff, 2012). In 2012, U.S. corporate emails received and sent in a day reached 89 million, and are expected to increase to 143 million by 2016 (Chunta, 2013). New technology causes the regularity of work-tasks for managers to accelerate even more (Moreno, 2010). Usage for mobile email increased where organizations have integrated mobile technology (Chunta, 2013).

The amount of work-related information managers have to negotiate daily is overwhelming (O'Callaghan, 2014). Email as an information technology plays an important role in communication. One example of the role information technology plays is the way information is sent via email. An information technology department can transfer data to subfolders within an organization because of the scalability of email.
(Chunta, 2013). Email is a main area of unstructured information delivery in information technology (McKeen & Smith, 2012). Information technology managers are faced with unwanted information due to the barrages of email messages from outside corporate boundaries and employee corporate email use (McKeen & Smith, 2012). Workplace productivity is negatively impacted by email overload (Powell, 2012). One example of negatively affected workplace productivity comes from employees sending poorly constructed and improperly email messages. Another example of negatively affected workplace productivity comes in the form of spam. Email communication received in the form of spam can rapidly fill an employee’s inbox (Chunta, 2013). One contributing factor to email overload is the rise of mobile-email use (Jackson & Van Den Hooff, 2012). The review of literature continues with an examination of lost productivity associated with email communication.

Lost productivity associated with email communication. Smith (2013) emphasized that a problem exists in the business world due to the hidden impact on work productivity when employees, unnecessarily, send poorly constructed and improperly email messages. This action adds to the collective workday. Organizations use complex information technology capabilities at higher levels, in creative ways beyond daily mundane work functions (Hsieh, Li, & Wang, 2013). This higher-level utilization is valuable to organizations because of the potential for improved productivity (Hsieh et al., 2013).

Numerous tools are used interchangeably within organizations to accomplish work tasks, but managers are falsely convinced the tools simplify workload (Grocki, 2015). The way managers interact with each tool greatly influences the pace work tasks
are accomplished (Grocki, 2015). Organizations remain heavily reliant on basic email tools to cope with the influx of email data. Electronic communication is the primary method of communication in most workplaces and email surpassed telephone use as early as 2007 (Smith, 2013). Organizations provide smartphones to employees to raise flexibility and increase productivity and communication efficiency (Bakker & Derks, 2010). Email use by employees for authorized purposes contributes towards a productive work environment (Smith, 2013). Ninety-four percent (94%) of all online adults use e-mail, 53% of working adults in the United States have both personal and work e-mail accounts, and 37% of people with work e-mail accounts check messages constantly (Capra et al., 2013).

Managers should consider the importance of sending emails to coworkers who really need to read the email content. According to Powell (2012), managers should ensure emails are concise with relevant subject lines and context is well written for better understanding. Email management starts with an individual, but can only be truly effective if the whole organization adopts certain strategies or rules surrounding email (Powell, 2012). Organizational users monitoring email continuously are under the impression productivity is increased by doing so. The implication of continuously monitoring email leads to detrimental effects on concentration, productivity, and effectiveness (Ramsay & Renaud, 2012). The review of literature continues with an examination of email management. The review of literature continues with an examination of email security.

**Email security.** According to the 2014 edition of the Internet Security Threat Report, prepared by Symantec Corporation, 1 in 196 email messages contained malicious
software in 2013 (compared with 1 in 209 the year before), and a quarter of all email traffic includes a link to a malicious website (Pelland, 2015). Managers communicating through email must practice security measures. Email is a store and forward method of composing, sending, storing, and receiving messages over electronic communication systems (Grech & Hugo, 2008). Advantages to the use of email include ease of use and speed of delivery. The advantages consequently contribute to a significantly greater volume of messages sent and received daily (McMurtry, 2014). Emails in particular, constantly ask for attention and intrude employee work schedule (Bakker & Derks, 2010). Email overload triggers, such as spam, is a major problem in the workplace and can be partially attributed to the recent rise of mobile-email use (Jackson & Van Den Hooft, 2012). Spamming is the misuse and manipulation of electronic messaging systems in order to haphazardly send unsolicited messages (Grech & Hugo, 2008).

Email is the most common and prevalent form of computer-mediated communication within organizations. Managers accessing email from mobile devices in organizations gave the experience of email a new dimension (Bakker & Derks, 2010). The most widespread form of spam is via email, and at least 85% of worldwide email is comprised of spam (Grech & Hugo, 2008). The repercussions of spam include lost productivity for managers and the added financial cost of allocating extra storage and bandwidth capacity to organizational computer-networks in order to cope with email deluge (Grech & Hugo, 2008).

As computer-based work becomes increasingly more fluid, the benefit of e-mail is apparent. E-mail provides a convenient, flexible, low-cost method of information sharing across multiple users, and expands organizational networks and connectivity. The
benefits are coupled with concerns about the negative impact of e-mail usage on individuals’ psychological well-being (Brown, Duck, & Jimmieson, 2014). Managers utilizing email to conduct daily work tasks are faced with the consequences of feeling emotionally overextended, irritable, and fatigued (Brown et al., 2014). Employees are increasingly becoming multi media experts and seem to know quite well which medium is appropriate for email messages (Bakker & Derks, 2010). A characteristic of email is the ability to invite the sender to engage in short and shallow messages (Bakker & Derks, 2010). The review of literature continues with an examination of email management.

**Email management.** The bombardments of email messages from outside corporate boundaries in combination with personal use of corporate email presents the issue of unwanted information contributing to information overload (McKeen & Smith, 2012). Within a workplace, the volume of information exchanged during a live communication is vast and underestimated (Powell, 2012). Email is a major area of unstructured information delivery in Information Technology (McKeen & Smith, 2012). Email overload in the workplace threatens to consume the working day and negatively influence productivity (Powell, 2012). Managers will exceed, at a certain point, the capacity of dealing with large amounts of work-related information resulting into information overload (O'Callaghan, 2014).

Changes within organizations must be made in conjunction with a shift in cultural change because of an endemic email culture of poorly constructed emails, over reliance on email and the abuse of the "reply to all" function (Powell, 2012). Managers’ inclination to check email inboxes frequently due to concerns about the possibility of missing important information contributes to loss productivity (McMurtry, 2014). Email
is ubiquitous for organizational and personal communications (Pelland, 2015). Searching through large email inboxes by managers can contribute towards Email Overload. Email overload is the feeling of being overwhelmed by the constant flow of messages appearing in the inbox and the inability to manage the high volume of messages effectively (McMurtry, 2014).

Managers handling a large amount of email engendered a sense of email overload and decreased task coordination (Brown et al., 2014). One solution to combating email overload for managers is to choose specific times throughout the workday to check emails (Brandel, 2008). In a study on email stressors conducted by the Australian Psychological Society (N = 1,109), Brown et al. (2014) indicated that two distinct email stressors of workplace email, High Quality and Poor Quality, were associated both with stress appraisals (email overload and email uncertainty) and with emotional exhaustion. Those who avoid stressors tend to participate in activities such as substance abuse or possess mental states such as withdrawal to prevent directly facing the stressors (Li & Yang, 2016).

The growing concern of email, particularly revolutionary advance in human productivity, is affecting the health and well-being of organizational managers (McMurtry, 2014). Accessibility to email from mobile devices and home computers blurs the line between work and personal life and extends the workday (McMurtry, 2014). A solution is for managers to set up rules and filters through the email system and limit email messages to 140 characters or less (Brandel, 2008). Email impacting employees’ attitudes and commitment led to organizations implementing control measures for internal communication (Ramsay & Renaud, 2012). Email use within organizations is
ubiquitous because of accessibility and brevity for organizational users. One example of accessibility is managers use email exclusively instead of interacting directly with fellow employees (Ramsay & Renaud, 2012). The review of literature continues with an examination of managers communicating through email.

**Managers communicating through email.** Reliance on email became an integral part of conducting daily work tasks (Moore, 2008). Email allows for a number of organizational benefits, including the ability to create timely information, increase information accuracy, create information permanency, and increase colleague interaction (Jackson & Van Den Hooff, 2012). However, the principle of email management is cause for concern. The effect of email use more recently led to an evolution in the workplace where emails, as oppose to people, are seen to be in control (Jackson & Van Den Hooff, 2012). Among employees earning $75,000 or more annually, 65 percent admit to wasting time, looking for e-mail received compared to 47 percent of employees earning less than $35,000 per year.

Email is an effective communication vehicle for managers to send and received work-task information (Moore, 2008). According to Moore (2008), email is the cheapest and fastest way to send and receive information, including organizational documents. The drawback to the inherited benefits is a high volume of messages sent and received daily by managers (McMurtry, 2014). Email is ideal for managers communicating with colleagues working at a different organizational location. A second benefit of email is the benefit of telecommuting by managers. Telecommuting provides employees with the choice of working from an alternate work location (Moore, 2008). Navigating through a steady stream of incoming and outgoing email messages including attachments is
virtually overwhelming (Mulvihill, 2011). The review of literature continues with an examination of communication with software tools.

**Communication with software tools.** Software tools are progressively being used by organizations to augment work efficiency. Software tools such as Harmonies Social Email, geared towards giving managers a way to increase efficiency while using email is available for organizational use (Mulvihill, 2011). An inherent ability to communicate effectively inside organizations is an important skill for managers to possess (Moreno, 2010). Collaborating more efficiently and productively because of a drag, drop, and share feature enable managers to share documents without leaving personal email windows (Mulvihill, 2011). Reading and answering work email can expect take an average of 13 hours each week (Boeri, 2011). Each week, workers search 3.7 hours on average without ever uncovering work-related information first set out to find. Another 2.5 hours per week is spent asking fellow coworkers to resend email messages because of the inability to find work-related information within (Boeri, 2011).

