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College of Social and Behavioral Sciences

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2013

Abstract

Electronic Government Barriers and Benefits as Perceived by Citizens Who Use Public Services

by

Tamika Russell

M.P.A., Walden University, 2009

B.S., Louisiana State University, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Electronic government (e-government) is a convenient way to provide services to citizens and businesses, but many disadvantaged citizens are unable to benefit from such services. The purpose of this qualitative phenomenological study was to identify and analyze the barriers and benefits of e-government use as perceived by citizens. The conceptual framework for this study was based on the rational choice theory and the technology acceptance model. The research questions were centered on how the cost of computers, Internet access, technology skills, familiarity with computers, and cultural views affect citizens' use of e-government services. Data were collected using in-depth semistructured interviews to determine e-government use from the perceptions of 10 participants. Data were analyzed by coding interview transcripts and identifying common themes. Results indicated that the perceived barriers to and benefits of e-government were associated with citizen use; the relationship of the cost of computers and Internet access and fees, however, was less prominent. The results also indicated that lack of trust and privacy concerns deter e-government use considerably more than any other barrier and that peer and family experiences with the Internet have a slight connection to e-government use. Recommendations for public policy makers are to create more user-friendly government websites, promote citizen awareness of e-government, and encourage government initiatives that ensure affordable e-government access for all. Implications for social change include decreased costs for the government and citizens, along with increased civic engagement, digital inclusion, and e-government reform.

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# Dedication

This dissertation is dedicated to my beautiful mother, Constance Russell. I could not have done this without her unwavering support, understanding, motherly wisdom, and sacrifice.

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# Chapter 1: Introduction to the Study

## Background

Electronic government, also known as e-government, is a convenient way for citizens to access services and to conduct business with the government using the Internet and saves citizens and the government both time and money. More specifically, the Internet has become an inexpensive and efficient tool for information delivery, with traditional services having been transformed by this delivery method (Hong, Katerattanakul, & Joo, 2008). Traditional modes of interacting with the government such as an in-person visit, by telephone, and by letter can be inconvenient and costlier for both citizens and the government.

The Internet is a part of the daily lives of many in the United States. As a growing number of citizens use the Internet, more and more public services are being offered online to the point that e-government has become an essential policy tool for the government (Das, DiRienzo, & Burbridge, 2009). E-government is likely to significantly change the way that the public interacts with the government (Holden & Millett 2005).

Many public services are offered online for citizens to use. Citizens are now able to pay their property and income taxes online, file their tax returns, apply for unemployment services, renew their drivers' licenses, research political candidates or elected officials and their platforms, file complaints, register to vote, and participate in electronic voting. In Charlotte, North Carolina, citizens can also search public websites and library websites, change their addresses, register vehicles, file police reports, apply

for jobs, and download official forms on the Internet. According to Asgarkhani (2007), the benefits of e-government include providing expedient government services to citizens and businesses, improving the economy, allowing for greater public access to information, empowering citizens, and making the government more accountable to its citizens. Yet, these benefits are not equally distributed.

For a variety of reasons, all citizens do not use or benefit from the Internet. Citizens who have certain cultural views or have a mistrust of government or technology may not be inclined to use e-government services. Their opposition toward the adoption of e-government is derived from mistrust in technological change that requires the use of computers to receive services normally received from direct human exchanges (Bolgherini, 2007). Many citizens are more comfortable interacting face-to-face with a person than they are with using a computer. In addition, if citizens have negative feelings about the government in general, their feelings are less likely to improve just because the government is now providing services in an automated format (Bolgherini, 2007; Horsburgh, Goldfinch, & Gauld, 2011).

Equally important, many citizens of low socioeconomic status (SES) are not able to reap the benefits of e-government in an equitable manner (Belanger & Carter, 2009). Typically, these citizens cannot afford to purchase personal computers and Internet services or they may be fearful of technology. Although citizens have access to the Internet and help at some public libraries, some libraries in Charlotte, North Carolina, have closed, many library technology programs have been cut due to loss of funding, and

other libraries are only open four days of the week (Charlotte Mecklenburg Library, 2011). In addition to the lack of affordable equipment, citizens of low SES typically lack the required computer skills needed to access e-government websites (Aerchot & Rodousakis, 2008). As a result, these individuals are at risk of becoming socially excluded (Aerchot & Rodousakis, 2008). The lack of access and skills described above may result in lowered use of e-government services, which citizens of low SES are more likely to need to survive (Cathcart, 2008; Sourbati, 2009).

Most governments believe that access to Information and Communication Technology (ICT) solutions is critical for economic and social development (Asgarkhani, 2007). The divide between disadvantaged populations and those who are able to take advantage of digital services may limit the success of e-government because one of the determinants of e-government success is based on its broad citizen acceptance and use. Although many in the United States are able to access and use the Internet, significant numbers of individuals do not access the Internet, and therefore forfeit the use of e-government services.

Internet use is common, but for some individuals the Internet is an unknown concept. According to the Pew Internet & American Life Project (2011), 78% of Americans use the Internet (para. 1). In this project, mobile phone interviews were conducted with 2,277 men and women, in English and Spanish, with individuals of varying ethnicities, ages, incomes, and educational levels from urban, suburban, and rural communities. The results of the Pew Internet & American Life Project showed that older

African Americans and Hispanics with lower incomes and lower levels of education use the Internet significantly less than others.

For this study, I chose to research citizens who use public services in Charlotte, North Carolina to determine the extent of e-government barriers and benefits from citizens who use or do not use e-government services. In 2010 in North Carolina, the Census Bureau reported that 77% of individuals used the Internet and 23% did not (United States Census Bureau, 2012). Although Internet use does not necessarily equate to e-government use, almost a quarter of Americans in the United States forfeited the use of e-government services. In this study, the barriers and benefits of accessing and using e-government services from the perspectives of citizens who use public services were identified and analyzed.

Low SES is a strong quantitative indicator of whether a person uses e-government services (Belanger & Carter, 2009; Thomas & Streib, 2003). I found little qualitative research in the literature that assesses and expresses the comprehensive needs, feelings, and barriers and benefits from the perspectives of citizens who use public services. Most of the prior research was quantitative and involved administering surveys, evaluating government websites, or surveying government employees and web masters (Barrett & Wise, 2008; Colesca, 2009; Das et al., 2009; Dimitrova & Chen, 2006; Merchant, 2007; Sylvester & McGlynn, 2009; Wohlers, 2007). Quantitative studies often lack both detailed meaning and described experiences from the participants because the researchers

are isolated in these studies and the data are not collected in the participants' natural settings.

In this study, I interviewed citizens to determine their perceived barriers and benefits of e-government use and gathered their ideas on how to overcome the barriers. This study's results could ensure that an increased number of citizens are able to benefit from e-government services. A phenomenological approach using interviews was the most appropriate method for this study because the life stories and lived experiences of study participants allow researchers to gain in-depth information and to understand the citizens' perspectives (Sweeney, 2007). It is imperative for researchers to focus on learning the participants' meanings or views as these relate to problems or public issues (Creswell, 2007).

## Problem Statement

Significant numbers of citizens are unable to use, access, or benefit from e-government services. This problem affects disadvantaged groups who require public services; these groups include people with disabilities, older adults, and people of low SES (Aerschot & Rodousakis, 2008; Bélanger & Carter, 2009; Hong et al., 2008). Possible causes of this problem are an access and skills divide, in which age, education, ethnicity, and income are predictors of technology use (Bélanger & Carter, 2009). Cultural points of view, such as trust, privacy and security concerns, religious beliefs, building social capital, and dislike of government are also strong indicators of technology use (Bolgherini, 2007; Evans & Yen, 2005, Komito, 2007). Individuals who use e-

government services most often tend to be of European ancestry, have higher incomes, have more education, and are younger than general Internet users (Thomas & Streib, 2003). The poor, less educated, older adults, African Americans, and Hispanic Americans are less likely to use e-government services. Government agencies that provide e-government services to privileged citizens ignore the prospect to interact with and solicit feedback from the broader population via the Internet (Belanger & Carter, 2009).

The cultural resistance of citizens and politicians caused by cognitive and behavioral practices has also hindered the implementation of e-government services (Evans & Yen, 2005). There could be an increase in e-government use if policies were implemented that will include disadvantaged individuals in Internet and e-government initiatives. Otherwise, even when elaborate government services are offered online, if people do not or refuse to make use of these services, investments are potentially wasted and efforts are made in vain (Islam, 2007). Although not all citizens will be interested in e-government services, if barriers are addressed then it is possible that more nonusers will begin to use e-government services and others will become more frequent users. When leaders explore and comprehend the problems with e-government, they can create public policies that increase e-government use, develop effective and efficient state governance mechanisms, improve citizen satisfaction, reduce government operating costs, and ensure optimal use of the government's resources.

## Purpose of the Study

The purpose of this qualitative phenomenological study is to describe and analyze the attitudes toward the barriers and benefits of e-government use as perceived by citizens who use public services in Charlotte, North Carolina. E-government services allow citizens to connect with elected officials, to find current information, to apply for needed government-offered services, and to conduct government related financial transactions online without having to travel outside of their homes, wait in long lines, or adapt to restrictive business hours. The results of this research study will highlight the costs, access and skills issues, and cultural aspects associated with e-government use, and guide public policy makers in establishing policies that may increase the use of e-government services.

This study will add details and meanings to the body of knowledge from frequent, infrequent, or non e-government users and will contribute new knowledge on reducing barriers to the use of e-government and provide a central understanding of the drawbacks of e-government as a whole. The perspectives of the participants in this study will describe additional or unknown barriers and benefits as well as those that are common in the literature. According to Zambrano (2008), the government should focus on stakeholders and citizens' desires and encourage their involvement in decisions that affect them because this would allow governments to be better prepared to provide citizens in marginalized areas with services and benefits of e-government. It is possible that new barriers and benefits may be discovered and taken into consideration by

policymakers as a result of this study. The results of this study may also allow public policy makers to be proactive by anticipating the needs of a broad spectrum of citizens, and especially those citizens who use public services and are not benefitting from e-government services.

## Nature of the Study

In order to address the problem, a qualitative phenomenological study was conducted to describe the perceptions of the use of e-government of citizens who use public services in Charlotte, North Carolina. This study entailed obtaining data from in-depth interviews of 10 research participants. A sample size of 10 is the norm for qualitative phenomenological studies because saturation of the collected data is typically reached with this number of participants (Creswell, 2007). Chapter 3 contains a more detailed explanation of the sample size.

Charlotte citizens were specifically chosen for this study because some of the public libraries in Charlotte have closed or hours of operation have been cut, resulting in reduced access to the Internet. Lack of access may be an additional barrier to e-government use. The main research question along with four subquestions served as the basis for this study and for devising the interview questions. A comprehensive discussion of this study's methodology is provided in Chapter 3.

## Research Question

The research was guided by one main research question: To what extent do barriers and benefits affect citizens' decisions to access local e-government services, such

as applying for unemployment and medical benefits, paying taxes, or paying a speeding ticket? Several subquestions stemmed from this inquiry:

1. What effects do the costs of personal computers, smart devices, and Internet access and fees have on the use of e-government services?
2. How do technology skills and familiarity with computers affect citizens' use of e-government services?
3. How do trust of paperless transactions and privacy concerns about personal information affect citizens' use of e-government services?
4. How do peer and family experiences with the Internet affect citizens' use of e-government services?

## Conceptual Framework

The conceptual framework for this study provided the foundation to analyze the decisions of individuals to use or not use e-government services, and it is supported by two contrasted theories. Rational choice theory (RCT) provided one theoretical perspective for this study. RCT is used to explain the attitudes of citizens toward e-government use. RCT is also known by several other names such as the rational actor model, utility maximizing, public-choice, and formal theory.

The other theoretical perspective of the conceptual framework for this study is the technology acceptance model (TAM). According to Lee, Kozar, and Larsen (2003), the TAM is a widely accepted theoretical model in the Information Systems (IS) field. Researchers consider TAM to be its very own theory and some marketing studies use

TAM as a theoretical foundation for analysis (Lee et al., 2003). The basic tenets of TAM are applicable to the participants of this study.

RCT is applicable to this study for several reasons. RCT is not a description of behavior, but it remains unequaled as a normative theory; RCT informs how individuals should behave in order to maximize reinforcement and not how they always behaves (Herrnstein, 1990). According to Herrnstein (1990), no other theory of behavior is as well-articulated and commands such a large following in such a wide range of disciplines than is RCT. Six postulates exist that explain RCT:

1. Any social phenomenon is the effect of individual decisions, actions, and attitudes.
2. Any action can be comprehended.
3. Any action is caused by reasons developed in individuals' minds.
4. Actions derive from the contemplation of the consequences perceived by the actor.
5. Actors are mainly concerned with the consequences of their actions but only as it relates to them.
6. Actors are able to differentiate the costs and benefits of alternative actions and, ultimately, to choose the line of action with the most advantageous outcome (Boudon, 2009).

Postulate six (P6) is known as the postulate of maximization or optimization (Boudon, 2009). P6 is the most applicable principle upon which to base this study's

research. In other words, according to RCT, people make decisions based on self-interest and utility maximizing to obtain the highest levels of satisfaction and the opinions of others do not affect decision making. This may lead to the conclusion that people will use e-government services if the cost and benefit equation is judged to be in their favor, and this is one premise of this research study.