Resending email messages to colleagues contribute to email-inbox influx. Resending duplicate email messages exacerbates the problem as found in a recent AIIM survey, which identified 50 percent of organizations use email for sending and receiving important documents. Organizations that are overwhelmed by email volume has a policy for deleting email after 3 months (Boeri, 2011). Beyond declining etiquette in email, the mass volume of incoming and outgoing email is an aspect managers should contemplate in advance (Boeri, 2011). One solution is to elect a precise time during the workday to check emails and develop mental discipline to curtail checking work email frequently (Brandel, 2008). Forty-three percent of managers find the utilization of smart phones
stressful due to the constant pressure of checking email messages. Sixty percent of managers do not go past an hour without checking phones for email messages (Tarafdar, Gupta, & Turel, 2013). As the level of information increases, a manager’s capacity to process and retain information decreases (Goldsborough, 2009). In calendar year 2011, Americans took in five times the amount of email information daily, in comparison to calendar year 1986. Today, Americans process on average 100,000 words each day (O’Callaghan, 2014). The review of literature continues with an examination of information overload.

**Information overload.** Information overload originates from managers’ request for information and information received inertly (Bakker & Derks, 2010). The inability to escape from computers and information is a theme in literature on information overload (Bakker & Derks, 2010). Email is a key area of unstructured information delivery in Information Technology (McKeen & Smith, 2013). Technology can generate information faster than most people can process, resulting in information overload (Bakker & Derks, 2010). The barrages of messages from outside corporate boundaries in combination with personal use of corporate email are presenting information technology managers with the issue of information overload (McKeen & Smith, 2013). Email overload occurring in the workplace affect productivity and threatens to take over the working day (Powell, 2012).

Information overload is attributed to the volume of information exchanged in the workplace during a live communication because of the vastness and underestimation from employees (Powell, 2012). The idea of information overload has been discussed for decades, and occupies a growing piece of managers’ consciousness due to Rich Site Summary (RSS) feeds, including email. Information overload has become a distraction to
managers (Brandel, 2008). An email culture of poorly constructed emails, over reliance on email, and the abuse of the "reply to all" function are often endemic within organizations and little or no improvement can be made without a cultural shift within the organization (Powell, 2012). A problem exists in the business world due to the hidden impact on work productivity when employees unnecessarily send poorly constructed and improperly email messages, which adds to the collective workday (Smith, 2013). Email communication received in the form of spam can rapidly fill an employee’s inbox (Chunta, 2013). Email overload triggers such as spam, is a major problem in the workplace and can be partially attributed to the recent rise of mobile-email use (Jackson & Van Den Hooff, 2012). Information overload lead to reduced productivity and pose negative effects on employee well-being (Bakker & Derks, 2010). The review of literature continues with an examination of information overload with email.

**Information overload with email.** Information overload occurs when managers are faced with a situation where email information received is exceeded by the manager’s information processing capability (Jackson & Van Den Hooff, 2012). Information overload can be correlated to people receiving mass amounts of email at any given time (Jackson & Van Den Hooff, 2012). One consequence of email use within organizations is the adaptation of email becoming the preferred communication tool versus face-to-face communication. The immediate consequence is managers’ inboxes becoming inundated with email messages ( Ramsay & Renaud, 2012). Email communications can be received in the form of spam, and can rapidly fill an individual’s inbox (Chunta, 2013). One of the main duties of a manager is knowing how to communicate within organizations and in particularly, with colleagues (Moreno, 2010).
Organization’s email inboxes are filled up by outside agencies utilizing email to advertise goods and services or defraud employees. To alleviate the problem, organizations implemented the use of SPAM filters to counteract the tide of un-elicited and unwanted emails (Ramsay & Renaud, 2012). The constant email interruptions caused by receiving new emails can increase stress levels, rescind workflow, and reduce a person’s energy (Powell, 2012). Microsoft conducted a study suggesting the average time taken by organizational workers to refocus on work tasks, after email interruptions, is between 5 and 15 minutes. An analysis was conducted on how users employ numerous email accounts in the theories of work-personal boundary management (Capra et al., 2013). Results of the analysis identified email accounts act as important work-personal boundary artifacts helping to separate work and personal identities but also serve as vehicles of work-personal boundary permeation (Capra et al., 2013). One criteria for combating email interruptions is to reduce exposure to work-related information. Another criterion is for managers to develop mental discipline when dealing with email, because managers are compelled to checking email throughout the day and respond immediately to new incoming email messages (Brandel, 2008).

Based on the research performed by Capra et al. (2013), work productivity can be affected if organizational email policies do not prohibit personal email for work purposes. Organizational email users complain about feeling overwhelmed by the large volume of messages received (Marshall et al., 2009). Information overload is not going away and organizations should uncover ways to a solution (Brandel, 2008). A suggested technique aimed at reducing the time spent reading email is to adopt proper email formatting
(Marshall et al., 2009). The Information Overload Research Group raised awareness and established tips on dealing with information overload. Suggested examples are:

- Scheduling a time daily for checking email to prevent excessive email bottleneck,
- turn email notification off in email programs to prevent interruptions from new arriving email messages, verify email subject line accurately reflects message-topic and urgency, read through personal emails prior to sending to ensure message is clear, concise, and not misleading for recipients, and provide all relevant details in email messages to rule out misinforming recipient.

(Goldsborough, 2009, p. 13).

Trillions of email messages are sent annually, but only few empirical researches exists on how email-formatting impacts email effectiveness (Marshall et al., 2009). Based on research conducted by Marshall et al. (2009), a relationship can be inferred from email overload and poorly formatted email messages. The review of literature continues with an examination of managing work related email.

**Managing work related email.** Introducing a companywide email-training program for managers help to introduce an acceptable and accepted way of managing work related email (Powell, 2012). Sidner and Whittaker (1996) developed the term “email overload,” after quantifying the inboxes of, and interviewing 20 email users (Ramsay & Renaud, 2012). The problem of email overload is exacerbated by organizations archiving emails for an unidentified period. Email overload is a real and present danger in the workplace (Powell, 2012). The rules of spelling, punctuation, capitalization, and grammar apply and must be observed. The issue is not with email itself, but more with how email is used. Email has fundamentally changed the
way employees communicate with each other and is an important aspect of the job. Few people, to include managers, receive no type of instruction on what is expected in terms of email communication or formal training on how to manage it better (Krueger, 2012).

Electronic mail became an indispensable tool for efficient communication in the American workplace (Snyder, 2010). Organizations implementing strategies for managing email led to the use of SPAM filters and educational training on email use. An example of strategy includes organizations combining educational and regulatory approaches within an acceptable email policy-use to steer employees away from disciplinary actions (Ramsay & Renaud, 2012). Communicating through email should be familiar with the term, email stressor. Email stressor is the increased speed of e-mail communication and the accompanying higher volume of information a manager is incapable of cognitively managing (Brown et al., 2014). Active copers of stress tend to apply behavioral (e.g., solving the problem) or psychological (e.g., seeking social support) responses to modify the nature of stressors or change the way they think about the stressors (Li and Yang, 2016).

Wireless and mobile communication applications have become an integral part of the workplace. Managers are utilizing e-mail on a daily basis (Brown et al., 2014). Writing a well-formatted, clear, and concise email message avoids misinterpretations from colleagues within organizations (Moore, 2008). Email overload impede work productivity due to constant task interruption to check email. The interruption results in task fragmentation and constant decision making regarding when to self-interrupt work tasks to attend to email (McMurtry, 2014).
Mangers are overwhelmed by the amount of information confronted with on a daily basis (O'Callaghan, 2014). One way to cope with information overload is by creating systems to organize information. One example of coping with information overload is to write down information onto paper as a means to offload information from the brain (O'Callaghan, 2014). The boundaries between email and social media are blurring (Boeri, 2011). Managers avoid face-to-face conversation and feelings of isolation due to email anxiety, stress, and tension due to a perceived need to organize email and reply quickly (Chase & Clegg, 2011). Information overload, the difficulties of preserving records will only worsen; and email dysfunction and overload are not sustainable (Boeri, 2011). One example is attempting to sort through influxes of email messages and only uncovering the difficulties of dealing with information overload. The review of literature continues with an examination of adverse effects of email use.

**Adverse effects of email use.** Adverse effects of email use is recognized to exist in the workplace, such as email overload (Jackson & Van Den Hooff, 2012). Information overload occurs when information comes in faster than an individual can process (O'Callaghan, 2014). Information overload relates to the complaint most often heard in relation to e-mail in practice: people just receive too many e-mails (Jackson & Van Den Hooff, 2012). One of the most obvious drawbacks of current email practices is the personal time and effort required (Krueger, 2012). The number of distractions emails can create for managers is problematic. The familiar pop-up notification of an incoming message can cause distraction from daily work tasks (Krueger, 2012). Managers experiencing email overload often feel overwhelmed by the constant flow of messages appearing in the inbox and the inability to manage the high volume of messages
effectively (McMurtry, 2014). Managers engaged in work activities and are interrupted by incoming emails, can often become distracted. Distractions caused by incoming email messages result in a significant amount of lost productivity at work. Managers are not aware of how distracted they are by emails (Krueger, 2012).

Mobile email addiction is a form of non-substance addiction involving excessive interaction with both mobile technology (mobile device) and the content (electronic communication) under conditions of psychological dependency (Turel & Serenko, 2010). Email contributes significantly to organizational workload caused by the increase in information and communication (Bakker & Derks, 2010). According to Turel and Serenko (2010), the organizational drawback to using mobile email is managers become addicted to checking email. Turning off email notification inside email programs prevent interruptions caused by incoming email messages (Goldsborough, 2009). Disruptions caused by email lower productivity and hamper innovation (Brandel, 2008).

Organizations have provided Blackberry devices to managers for checking and responding to email messages. The main advantage of mobile email is the accompanying ubiquity and convenience. A second advantage is mobile email helps connect managers with assigned organizations and increases productivity (Turel & Serenko, 2010).

Electronic mail became an almost indispensable tool for efficient communication between managers (Snyder, 2010). If a conversation topic dictates having to communicate with more than three email exchanges, a quick telephone conversation could suffice. Email is not ideal for replacing face-to-face communication or resolving conflicts between managers (Moore, 2008). The ubiquitous nature of mobile email technologies facilitate and augment excessive email preoccupation. Managers addicted to
using mobile email experiences a mental domination of his or her thoughts and behaviors (Turel & Serenko, 2010).

Communication via email became a primary tool in the modern workplace and led to managers becoming addicted to checking email (McMurtry, 2014). The majority of email problems are a combination of bugs, cognitive overload, usability issues, and aggressive spam filtering (Boeri, 2011). Email messages encompassing work-document attachments takes up a large amount of email storage and often result in multiple drafts of the same document by managers (Mulvihill, 2011). Managers must keep abreast of the options available to lessen large email messages. Options to lessen sending of large email messages, is not sending an actual email attachment with corresponding message; instead, send a link to the document stored on a collaboration system (Mulvihill, 2011).

The review of literature continues with an examination of business communication systems.

**Business communication systems.** Communication in and around business organizations changed due to new technologies, the demand for intercultural communication skills, the changing person-organization relationship, and the global nature of organizing (Waldeck, Durante, Helmuth, & Marcia, 2012). The most important element of communication is listening, not self-expression (Burke, 2015). Organizations are becoming aware of the increasing productivity benefits of smartphones and tablets in the realm of communication. The end goal is to be more productive which consequently enable managers to become more productive when working from a remote work location (Barbour, 2014). Smartphones and tablets are useful tools because of the ability to
increase productivity (Barbour, 2014). Creating solutions to enable more productivity is the only way to give someone the precious gift of time (Lacerte, 2013).

The forms of new communication technologies influence organizational communication dramatically (Waldeck et al., 2012). The backbone of all small business productivity tools is time, which translates into money (Lacerte, 2013). Modern organizations can apply information technology at different levels of sophistication because of enterprise resource planning, customer relationship management, supply chain management, and business intelligence (Hsieh et al., 2013). Organizations apply a complex information technology simplistically through work procedures and requirements approved by managers (Hsieh et al., 2013). The modern organization environment is characterized by new forms of powerful communication technologies, frequent change, diminishing boundaries between personal life and work life with a greater emphasis on globalism (Waldeck et al., 2012). The review of literature continues with an examination of organizational communication.

**Organizational communication.** Organizations experiencing a business crisis must communicate in order to protect reputation, brand equity, and the organization’s bottom line. A successful response to a crisis requires organizations making, and communicating, challenging decisions under pressure without accurate information (Schmidt & Chase, 2013). To overcome communication challenges a crisis present, managers must enable effective communication (Schmidt & Chase, 2013). Managers communicating effectively through email during a crisis must be aware of the poor usability of email software within organizations and the inability to organize inbox messages based on personal priority contributes to email overload (McMurtry, 2014). An
organizational crisis communication plan must include an employee communication component. Organizational processes, responsibilities, channels, and recurring training must be determined and a framework established encompassing employee communication (Schmidt & Chase, 2013).

Organizations increasingly are leveraging a combination of technical solutions to enhance worksite communications. Hanna and Nash (2012) define communication as a process of sharing knowledge, experiences, information, ideas, and feelings is an integral part of building relationships within organizations. Managers perform assigned duties at any moment or location because of leveraging (Barbour, 2014). One example is organizations across all industries implementing and using communication tools at remote work-locations to enable managers to conduct business (Barbour, 2014). Communication is a vital part of any continuous process improvement programs. The key is to get the message out effectively and on time (Scheeres, 2011). Research firms, scholars, and managers have argued for years about the ability to communicate effectively is a leading factor in professional success (Waldeck et al., 2012).

Managers should ask diagnostic questions and listen when communicating (Burke, 2015). One example of communication competence is the basis to a successful career, including leadership and teamwork (Waldeck et al., 2012). Organizations leaders risk failure to change initiatives when the power of communication is underestimated (Scheeres, 2011). More than 50 percent of change-efforts fail to succeed in the first step (establish a sense of urgency) due to failures in leadership to effectively communicate the need for change across the organization (Scheeres, 2011). The review of literature continues with an examination of communicating through cloud computing.
Communicating through cloud computing. Organizations are trying to mitigate the burden of local data storage and reduce the maintenance cost by outsourcing data to the cloud (Sookhak et al., 2015). An innovative technology available to organizations for conducting work tasks is referred to as cloud computing. Cloud computing is a new technology enabling organizational users to process organizational data over the internet in real time (Binjaku et al., 2013). Cloud Computing provides reliable and resilient infrastructure to remotely store data and use on-demand applications and services (Sookhak et al., 2015). Communication is a key to success or a contributor to failure, whether leading change or managing the psychological transition accompanying a change event (Scheeres, 2011). One of the benefits of using cloud computing in organizations, except for computer and internet, is the nullified need for computer hardware (Binjaku et al., 2013).

Cloud computing is a significant Information Technology shift and a new model of computing over shared computing resources. Organizations are utilizing cloud computing because of the relieved burden of maintenance cost and overhead of storing data locally (Sookhak et al., 2015). Cloud computing create an environment for managers to conduct work tasks by accessing data through a central location (Binjaku et al., 2013). Communication researchers have made a case for the importance of communication skills within organizations (Waldeck et al., 2012). Communication researchers stated communication is important in all sorts of industries, including traditional service-oriented areas and highly technical fields (Waldeck et al., 2012). Strategic communication includes a dark side involving intentional ambiguity (Dulek & Campbell, 2015).
Expectations for effective and competent business communication have evolved because of the dramatic impact of communication technology and global organizing (Waldeck et al., 2012). Organizations must look at the bigger picture and consider the positive impact of mobile technology in terms of improved productivity (Barbour, 2014). One example of looking at the bigger picture is organizations adopting cloud-computing allowing for centralized organizational data to be accessed by multiple managers simultaneously (Lacerte, 2013). Organizations adopting a cloud environment can expect collaboration at the right level across people, systems, and documents (Lacerte, 2013).

The review of literature continues with an examination of the impact of information technology.

**Impact of information technology.** The question raised by organizations is: how can people use so many collaboration tools and be productive without suffering input overload? The lack of technology integration is linked to the beliefs in the value of and skills in using technology (Kim & Keller, 2011). Information technology is used to incorporate all sets of hardware and software meant to improve project work practices through automation and integration (Kang et al., 2013). As computer-based work becomes increasingly more fluid, the benefits of e-mail are apparent (Brown et al., 2014). Information technology comprise of a range of software and supporting hardware meant to improve organizational performance (Kang et al., 2013). Time management is a major factor for how technology is being used to enhance organizational communications (Barbour, 2014). Organizations depend on information technologies to enhance market services and sharpen competitiveness to survive and excel in the global market (Hsieh et al., 2013).
Utilizing smartphones to log in and communicate from a remote worksite to conduct work tasks is an example of time management. Smartphones have the ability to receive email messages (Hettrich, 2015). Wireless email systems facilitated by smartphones enable managers to engage in sending and receiving emails (Bakker & Derks, 2010). Smartphones perform the same functions as a desktop computer or laptop (Hettrich, 2015). Although organizations recognize the significant benefits of using technology to enhance worksite communications, some organizations are shortsighted by the costs involved (Barbour, 2014). As of 2013, the Pew Research Center indicated ninety-one percent of American adults own a cellphone and approximately fifty-six percent of American adults use smartphones (Hettrich, 2015). Organizations utilize smartphones to increase productivity and communicate efficiently (Bakker & Derks, 2010). The review of literature continues with an examination of organizations dependency of information technology.

**Organizational dependency on information technology.** The use of e-mail is widespread in American workplaces, with approximately 70% of all companies providing Internet access to at least half of the workforce (Snyder, 2010). In 2005, the American Management Association estimated the average employee with e-mail access spends about 25% of the workday checking and sending e-mail (Snyder, 2010). Since the 1980’s, organizations spend up to 50% of new capital investments on information technology-related activities (Hsieh et al., 2013). The global organizational information technology budget grew progressively in the past decades and surpassed $3 trillion in 2007. Computers and the internet in general were developed to make employee lives easier in the workplace and were considered a facilitator of organizational goals (Bakker & Derks,
Organizations implementing modern information technology to conduct daily work tasks seldom use the implemented information technology to the fullest potential. The underachievement of information technology by organizations is attributed to underutilization (Hsieh et al., 2013). Information technology is used to incorporate all sets of hardware and software meant to improve project work practices through automation and integration (Kang et al., 2013). The increased internet access is a catalyst for the increase in organizational e-mail usage since the early 1990s (Snyder, 2010). Communication via email within organizations became a primary tool in the modern workplace (McMurtry, 2014). The review of literature continues with an examination of implementing information technology.

**Implementing information technology.** Global information technology spending increased by approximately 8%, reaching $3.4 trillion in 2008; despite the economic downturn (Hsieh et al., 2013). Organizations are increasingly facing rapidly changing business environments and are investing more resources into IT-based systems (Iyengar, Sweeney, & Montealegre, 2015). Organizations investing heavily financially into information technology do not guarantee success (Hsieh et al., 2013). Deficits in technology integration are a result of motivational and volitional problems (Kim & Keller, 2011). Information technology became more powerful, cost effective, and grew throughout organizations at a rapid rate (Iyengar et al., 2015). Organizational boards must maintain responsibility for governing large information technology projects and should establish policies and goals, allocate resources to achieve organizational outcomes, and hold management to account (Gardiner, 2015). Information technology project failures are due to how projects were initiated, shaped, and approved (Gardiner, 2015).
Discussing performance indicators are important distinction in a projects strategic direction (Kealey, 2013).