The TAM was developed by Davis (1989) and is one of the most often used instruments to measure the acceptance of and intention to use new technology and to understand cultural differences in the intention to use information technology (Merchant, 2007). According to Lee et al. (2003), the TAM is described as a theory explaining an individual's acceptance of information systems; this acceptance is determined by two major variables: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). According to Merchant (2007), the TAM has been validated in the United States, Switzerland, and Arabic countries but not others, and for this reason culture may be predictive of technology adoption. According to the TAM, people will access e-government services if the services are beneficial to them more so than traditional methods. In addition, based on the TAM, people will use e-government services if the websites are easy to use.

## Operational Definitions

*Culture*: Values, morals, and beliefs that are typically shared by most members of a particular group, such as a religion or family, and that shapes behavior or shapes an

individual's perception of situations, topics, public problems, and the world in general (Merchant, 2007).

*Digital Divide*: The differences in access to technology and information, knowledge, and computer literacy among individuals of various socioeconomic statuses (Belanger & Carter, 2009).

*Digital or Electronic Government (E-government)*: The use of the Internet or other ICTs to provide government and government sponsored services to citizens by offering them another option or opportunity to choose how they connect with the government (Asgarkhani, 2007).

*Disadvantaged:* Individuals who come from an environment that has hindered or prevented the individuals from gaining knowledge, skills, and abilities required to achieve goals such as enrolling and graduating from school, and includes individuals who come from a family with an annual income below the federal government's poverty thresholds (John Hopkins Medicine, 2012).

*E-government Barrier*: Legal, social, or technological issues that prevent the development of networked governments by hindering the demand and supply and by restricting efforts to change the manner in which access to information, people, and public services is delivered on the Internet (Eynon & Dutton, 2007).

*E-commerce*: The use of the Internet by citizens to conduct business or government transactions that typically involve the interchange of money for goods and services (Thomas & Streib, 2005).

*E-democracy*: The use of the Internet by citizens to email, to vote, to participate in chat room forums, and to complete surveys, all of which encourage citizens to be involved in the decision making processes of government and public affairs and to voice their opinions or complaints about government and public issues to their elected representatives on the local, state, and federal government levels (Thomas & Streib, 2005).

*E-research*: The use of the Internet by citizens to search for information that may be related to the government or businesses (Thomas & Streib, 2005).

*Information and Communication Technology (ICT)*: The outlet in which e-government services are provided to citizens and businesses through various electronic means and networks such as the Internet, email, home phones, cell phones, and kiosks, which are small computerized structures similar to an automatic teller machine, which can be used to conduct business with the government (Islam, 2007).

*Low Socioeconomic Status (Low SES):* Individuals or families who typically lack financial, social, occupational significance, and educational supports as well as insufficient or restricted access to community resources and social capital (NCREL, 2012).

*Perceived Ease of Use (PEOU)*: PEOU is the extent to which an individual believes that using a system will not require effort and whether that system is perceived to be easier to use than others (Merchant, 2007).

*Perceived Usefulness (PU):* PU is the extent that an individual trusts in using a system to enhance his or her performance, complete a task, and experience a successful user association, in return (Merchant, 2007).

*Public Policy*: The approach that the government uses to address public issues or problems and is done typically by creating a plan of action in the form of laws, regulations, and decisions that govern how individuals must respond to problems such as Internet privacy (Anderson, 2006).

*Public Services:* Government provided services that are either economic or social to those in need including but not limited to public transportation, disability assistance, child assistance, in-home services, health care, job training, transitional housing, and assistance for immigrants and veterans assistance (Public Social Services, 2012). Other types of public services include the department of motor vehicles (DMV), public libraries, and food and nutrition services formally known as food stamps (Mecklenburg County Government, 2012).

*Utility Maximizing*: A choice that a person will make based on the highest level of satisfaction that can be achieved as a result of that person's actions and choices (Boudon, 2009).

## Assumptions

It was first assumed that the interview respondents would answer the questions honestly, to the best of their knowledge, and voluntarily. This was facilitated by explaining to the respondents that there were no right or wrong answers, by asking the

interview questions using terminology that the respondents could understand, and by obtaining informed consent. The second assumption was that study participants were capable of understanding the questions and precisely express their opinions about e-government, barriers and benefits of its use, and their use of traditional and e-government services.

## Limitations of the Study

In this study, the first limitation is that a purposeful sampling strategy was used from one city in the United States. The perceptions of these citizens may differ from those in other cities or states. Although many of the barriers that citizens face who use public services in one city may be experienced in other cities, no generalization is being attempted.

Second, it was impossible to interview the entire population of citizens who use public services in Charlotte, North Carolina, due to time and resources constraints. It is also important to note that although study participants currently live in Charlotte some may have relocated from other states or surrounding areas. A sample of the citizens was obtained from users of the University City public library, two departments of social services (DSS) offices, nonprofit employees, and public school employees.

## Scope and Delimitations

The scope and delimitations of this study originally included obtaining research participants from among individuals who use the services of the public library and the department of social services locations. In other words, citizens who did not frequent

these specific locations were not included in this study. The rationale for this decision was that citizens who use these specific public services are more likely to use traditional methods of contacting the government rather than e-government services. These locations were ideal for finding citizens who need and use public services, some of which can be found on e-government websites. Due to low response from the intended population, nonprofit and public school employees were also included as research participants. Second, this study is limited to the perceived barriers and benefits of e-government use by citizens who use public services in Charlotte, North Carolina. Some of the barriers and benefits may be artificial. More information about the population and sample size is provided in Chapter 3.

## Significance of the Study

E-government is an important public policy topic to research and explore, especially as Internet use increases. Through e-government, citizens can conduct business with the government; apply for needed services; give input on public matters; become more familiar with navigating official websites, understanding technology, and protecting their privacy; and can save money and time by not having to travel outside of their homes to register for and to receive government services. The government can also conserve resources and strengthen the government-citizen relationship with the provision of e-government, by reducing paperwork, increasing efficiency and effectiveness, ensuring revenue growth, and lowering corruption. A more detailed discussion of the benefits of e-

government is provided in Chapter 2, but this study is significant for several other reasons.

It is anticipated that data resulting from this study will fill an important gap in the literature on e-government. That gap is the extent to which citizens use e-government services and the barriers and benefits that may be associated with its use. These citizens can potentially provide valuable information, which might increase e-government use and save all parties time and money. In return, citizens' awareness of e-government services may be heightened and, thus, increase citizens' participation with the government via the Internet. In addition, the findings of this study could inform the development of e-government policies and complement the results of the quantitative studies on e-government barriers.

Second, the participants in this study, especially those who may be unfamiliar with e-government, may directly benefit from this study. After the interview, participants were given a list of helpful government websites on the local and state level and usage tips. In addition, this study may help participants feel empowered by giving them the opportunity to voice their opinions about accessing government services, which they use and depend on for survival. It is likely that the traditional methods of contacting government will eventually become obsolete, and even today, there are some services such as applying for certain jobs that can only be completed on the Internet.

Third, the findings of this study might provide practical solutions to overcome barriers and to increase the benefits of e-government use that have not been applied or

considered. Fourth, this study will contribute to the body of knowledge on e-government barriers and benefits by confirming, dispelling, or giving a different perspective on e-government. It is important to strengthen and add current information to the body of knowledge on e-government so policy makers can have available research to aid in their decision making process. In addition, this study may validate the barriers and benefits that are discussed in the literature as well as discover new barriers and benefits.

Last, this study is important for the evaluation of government programs. The importance of e-government evaluation is necessary because of the significant investments made by the government to deliver services (Alshawi & Alalwany, 2009). This study will analyze the barriers and benefits of e-government. E-government has become a part of the public policy and administration field; likewise, the Internet has now become an extension of the face of the government. As a result, the government should be aware of how to make the best use of its investment and to ensure that individuals who need essential government services are able to benefit fully from the convenience of e-government services.

## Social Change Implications

E-government is a medium for promoting social inclusion through better access to services and the democratic process (Asgarkhani, 2007). Those with limited access, skills, or the desire to use this technology should not be excluded from access to e-government services or the democratic process (Asgarkhani, 2007). Once citizens have increased access to the Internet and developed computer skills, positive social change can

occur and there is potential to close the digital divide that has been well-documented for many years. The digital divide is important to close because budget cuts have reduced hours at post office branches, libraries, and government offices, and some locations have been permanently closed.

Citizens could continue to use traditional services, but they should be afforded the choice and opportunity to use more convenient services as well, instead of the decision being made for them due to lack of access and skills. Once the barriers to e-government have been reduced or removed, then an increasing number of citizens who use public services may be able to benefit from e-government services. Furthermore, when e-government is implemented properly it can be a cost-effective method to deliver public services (Das et al., 2009).

The benefits of e-government may include increasing efficiency and effectiveness, minimizing corruption, and reducing transaction costs, all of which can promote democracy, accountability, transparency, and economic development (Kachwamba & Hussein, 2009). All of these benefits may positively foster social change for the government and its citizens. The public sector stands to make great improvements and strides in the ways in which government services are provided as well as improving the government's reputation and relationship with its citizens. Furthermore, citizens may become more educated, technologically advanced, and politically empowered in the process.

## Summary

Many types of government services are now available online, with well-documented benefits. Despite the increased number of services being provided online, many citizens continue to use traditional methods such as writing letters, telephoning government agencies, and visiting government offices as their primary methods of contacting the government, which are slower, less efficient, and more expensive. Although the availability of electronic services has increased, many users of essential government services are not benefitting from e-government services, which are faster, less expensive, and convenient. The purpose of this study was to identify, describe, and analyze the barriers and benefits of using e-government. The perceptions of e-government from citizens who use public services may help to identify unknown barriers to the access and use of e-government and may provide ideas for how to reduce these barriers and increase benefits.

## Organization of the Study

Chapter 2 includes a review of the literature relevant to the history of e-government and identified barriers and benefits of e-government use. The main areas of focus include the progression of government and technology, government and citizens' views on e-government, and e-government policies and political decisions. In addition, this chapter discusses e-government challenges that the government and citizens face. Chapter 2 concludes with a discussion of the research methods used in other e-government studies.

Chapter 3 has a description of the research design and approach of this study. A qualitative phenomenological design was the most appropriate methodology for this study. Additionally, Chapter 3 provides an explanation for why the qualitative method was chosen over other research designs as well as a critique of the other designs. Finally, Chapter 3 contains detailed explanations of the sample size; eligibility criteria; reliability, validity, and trustworthiness of the data; the researcher's role; and the protection of the research participants.

Chapter 4 contains the results of this research study. There is also a description of the research participants, the data collection process, and the data analysis process, which includes manual coding of the data, bracketing, and the identification of discrepant cases. The results are presented by research question and by theme. Chapter 4 concludes with an explanation of the trustworthiness of this study and a summary of the chapter.

Chapter 5 provides a summary and interpretation of the findings for this study. The findings are interpreted by research question. In addition, the support for the conceptual framework is also further explained as it relates to the study's findings and the limitations of the study. The implications for social change, the recommendations for action, and the recommendations for further research are also explained. Finally, the conclusion contains the overall message of this study.

# Chapter 2: Literature Review

## Introduction

The purpose of this study was to identify and describe the barriers and benefits to e-government use as perceived by citizens who use and rely on public services. This chapter provides a detailed discussion of academic and expert work relevant to e-government, its identified barriers and benefits, and the government and citizens' perspectives of e-government. E-government is a growing trend that has gained attention over the past decade for both its positive and negative contributions to the public's interaction with government entities (Colesca, 2009). It is likely that the positive and negative attributes of e-government may explain why in Fountain's (2003) view, technological change and advances typically lead to unexpected consequences.

According to Sylvester and McGlynn (2010), Internet use is fairly widespread, yet, it is not universal. E-government provides citizens with a convenient and cost efficient way to access the government and needed services; however, as indicated in Chapter 1, there are disadvantaged individuals who are unable to benefit from the e-government services provided. Since the emergence of e-government, particularly in the last decade, the government, scholars, and researchers have tried to devise solutions for addressing adoption issues and improving e-government (Colesca, 2009). When citizens contact the government, it helps to open the lines of communication between citizens and the government, which allows them to learn about each other in regard to concerns and

contentment (Cohen, 2006). All citizens should be able to interact with government in convenient ways and have their needs heard.

Common themes emerged in the literature on e-government barriers and benefits including trust, cost, access and skills divides, citizen satisfaction, and cultural views. These barriers and benefits will be discussed in detail later in the chapter. Equally important, gaps in the literature will be noted. Evidence of the impact of e-government and Information and Communication Technology (ICTs) on the poorest populations is lacking as well as evidence about the impact of e-services and how access to these services may help with human development (Zambrano, 2008). Likewise, research on e-government does not help improve practice, offer practical recommendations, or add to the body of theory but it should (Heeks & Bailur, 2007).

Barriers and benefits of e-government use should be addressed and gaps in the literature should be filled in order for e-government to be successful and to ensure that more citizens can benefit from e-government services. This chapter will discuss e-government barriers, benefits, and gaps in the literature, how these gaps relate to this research study, and the relevance of the literature to the research questions. The weaknesses in the literature are the shallow details and the lack of in-depth perspectives of citizens who use public services, who are users or nonusers of e-government services.