A lack of information technology skills within organizations have left management with minimal understanding of the opportunity and threats presented by technology (Gardiner, 2015). An inherited hazard of email use is the threat to confidentiality and privacy (Riquelme et al., 2014). Employers and employees continue to be highly vulnerable to negative consequences resulting from email privacy intrusions. Given the potentially differing perceptions, the need exist for organizations to understand the privacy issues associated with email use (Sipior & Ward, 2009). Motivation is based on a manager’s willingness to exert and sustain effort towards organizational task. Volition is based on a manager’s ability to take action on assigned organizational tasks while ignoring opposing personal desires to sustain efforts at the task (Kim & Keller, 2011). Email contributes to benefit the communication of task-oriented environment (Bakker & Derks, 2010). An example consist of a manager with high motivation towards an organizational task might have the goal to complete the task, but a managers’ volition towards the task is what will aid in doings what’s needed to reach the goal (Kim & Keller, 2011).

A challenge in email communication presents an issue for managers (Bakker & Derks, 2010). The lack of nonverbal cues implies automatically all information in an email is fully transferred and received by managers (Bakker & Derks, 2010). Interpersonal communication is a complex process involving exchange of both non-verbal and verbal signals (Hanna & Nash, 2012). Communication is a process and stems from forming the correct questions (Burke, 2015). To communicate effectively, managers
should know how to listen. Emotional and empathetic managers are needed to communicate better. Managers have to be honest, coherent, transparent and credible, inspiring trust. Communication is increasingly becoming a strategic factor for organizations and is important for managers to possess communication skills (Moreno, 2010). Email is a familiar technology implemented in numerous contexts requiring interactions between organizational users. One example is motivational email messages used to help perform difficult tasks as opposed to extensively promote technology integration (Kim & Keller, 2011). Problematically, the messages typically conveyed by cues are absent in a text-based environment. The absence of verbal cues leads to miscommunication through email messages and can result in stress for employees (Bakker & Derks, 2010).

The impact of information technology within organizations led to an increase in email use by professional users. Information technology comprise of a range of software and supporting hardware meant to improve organizational performance (Kang et al., 2013). Information technologies are unique because of the capability to foster interactions primarily communicative and related meaning sustenance and creation (Singh, 2013). Information technology makes work tasks qualitatively easier and conceivable compared to prior-like technologies (Singh, 2013). In modern organizations, information and data are rapidly increasing yearly and organizations are trying to develop intelligent information systems for analysis and interpretation of large amount of information and data (Sarka, 2014).
Summary

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers. The history of the effect of email-related obligation and stress on job productivity as perceived by managers started with a prolonged examination of scholarly literature directly relating to the research topic. A common thread throughout the literature review is to determine the effect of email-related obligation and stress on job productivity as perceived by managers. Scholars concluded email is a core communication tool for the majority of organizational users (Judd, 2010). Justification exists for conducting the qualitative study to understand the effect of email-related obligation and stress on job productivity as perceived by managers. The study adds to the body of knowledge concerning the effect of email-related obligation and stress on job productivity as perceived by managers.

Theoretical foundation for the study is the modernization theory of communication. Sample population consists of managers working full time. Research data was collected using interviews and a focus group. A qualitative research method was chosen for the study. The research design is a qualitative study intended to understand the effect of email-related obligation and stress on job productivity as perceived by managers. The data analysis procedures are a linear, hierarchical approach including five data analysis steps: organization of details about the case, categorization of data, and interpretation of single instances, identification of patterns, and synthesis and generalization. The following sections synthesize the information from all of the prior sections in the Literature Review:
**Email use.** Originally, email was exclusively used as a tool to communicate over long distances, but as time progressed, email became a tool for providing organizational users with reliability, efficiency, and timesaving capabilities (Bakker & Derks, 2010). Email is a fundamental communication tool for the majority of employees (Judd, 2010). Using email within organizations as an alternative to traditional meetings is beneficial.

**Communication through email.** Managers rely on email to communicate effectively with fellow employees to accomplish daily work tasks. The use of communication technology is influenced by organizational culture as opposed to employee intentions of implementing the technology (Bakker & Derks, 2010). The use of technology, such as email, takes shape in a process of interaction between the technology itself, the users, and the institutional context (Jackson & Van Den Hooff, 2012).

**Lost productivity associated with email.** Managers remembering the importance of sending emails to coworkers that directly have a need to know the content of the message must ensure emails are written concisely with relevant subject lines and context (Powell, 2012). Email management starts with an individual but can only be truly effective if the whole organization adopts certain strategies or rules surrounding email (Powell, 2012).

**Email security.** Managers communicating through email must understand the importance of practicing email security measures. Email is used within organizations as a means to compose, send, store, and receive messages over electronic communication systems (Grech & Hugo, 2008). The advantage to email is the ease of use and speed of delivery. The advantage subsequently contributes to a greater volume of messages sent and received daily (McMurtry, 2014).
**Email management.** A managers’ inclination to frequently check email inboxes due to concerns about the possibility of missing important information contributes to loss productivity (McMurtry, 2014). Email is a popular tool for organizational and personal communications (Pelland, 2015). Within a workplace, the volume of information exchanged during a live communication is vast and underestimated (Powell, 2012).

**Managers communicating through email.** The ability to create timely information, increase information accuracy, create information permanency, and increase colleague interaction are some of the organizational benefits (Jackson & Van Den Hooff, 2012). Reliance on email grew considerably and a need for software tools allowing for sorting through email messages is virtually a necessity. Communication is not only a soft skill, but an effective communication tool positively related to employee engagement as well as organizational level variables, including organizational performance (Waldeck et al., 2012).

**Communication with software tools.** Software tools are increasingly being implemented by organizations to augment work efficiency (Mulvihill, 2011). Organization managers reading and answering work email can expect take an average of 13 hours each week (Boeri, 2011). Employees search email messages an average of 3.7 hours per week without ever uncovering work related information they first set out to find (Boeri, 2011).

**Information overload.** The influx of email messages from outside corporate boundaries are presenting information technology managers with the concern of information overload (McKeen & Smith, 2012). Managers are faced with the dilemma of sorting through numerous emails while performing other daily work tasks. Information
overload is attributed to the sheer volume of information exchanged in the workplace during a live communication between employees (Powell, 2012).

**Information overload with email.** Information overload happens when managers are confronted with a situation where incoming email messages received is exceeded by the manager’s ability to efficiently process the information (Jackson & Van Den Hooff, 2012). The examination of literature identified managers faced with multitudes of incoming email messages compared with a slow processing rate experiences information overload.

**Managing work related email.** Organizations introducing a companywide email training program will help to introduce an acceptable and accepted way of managing work related email (Powell, 2012). The examination of literature identified organizations should implement programs for managing emails. Adopting a proper email formatting regime aimed at reducing the time spent reading email is one measure to manage work related email (Marshall et al., 2009).

**Adverse effects of email use.** Managers experience email overload when the constant flow of messages is combined with the inability to manage the high volume of messages effectively (McMurtry, 2014). Personal time and effort required is one of the most obvious drawbacks of current email practices (Krueger, 2012). Email distractions can become problematic for managers.

**Business communication systems.** Organizations are aware of the increased productivity benefits of smartphones and tablets in the realm of communication. The inherited benefit of a smartphone and tablet is the capability to increase productivity (Barbour, 2014). Managers have the ability to access email utilizing smartphones and
tablets to conduct daily work tasks. Organizational communication is influenced dramatically by the forms of new communication technologies (Waldeck et al., 2012). Time is the backbone of all small business productivity tools, which translates into money (Lacerte, 2013).

**Organizational communication.** Organizations increasingly are leveraging a combination of technical solutions to enhance worksite communications. Communication defined as a process of sharing knowledge, experiences, information, ideas, and feelings is an integral part of building relationships within organizations (Hanna & Nash, 2012). Leveraging provide managers with the ability to perform assigned duties at any moment or location (Barbour, 2014).

**Communicating through cloud computing.** Organizations outsourcing data to the cloud are trying to mitigate the burden of local data storage and reduce the maintenance cost (Sookhak et al., 2015). Cloud computing is an innovative technology available to organizations for conducting work tasks. Cloud computing allows organizational users to process organizational data over the internet in real time (Binjaku et al., 2013).

**Impact of information technology.** Email provides organizational users with reliability, efficiency, and time-saving capabilities (Bakker & Derks, 2010). A major factor for how technology is being used to enhance organizational communications is time management (Barbour, 2014). Organizations rely on information technologies to sharpen competitiveness, survive and excel in the global market, and enhance market services (Hsieh et al., 2013).
Organizations dependency on information technology. Organizations’ use of e-mail is widespread in American workplaces, with approximately 70% of all companies providing Internet access to at least half of the workforce. According to an estimate by the American Management Association, in 2005 the average employee with e-mail access spends about 25% of the workday checking and sending e-mail (Snyder, 2010). Since the 1980’s, new capital investments spent on information technology-related activities are up by 50% of (Hsieh et al., 2013).

Implementing information technology. Governing large information technology projects is a responsibility for organizational boards. The boards must also establish policies and goals, allocate resources to achieve organizational outcomes, and hold management to account (Gardiner, 2015). The way information technology projects are initiated, shaped, and approved dictates the success of failures (Gardiner, 2015). Discussing performance indicators is an important distinction in a projects strategic direction (Kealey, 2013).

Chapter 2 included key points organized with sections: Email Use, Information Overload, Business Communication Systems, and Impact of Information Technology. Chapter 2 also included key points organized with subsections: Communication through Email, Lost Productivity Associated with Email Communication, Managers Communicating through Email, Managing Work Related Email, and Adverse Effects of Email Use. Chapter 3 includes a description of the research methodology, research design, and data collection procedures. Chapter 3 also includes the data analysis procedures and ethical consideration. Chapter 3 concludes with the limitations for the study.
Chapter 3: Methodology

Introduction

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers within an organization. From 2005 to 2015, no research studies were found that focused on the effect of email on organizations located in the State of Texas. Due to this lack of related research, the study adds to the existing literature.

Chapter 3 includes restatement of the problem, the research question, and a description of the research methodology, research design, and data collection procedures. Chapter 3 also includes the data analysis procedures and ethical consideration, and concludes with the limitations for the study.

Statement of the Problem

The problem is a lack of knowledge regarding the effect of email-related obligation and stress on job productivity as perceived by managers within an organization (McMurtry, 2014). The concern of information overload is evident regarding email and the direct link to information overload. In spite of the applied attention to the topic of information overload, there remains a small amount of experimental research conducted on information overload relating to email use (Jackson & Van Den Hooff, 2012). The lack of conducted research on information overload still exists even though 94% of all online adults use e-mail; 53% of working adults in the United States have both personal and work e-mail accounts, and 37% of people with work e-mail accounts check messages constantly (Capra et al., 2013).
Research Question

One research question guided this study:

How does email influence productivity as perceived by managers in an organization?

Based on the research question, the phenomenon of the study is to understand the effect of email-related obligation and stress on job productivity as perceived by managers. The method used for collecting research data to answer the study’s research question consists of interviews and a focus group (Appendices A & B). The design for the study was the best approach to addressing the problem statement and answering the research question because qualitative research achieves an in-depth understanding of a situation as opposed to quantitative research (Cooper & Schindler, 2011).

Research Methodology

A qualitative method was selected to understand phenomenon. A qualitative research method was chosen for the study because qualitative research aims to achieve an in-depth understanding of a situation (Cooper and Schindler, 2011). In contrast, quantitative approaches are favored by researchers to support project evaluation and selections if a decision demands economic justification. One of the main features of quantitative approaches encompass the generation of numeric measures for effective and simple comparison, selection, and ranking (Thamhain, 2014). Qualitative and quantitative researchers utilize different methods and have different goals (Trafimow, 2014). Quantitative and qualitative research designs differ in terms of epistemological, theoretical, and methodological underpinnings (Yilmaz, 2013). Based on the research
question, the phenomenon of the study is to understand the effect of email-related obligation and stress on job productivity as perceived by managers.

**Research Design**

The research design is a qualitative study intended to understand the effect of email-related obligation and stress on job productivity as perceived by managers in an organization. Studies are bound by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time (Creswell, 2008). The research data collected from participant feedback was reviewed and analyzed using the qualitative data analysis software tool, ATLAS.ti 7 for Windows (Atlas.ti, 2016).

The qualitative research design is the best possible choice because the research data gathered will be crucial for answering the research question. Qualitative researchers are known to use numerous forms of data in any single study and tend to use different approaches such as interviews, objects, observations, electronic data, audiovisual materials, or written documents as part of the data collection methods (Leedy & Ormrod, 2010). The qualitative approach to research adopts a multifaceted approach examining culture, behavior, and society (Hogan et al., 2011). The results of the study on approaches to qualitative research led to new means of conducting qualitative research such as utilizing emails, text messages, instant messages, twitter, online chats, and online blogs and forums.

**Population and sample selection.** The population selected for the study consisted of employees working at a Fortune 500 aerospace defense consulting firm. The firm had 467 employees, including 81 managers. The goal of the research was to conduct
interviews with sufficient managers to achieve theoretical saturation. Permission was granted to gain access to participants of the target organization (Appendix D). Participants were chosen based on managerial positions currently held at the organization. A notification email was sent to all 81 managers to participate in the research study (Appendix C) utilizing the firm’s Human Resources department. A consent form (Appendix E) was sent via email to participants that agreed to take part in the study. The consent form outlined the purpose of the study and clarified that the interview process was voluntary and the participants had the right to withdraw from the study at any time. Each participant signed the consent agreement prior to beginning the interview process.

A series of precautionary steps were taken to ensure full participation. First, a reminder email was sent to encourage managerial participation in the study. The email included special accommodations to participants’ preference of date, time, and interview location. Second, considerations were given to the possibility of the organization loosing current managers and the hiring of new managers. The hiring or loss of managers could alter the perceptional feedback regarding the effect of email-related obligation and stress on job productivity as perceived by managers. A limitation to having newly hired managers is the inability for newly hired managers to provide beneficial feedback because of inexperience or lack of time working within the firm.

To achieve validity, the researcher demonstrated that through research data for the study, the findings were consistent with research data and not personal predispositions. At the beginning of the study, each potential participant received an invitation and consent agreement via email (Appendices C & E). A reminder email was sent out to
participants every three business days after the initial invite because the goal of the selection process was to receive 100% managerial participation. If a participant agreed to participate in the study, they were provided an option of selecting a day, time, and place to the conduct the interview.

**Sources of Data**

The primary sources of data was from interviews and a focus group conducted at an agreed upon location chosen by participants of the study. This enabled the researcher to gain the participants’ perception regarding the effect of email-related obligation and stress on job productivity as perceived by managers within an organization. The interview questions used stemmed from Bell (2000), and permission to use the interview questions was granted by the author (Appendix F). Interviewing the participants in an accustomed setting (preferred setting) increased the validity of the study. The researcher travelled to each of the participants’ preferred location to conduct the interviews and a focus group. Observations of participants’ physical demeanor when responding to interview and focus group questions were made and noted.

**Validity**

Qualitative validity means the researcher checks for accuracy of the findings by employing certain procedures (Creswell, 2008). Cooper and Schindler (2011) defined validity as the extent to which a test measures what we actually wish to measure. To achieve validity for the study, transcripts from interviews and a focus group were individually reviewed to rule out mistakes during transcription. Mistakes were ruled out through utilization of rich and thick description to convey the findings (Creswell, 2008). In checking transcripts, an emphasis was placed on ensuring information gathered reflects
the intent of the study. To ensure content validity, interview and focus group questions were not altered once approved by Columbia Southern University Internal Review Board’s formal screening and approval process. The participants of the study were made aware that the objective of the research was to identify and describe perceptions relating to the effect of email-related obligation and stress on job productivity in their workplace. The participants were reminded of their knowledge and experience needed for the research study.

**Reliability**

Qualitative reliability indicates the researcher’s approach is consistent across different researchers and different projects (Creswell, 2008). To achieve reliability for the study, transcripts were checked to rule out mistakes during transcription and use rich, thick description to convey the findings (Creswell, 2008). In checking transcripts, emphasis was placed on ensuring information gathered reflects the intent of the study. Interviews and a focus group session were arranged between researcher and participants based upon a mutual agreed time of 10 minutes, with the flexibility to increase interview times if questions warranted further discussions.

Employing face-to-face interviews and a focus group permitted the researcher to have a distinct advantage of establishing rapport with participants of the study and ultimately gain cooperation. Participants in a qualitative interview feel they are engaging in a friendly conversation with the researcher leading to high response rates (Leedy & Ormrod, 2010). Reliability was maximize because the interview sessions only included one interviewer (the researcher), eradicating dissimilar interview techniques.
Data Collection Procedures

The data collected was from face-to-face interviews and a focus group of the sample population. Of the 467 employees at the Fortune 500 aerospace defense consulting firm, 81 managers were selected to participate. The participants were provided with a questionnaire to obtain demographic information for the purpose of gender, level of management, and years of work experience with the firm.

The interviews were conducted using a semi-structured interview guide. The interview guide included a list of starter questions that related back to the research questions. According to Leedy and Ormrod (2010), “in a semi-structured interview, the researcher may follow the standard questions with one or more individually tailored questions to get clarification or probe a person’s reasoning” (p. 188).

Hand-written notes were taken during the interviews and participant responses were recorded and transcribed for analysis. The researcher also conducted a focus group with participants who previously partook in the interviews. Participants were asked at the end of interviews to volunteer for a focus group. A consensus was reached between the researcher and participants on a preferred date, time, and location. Leedy and Ormrod (2010) stated, “focus groups are useful when time is limited; people feel more comfortable talking in a group than alone; interaction among participants is more informative than individually conducted interviews; and the researcher requires another person’s assistance in interpreting an observation” (p. 148).

Data Analysis Procedures

Data was collected was from interviews and a focus group. Hand-written notes were transcribed and recorded into a data analysis program and used as part of the study.
Organization of details about the study was accomplished by separating, grouping, and organizing details from participant feedback. ATLAS.ti 7 for Windows was used to analyze feedback from interviews and a focus group. The data analysis procedure employed by the researcher was a linear, hierarchical approach (Leedy & Ormrod, 2010). This approach followed five-steps: organization of details about the study, categorization of data, and interpretation of single instances, identification of patterns, and synthesis and generalization. The general sense of the research data was obtained by reading and reflecting on its overall meaning by exploring managerial perceptions of the effect of email-related obligation and stress on job productivity within an organization. Data collected from participants’ feedback were identified and clustered into groups to gain an overall depth of managerial perception. Categorizing of data was accomplished by reviewing, separating, and discarding irrelevant participant feedback.

The analysis followed a “systematic process for coding and drawing inferences” (Cooper & Schindler, 2011, p. 411). The research data collected were examined for specific meanings in relations to the case. Examination for specific meanings was accomplished through utilization of interviews and a focus group feedback. Throughout the data analysis process, the researcher sought to discover and depict themes and patterns from the participants’ perception and attempted to comprehend and clarify the themes and patterns.

The interpreted data collected from participant feedbacks were examined to identify themes and patterns. Identification of patterns was accomplished by reviewing participant feedback, and comparing and contrasting word repetitions and key-terms feedback data. Conclusions were drawn from triangulation of participants’ responses. The
participants’ responses provided feedback data for review and all pointed to the same conclusion (Leedy & Ormrod, 2010). Synthesis and generalization were accomplished by utilizing and organizing participant feedback data based on similarities, differences, and themes.