## Research Strategy

Articles for this review were obtained from the following databases: Google Scholar, Academic Search Complete Premier, Computers and Applied Sciences

Complete, Political Science Complete, ProQuest, and SocioIndex. The following key words were used: *electronic government, e-government, qualitative, socioeconomic, cost, financial barriers, barriers, trust, policies, the poor, digital divide, social capital, e-voting,* and *e-democracy.* The search of these databases yielded approximately 4,260 results between 2000 and 2011; when narrowed to the years 2006-2011, the result was 2,873 results. The results for peer reviewed research were limited to full text articles and mainly publication within the last 5 years.

This review also included local and state government websites for Charlotte and North Carolina, federal websites, as well as organizational documents because they contain valuable information about the progression of e-government, surveys of citizens who do or do not use the Internet, and surveys of citizens who use government services online and offline. These websites also contained a vast amount of information about the condition of e-government in Charlotte, North Carolina. The information contained in these documents and websites were not available in the academic journals reviewed and were, therefore, deemed necessary for inclusion.

## Structure of the Review

In this chapter, the following topics will be covered: government and technology progression, a conceptual framework for technology acceptance, citizens' views, the government's view, and public policy decisions on e-government will be highlighted. In addition, a critique of the research methods used in other e-government studies will be

provided. Each topic in this review will also contain a summary at the end of each section.

## Government and the Progression of Technology

The U.S. government has transformed the manner in which it delivers services to citizens and businesses (Hong, Katerattanakul, & Joo, 2008). As technology advances, the government must find creative ways to adjust with the times and keep pace with the advancements in technology. In the past, traditional ways of contacting the government were (a) in person visits, (b) by telephone, and (c) by letter writing. Now e-government is becoming more popular among Internet users. This section will discuss the traditional methods of contacting the government, the various definitions of e-government, the evolution of e-government including the drawbacks and the improvements, and the types of e-government services offered in Charlotte, North Carolina.

### Traditional Methods of Contacting Government

Most of the research on citizen contact with the government focuses on traditional forms of contact such as letter writing, telephoning, or visiting a government office (Cohen, 2006). According to the Pew Internet & American Life Project (2010), of all the citizen contacts with the federal, state, and local governments in 2009, 29% was via telephone, 24% in person, and 17% by letter (p. 4). Prior to the emergence of the Internet, these traditional methods were the only ways that citizens could contact the government. Although the Internet now provides a more convenient way to contact government, citizens still slightly prefer telephone contact over online contact and the desire to prefer

telephone contact increases with the severity of the problem (Pew Internet & American Life Project, 2010). This may suggest an enduring preference for human interaction.

The traditional methods of contacting government can be inconvenient, time consuming, and costly for citizens. For instance, citizens must pay a monthly phone bill for their home phone services and since the surfacing of mobile phones, and some citizens no longer have home phones due to cost and unreliability. Citizens are using their mobile device as a primary phone (Qureshi, 2005). Many citizens only have a certain number of minutes allotted to their mobile phone per month and may not be able to afford to be placed on hold for long periods of time waiting to speak to a government representative.

In addition, if a citizen chooses to visit a government agency in person, he or she has to have personal transportation or money for public transportation, he or she might have to take time off work because government agencies are only open during business hours, he or she might have to wait in long lines, and there is no guarantee that his or her business will be completed in one day. On the same note, telephoning and visiting hours for government agencies are the same hours that people are at work, and this is a major constraint (Cohen, 2006). Contrary to the Pew Internet & American Life Project findings (2010), many citizens who previously visited or called government offices and had to wait in line or on hold are now increasingly choosing to contact the government online (Thomas & Streib, 2003). Perhaps the difference in this conflicting information is the fact that those who have Internet access and use the Internet frequently are more likely to

contact the government online and those who do not have access are more willing to contact the government by phone or by visiting government agencies in person.

In addition, if a citizen chooses to write a letter, he or she must have access to writing instruments, paper, envelopes, or a computer, and stamps to mail the letter. With mailing a letter, citizens run the risks of important documents being lost in the mail or not arriving in a timely manner, and citizens also risk not receiving a timely reply from the government when mailing (Cohen, 2006). Literacy barriers also impact whether a person can write a letter.

The Internet may not be the answer to all of the problems posed by traditional methods of contacting the government but it may reduce many of the problems mentioned. E-government may be a method that all citizens can benefit from by taking advantage of convenient government services offered online 24 hours and seven days a week. Furthermore, with online services, there is potential for lower cost of service delivery; services are more accessible by the general public; and the public no longer has to visit, write, or call an agency to execute a service (West, 2008). The results of this research study will explain why despite the provision of e-government services; some citizens are still unable or unwilling to take advantage of the services.

**Defining E-government**

E-government is also known as digital government or electronic government. E-government initiatives can be traced back to the 1960s, but it was not until the late 1990s that the term e-government began to take form (Seifert & Chung, 2009). Many

overlapping definitions of e-government are found in the literature. According to West (2004), e-government is the distribution of information and services from the government via electronic methods. According to Asgarkhani (2005), "E-government is a way for citizens and businesses to receive convenient services, to enhance economic development, reshape and refine community and government processes, allow greater access to information, and to make government more accountable to their citizens" (p. 468).

The term e-government is also used to specify the usage of ICTs to support public administration offices in delivering services and to aid citizens in accessing services (De Meo, Quattrone, Terracina, & Ursino, 2007; Dimitrova & Chen, 2006; Kachwamba & Hussein, 2009). E-government uses the advances in technology to better serve citizens and businesses and the types of government services offered online, in some circumstances, continue to increase as Internet usage increases (West, 2008). On the other hand, other researchers declared that e-government is difficult to define, indistinct, and constantly evolving (Christenson & Laegreid, 2010; Yang & Rho, 2007).

**Progression of E-government**

Politics and funding have a strong impact on how soon or how much e-government can be improved. According to Wohler (2009), the size and location of cities, funding, human expertise, and local government all play a role in influencing the development of e-government. Furthermore, as technology advances, improvements

should also be made in e-government but making these improvements is not always possible or easy.

Over the past decade, advancement has been made in the field of e-government. Government websites have improved the amount of online information provided in the form of publications, databases, videos, and audio clips between the years 2000 to 2008 (West, 2008). In addition, the percentage of state e-government websites who have increased the number of services provided online has improved tremendously from 2% in 2000 to 67% in 2008 but 33% of state government websites only provide two services or less (West, 2008, p. 2). One main concern of individuals using e-government services is privacy and security, and as a result, an increasing number of websites have added privacy and security statements (West, 2008). Thomas and Streib (2003) noted that as technology continues to transform society, the government will be forced to keep pace. Although great strides have been made in e-government, major shortfalls continue to exist.

Approximately half of the American population reads at an eighth grade level or lower but only 13% of government websites are written at an eighth grade level or lower (West, 2008, p. 4). In other words, half of the population is unable to understand or process the information listed on government websites due to basic literacy barriers. Similarly, e-government websites also fall short on disability and foreign language access (West, 2008). West, one of the nation's most respected e-government researchers, provided an overall picture of e-government and focused on many aspects of e-

government by researching and reviewing websites. In contrast, many other researchers focused on single aspects of e-government such as the digital divide, disability access, security, privacy, and trust by surveying individuals, interviewing individuals, and reviewing websites (Barrett & Wise, 2008; Belanger & Carter, 2009; Colesca, 2009; Das et al., 2009; Quinn, 2010; Sat, 2010).

Although many benefits of e-government exist, quite a few issues plague the complete success of e-government. Wohler (2009) noted that although the use of the Internet has made a positive difference in certain areas of government, the government has not fully embraced the practical applications of e-government. Similarly, even though the Internet is a participation enhancer, disparities in access to or use of the Internet exist (Sylvester & McGlynn, 2010). If e-government problems are addressed, the disparities may be reduced or eliminated and more citizens could partake in the many beneficial services being offered online by the government.

According to West (2004), e-government has the potential to enhance democratic responsiveness and boost beliefs that government is effective. At least 47% of Internet users that have been surveyed are not aware of e-government services provided online (Aerschot & Rodousakis, 2008, p. 329). It stands to reason that from the percentage of Internet users who are not aware of e- government services that there is a higher percentage of people who do not use the Internet that are not aware of e-government services.

One of the reasons for the lack of e-government use is inadequate promotion of e-government capabilities (Eynon & Dutton, 2007). Public agencies and some researchers believe that the future of e-government and increased usage lies in providing one-stop e-government services from one central location such as a web portal or one central website (De Meo et al., 2007; Holden & Millett, 2005; Ho, 2002; Islam, 2007; West, 2004). One stop portals are not a current reality in Charlotte, North Carolina but could increase e-government usage in the future.

**Types of E-government Services**

Many government services are provided online and each year it appears that new services are added. Common government services provided online include: downloading forms, obtaining information, using job services, searching for library books, submitting forms, making payments to different government entities, interacting with the tax office, requesting documents, completing change of address forms, statements to the police, and car registration (Aerschot & Rodousakis, 2008). Citizens may also pay parking tickets; request passports, drivers' licenses, and birth certificates; and request other replacement documents online. Many of these service tasks can be accomplished in minutes with several key strokes.

Most citizens contact the government for personal concerns and problems, and they also contact the government to influence public policy, and to locate information about government services and benefits (Cohen, 2006). Citizens may also contact members of the government by emailing public officials. According to Thomas and

Streib (2003), citizens contact government primarily to request information, to register complaints, or to communicate their opinions on current issues. This concept is known as e-democracy.

In the literature reviewed, no mention of contacting government regarding housing needs was found or discussed. Subsidized housing is often a need for citizens of low SES and although the Section 8 voucher program is a government program, it is not listed as a reason for contacting government via the Internet. The literature also points out that many of the services offered online do not allow citizens to conduct entire transactions or complete their tasks from beginning to end (Rodousakis & Santos, 2008). Citizens are forced to mail documents or go in person to a government agency when they would prefer to conduct their business online. Possible reasons that entire transactions cannot be conducted online are the need to prevent fraudulent activity by identifying those applying for services, the funds are not available to make government websites fully functional or capable of completing transactions online, and to keep government employees employed.

**E-government in Charlotte, North Carolina**

A review of government websites in Charlotte, North Carolina revealed several noteworthy points. First, three major websites exist that Charlotte citizens must be aware of when trying to locate and use e-government services. There is a city of Charlotte website; a Mecklenburg County website, as Charlotte is in Mecklenburg County; and a state of North Carolina website that citizens can access in order to apply for services, to

receive information about applying for needed services, to make requests, to report problems, to pay bills, and to complete transactions. Equally important, some services are only available on the state website such as applying for unemployment benefits, regardless of whether a person is a resident of Charlotte.

The first website that a citizen of Charlotte needs to be familiar with is the city of Charlotte website. The city of Charlotte website offers alerts on street closings, traffic accidents, weather, air quality, and emergency preparedness and resources. The city website also provides information on the city council, the mayor, the city manager, and the city clerk; city ordinances; information about Charlotte's current and future city plans, applying for city jobs; links to job centers; information on youth employment; and links on how to become a city vendor. The city of Charlotte appears to do an adequate job of providing online information but not as good a job of providing a website that allows for complete online transactions and application of services to occur.

The Mecklenburg County website offers a multitude of services including but not limited to applying for county jobs; paying water and sewer bills and parking tickets; and reporting crimes, potholes, graffiti, tall weeds and grass, drain blockage, and flooding. The county website also allows citizens to look up arrests records, prison inmates, marriage records, property taxes, restaurant grades and inspectors' notes, and city bus schedules. Additional convenient services provided on the county website include: reserving a park shelter, adopting pets, requesting trash pickups for big and bulky items, requesting speed bumps and new sidewalks, and finding local representatives. The county

website also provides links to specific city departments such as social services where citizens can find information about applying for food stamps, Work First, and Medicaid to name a few. Ironically, citizens cannot apply for these social services on the website. The website explicitly states that, “Faxed applications and applications received over the Internet are not acceptable” (Mecklenburg County Government, 2012, p. 1). The latter services are major services that citizens of low SES and those who rely on public services are eligible for and are likely to need (Sourbati, 2009), however, the former services are typically services that more affluent and politically aware citizens would use (McNeal, Hale, & Dotterweich, 2008). Likewise, citizens who contact government on the Internet tend to be advantaged as far as education and income versus those who do not contact the government online (Cohen, 2006; Thomas & Streib, 2003).

The state of North Carolina’s website offers information and a complete online application process for unemployment benefits and filing claims. The state website also provides links for the Department of Motor Vehicles (DMV) in which different forms can be downloaded and contact information for local DMVs can be obtained. DMV documents must typically be mailed or returned to a DMV office. The state website also includes links to government officials; tax information; educational services for learners of all ages; information on arts, culture, and recreation; press releases; a list of state agencies; state government information translated into Spanish; and information about cyber security awareness.

All three websites have similarities and differences. The three websites all have privacy policies, links to specific information, contact information, and a link for jobs. The state website has many documents translated into Spanish but others languages are not available. In contrast, the city websites have a translation information link, which takes citizens to a Google page where they can copy and paste English text to be translated into multiple languages. None of the websites had links for citizens to apply for housing assistance such as Section 8 vouchers. A citizen would have to locate the Charlotte Housing Authority website on their own and depending on a person's computer abilities, this task may prove to be a difficult one.

A Federal Housing Administration website provides information about home ownership, renting, preventing foreclosure, and finding affordable apartments and housing among other things. This website simply provides information and then directs users to their local public housing agencies for specific needs, and in Charlotte that would be the Charlotte Housing Authority. According to the Charlotte Housing Authority (2011), applicants must apply in person at each apartment location where they would like to live and applications cannot be submitted electronically. In addition to the limitations described above, other reasons likely contribute to citizens' decision to choose to use e-government services. The conceptual framework for this study seeks to explain technology acceptance and perceived barriers to use.