**Ethical Considerations**

To protect human rights, participants were provided the option to decline partaking in the study on or before the agreed-upon time and date. In an effort to preserve participants’ anonymity, information was provided to participants on how research data will be used and stored. The necessary approval were requested and granted by the committee chair and internal review board at Columbia Southern University to conduct research. The ethical considerations for the study included participants’ identity protection, confidentiality, security of research data, and informed consent. Ethical considerations for the study were given to protecting participants’ identity, confidentiality, and security of research data through Informed Consent (Appendix E).

Protection of participants’ identity, confidentiality, and security of research data was accomplished by physically storing research data onto a Microsoft Windows computer and placed into a locked room located at the researcher’s residential building. Access credentials (username and password) for Microsoft Windows computer were kept confidential to reduce unauthorized access to research data. All research documentation relating to the study will be kept on file for a minimum of three years upon completion of study. After three years, all research documentation will be destroyed through utilization of a shredding machine.
Limitations

There were four limitations in this study:

1. The sample populations for the study were managers from a single Fortune 500 aerospace defense consulting firm. This limits the analysis on the perception of these managers.

2. The sample population was limited by geographical diversity of managers participating in the study.

3. The sample population was limited to the number of employed managers, who willingly participate, based on available population size.

4. The research was limited by the organization’s willingness to support the study.

Despite the stated limitations, the research results should answer the research question for the effect of email-related obligation and stress on job productivity as perceived by managers. Although the limitations were unavoidable, the limitations are not expected to negatively affect the results of the study.

Summary

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers. The qualitative study was conducted to identify similarities, differences, and themes. The target population for the study included managers from a single Fortune 500 aerospace defense consulting firm. The firm had 467 employees; 81 of which were managers. The research data was collected using two distinct collection methods: interviews and a focus group. Analysis of
the collected data included the use of an analysis software tool to analyze content feedback from participant interviews and a focus group.

Chapter 3 included a description of the research methodology, research design, and data collection procedures. Chapter 3 also included the data analysis procedures and ethical consideration. Chapter 3 concluded with the limitations for the study. Chapter 4 includes descriptive data for the study and details of the data analysis procedures and results. Chapter 4 also includes research details of the conducted analysis and results of the study using graphic and written information to ensure clarity of findings and readability.
Chapter 4: Data Analysis and Results

Introduction

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity within an organization as perceived by managers. The concern of information overload is apparent concerning email and the direct link to information overload on managers. In spite of the practical attention to the topic of information overload, an insignificant amount of empirical research was carried out relating email use to information overload (Jackson & Van Den Hooff, 2012). The lack of research conducted on information overload still exists even though Capra et al. (2013) reported 94% of all online adults use e-mail; 53% of working adults in the United States have both personal and work e-mail accounts and 37% of people with work e-mail accounts check messages constantly.

The research method used for the study was a qualitative study. The sample population consisted of managers from a Fortune 500 aerospace defense consulting firm. One research question guided this study:

How does email influence productivity as perceived by managers in an organization?

Chapter 4 includes descriptive data for the study. Chapter 4 also includes details of the data analysis procedures and results. Finally, Chapter 4 includes research details of the conducted analysis and results of the study using graphic and written information to ensure clarity of findings and readability.
Descriptive Data

A total of 81 managers of a Fortune 500 aerospace defense consulting firm were targeted for this study. The goal of the study was to have 100% participation; however, only 22 managers opted to participate. As illustrated in Figure 1, a majority (68%) of the managers were male.

![Participant's gender percentage](image)

*Figure 1. Participants by Gender*

Of the participants, most were considered junior-level, as defined by the researcher (Figure 2).
Figure 2. Managerial levels and percentage of participation
The participants averaged 8.6 years of experience (Figure 3).

Figure 3. Years of Experience by Participant

Data Analysis Procedures
Interviews were recorded, transcribed, and imported into ATLAS.ti 7, a qualitative data analysis tool. Participants in the research study were not specifically
identified; instead, each was given a unique identifier (e.g., Participant 1 [P1]). Participant feedback was coded based on commonly used terms, and codes were combined to form themes. Participant feedback from interviews and a focus group were arranged based on common occurring themes.

Qualitative reliability indicates the researcher’s approach is consistent across different researchers and projects (Creswell, 2008). Reliability was achieved by ensuring interviews and the focus group was all conducted by a single interviewer (the researcher) to eradicate reliability concerns stemming from different interviewer techniques. The interview and focus group questions were read by the researcher and participant responses were recorded consistently with hand-written notes.

Qualitative research validity means the researcher checked for accuracy of the findings by employing certain procedures (Creswell, 2008). Validity is the one strength of qualitative research and is based on determining whether the findings are accurate from the standpoint of the researcher and the participant (Creswell, 2008). To address qualitative research validity, the answers from participants’ feedback were validated before ending the sessions to ensure the correct answers were captured. Interviews were conducted face-to-face in order to observe participants’ facial expressions and body languages and to certify all questions were answered during the sessions.

**Results**

The focus of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers in an organization. Understanding how email-related obligation and stress affects productivity, such as sending and receiving correspondence and performing daily operation work tasks, could
provide organizations with valuable information concerning how to make email use more efficient. Despite the benefits of email use by managers to perform daily work tasks, the inherited perception of email-related obligation and stress on job productivity within organizations was apparent.

Two themes emerged from interviewing managers: obligation and stress. The researcher concluded that a feeling of obligation and stress to respond to email messages came out of respect or common courtesy. Participant comments pertaining to each of the two themes were summarized and cited appropriately.

**Obligation.** Participants interviewed during the study felt obligated to reply to all incoming work email messages regardless of what they are currently working on. The other participants who did not identify with a need to reply to all incoming work email messages were eager to inform the researcher of self-identified solutions to sort through emails. The literature in Chapter 2 supports the notion that managers elude face-to-face conversations and experience a feeling of isolation due to a perceived need to organize email and reply quickly (Chase & Clegg, 2011). During the interviews and a focus group, participants identified with the need to respond more urgently to incoming email messages from supervisors. P6 stated, when sorting through emails, “if my boss emails me, I respond immediately or as soon as possible. I can quickly respond to whereas if it will take some thought or is from a peer who may be able to wait.” P7 stated, “I prioritize email based on who it comes from and if the email is information based or requesting a response or asking a question.” Managers’ disposition of frequently checking email messages due to concerns about the possibility of missing important information contributes to loss productivity (McMurtry, 2014). Based on the researcher’s
interpretation, a sense of obligation to respond to email is inherited immediately following an incoming message.

During the interviews and a focus group, participants felt the need for a policy to exist within the firm on how employees should use email. The participants agreed some form of a policy is warranted to outline proper email use within the organization and to provide guidance. Ahmed (2008) indicated that providing a list of permissible and unacceptable personal uses would be helpful to employees. Organizations that are overwhelmed by email volume have a policy for deleting email after 3 months (Boeri, 2011). P8 stated, “I believe at this time colleagues aren’t certain when they need to respond to email, communicate, convey, or distribute email/contents or when it’s ‘for your information only’ or ‘for situational awareness.” Participants were eager to pinpoint managers often use the reply-all option when responding to email messages, which results in email overload. P16 stated, “some of my colleagues might feel the need to reply to all email messages and disrupt the work day. Prioritization is important when utilizing email.” According to Powell (2012), “changes within organizations must be made in conjunction with a shift in cultural change because of an endemic email culture of poorly constructed emails, over reliance on email and the abuse of the ‘reply to all’ function” (p. 35). Employee work productivity is affected if organizational email policies do not prohibit personal email for work purposes (Capra et al., 2013). Based on the researcher’s interpretation, managers have a sense of obligation to adhere to policy use on email. Without policies in place, managers become distracted from performing daily tasks due to consistently sorting through email messages. P9 stated, “I should at least acknowledge receipt of the email, if not follow-up via email or in person, depending on my perceived
importance of the email to the sender and not necessarily based upon content.”

Discovered during the interviews and a focus group, employees of an older age group preferred more face-to-face conversation as opposed to using email. The discovery was interpreted as, older employees were more accustomed to interacting with coworkers via telephones, faxes, and face-to-face earlier in their careers.

**Stress.** The constant email interruptions caused by receiving new emails increase stress levels, rescind workflow, and reduce a person’s energy (Powell, 2012). Participants, who did not identify with feeling stressed from information overload because of the number of email messages received, preferred obtaining information through email rather than personal contact. The participants experiencing stress was directly related to the volume of email received. Participants identified feeling overwhelmed upon receiving large volumes of email. P12 stated, “managers get more stressed about having the technological capability to respond immediately to each incoming and/or outgoing email message due to the self-imposed pressure of responding with valuable feedback.” The researcher’s interpretation of the participants’ feedback is that managers get more stress from short-suspense (quick turnaround) email messages requesting work information or performing an immediate task. The large volume of internal email messages managers sort through and a steady pace of reading and sending email messages, adds to the feeling of being stressed (McMurtry, 2014).

Participants who did not identify feeling stressed had a personally developed email management strategy geared at handling incoming and outgoing email messages. Employees who use email often complain about feeling stressed by the large volume of messages received (Marshall et al., 2009). P3 stated, “the amount of information received
on a daily basis forces you to work more hours. If you did not, you would be behind in
taking care of business.” P21 stated, “you can transmit or receive large amounts of
information via email, but if the sender does not properly frame or summarize the
information, the receiver is left trying to decipher amounts of data, which quickly results
in stress.” The effect of deciphering through large amount of data could result in acute
stress. One of the symptoms of acute stress is anxiety. When a person’s physical or
emotional wellbeing is threatened, the human body and brain undergo a biologically
programmed response that is governed by two chemicals: adrenaline and cortisol
(Popovic, 2013). The researcher interpreted that participants unwillingly contribute
towards stress without realizing they are the main reason for the occurrence. Stress is
cause by the internal conversations people have about what is happening, rather than the
event itself (Popovic, 2013). Stress dramatically lowers mental performance by impeding
all cognitive functions, particularly memory, concentration, decision-making, and
creativity (Popovic, 2013). To gain managers’ insight on the triggers of stress within
organizations, P7 stated, “I believe personality type has a lot to do with whether or not
they feel stress.”