## Conceptual Framework

Two theories provide the conceptual framework for this research study. These theories are the rational choice theory (RCT) and the technology acceptance model (TAM). As mentioned in Chapter 1, RCT is based on the premise that an individual's personal choices are based on the level of satisfaction and benefits that they can have as a result of their choices. It is common to find mention of the TAM when reviewing the literature on e-government. Technology adoption and the usefulness of information systems are the foundation of the TAM (Davis, 1989). These theories provide the groundwork for this study and possible explanations for why citizens do or do not use e-government services.

### Rational Choice Theory (RCT)

Boudon (2009) described the basic principles of RCT as explaining a social phenomenon, a theory that interprets social phenomenon as the result of individual actions, and actions that should be considered as rational. RCT may explain why individuals choose particular means; it does not explain why they follow their own objectives or prefer one objective or activity over another (Boudon, 2009). In other words, RCT can help with gaining a better understanding of and shedding insight on a citizen's preference to use traditional means of contacting government, but RCT cannot predict objectives such as choosing to use public library services. It can be concluded that citizens' preferences are based on the costs and benefits of traditional or online methods as perceived by the user. RCT is a theory based on the perspective that individuals make

thoughtful decisions according to the costs and benefits of that decision, and individuals are rational when they make choices consistent with their preferences and goals (Paternoster & Pogarsky, 2009).

Subjective expected utility (SEU) is an aspect of RCT that states that individuals make choices determined by their perceptions of whether that choice will be beneficial or harmful to them (Seipel & Eifler, 2010). RCT is a theory that attempts to explain the decision making process of an individual. As previously stated, although RCT does not explain why an individual chooses one objective or the other, one of the purposes of this proposed research study is to discover why citizens choose in-person visits, the telephone, or mail over government services offered online. RCT theorists do not believe that there is any theory that can describe behavior better than RCT and that RCT sometimes explains irrational behavior as well (Herrnstein, 1990).

**Technology Acceptance Model (TAM)**

The TAM was developed by Fred Davis, an assistant professor of Computer and Information Systems at the University of Michigan, School of Business Administration, to explain computer acceptance and use (Davis, 1989). The TAM is one of the most commonly used tools to measure the acceptance of new technology (Merchant, 2007). The TAM is not only the most used theory by information system academicians and practitioners but the TAM has also been replicated and extended by quite a large number of studies (Chin, Johnson, & Schwarz, 2008; Ebrahimi, Singh, & Tabrizi, 2010).

Specifically, the TAM had been cited in at least 698 journal articles just between the years 2000-2003 (Lee et al., 2003).

According to Dimitrova and Chen (2006), the TAM is similar to the diffusion of innovations model but the TAM has a stronger emphasis on psychological predispositions and social influences, and the TAM is also an adaptation of the Theory of Reasoned Action. The first psychological dimension that plays a role in the adoption process is known as perceived usefulness, and the higher the perceived usefulness the more likely it is to be adopted by the consumer (Dimitrova & Chen, 2006). The second dimension is known as perceived use of ease and is the individual's confidence in his or her ability to use technology (Dimitrova & Chen, 2006).

The TAM is applicable to educational settings, businesses, and individual technology use but the TAM has its origins in computer science and was designed to answer questions about technology acceptance (Straub, 2009). Whether or not an individual adopts e-government services may be determined by the perceived usefulness of the government website, and government officials need to target groups of citizens who may benefit more from government services (Dimitrova & Chen, 2006). On the other hand, Aerschot and Rodousakis (2008) noted that many non e-government users believe that using the Internet requires advanced computer skills.

Moreover, based on the TAM, individuals who believe that using the Internet is too difficult are unlikely to perceive that usage is easy and are unlikely to adopt use of e-government services. These findings support the TAM and the utility maximizing

component of RCT. Furthermore, both of these theories were chosen for the conceptual framework of this study because they both complement each other.

As with all theories, positive and negative aspects and critics and advocates are common. The TAM and RCT are the most applicable theories for this research study, and in the literature reviewed, there were no other theories that appeared to be more applicable. It is possible that even when adoption and acceptance issues are addressed, other issues may hinder the adoption of e-government use. This reluctance may be explainable by these theories.

Equally important to note is that even when all possible known issues are addressed, some citizens might continue to be reluctant to use e-government services. Public policy makers and researchers need to understand why some citizens continue to be wary of e-government use, and policy makers should address these issues. Then, perhaps this reluctance can develop into acceptance. The following section will explain the identified barriers and benefits associated with the decision to adopt or not adopt e-government use.

## Citizens' Views of E-government Use

### Trust

Public trust is a major issue as it relates to completing transactions online with the government. Citizens who trust government are more likely to use e-government services, and trust in technology and security is also likely to influence use and support of e-government (Beldad, de Jong, & Steehouder, 2011; Colesca, 2009; Horsburgh et al.,

2011). Citizens have various concerns about the security of their personal information. Citizens are concerned about their information being misused by authorities or in other unintended ways, and they are concerned that their information may be obtained by private parties through security failure, corrupt practices, or unauthorized release of information (Horsburgh et al., 2011). Likewise, Beldad et al. (2011) noted that the sharing of personal data online is not safe, that risk perceptions require trust, and the lack of trust in e-government transactions adds to citizens' reluctance to use e-government services.

Privacy is another aspect of trust and security that impacts the use of e-government services. One of the most critical risks that can occur from online government transactions is losing one's online information privacy, specifically through hacking and identity theft (Beldad et al., 2011). The success of e-government is reliant on the perceptions of trustworthiness among citizens because citizens must have confidence in the government and the technology in order to engage in e-government use (Das et al., 2009).

On the other hand, according to McNeal, Hale, and Dotterweich (2008), e-government use does not increase trust among its users. E-government causes particular trust concerns because many public services require the submission of highly sensitive personal information in digital forms (Eynon & Dutton, 2007). The E-government Act, Public Law 107-347, recognizes the need to require more privacy protections, due to the increase in the exchange of personal information (Holden & Millet, 2005).

Trust is also influenced by individuals' cultural beliefs which will be discussed later in the chapter. Many of the articles mentioned in this section did not specifically address cultural reasons as a reason for the lack of e-government trust. In addition, trust is discussed as a barrier for citizens who use the Internet and e-government services but not necessarily for citizens who do not use the Internet and e-government services. The literature also fails to mention whether trust in e-government usage increases if the citizens are not making financial transactions that require the submission of personal information, but this assumption can be inferred.

**Cost**

Financial barriers are a reality for many citizens, and they can be a significant factor in whether one uses e-government services. According to Aerschot and Rodousakis (2008), financial barriers mostly affect people with a low SES, and these individuals claim that they cannot afford a computer at home because the equipment and Internet connection costs are too expensive. Similarly, citizens of low SES lack the financial resources needed to use e-government services, they believe the access costs are too high, and they cannot afford the necessary equipment (Asgarkhani, 2005; Quinn, 2010).

Equally important to note, low SES citizens are typically not able to make electronic payments because they do not have bank accounts or enough money to write checks; they do not like dealing with or trusting banks; and they feel bank account fees are too high and banks require too much money to open an account (Hogarth & O'Donnell, 1999). Online payment transactions require the use of a bank account, a credit

card, or a debit bank card. Money seems to be a significant predictor of e-government adoption (Khalil, 2011).

Cost is a barrier that is mentioned in the literature from the citizens' perspective but most of the focus surrounding costs are related to the government's costs of maintaining e-government. The discussions of costs mostly pertain to the government's costs and savings of e-government implementation (De Meo et al., 2007; Eynon & Dutton, 2007; McNeal, Tolbert, Mossberger, & Dotterweich, 2003). In the literature reviewed, the authors neglected to mention what low SES citizens consider expensive for the cost of computer equipment and Internet access. No discussion of the actual cost of computers or Internet connection fees is mentioned in the literature reviewed. It is possible that these costs are not discussed because the fees for computers and Internet access vary significantly depending on the supplier, whether the equipment is new or used, and depending on the Internet service provider. In addition, some citizens might not want to alert criminals to the presence of computers in their houses, so perhaps they would rather not have a computer in their home.

**Access**

Any discussion of digital access is never complete without mention of the digital divide. The digital divide is defined as disparities in access to and the use of ICTs which can lead to divides between countries, regions of countries, and social divides within regions based on income, education, age, family type, and location (Asgarkhani, 2007). Despite federal laws to provide disability access, widespread state accessibility for the

disabled population remains a problem (Barrett & Wise, 2008). Likewise, accessibility is restricted for those with difficulty handling computers such as the elderly and the disabled (Hong et al., 2008).

People with disabilities face enough barriers such as transportation, education, and employment, and now they also have to add web accessibility to their list (Sat, 2010). Issues with website images, flickering content, tables, applets and scripts, frames, and navigation are access barriers to e-government use for the elderly and the disabled (Hong et al., 2008). Some individuals with disabilities also tend to have vision and hearing impairments and need to use devices that are not compatible with government web pages (Barrett & Wise, 2008).

The digital divide is commonly separated into two categories, an access divide and skills divide. Access issues are common in many rural areas but access to digital technology should reach all regions and socioeconomic groups (Quinn, 2010). Reasons for the digital divide include usability and user-friendliness, unawareness of the available services and possibilities of e-government, affordability, and availability of services particularly in rural and remote areas (Quinn, 2010). In addition, Belanger and Carter (2009) noted that a significant percentage of the population do not have the skills needed to efficiently interact with the government online and these skills include but are not limited to technology competence and information literacy.

Awareness, access, skills, and attitudes are all barriers that lead to the exclusion of e-government use and access for citizens who speak languages other than English is

limited (Rodousakis & Santos, 2008). Additionally, ethnicity, income, age, gender, and education are other predictors of access to technology (Belanger & Carter, 2009). As a result, the Internet remains a divisive participation enhancer because of inequalities in access to or use of the Internet (Sylvester & McGlynn, 2010).

The literature provides several solutions and suggestions for how the government can address the digital divide but to date the divide continues to exist. Despite whether the divide is large or small, any divide is a significant problem in the United States, which is one of the most industrialized nations in the world. Public leaders should not ignore the digital divide just because many Americans in the United States are using the Internet and e-government services. According to Aerschot and Rodousakis (2008), the digital divide predominantly affects low SES groups. This highlights a question regarding why some solutions are available and being implemented while other solutions have not effectively eliminated the divide. Perhaps the digital divide continues to exist because citizens of low SES have a limited voice and limited engagement in the formation of government policies.

**Satisfaction**

Although some citizens are content with government services provided online, others are not satisfied. Citizens are not happy about e-government services for a plethora of reasons. The following are reasons that Internet users do not use e-government services: no human support or interaction available, do not know how to use services, afraid of viruses, difficulty with navigating, no online support, worried about security,

language is difficult to understand, font size is too small, and not fluent in national language (Aerschot & Rodousakis, 2008). On the contrary, other citizens have positive comments about e-government.

Citizens who use e-government services typically had positive feedback about the services and described e-government services as having more convenient locations and times, being faster than traditional means, and reducing mistakes made in traditional methods of contacting government (Aerschot & Rodousakis, 2008). The same citizens who reported having positive attitudes toward e-government services also raised concerns about online support, safety, the requirement of special software, whether e-services are as reliable as traditional means, and whether using e-government services is more complicated than traditional methods (Aerschot & Rodousakis, 2008). It can be concluded that non Internet or non e-government users would have the same, if not more, concerns related to access and skills issues.

According to Islam (2007), it is difficult for citizens to find needed information on government websites and even more difficult to find multiple services on one website or portal. Satisfaction with contacting the government varies depending on the contactor's experience including their motivations, reason for the contact, government responsiveness, efficiency, and treatment of the citizen (Cohen, 2006). Cohen also noted that some citizens who use e-government services tend to have problems with poor web page designs, confusing and out of date information, and emails that may go unanswered. On the same note, poor usability, difficulty using e-government applications, and

concerns about security and privacy are constraints on the growth of e-government (Eynon & Dutton, 2007). Although the Internet is not without problems, citizens who contact government agencies and use the services online seem to be more satisfied with the government than those who typically use traditional methods (Cohen, 2006).

The literature does not explore the perceptions of citizens who do not use the Internet. Furthermore, citizens cannot state that they are satisfied with the Internet or e-government services if they do not use either. Most of the citizens surveyed in previous studies were frequent users of the Internet. It can be argued that if citizens' needs were met and they were satisfied, then e-government usage among Internet users would increase. If frequent Internet users' needs are not being met, then those who do not use e-government services are likely to face more issues and barriers associated with application use, comprehension, and digital literacy. In addition to satisfaction, access, cost, and trust; cultural views also play a huge factor in whether citizens' will or will not adopt e-government services.

**Cultural Views**

The word culture has various definitions but the fundamental meaning of culture is that although everyone is different, everyone also shares similar experiences with those who grow up in their same surroundings (Merchant, 2007). Culture is said to be predictive of technology adoption (Kitchell, 1995). Values, morals, and beliefs are a part of an individual's cultural system (Ebrahimi et al., 2010). Citizens tend to have varying beliefs surrounding the Internet that may be attributed to their culture or environment. For

example, according to Aerschot and Rodousakis (2008), motivational barriers tend to outweigh financial barriers and 65% of respondents stated that they do not need the Internet versus 39% of people surveyed who stated that Internet access and computers are too expensive (p. 333). In contrast, some people are unaware or not interested in e-government services (Quinn, 2010). Individuals who believe that they do not need the Internet are expressing their personal preferences but it can be argued that they feel this way because they are not aware of the benefits of e-government services.

Specific attitudes toward e-government can be a barrier to e-government adoption. An unfavorable perception of ICTs and new technologies presents a barrier to Internet use and this perception is one of the most difficult barriers to overcome (Rodousakis & Santos, 2008). Research indicated that trust of e-government is influenced by ethnic diversity and religious beliefs, and greater diversity among groups increases the chances of distrust (Das et al., 2009). Similarly, countries that are more ethnically diverse than others experience lower levels of e-government participation (Das et al., 2009). The United States is an ethnically diverse country and is often referred to as a "melting pot." Consequently, adoption of e-government services may be harder to accomplish in the United States due to the self-identified diversity of U.S. residents and citizens.

According to Alshehri and Drew (2010), cultural aspects that are related to e-government adoption include ethnicity, SES, languages of origin, politics, education, religion, life experiences, and different expectations of the e-government system. In order for e-government to be successful among non-users, strong cooperation between

the government and citizens is needed (Alshehri & Drew, 2010). On the same note, Schwester (2009) indicated that sociocultural factors, such as beliefs that e-government is too technocratic and potentially isolating, foster greater disengagement between government and its citizens. Some user barriers are related to user culture, attitudes towards e-service, and multilingual and multicultural issues such as the lack of understanding different cultures and language barriers (Khalil, 2011). Thus, cultural characteristics such as gender egalitarianism, institutional collectivism, performance orientation, and uncertainty avoidance values are predisposed to influence the extent to which e-government is accepted in society (Khalil, 2011).

Citizens who interact with the government using technology are likely extending civic and political involvement started through traditional channels and are advancing civic engagement at the individual level (Dimitrova & Chen, 2006). The perception exists that civic and political participation is declining and this decline is related to a decline in social capital, a term made widespread by Robert Putnam (Komito, 2007). The basic tenet behind social capital is that trust, networks, and civil society promote cooperation among two or more people or groups (Kukuyama, 2001).

In other words, individuals connect with people who are more like them and tend to bond with those people through friendships, neighborhoods, churches, or schools. According to Putnam (2007), social capital networks influence an individual's ability to accomplish things and also come in many various forms. For example, friends may improve a person's health and participating in civic groups may strengthen democracy

(Putnam, 2007). In other words, social capital is an indicator of whether individuals will most likely participate in activities such as e-government services, and they are more likely to do so if individuals in their environment such as friends and family are doing so.

Thomas and Streib (2003) claimed that talking on the telephone results in a personal contact in real time and permits interaction and explaining versus the one-way communication that exists online. The concept of wanting personal interaction is a cultural value and a personal preference. Likewise, according to the Pew Internet & American Life Project (2010), Americans in the United States still prefer telephone contacts over all other forms of government contact including the Internet. E-government has the potential to become the preferred method of contacting the government.

Based on the literature reviewed, cultural factors are the hardest e-government barriers to address and more research is needed on the cultural aspects associated with e-government. This research study will answer some of the questions associated with cultural views. The literature does not address how cultural issues and views can be addressed nor does the literature specifically state why some citizens have certain beliefs and reluctance towards e-government. In other words, the root cause of citizens' reluctance still needs to be identified.

Cultural views are imperative to address because some citizens' views are not accurate due to lack of awareness and an unwillingness to step outside of their social network or comfort zone. All of these participation barriers from the citizens' perspectives appear to support the digital divide instead of reducing the divide. Although

citizens' views should be at the heart of e-government discussions and seen as the most important factor, the government's view of e-government services possibly has more of an impact and influence on the provision and improvement of e-services.

## Government View of E-government Services

### Accountability and Transparency

Transparency implies open access to government, communication from the government, and implies that the government will be held accountable for their decisions and actions through the openness of information provided to the public. Specifically, transparency is a key part of democratic processes, transparency serves to keep government honest, and transparency is a way for citizens to know what the government is doing (Bertot, Jaeger, & Grimes, 2010). E-government can be used as a tool to prevent corruption (Bertot et al., 2010; Lollar, 2006; Shim & Eom, 2008). If the government's work cannot be seen or verified, then citizens are more likely to suspect corruption (Lollar, 2006), wonder where their tax dollars are being spent, and have more questions about how the government is handling key public issues. Transparency, via e-government, is not going to benefit citizens who do not have Internet access (Bertot et al., 2010).

E-government can help in promoting transparency and expanding the flow of information (Das et al., 2009; Kachwamba & Hussein, 2009; Lollar, 2006). A specific example of how transparency is used to show the government's openness and to provide information to the public is through mandated e-disclosure of state campaign finances

and this practice increases real time public access to information (McNeal & Hale, 2010). Other examples of e-government transparency applications include the capabilities of citizens to enter comments and feedback in online forums, and to participate in online bulletin boards and chatting, online discussion forums, e-meetings, and online surveys and polls (Schwester, 2010).

Competition in the global economy has motivated governments to be more open, and access to information is critical for thriving markets (Kudo, 2008; Relly & Sabharwal, 2009). Christensen and Laegreid (2010) claimed that the majority of civil servants believe that the use of ICTs in public administration provides better public services and increases transparency. In addition, the right to access information is connected to the government's investment in innovation and knowledge production, which is a free flow of knowledge and unhindered access to information (Lor & Britz (2007).

Based on the literature reviewed, several unanswered questions remain regarding the various levels of the government being transparent and held accountable for its actions and decisions. For instance, the type of information that is digitally provided and whether there are laws about the types of information that the government cannot provide online remains unknown. The process for addressing and resolving discrepancies online and the process for updating outdated information are elusive.

Too much information being provided online is also a valid concern, especially since the September 11, 2001 terrorists' attacks against the United States. It can be

argued that transparency is not always a good thing if being transparent gives potential terrorists the fuel needed to start a war or execute attacks. These questions and concerns are beyond the scope of this study, but the literature on accountability and transparency in e-government leaves quite a few voids.

**Access and Training**

According to Asgarkhani (2007), local governments are aware that many citizens do not have the skills to use e-government services, and in response to this need, governments have set up learning centers in libraries and community centers to teach citizens Internet and technology skills. On the other hand, federal, state, and local government agencies do not set up community centers and learning centers in libraries, but the government does rely on public libraries to provide citizens with access to and guidance using e-government and encourages citizens to go to public libraries for assistance and access to the Internet (Jaeger & Fleischmann, 2007). In Charlotte, North Carolina, community centers or programs that teach Internet skills are not provided for free.

Charlotte citizens have to rely solely on the public library for free services. Without public libraries, significant parts of the population would be excluded from access to the Internet and e-government services (Jaeger & Fleischmann, 2007). Often times when the digital divide and an access divide are mentioned, the automatic response tends to be that citizens can go to public libraries. As e-government becomes more widespread, the demand on public libraries to assist citizens and provide access to e-

government services has and continues to increase rapidly (Jaeger & Bertot, 2010). Although public libraries do provide free Internet access, this option does not come without another set of issues and barriers for citizens and library staff members.

Public libraries could not and did not anticipate becoming the default social access point for e-government in the mid-1990s (Jaeger & Fleischmann, 2007). Nevertheless, public libraries have had to fill the role as a link between government, e-government, and citizens. Public libraries have little support in the form of training for staff, funding from the government, or enough staff members to help citizens with their e-government needs (Cathcart, 2008; Fredericks, 2011; Jaeger & Fleischmann, 2007).

More specifically, Fredericks (2011) listed three major points about the role and impact on public libraries as a result of providing e-government assistance. First, libraries are taking on the role of other government agencies. Second, it takes a considerable amount of the staff's time to assist with e-government and employment queries, and this is even more difficult to accomplish with budget reductions and fewer staff members to assist citizens. Third, libraries have very few computer workstations and cannot extend computer time limits, and as a result, they cannot meet citizens' demand for assistance with e-government services. Fredericks also noted that these issues are even more prevalent in urban libraries.

In Charlotte, citizens are limited to one hour on the computer unless there are not others waiting to use the computer (Charlotte Mecklenburg Library, 2011). In addition, Charlotte Mecklenburg libraries do not provide e-government training and workshops but

they do provide classes on Microsoft Office programs, Internet basics, and 30 minute technology tutoring. These services are only offered at certain times and at certain library branches that are not conveniently located for all citizens.

The public library hours of operation in Charlotte are from 10:00 a.m. - 5:00 p.m. at some locations, 10:00 a.m. - 6:00 p.m. at others, 10:00 a.m. - 7:00 p.m. at several locations, and 10:00 a.m. - 8:00 p.m. at a very few locations. As a result of e-government being forced upon libraries and their staff members, public libraries are taking one of two stances to meet the demand. Public libraries are either accepting this new task as a part of the social advocacy aspect of their mission or they are declining to accept this task without appropriate and adequate financial and technical support (Cathcart, 2008).

Although the government believes that public libraries are the answer to access issues, librarians do not feel adequately supported and are unprepared to meet the growing needs of citizens. Libraries should not be the sole option for e-government access, and the literature does not mention other methods for providing access to citizens that are consistent in all states. In addition, e-government services are provided online 24 hours and 7 days a week for those with access, but public libraries are not open 24/7 to help those without access.

It can be argued that public libraries are not the answer to access barriers, e-government training, or the provision of e-government services because it is not a convenient option. Due to the fact that libraries are not mandated to help citizens with e-government services, librarians have the option of whether they will assist citizens and as

mentioned above not all do so. As a result, public library dilemmas continue to leave a significant number of citizens without the access to the Internet or the training needed to use e-government services.

**Operating Costs**

The adoption of ICTs allows public administration offices to reduce management costs (De Meo et al., 2007, McNeal et al., 2003). Specifically, Hogarth and O'Donnell (1999) noted that one example of lowering costs has been by providing welfare and benefit programs online by expanding the use of electronic payment, but one of the greatest challenges for low SES families is accessing these services online. Digital government offers improved services at lower costs (McNeal et al., 2003).

Similarly, e-government can reduce costs associated with paperwork, staffing, printing, mailing, document storage, telephone calls, and visits to field offices (Yang & Rho, 2007). Concerns have been raised about the costs of developing, implementing, and maintaining e-government initiatives, especially the costs for hardware, software, and systems; and the costs related to people and support (Eynon & Dutton, 2007). Hence, operating costs to sustain the provision of e-government services may be too expensive for the government to afford.

The development of an information and knowledge society requires highly qualified human resources and skilled people that are able to build and maintain infrastructure and operate systems (Lor & Britz, 2010). Furthermore, human resources have to be paid. On the other hand, according to the Oxford Internet Institute (2011),

financial barriers that the government faces when trying to implement e-government services are difficulty in demonstrating the cost benefits of e-government initiatives, the high costs of developing e-government services and providing services through multiple channels, and increased costs for governments to meet to laws and regulations related to e-government.

The Oxford Internet Institute (2011) also noted that short term costs are particularly more relevant than long term benefits; there is a lack of flexibility in exploring funding options, a lack of research and development funding, and a lack of innovation funding. It can be argued that e-government funding is not at the top of the government's priority list because of more crucial citizens' needs, concerns, and demands such as the war, healthcare, employment, and social security benefits. In reality, e-government is an important issue to address.

A review of the literature on operating costs for the government shows conflicting themes. Some researchers state that e-government is a cost efficient way for the government to provide public services, yet, other researchers declare that the government cannot afford to maintain the provision of e-government. Ironically, no connection is made or mentioned of the fact that if e-government is becoming too expensive for government agencies, then one cannot expect citizens to afford the costs and user fees that are passed on to them by the government. The literature also fails to mention whether a lack of funding for e-government will eventually contribute to the decrease, demise, or elimination of e-government as a method for interacting with the government. Whether

government agencies believe that e-government is worth future and continued investment and whether the government is willing to address adoption and provision barriers remain unclear and unknown.

**Engaging Citizens**

E-government is expected to improve the citizen and public administration relationship (Christensen & Laegreid, 2010). Three ways explain how e-government websites engage citizens and bring ordinary citizens closer to their government (Lollar, 2006). First, key features on government websites include governor and mayor mail boxes, discussion forums, a government hotline, online surveys, and availability of English and minority languages. Second, the mail boxes list names and email addresses that allow citizens to send emails and communicate directly with their elected officials. Third, the public opinion feature helps to foster a better and more interactive relationship between the government and its citizens. In addition, e-government also improves communication between citizens and the government (McNeal et al., 2003). The communication between citizens and the government is made more easily available through online communication and feedback tools and through access to information and contact information for government departments and officials.

According to Zambrano (2008), citizens hold two distinct roles in e-government and both of these roles engage citizens with local and national governments by allowing them to be involved in discussions surrounding public policies. Citizens are considered to be stakeholders and clients. As stakeholders, citizens are involved in the public policy

and implementation process through participation in e-government processes, developing agendas, and helping to design public policies (Zambrano, 2008). In the role of clients, citizens are consumers of government services and information and knowledge resources, and the government's perceived benefits of clients engaging in e-government services include cost, ease, quality, and time (Zambrano, 2008). The government also engages citizens by offering access to e-commerce, e-democracy, and e-research as well as choices for interacting with the government (Thomas & Streib, 2005).