Based on participant feedback, unsolicited emails can lead to stress when
managers are not prepared to sort through the vast majority of email messages. P11
stated, “I watch my colleague receive email messages on his personal phone, and I know
he is not comfortable in not knowing what has hit his inbox, even during his personal
time.” The absence of verbal cues leads to miscommunication through email messages
and can result in stress for employees (Bakker & Derks, 2010). The interpretation of
participants’ feedback is, although the emails are unsolicited, managers felt an obligation
to read messages before deciding on what action (delete or retain) to take. The negative impact on work productivity caused by email overload threatens to take over the workday (Powell, 2012). A manager’s inability to organize email inbox messages based on priority contributes to email overload (McMurtry, 2014). Managers who use email for authorized purposes contribute towards a productive work environment (Smith, 2013).

Summary

The problem was a lack of knowledge regarding the effect of email-related obligation and stress on job productivity as perceived by managers. The qualitative study enabled the examination of the effect of email-related obligation and stress on job productivity for manager workload. Findings from the study included evidence about the effect of email-related obligation and stress on job productivity as perceived by managers. Two identified challenges emerged during the analysis and interpretation of the results. The two challenges were obligation and stress. The sample population for the study were managers working fulltime at a Fortune 500 aerospace defense consulting firm (n = 22).

The utilization of the qualitative analysis software tool, ATLAS.ti 7 for Windows facilitated the analysis of participant responses. Conducted analysis enabled the determination of similarities, differences, themes, key-terms, and repeated words from participant responses. The results from the analysis indicated the effect of email-related obligation and stress on job productivity as perceived by managers. Chapter 5 includes the summary of the study and findings. Chapter 5 also includes the study’s implications and concludes with recommendations for future research and practice.
Chapter 5: Summary, Conclusions, and Recommendations

Introduction

From 2004 to 2014, employees within many organizations have had their own email capability on personally owned mobile phones, personal digital assistants, blackberries, and laptops (Singleton, 2008). Email provides numerous organizational benefits, including increased information accuracy, increased colleague interaction, create information permanency (Jackson & Van Den Hooff, 2012). According to Smith (2012), electronic communication is the primary method of communication in most workplaces and email surpassed telephone use as early as 2007. Smith’s work on email, illustrates employee use email for authorized purposes, which contribute towards a productive work environment. Ninety-four percent of all online adults use e-mail, 53% of working adults in the United States have both personal and work e-mail accounts, and 37% of people with work e-mail accounts check messages constantly (Capra et al., 2013).

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers. Twenty-two managers participated in the interviews, while 7 managers also participated in the focus group. The findings of the study resulted in an addition to the body of knowledge with the effect of email-related obligation and stress on job productivity as perceived by managers. The research findings resulted in valuable information useful for helping managers identify the effect of email-related obligation and stress on job productivity within an organization. Additionally, examining the negative and positive effect of email-related obligation and stress on job productivity, as perceived by managers, serves as a foundation for future research.
Summary of the Study

The problem was a lack of knowledge regarding the effect of email-related obligation and stress on job productivity as perceived by managers. A diminutive amount of knowledge was known about the effect of email-related obligation and stress on job productivity as perceived by managers within an organization. The research of email and the effect on productivity as perceived by managers influenced the growing concern of the health and well-being of managers (McMurtry, 2014). Therefore, managers must understand the effect of email-related obligation and stress on job productivity. Understanding the effect of email-related obligation and stress on job productivity as perceived by managers may lead to the identification of organizational processes, which could be applied when utilizing email to conduct daily work tasks.

The purpose of the qualitative study was to understand the effect of email-related obligation and stress on job productivity as perceived by managers. One research question guided this study:

How does email influence productivity as perceived by managers in an organization?

A qualitative method approach was adopted to collect research data relating to the research question. Twenty-two (22) managers who worked fulltime at a Fortune 500 aerospace defense consulting firm participated in interviews and a focus group (Appendices A & B). The results of the study indicated an effect of email-related obligation and stress on job productivity as perceived by managers within an organization exists.
Chapter 5 includes a summary of the study and a summary of the findings and conclusions derived from the data analysis. This chapter also includes the study’s theoretical, practical, and future implications. Chapter 5 concludes with recommendations for future research and practice.

**Summary of Findings and Conclusion**

An insufficient amount of knowledge exists regarding the effect of email-related obligation and stress on job productivity as perceived by managers. Bell (2000) contributed to the body of knowledge pertaining to managers and the role of email contributing to information overload by presenting how emails within organizations are managed. Due to the lack of related research on employees in the State of Texas, the study adds to the existing literature. The focus of the research question was to understand the effect of email-related obligation and stress on job productivity as perceived by managers at a Fortune 500 company. Two themes were identified: obligation, and stress. The following sections describe the themes and mitigation processes.

**Obligation.** The researcher identified during the interviews and a focus group that participants felt an obligation to reply to all incoming email messages regardless of subject, importance, or sender. This obligation extended to replying to all incoming email messages results in time-away from performing daily work tasks. The research findings indicated guidelines are needed to inform managers on how the effect of email-related obligation and stress on job productivity influences daily operation work tasks. A need for a policy on email use does exist with the firm. The conclusion drawn from participant feedback is that implementing an organizational email policy is the main challenge faced by the participant’s organization. Participants were unsure of the long-term benefits to
having an organizational email-use policy. Understanding the need for an organizational email policy adds to the current body of knowledge relating to the effect of email-related obligation and stress on job productivity as perceived by managers.

**Stress.** The findings of the research study indicated the constant interruption of incoming and outgoing email messages increase managers’ stress levels. Regardless if email messages require an immediate response or not, the thought of unread email messages sitting in personal inboxes adds stress to managers. Managers with established self-developed procedures for managing email messages reduce the likelihood of stress. The managers who did not have self-mechanisms in place experienced symptoms of acute stress. The conclusion drawn from the research is managers feel stressed when a process is not in place to sort through and organize incoming and outgoing email messages effectively.

**Conclusion.** The barrage of incoming email messages stemming from outside corporate boundaries and the combination of personal use of corporate email are presenting the issue of unwanted information to information technology managers (McKeen & Smith, 2012). Powell (2012) revealed email overload in the workplace adversely influence productivity and threatens the working day. The sheer volume of information exchanged between employees in the workplace during a live communication is vast and underestimated (Powell, 2012).

The findings of the research add to the body of knowledge pertaining to the effect of email-related obligation and stress on job productivity as perceived by managers and literature found in Chapters 1 and 2. The purpose of the study was to add to theoretical understanding by the effect of email-related obligation and stress on job productivity as
perceived by managers. Ultimately, the research results indicated the effect of email-related obligation and stress on job productivity as perceived by managers within an organization. The research question was answered. The findings of the research study are bounded by the research study’s methodology parameters described in Chapter 3.

Implications

**Theoretical implications.** The determination was made emphasizing the effect of email-related obligation and stress on job productivity as perceived by managers does exist. Given the literature supporting email overload in the workplace, the study’s research findings support the effect of email-related obligation and stress on job productivity as perceived by managers. Based on the findings of the study, managers should now be able to recognize the symptoms associated with the effect of email-related obligation and stress on job productivity in an organization.

**Practical implications.** According to the findings, one might imply excessive email influences managers’ productivity. Moreover, based on the findings, one might imply a manager’s workload is influenced by the sending and receiving of emails. Finally, based on the findings, one might imply that the effect of email-related obligation and stress on job productivity as perceived by managers; does influence the daily operation work tasks.

**Future implications.** The research design did not facilitate the examination of managers’ work ethics directly relating to work productivity. Though the research findings add to the understanding of the effect of email-related obligation and stress on job productivity as perceived by managers, there are still unknowns regarding the
research topic. Future research efforts might include qualitative methods, or incorporating questions exposing managers’ work ethics directly relating to work productivity.

Recommendations

**Recommendations for future research.** The determination reached supporting the effect of email-related obligation and stress on job productivity as perceived by managers, serves as a foundation for experimental research. The first recommendation for future research is to understand whether managers’ work ethics directly affect work productivity. The examination of whether managers’ work ethics directly relates to work productivity could be beneficial. Knowing the relation would be complementary to the study. The recommendation would be to interview managers using a qualitative research method.

A second recommendation for future research is to determine managers’ effect of email-related obligation and stress on job productivity when receiving email messages encompassing large attachments. Replicating the proposed research could unfold how managers’ sense of obligation to open large attachments is perceived. Dealing with large email attachments may lead to organizational development and implementation of policies designed to reduce the effect of email-related obligation and stress on job productivity as perceived by managers. Organizations would benefit from knowing the direct impact of large attachments relating to work productivity. Knowing the impact of large attachments would be complementary to the study. The recommendation would be to conduct interviews utilizing a qualitative approach for the study.

Third, a recommendation for future research is to study managers’ personal interactions towards each other while experiencing stress. Replicating the proposed
research could expose managers’ behavioral patterns relating to stress. Organizations could benefit from knowing how manager behaviors influences work productivity. Knowing managers behaviors would be complementary to the study. A qualitative approach would be ideal to conduct participant observations.

Finally, future research concerning the effectiveness of email policies within organizations is recommended. Replicating the study would prove valuable in determining the effectiveness of email policies. Policies designed to address email use within organizations could be beneficial in terms of identifying recommended changes for daily work operations. Knowing benefits of email policies would be complementary to the study. The recommendation would be to utilize interviews as part of the qualitative approach.

Regarding significance of the study, an insufficient amount of knowledge exists regarding the effect of email-related obligation and stress on job productivity as perceived by managers. Due to the negative impact on managers work productivity caused by email overload within organizations (Powell, 2012); the study adds knowledge to the worldwide body of literature; hence the significance of the study.