In regard to citizen engagement, Cohen (2006) posed the question; "If the affluent are more satisfied and also are more likely to use the internet to contact government, is their satisfaction a function of their social status or their internet status" (p. 54)? It can be argued that government services provided online allow some citizens to feel closer and more connected to the government. On the other hand, only citizens who are able to access e-government services can make this connection, leaving those without access, alienated and excluded.

The literature on engaging citizens in e-government is based on the government's perception and not based on personal accounts of Internet and e-government users or nonusers. In fact, citizens may not feel actively engaged through services offered online in the way that would feel engaged through town hall, city hall, and school board meetings, or through volunteering for political campaigns. As mentioned previously, some citizens prefer face-to- face interaction and communication versus the one way

communication, which is a typical characteristic of contacting the government on the Internet.

**Efficiency and Effectiveness**

In order to determine whether e-government is efficient and effective, it must be measurable. Efficiency and effectiveness are often linked together. Seven dimensions for measuring e-government service quality currently exist (Alanezi, Kamil, & Basri, 2010). Those seven qualities are website design, reliability, responsiveness, security and privacy, personalization, information, and ease of use. Yang and Rho (2007) noted that some e-government programs have proven to be efficient, others are struggling, and the effectiveness of e-government programs are even harder to achieve.

Efficiency refers to money and economic gains, and efficiency is the most used justification for e-government programs, but it ignores the non-financial aspects of performance (Yang & Rho, 2007). The government has reinvented government systems so that it can deliver efficient and cost effective services (Alanezi et al., 2010; Dumpe, 2010; Jayashree & Marthandan, 2010). Likewise, public administrators use e-government to better communicate with their customers and partners in an effort to improve the effectiveness and quality of their services (Bettahar, Moulin, & Barthes, 2009).

Effectiveness in e-government depends on environmental factors such as top management support, overall strategic management, and stakeholder networks (Yang & Rho, 2007). All of these factors make effectiveness more difficult to achieve than efficiency. In addition, Reddick (2009) commented that three major factors contributing

to e-government effectiveness are management capacity, security and privacy, and collaboration. In other words, if management is not capable of doing their job, if security and privacy issues are not adequately addressed, and if e-government workers are not willing to collaborate, then the effectiveness of e-government will be minimal. The more parties involved in the decision making process, the harder it may be to agree on feasible solutions that address e-government barriers.

Likewise, the Oxford Internet Institute (2011, para. 4) stated that poor coordination efforts such as "government departments failing to implement common procedures and standards to provide shared networked e-government services" also lessen the effectiveness of e-government. Adopting e-government requires investment, and not all e-government investments will have the preferred returns in the short term but the investments will have returns in the long run (Yang & Rho, 2007). The government can also recuperate some their costs by charging citizens a fee for services (Yang & Rho, 2007). These fees can prevent citizens of low SES from being able to use e-government services, although more affluent citizens may not mind paying a fee for convenience and to avoid long lines.

A review of the literature shows that efficiency and effectiveness is relative and these perceptions can be completely opposite depending on citizens' views or the government's views. Similarities in perceptions regarding satisfaction, particularly as it relates to website design, ease of use, and security and privacy are common in the literature. No consensus on whether e-government programs are both efficient and

effective is clear. This divisiveness also applies to other aspects of e-government such as operating costs, access and training, and transparency.

**Perception of Fairness and Empowerment**

According to De Meo et al. (2007), e-government services provide citizens and public administration offices with access to online services that are not restricted by time and space. The government and others believe that this is one of major benefits of e-government services, and it is also fair and beneficial to those who cannot conduct government transactions during normal business hours. Likewise, the government and some researchers believe that socially disadvantaged groups can benefit from e-government in the form of better service access through complementary channels; the ease of day-to-day challenges including interactions with public officials; better access to education, training, and jobs; and improvements to personal capacity and skills, life chances, social networks, and quality of life (European Commission, 2007).

The benefits are important for impacting social change. According to Zambrano (2008), giving citizens the opportunity to participate in the public policy process empowers them. If citizens who use public services do not have access to e-government services, then these benefits will never become a reality, which does not promote fairness or empowerment for these citizens. Despite the fact that governments believe public libraries provide all citizens with access to e-government services, this is not always the case as previously mentioned. Not only is there controversy over who has access to e-government, but government employees also have their own feelings about the perceived

fairness and empowering aspects of e-government as it relates to employers and employees.

Although federal, state, and local governments may view e-government as fair and empowering for citizens, government employees tend to have opposite feelings about the impact and realities of e-government. For instance, departmental wars involving competition regarding who is responsible for what in a networked service, inadequate skills training and capacity building for management and staff, inadequate ICT skills among government officials, and failures to learn from good practice are all results of e-government implementation (Oxford Internet Institute, 2011). The same source noted that the government is also more focused on its needs when developing and implementing e-government services versus having a citizen business centric focus, government officials are resistant to change, and employment laws inhibit flexibility in changing working practices or the deployment of staff.

These inadequacies and problems cause questions to form regarding how e-government can be successful if government employees are not adequately trained to implement it or do not support it. This type of negative work environment is also not fair or empowering to government employees. Likewise, Schwester (2009) observed that another e-government barrier is staff resistance because staff members' perceptions are that they will be replaced by technology.

A survey of IT directors revealed that they believe when citizens need to access to information, a website is more effective than traditional methods, but when citizens need

to solve a problem, IT directors believe that the telephone is most effective method (Reddick, 2009). Reddick also mentioned that when citizens need to access services the most effective method for contacting government is in person visits. In other words, IT directors believe that websites are only the best method when citizens need to access information. IT directors' beliefs appear to be in line with citizens' beliefs, for the most part.

Based on the literature, government agencies appear to take the stance that providing e-government services is a privilege regardless of whether all citizens are able to use e-government services. Government agencies' responses to the digital divide are to refer citizens to public libraries, but libraries do not have adequate funding to handle this demand. This practice cannot be considered fair or empowering for citizens without access. The literature implies that more affluent and middle class citizens who are frequent users of the Internet and e-government are already empowered, are well informed on government matters, and they understand how to navigate complex systems. The government has specific views of e-government, its impact on citizens, and its efficiency and effectiveness; government agencies and employees are limited to what they can do based on public policies, political figures, and federal regulations.

## Public Policy Decisions

### E-government Laws, Policies, and Regulations

The government has devised a number of laws, acts, policies, and regulations to protect citizens who use e-government services and to secure citizens' privacy and

security. These policy decisions mandate how the public must act and perform as it relates to e-government. According to Alshehri and Drew (2010), in order to be effective, laws and regulations regarding e-government must include policies about e-payments, email use, copyright rules, e-crimes, e-business, and e-commerce, among other things. The same authors noted that the creation of these laws would give all users more confidence and assurance to use e-government applications and users would then suggest e-government use to others.

E-government laws, policies, and regulations are of extreme importance, but creating and changing policies can be a difficult task to accomplish. According to Cohen, Eimicke, and Heikkila (2008), the bigger policy changes are the more opposition the policy is likely to receive and policymakers have to restrict the size of their proposed changes based on budget constraints. In other words, it is easy for acts to never become a law or policy depending on circumstances beyond policymakers' control.

Holden and Millett (2005) discussed three major policies that were designed to improve government and e-government effectiveness, authentication, and privacy. Those three policies are the Privacy Act of 1974, Public Law 93-579; the Government Paperwork Elimination Act of 1998, Public Law 105-277; and the E-government Act of 2002, Public Law 107-347. The Privacy Act of 1974 is a federal legislation that is designed to ensure that federal agencies adhere to and enforce privacy principles when dealing with personal identifiable information (Holden & Millett, 2005). Holden and

Millett also noted that the Government Paperwork Elimination Act of 1998 encourages federal agencies to adopt e-government and to reduce the paperwork load.

Finally, the E-government Act of 2002, Public Law 107-347 includes requirements for electronic signature technology and privacy analyses (Holden & Millett, 2005). In addition, Seifert and Chung (2009) wrote that the E-government Act of 2002 has five main purposes. First, the act includes establishing effective leadership of federal IT projects. Second, the E-government Act of 2002, Public Law 107-347 requires the use of Internet based IT initiatives to reduce costs and increase opportunities for citizen participation in government. Third, the act helps to transform agency operations. Fourth, the act promotes interagency collaboration for e-government processes. Fifth, the E-government Act of 2002, Public Law 107-347 makes the federal government accountable.

Kudo (2008) focused on the idea that e-government policy is different and has unique characteristics, which other public policies do not have. Furthermore, e-government policy is overall policy that covers public and private sectors, and it includes the policy making process and the organization and management of government (Kudo, 2008). The same author noted that e-government policies are policies intended to address and conquer government failure such as the insufficiencies in public sector management.

The E-government Act of 2002 (2002), 44 U.S.C. 3501 section 215, noted that a study should be compiled 90 days after the enactment of the Act and a study should be done within two years to address disparities in access, how access issues might impede

the effectiveness of e-government, the affordability of Internet access, and recommendations to ensure that e-government does not increase any deficiencies in public access to e-government services. Although this Act was created nine years ago, the issues and items listed still exist, and although there is extensive research on the subject, gaps remain in the literature. This research study will address all of these aspects.

The literature reviewed does not mention any other significant e-government acts, policies, or laws in detail after the establishment of the E-government Act of 2002, Public Law 107-347. A Senate bill for the E-government Reauthorization Act of 2007 was mentioned, but it never became a law because it was proposed in a previous session of Congress and at the end of each session any bill that has not passed is cleared from the books and must be brought again (GovTrack.us, 2011). The House was not interested in this Act and it was not reintroduced. Perhaps, new e-government policies would increase e-government adoption and decrease usage barriers.

The policies mentioned above are mainly created as a guide for the government's implementation of procedures and for current e-government and Internet users but not necessarily to encourage individuals who are nonusers to adopt e-government use. It can be argued that not addressing nonusers' barriers is one of the reasons why there continues to be such a significant number of citizens who have not adopted e-government services. These policies are more about government compliance, efficiency, and effectiveness rather than focusing on holistic citizens' needs and there is the possibility for more challenges and barriers as the Internet becomes more prevalent.

**Leadership Decisions**

Another aspect of e-government that relates to public policy decisions is a lack of support from politicians and high level public officials, and how their level of support leads to inconsistencies in e-government progress (Oxford Internet Institute, 2011; Schwester, 2009). Leadership decisions and those in leadership roles are important aspects and key factors in determining successful e-government implementation (Kifle & Cheng, 2009; Prybutok, Zhang, & Ryan, 2008). Furthermore, states with successful e-government implementation had governors and legislators who were committed to advances in information technology (McNeal et al., 2003).

Ahn and Bretschneider (2011) noted that political leaders, such as the mayor, can see the potential of e-government and be a primary motivator in support of e-government endeavors. On the other hand, leadership failures are due to a lack of political will for e-government, some leaders have a low prioritization for e-government, there is poor senior management understanding of e-government, and poor strategic vision and planning (Eynon & Dutton, 2007; The Oxford Internet Institute, 2011). Political leaders sometimes fail to provide adequate planning and resources to avoid the impacts of resistance to change and differences in interests and perceptions among different stakeholders can lead to clashes and hinder e-government initiatives (Eynon & Dutton, 2007).

According to Cohen et al. (2008), elected officials are often accused of shifting priorities and being more concerned with their political careers than meeting the needs and addressing the concerns of their constituents. In short, public organizations have to

be accountable to citizens, public officials, and their stakeholders (Cohen et al., 2008). This can make accomplishing even the smallest tasks and goals difficult for both elected officials and public organization leaders, but more so for public organization leaders.

Moreover, it is impossible to satisfy all stakeholders' needs and wants**.** Leaders who are advocates of e-government play an important role in the development of applications and in providing direction regarding resources and technology management **(**Prybutok et al., 2008). Poor leadership is believed to be one of the main reasons for failure in e-government (Kifle & Cheng, 2009). Nevertheless, leaders have the potential to use e-government for bureaucratic reform, political control over bureaucracy, enhanced means of generating citizen support, and a way of influencing citizen support in conflicts with an elected legislature (Ahn & Bretschneider, 2011).

A review of the literature makes it clear that leaders who support e-government are more likely to find the resources to make e-government successful. On the other hand, leaders who do not make e-government implementation and reform a priority are contributing to the inefficiencies in e-government. Although some leaders might personally agree with reforming e-government, they allow outside influences to guide their decisions for fear of political repercussions (Cohen et al., 2008).

Political figures who make unpopular decisions such as how government budgets should be allocated can harm their careers and many are not willing to take that chance (Cohen et al., 2008). Many other reasons explain the cause of the problems that exist in government, in addition to ineffective leaders and outdated laws. For instance,

bureaucracy and control of entitlements are negative aspects of government operations, which will be discussed in the next section. E-government could be the answer to these issues.

**Bureaucracy**

Bureaucracy can be defined as the central nervous system of government; as an important factor or predictor of success of entities; as a governmental organization; or as public organizations that carry out the laws, policies, or strategies of the government (Idakwoji, 2011). Bureaucracy when done right can have very positive effects, but it is often used to describe the inadequacies in government, the conduct of public affairs, and especially the activities of public officials (Idakwoji, 2011). E-government is useful in addressing inefficiencies in public sector management, illogical practices, and the lack of outcome and customer focus (Kudo, 2008). Bureaucratic red tape is often associated with public administration and the government and it has a negative connotation that can also be defined as burdensome administrative rules and procedures (Cohen et al., 2008; Idakwoji, 2011; Kudo, 2008; Smith, Noorman, & Martin, 2010; Welch & Pandey, 2006).