** Recommendation for Practice.** The first recommendation is for managers. Detrimental to successfully completing daily organizational work tasks are the assertiveness of the managers who use email to accomplish the feat. With the understanding of completing daily work tasks, the benefits are apparent for organizations to create managerial awareness of the effect of email-related obligation and stress on job productivity. Additionally, the recommendation for managerial awareness should encompass training programs geared towards teaching managers to identify the
symptoms affecting productivity. Without a sound understanding of the effect of email-related obligation and stress on job productivity as perceived by managers, it will be difficult for organizations to measure managerial attitudes towards email.

A second recommendation is for non-managers who are in line for career advancement. To prepare for the increase on the upcoming change in organizational work tasks, non-managers should seek advice from current managers. With the understanding of increased work tasks, the benefits are apparent for non-managers to learn the intricacy of identifying symptom affecting productivity. In addition, managers should relay self-identified findings to non-managers. Organizations utilizing email to perform daily work tasks will benefit from reading and implementing the results of the study.

**Conclusion**

The effect of email-related obligation and stress on job productivity as perceived by managers influenced the rising concern of email taking away from managers’ time. Managers continuously monitoring email throughout the workday do not experience an increase in productivity. Because email technology became commonplace within organizations, the inclination to read email messages as led to a decrease in productivity. Organizations utilizing email to perform daily work tasks will benefit from reading and implementing the results of the study. As more managers become familiar with the effect of email-related obligation and stress on job productivity, the more likely managers will benefit.
References


Bell, B. K. (2000). *The role of e-mail on information overload in organizational managers.* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 9968770)


http://www.computerworld.com/article/2551320/it-management/information-overload--is-it-time-for-a-data-diet-.html


doi:10.1145/2764465


doi:10.1080/14780887.2012.743202


doi:10.1080/08832323.2011.608388

Appendix A

Email and Information Overload Interview

Name:

Gender:  M  F

Managerial level:  Top  Middle  Junior

1) What is your experience with e-mail here in the office?

Researcher Note: To provide clarity to participants (if needed), the question will be rephrased to “how many years within the organization do you have sending and receiving email”

2) How much e-mail do you send and receive each day? Do you ever feel that you are overwhelmed by all that e-mail?

Researcher Note: To provide clarity to participants (if needed), the question will be rephrased to “how many emails do you send and receive each day”

3) Could you categorize the types of e-mail you typically receive, e.g., internal e-mail, e-mail from customers, listservs, spam?

Researcher Note: To provide clarity to participants (if needed), the question will be rephrased to “could you categorize how many emails you receive daily from internal and external sources”

4) How do you handle all the e-mail that comes into you?

Researcher Note: To provide clarity to participants (if needed), the question will be rephrased to “how do you prioritize emails you receive daily”

5) Do you set any filters (human or technological) on the e-mail that you receive?

6) How do you think policies on the use of e-mail would be received by workers here?
**Researcher Note:** To provide clarity to participants (if needed), the question will be rephrased to “how do you perceive policies outlining the use of email would be received by managers”

7) Do most of your colleagues appreciate having and using e-mail?

**Researcher Note:** To provide clarity to participants (if needed), the question will be rephrased to “how do your colleagues perceive having and using email for daily operation work tasks”

8) If you could recommend one way to make e-mail use more effective in this organization, what would that be?

9) Do you have anything more you'd like to add on this subject?
Appendix B

Focus Group on Email and Information Overload Interview

1) How many years have you been using email for daily operation work tasks?

2) How many email messages do you read daily?

3) How many email messages do you write daily?

4) How many emails do you receive daily from coworkers versus non-coworkers?

5) How do you react emotionally to receiving more emails than what you are typically used to?

6) When you receive more emails than you are typically used to, how does this affect your work productivity? Increase or decrease?

7) How do you feel when work productivity is affected by receiving and sending more emails than you are typically used to? Positive or negative?

8) What would you recommend to be the most effective way to sort through emails on a daily basis?
Appendix C

Invitation Letter to Participate in Research Study

TO: Participants
FROM: Ainsley Dean Linton
SUBJECT: Invitation to Participate in Research Study
DATE: February 1, 2015

Dear Participant,

I am a doctoral student at Columbia Southern University and I am writing this letter to invite you to participate in a research study dealing with the effect of email-related obligation and stress on job productivity as perceived by managers. I am conducting a research study and would like you to participate. I am requesting your participation, which will involve the following steps:

1. Participants will need to consent to participate in the study. Participants will be required to return signed consent to researcher during face-to-face interview, or focus group.

2. The research data will be collected using two distinct collection methods: face-to-face interviews, and focus group

3. Each participant will be required to complete a research face-to-face interviews, and focus group

4. The face-to-face interviews and focus group will each take approximately 10 minutes to complete
Participation is voluntary and participants can choose not to participate. If you choose to participate, you can withdraw from the study at any time without penalty.

Protection of participants’ identity, confidentiality, and security of research data will be accomplished by entering research data from face-to-face interviews and focus group onto my Microsoft Windows computer and placed into a locked room located at a residential building. Access credentials (username and password) for Microsoft Windows computer will be kept confidential to ensure only authorized access to the research data. No reference to your company will be made on, during, or after the study. All research documentation relating to the study will be kept on file for a minimum of three years upon completion of research study. After three years, all research documentation will be destroyed through utilization of a shredding machine.

Please let me know if I can answer any questions or concerns that you may have regarding the request. Feel free to contact me at deanlinton@yahoo.com or 210-833-9727.

Sincerely,

Ainsley Dean Linton

DBA Student
Appendix D

Site Permission to Conduct Research

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RE: Request Permission to Conduct Dissertation Study with

Staff

Mr. Miller [USA]

To:       Linton, Ainsley [USA]
Cc:   Miller, Michael D [USA], Myers, Matthew [USA]

Wednesday, December 10, 2014 10:28 AM

* You replied on 12/10/2014 2:30 PM.

Ainsley,

We are supportive and you can proceed. However,

1. We (SSALT) would like to review your email that goes to staff
2. Recommend you start with some Senior Associates and above and Matt so we can ensure we don’t have any other concerns
3. You need to be clear on time charging (e.g., people participate on their personal time)
4. We would want to ensure there is no reference to [redacted], the specific work we do, or specific names in the dissertation

If these terms are acceptable, you can proceed.

Sincerely,

Bob Miller
Principal

---

Phone

Cell:
Appendix E

Informed Consent Notification

INFORMED CONSENT TO PARTICIPATE IN A RESEARCH STUDY

The Effect of Email-related Obligation and Stress on Job Productivity as Perceived by Managers

1. I agree to have Ainsley Dean Linton ask me a series of questions about the effect of email-related obligation and stress on job productivity as perceived by managers within an organization during a face-to-face interview session lasting approximately 10 minutes.

2. I agree to have Ainsley Dean Linton ask me a series of questions about the effect of email-related obligation and stress on job productivity as perceived by managers within an organization during a focus group session lasting approximately 10 minutes.

3. I understand participation is voluntary and I can choose not to participate, or if I do participate, I can withdraw from the study at any time without penalty.

4. The face-to-face interview and focus group will not affect my employment or pay status with the organization and the data collected will only be used for the purpose of this study.

5. I understand my responses will be kept confidential and the results of the study may be used in reports, publications, or presentations, but my name or organization will not be used.

6. I understand if I have any questions regarding this research, I can contact Ainsley Dean Linton at telephone: 210-833-9727 or email: deanlinton@yahoo.com.

7. If I have any questions about my rights as a participant in this research study, or if I feel I have been placed at risk, I can send an email to dba@columbiasouthern.edu and someone will contact me.

I ___________________________ consent to participate in the study described, understand that my participation is voluntary, and that I can withdraw from the study at any time.
Appendix F

Permission to Use Research Tool / Questions Created by Others

On Mon, 11/10/14, Bell, Bruce K (College of General Studies Admin)

<bkbell@liberty.edu> wrote:

Hide message history

Subject: RE: Permission to Use Dissertation Study -- The Role of E-Mail on Information Overload in Organizational Managers
To: "DEAN LINTON" <deanlinton@yahoo.com>
Cc: "Barbara Bell" <bkbell@msn.com>
Date: Monday, November 10, 2014, 10:41 AM

Good morning, Dean,
I'm happy to grant permission for you to use (replicate) my dissertation study. When I was conducting my research in 1999, e-mail was not as mature as it's become today, and I'm sure your research will be a fascinating update to what I discovered 15 years ago. I'd be delighted to receive a copy of your abstract when you complete your work.

Best wishes on your dissertation,

Bruce Bell

Bruce K. Bell, Ph.D.
Associate Dean
College of General Studies
(434) 592-3863
Liberty University  |  Training Champions for Christ since 1971
Hi, Dean,

I am honored to offer this permission for you to utilize any research tools that I designed for my research and dissertation on the role of e-mail on information overload in organizational managers.

Best wishes as you continue your studies,

Bruce Bell

Bruce K. Bell, Ph.D.
Associate Dean
College of General Studies
(434) 592-3063
Thank-You Letter for Participating in Research Study

TO: Participants
FROM: Ainsley Dean Linton
SUBJECT: Thanks for Participating in Research Study
DATE: February 1, 2015

Dear Participant,

Thank you for participating in the study intended to understand the effect of email-related obligation and stress on job productivity as perceived by managers within an organization. The Email and Information Overload Interview and Focus Group on Email and Information Overload Interview will be scheduled 2 business days after your consent to participate in the study. A reminder email will be sent 3 business days after agreed-upon date, time, and location for Email and Information Overload Interview and Focus Group on Email and Information Overload Interview.

Please let me know if I can answer any questions or concerns that you may have. Feel free to contact me at deanlinton@yahoo.com or 210-833-9727.

Sincerely,

Ainsley Dean Linton

DBA Student