In the view of Welch and Pandey (2006), higher red tape equates to lower efficiency, but technology appears to outweigh the negative influence that red tape has on e-government implementation. Red tape is not only defined as extreme formalities due to the need for public accountability but also as being a long time habit of public organizations, and it can lead to ineffective and costly management practices (Cohen et al., 2008). The same authors noted that public bureaucracies are unreasonably formal and

too reliant on written communication, which is why a disabled person was denied health benefits due to a form being lost and a bureaucrat ignoring a key detail of the case. Sometimes this rigidness exhibited by public officials can cause citizens who are most in need to go without needed services. This is an example of how public agencies are able to control certain entitlements of citizens which is neither a fair or equitable process.

Too much emphasis on accountability can lead to excessive democratic control which forces discretion out of the hands of public mangers and can result in rule-obsessed bureaucracies (Smith et al., 2010). In order to address bureaucratic red tape and employee corruption, e-government can be used to control and monitor employees' behaviors, to reduce illogical human interaction, and to monitor government workers' service delivery processes (Shim & Eom, 2008). Several major differences between the traditional forms of government and e-government in relation to bureaucracies and control of entitlements are important to mention.

According to Abuali, Alawneh, and Mohammad (2010), traditional government has bureaucratic controls and clear authority hierarchy. Traditional government is process centric, its decisions are based on uniform rules and awkward reporting approvals, it is driven by disjointed information technologies, and its processes are time consuming (Abuali et al., 2010). In contrast, e-government provides client service and community empowerment with a leveled and blurred hierarchy and it is customer centric, its decisions are based on negotiation and implicit controls and approvals, it is based on integrated network solutions, and it is capable of rapid streamlined responses (Abuali et

al., 2010). Despite the issues within e-government and the barriers that prevent certain citizens' use, e-government has the potential to become the preferred choice for government transactions because it is more streamlined and convenient than traditional forms of government.

Strict and rigid rules sometimes make it difficult for citizens to receive needed services and can make public employees seem uncaring and heartless. From the literature reviewed, it can be argued that even though some employees might not agree with certain policies and procedures, they have to do what is necessary to keep their jobs. In other cases, employees will do anything to avoid accountability when issues arise, which means transparency is not effectively occurring. On the other hand, another set of employees use their positions in order to conduct corrupt practices, and the citizens are left to suffer the consequences. This is not only unethical but is also one of the reasons why a significant number of citizens are dissatisfied with their local, state, and federal governments and representatives.

Now that the views of citizens and the government have been explored, it is important to discuss the research methods that have been used in other e-government studies. The research method that was used for this study allowed the personal stories, experiences, cultural views, and perspectives of citizens who use public services to be explored and analyzed. The research methods used in the literature reviewed is discussed in the next section and the research method chosen for this study is further expanded upon in Chapter 3.

## Research Methods Used in the Literature

The studies conducted on e-government have included qualitative methods, quantitative methods, and mixed methods to research this topic. No one perfect or steadfast method is used to conduct research on e-government barriers and benefits, but the method chosen should be based on the study's research questions. In the literature reviewed, quantitative studies, utilizing surveys, was the most commonly used method. The survey method appeared to be used frequently without yielding significantly new information on the subject, and I did not locate any studies in which this method included in depth perspectives of the research participants (Belanger & Carter, 2009; Beldad et al., 2011; Christensen & Laegreid, 2010; Ebrahimi et al., 2010; Horsburgh et al., 2011; Khalil, 2011; Prybutok et al., 2008; Welch & Pandey, 2006). For example, Belanger and Carter (2009) surveyed citizens to determine the difference between nonusers and users of e-government services and the variables included ethnicity, income, education, age, computer experience, general Internet use, online purchases, and online information search. Colesca (2009) used a survey approach to determine the factors that affect citizens' trust in e-government services and trust was the variable in this study. As a result, I used the qualitative method for this study with a phenomenological approach including the in-depth interview technique to gain a better understanding of the complex social phenomena of e-government usage from the citizens' perspectives.

Large numbers of research participants do not always equate to quality data or the best results. Qualitative methods can add a depth dimension to a policy issue. Many of

the qualitative studies reviewed used the case study approach (Ahn & Bretschneider, 2011; Kifle & Cheng, 2009; Visser & Twinomurinzi, 2008). Other qualitative studies used the interview approach (Munim & Azam, 2011; Sweeney, 2007). One study used the mixed methods approach, which combined quantitative and qualitative methods, secondary data, and focus groups, but these types of studies were not very common (Aerschot & Rodousakis, 2008). Other research articles did not have any discernible method mentioned and appeared to be informational in nature (Abuali et al., 2010; Bertot et al., 2010; Fountain, 2003; Fredericks, 2011; Holden & Millett, 2005; Idakwoji, 2011; Jaeger & Fleischmann, 2007; Kitchell, 1995; Komito, 2007).

According to Das et al. (2009), many e-government research studies are narrowly defined qualitative case studies. This is why I chose to use a phenomenological qualitative method with in-depth interviews instead, which specifically explained research participants' points of views. Heeks and Bailur (2007) mentioned that the interviewing technique is one of the top four commonly used techniques by e-government researchers. In-depth interviews can supplement quantitative results (Kitchell, 1995).

Thus, quantitative results from other e-government studies can be complemented and enhanced by this qualitative research study. O'Sullivan, Rassel, and Berner (2008) noted that in-person interviews enable researchers to obtain large amounts of data, perform in-depth probing, ask more complicated or sensitive questions, and contact populations that are difficult to reach. A quantitative survey method was not used in this study because the survey method does not leave room for open ended responses and tends

to contain multiple choice questions or yes or no answers only. A mixed method approach was not used because there is a significant amount of empirical data that exists on the topic of e-government.

Of the five common qualitative research approaches, the qualitative phenomenological method appears was the most logical research approach for this study. According to Creswell (2007), phenomenological studies describe the meaning of lived experiences for multiple individuals of a concept or phenomenon. In this study, the phenomenon was the barriers and benefits of e-government services. Narrative research, case study research, grounded theory, and ethnographic research were not appropriate nor the best approach to use for this study for various reasons that will be discussed in Chapter 3.

## Summary

This chapter focused on a comprehensive review of the common themes in the literature regarding the barriers and benefits in e-government. The barriers, benefits, and common themes were based on the perspectives of citizens who are users and nonusers of e-government; the views of local, state and federal agencies; and government employees. The public policy decisions that have been made regarding e-government were also discussed. No consensus of the definition of e-government appears to exist, but it is clear that e-government involves the use of the Internet or other types of Information and Communication Technology (ICTs) to provide government services to citizens and businesses.

E-government has the potential to replace traditional forms of government such as telephone, in-person visits, and letter writing. The conceptual framework for this study is based on Rational Choice Theory and the Technology Acceptance Model, and explains why a person may choose to adopt or not adopt e-government use. Trust, cost, access, level of satisfaction, and cultural views all play a role in whether a person continues to use e-government services, adopts e-government, or chooses not to use e-government services.

This chapter also contained a discussion the government's view of e-government. More specifically, the government is aware of some of the drawbacks with successful implementation of e-government and understands that there is still work that needs to be done to improve e-government. The government also believes that they are following all e-government policies and increasing accountability and transparency to its citizens by providing e-government services. Although the government might not be saving money in the short term, the research shows that the future long term monetary benefits can be very significant and have already shown savings and cost effective promise. In addition, the government seems to have a different perspective of how e-government can engage citizens and foster positive relationships between elected officials and citizens than do researchers and citizens.

Conflicting views on the effectiveness and efficiency of e-government, and the perception of fairness and empowerment views are stated in the literature, depending on whether you ask government employees; citizens; or local, state, and federal agencies.

Three major e-government public policy laws, regulations, and policies currently exist, but current and revised policies are needed to address the barriers that citizens who use public services face. Some of these barriers include poor leadership decisions and bureaucracy.

Many aspects of e-government are covered in the literature and this study did not cover every aspect. This study covered the cost of a personal computer and Internet access, access and skills issues, trust of technology, cultural views, and family and peer experiences with computers and the Internet that affect the use of e-government from the citizens' perspectives. These aspects were the components of the research and subquestions that this study addressed. Finally, this chapter concluded with a discussion of various research methods that have been used in studying e-government. Next, Chapter 3 contains a discussion and explanation for the methodology chosen for this study.

# Chapter 3: Research Method

## Introduction

E-government has been conceptualized as a convenient method for citizens to contact and conduct business with the government through the use of the Internet and other ICTs. This study was designed to identify, describe, and analyze the perceived barriers and benefits of e-government use by citizens who use public services. In particular, this study investigated whether costs, skills, trust, peer and family influences, cultural views, or other factors affect e-government use.

This chapter includes a discussion of the methodology used and an explanation for why the qualitative phenomenological method is the most appropriate method to address the research questions. A description of the sample, how the sample was chosen, and the sample size are provided. The data collection and data analysis methods are explained to ensure easy replication of this study or to understand exactly how it was conducted.

This study also tested key concepts from the RCT and the TAM by investigating whether social capital and cultural views influence e-government use. Using the responses to the interview questions below, the participants answered whether there are barriers and benefits of e-government use, to what extent, and how the barriers might be reduced and the benefits might be increased. The final section of Chapter 3 discusses how ethical guidelines and considerations were ensured for all research participants involved in this study.

The qualitative phenomenological approach was used to address the primary research question for this study, in addition to four subquestions. Interview responses were used to answer this study's research questions. The focus of this study was on answering the following research question and subquestions through the lived experiences of citizens who use public services.

## Research Question

The primary research question was: To what extent do barriers and benefits affect citizens' decisions to access local e-government services, such as applying for unemployment and medical benefits, paying taxes, or paying a speeding ticket? The subquestions for this study were:

1. What effects do the costs of personal computers, smart devices, and Internet access and fees have on the use of e-government services?
2. How do technology skills and familiarity with computers affect citizens' use of e-government services?
3. How do trust of paperless transactions and privacy concerns about personal information affect citizens' use of e-government services?
4. How do peer and family experiences with the Internet affect citizens' use of e-government services?

## Research Design and Approach

As indicated in Chapter 2, researchers on the subject of e-government have extensively used the quantitative research design, primarily surveys. In order to use a

more novel approach and to contribute new information to the knowledge base on e-government, I have chosen to use a qualitative research design. On the same note, Kolsaker and Lee-Kelley when researching citizens' attitudes toward e-government stated, "Further qualitative research could be valuable in exploring user needs, motivations, competence, and level of political engagement" (2008, p. 723).

Qualitative inquiry focuses in-depth on small samples, sometimes even a single case that is selected purposefully but quantitative research usually depends on larger samples (Patton, 2002). A sample of hundreds is not necessary to answer the research questions posed in this study. A quantitative design could be used for this proposed study but would be less effective for three primary reasons as noted by O'Sullivan et al. (2008). First, quantitative research is summarized numerically and compares cases on different variables. Second, quantitative research designs are not useful when researchers would like to obtain detailed information about why and how behaviors occur. Third, in order to generate explanations from in-depth information, quantitative methods are not typically used.

This research study encompassed the phenomenon of e-government use and sought to understand and describe the experiences of citizens who use public services and their perceptions about e-government use. This type of detailed information cannot be described or explained effectively or efficiently using a quantitative framework. Qualitative designs offer five different approaches that could be applied. In this study, I employed the phenomenological approach for several reasons.

**Qualitative Approaches**

Narrative research, phenomenology, grounded theory, ethnography, and case studies are the five common qualitative approaches. Although all of these approaches can meet specific research needs, I determined that the phenomenological approach was the most effective approach for this research study. First, the focus of narrative research is to explore the life experiences of typically one individual (Creswell, 2007). In this study, one research participant would not have been adequate in determining the challenges that citizens who use public services face in regard to using e-government services. Specifically, each citizen had different perceived barriers and benefits or varying experiences with e-government; therefore, it was important to interview more than one research participant.

Second, the focus of the grounded theory approach is to develop a theory from the researcher's data when a theory does not already exist to adequately explain a process (Creswell, 2007). The RCT and TAM are very valuable and useful in explaining technology acceptance and use as well as individual behavior. The grounded theory approach was not the best approach to use in this study.

Third, the focus of ethnography is to describe and interpret a culture-sharing group (Creswell, 2007). In this study, the research participants were from different cultural and ethnic backgrounds due to the diverse population in Charlotte, North Carolina. Ethnography was not the most appropriate approach to use in this study.

Fourth, the focus of the case study approach is developing an in-depth description and analysis by studying an event, program, or activity of typically one or sometimes more than one individual (Creswell, 2007). This study focused on people more so than an event or evaluation of a program. Although the case study approach could have been heavily modified for use in this study, case studies are more useful when the number of research participants is limited to a few dominant actors.

This study was conducted to understand the challenges of e-government use, which is the chosen phenomenon, by studying several individuals that share the commonalities of public services use and possible barriers and benefits of e-government use. Creswell described the focus of the phenomenological approach as understanding the essence of an experience and needing to describe the essence of a lived phenomenon (Creswell, 2007). The phenomenological approach was most appropriate for this research study.

**Phenomenological Approach**

According to Patton (2002), the phenomenological approach captures the way individuals view a phenomenon and how they think about, personalize it, talk about it, or describe it. Patton also mentioned that German philosopher Edmund Husserl's philosophical assumption was that a person can only know what he or she experiences. In other words, although many citizens can discuss what they perceive e-government barriers and benefits to be, only citizens who use particular public services can describe what their specific experiences, barriers, and benefits are. It is important to understand

the common or shared experiences of individuals in order to develop policies or to develop a deeper understanding about the features of a phenomenon (Creswell, 2007).

Phenomenological research studies are becoming more common in public policy and administration research and these types of studies provide understanding of the lived experiences of individuals who encounter diverse social circumstances. For instance, Dayson (2010) interviewed nine Statue of Liberty and Ellis Island decision makers to determine how situational awareness influenced and their command decision making ability during the World Trade attacks of September 11, 2011. In another study, Moore (2011) interviewed 10 Department of Defense employees working in Hawaii to determine their core attitudes, beliefs, and values toward federal government privatization reform policies. These qualitative phenomenological studies provided the justification for this study because the phenomenological approach has been used to study and explain the lived experiences of 10 or so individuals from a common area. It is very important for researchers to choose the appropriate individuals to study in order to accurately capture the lived experiences of individuals.

## Sample Selection Process

A population is defined as the total number or complete set of all cases that share chosen conditions (Frankfort-Nachmias & Nachmias, 2008). The population in this study was citizens who use public services and who visit the University City public library, use the two departments of social services locations in Charlotte, North Carolina, work for one nonprofit organization, or work for one public school. I chose the public library as a

recruitment location because the government and other agencies refer citizens to libraries for computer use and e-government assistance, and I chose the two departments of social services locations because they are both one stop locations for citizens to apply for a multitude of public services. The nonprofit and public school participants were chosen because there was a slow response rate from the library and departments of social services.

I distributed a flyer (see Appendix A) to 30 individuals who entered the University City Library, the main DSS location, and the West Charlotte DSS location, for a total of 90 individuals. The rationale for distributing 90 flyers was to plan for issues of nonresponse by distributing significantly more flyers than necessary to obtain 10 participants. I was not allowed to post flyers at any of the recruitment locations. At the public library and departments of social services, I distributed 30 flyers on one day of the week. The flyer contained the definition of e-government, examples of public services, the purpose of the study, eligibility requirements, benefits, compensation, and my contact information.

The first 10 individuals who met the study requirements and responded by calling the phone number on the flyer were selected to participate in this study. Two prequalification questions were asked of each participant who responded to the flyer: Are you 18 years of age or older and do you use e-government services? The criteria for the research participants in this study were as follows: Participants must be 18 years of age or older, must be fluent in English, must use any type of public service, and must be

interested in answering questions about e-government use. In addition, I purposely selected five people who used e-government services and five people who do not to ensure that I had a mix of respondents. I did not receive a significant number of interested respondents, therefore, I asked individuals to suggest others who might qualify for the study and gave them a flyer. I also recruited coworkers at a nonprofit organization and public school.

In qualitative studies, samples are fairly small and selected purposefully (Patton, 2002). In this research study, a purposeful sampling strategy was applied. The logic of purposeful sampling is to select participants based on some characteristic and to select participants to study who are information-rich because they can offer insight about a phenomenon (Patton, 2002). The shared characteristic for this study was use of public services and the barriers and benefits associated with e-government use.

**Sample Size**

According to Patton (2002), no rules exist for sample size in qualitative inquiry, and in-depth information from a small number of people can be very useful especially when the cases are information-rich. Selecting a sample size also depends on what type of data one is trying to collect, the purpose of the study, the credibility of the study, and the researcher's time and resources (Patton, 2002). The sample size in this research study consisted of interviewing 10 research participants from the described population of public service users.

According to Creswell (2007), researchers conducting qualitative phenomenological studies typically interview 10 individuals who have all experienced the phenomenon and or share a common quality. A qualitative study similar to this study was conducted using personal interviews to determine citizens' perspectives on electronic government-citizen relationships. In the research study, the researcher interviewed 18 individuals and found that common themes were present with just six participants. Other researchers reached saturation at 12 participants (Sweeney, 2007). Saturation was reached before 10 interviews in this study. Saturation occurs when researchers are no longer able to find new themes or information that is essential to the understanding of the topic (Creswell, 2007).

Eighteen research subjects can be considered a high-end sample size, and on the low end, Munim and Azam (2011) interviewed two research participants. As mentioned earlier in this chapter, in their qualitative phenomenological studies, Dayson (2011) interviewed nine individuals and Moore (2011) interviewed 10 individuals. The sample size of 10 in my study was in accordance with what other researchers and experts recommend and have used. Based on this, the minimum number of participants in this study was 10.

## Data Collection

An interview guide with open-ended questions was used to ask each participant questions, and these interviews were digitally recorded and transcribed verbatim with the participants' permission. Researchers conducting semistructured interviews use interview

guides and have a specific order in which questions will be asked (Cohen & Crabtree, 2006). Semistructured interviews are interviews where researchers are able to ask additional follow-up and probe questions that are not on the interview guide; responses to these follow-up questions may provide useful information for understanding the topic from a different viewpoint (Cohen & Crabtree, 2006). Each of the interview digital recordings were transcribed manually.

The purpose of the study was explained to all research participants, and they were informed that they could withdraw from the study at any time if they no longer wished to participate. The participants were also told that they could refrain from answering any interview question without providing an explanation. This information was also included on the informed consent form (see Appendix B), which contains background information on the study, study procedures, risks and benefits of participating in the study, payment, privacy, contact for questions, and a statement of consent to participate in the study. Informed consent was obtained from every participant directly preceding the interview and each participant had the opportunity to ask questions before the interview began. The interviews lasted, on average, approximately 30 minutes, and participants were able to choose when and where they wanted to be interviewed, although the locations were limited to public meeting spaces, personal work offices, and conference rooms.

It is important to establish positive researcher and participant working relationships, in which participants are comfortable with all aspects of the study. According to Creswell (2007), researchers should give back to participants for their time

and efforts and ensure that participants have something to gain from the study. Each participant received a $10.00 gas card for enrolling in the study. When the interview was scheduled on the telephone, I asked each participant whether they preferred a gas card or a city bus pass, and all preferred the gas card. I brought their gas cards to the scheduled interview.

To ensure that there were no problems collecting the data, I guaranteed that the digital voice recorder was working properly before each interview. In the event that the digital voice recorder had a malfunction, I had backups in place—both a laptop with Microsoft OneNote that could be used for recording and a smart phone with a recording function. I started each interview on time to respect the participants' time. My role was that of a human link to the lived experiences of others. I was the key instrument in this study, and I only talked when necessary to ensure that the participants' responses were not influenced by researcher biases, which could interfere with bracketing. According to Patton (2002), bracketing also involves intensively analyzing and dissecting the phenomenon as if completely unfamiliar with the research topic. I also took field notes during the interview which focused on key points of interest during the interview rather than writing the participants comments verbatim (Patton, 2002). The key points of interest included body language and tone. By documenting these key points of interest, I ensured that I was following the bracketing process and not interjecting my personal interpretations of the interview responses and reactions.

During the participant interviews, I asked prompts when the participants went off topic or if more specific answers or elaboration was needed or useful. An example of a prompt was “tell me what you mean by that.” I collected data by personally interviewing each participant. Each participant was asked the following interview questions, in this order, about their lived experiences as it relates to e-government.

I started the interview by stating that electronic government, also known as e-government, is the use of the Internet to contact and conduct business with the government and mentioned that the participant could also apply for services or locate information about your eligibility for public services. The questions included:

1. Which services do you use from the following list? You can respond by saying yes or no. Apply for unemployment services; pay your water bill; pay your county, state, or federal taxes; apply and search for jobs; download or complete applications; use the Department of Motor Vehicles; research political candidates; file police reports; use public library services, or find information on government and public services.
2. What additional public services do you need, want, or use that I did not mention in the previous question? Would you use any of these services on the Internet if they were offered?
3. How do you contact the government to access and apply for public services? For example, do you contact the government by mail, by phone, in writing, or through the Internet to access government and public services? How often do you contact

the government using your chosen method? Have you ever contacted the government on the Internet?

4. Do you own a computer? If not, where do you use computers and how often do you use a computer? What type of activities do you complete on the computer? For example, do you email, shop online, or use social networking sites such as Facebook?
5. How would you describe your experience with computers and using the Internet? Would you say you have very little computer knowledge, advanced computer knowledge, or somewhere in between the two?
6. What concerns, if any, do you have about using computers and the Internet? What do you like about using computers and the Internet? Are these your reasons for using or not using e-government services?
7. What would encourage or motivate you to begin using or to use e-government services more often, if anything?
8. What types of activities do your friends, associates, or family members complete on the Internet? How have your friends, associates, or family members' experiences with the Internet affected your use of the Internet? For example, have they ever recommended any websites to you?

At the conclusion of the interview, I asked the participants if there was anything else they wanted to add and if they had any questions.

The interview questions are linked to the research question and subquestions of this study. Interview questions 1 and 2 are about assessing and using public services, and also address the main research question. Next, interview questions 3, 4, and 5 addressed subquestions 1 and 2. Interview questions 6 and 7 on the barriers and benefits of using e-government services as well as perspectives on increasing e-government use addressed subquestion 3. Interview question 8 addresses subquestion 4 on peer and family influences.

These interview and research questions are directly related to the key words that derived from the literature review, which are costs, skills, trust, peer and family influences, and cultural views. Themes emerged from the interview data that were similar to the key words as well as new themes. In addition, the costs and benefits aspects of the RCT were related to the perceived barriers and benefits as described by the participants. The skills, ease of use, and influence of what family and peers do are aspects of the TAM that correlates with the skills, peer and family influences, and cultural views of the participants.

**Validity and Reliability**

Qualitative validity is ensured when the researcher checks for accuracy of the findings and qualitative reliability refers to the researcher's consistency throughout the study (Creswell, 2009). The validity of this study included using digital recordings and field notes, with observed visual cues and body language to substantiate the accuracy of the data and to encapsulate and use some participant quotes in Chapter 4. A procedure for

ensuring this study's reliability was guaranteeing that the coding scheme was clearly defined based on the participants' responses to the interview questions. In addition, I used member checking to ensure precision by asking some of the participants to confirm the accuracy of their statements in their transcripts. Specifically, I called the participants and read parts of the transcripts that needed clarification, and then I asked participants to confirm their responses, asked if I accurately interpreted their responses, and asked if there were any clarifications that they wanted to make.

**Trustworthiness**

It can be argued that ensuring validity and reliability enhances trustworthiness. In phenomenological studies, a common method for a researcher to ensure trustworthiness is through bracketing. In order for bracketing to occur, researchers must set aside their personal experiences with the phenomenon of the study as much as possible (Creswell, 2007). All judgment was reserved until all of the data was collected, although I documented my thoughts in field notes. A brief discussion of my biases and personal experiences as they relate to e-government is discussed in Chapter 4.

**Data Management Techniques**

It is imperative for researchers to have back up or additional copies of all data (Patton, 2002). I have organized files for all participants in the study, which includes hard copies of the interview field notes and transcripts of the interview recordings. The digital recordings are also organized in folders for each participant on my computer and research flash drive.

I am the only person with access to the participants' identifiable information. The participants are not referred to by name in this document and any identifiable information was withheld or removed from any quoted text. All participants were assigned pseudonyms such as Research Participant 1 (RP 1). The data collected electronically is being stored and maintained on a password-protected computer and on data storage media such as CDs, DVDs, and flash drives. Print and electronic data storage media is stored in a locked fireproof file cabinet in my residence. All data will be kept and stored for 5 years after the conclusion of the study, with the key available only to me. Once the 5 years have passed, all print documents will be shredded, and electronic files including the digital audio recorded files will be deleted.

## Data Analysis Methods

Once the interviews were completed, the digital audio files were transcribed, and an individual transcript was created for each participant. Then, the transcripts were used for coding and separating the data into themes. Coding is defined as "the process of organizing the material into chunks or segments of text before bringing meaning to information" (Creswell, 2009, p. 186). Computer programs are tools that assist in analyzing data and speeding up the process, but it is the researcher that decides what is actually coded, what themes go together, and what meanings to take from the data collected (Patton, 2002). Although NVivo is a popular and commonly used program for analyzing and interpreting data, I hand coded the data in this study in order to be

completely familiarized with and immersed in the data. Likewise, 10 participants made hand coding a feasible task and my preferred method.

I followed the four data analysis steps as described by Creswell (2009). First, I organized and read all of the participant transcripts several times to become very familiar with the data. Second, key phrases or sentences that pertained to the lived experiences of citizens who use public services were identified. Third, meanings were formulated from noteworthy phrases and sentences and clustered into themes that were common among most of the participants' transcripts. Fourth, after the themes emerged, the results were assimilated into a description of how the themes are related to the phenomenon of e-government. As mentioned earlier, member checking was used to ensure that the participants' individual responses were precisely described and verified by them. In addition, visual cues and direct quotes from the interviews and field notes were reviewed as additional sources to validate the data. Field notes were important to use because they assist researchers with the bracketing process, allowing the researcher to fully understand the participants' points of view and set aside any personal beliefs about e-government.

In order to share credible findings, I included quotes from participants and grouped together common responses in Chapter 4. One main threat to credible findings in qualitative research is the suspicion that the analyst or researcher has shaped findings according to biases (Patton, 2002). By not interjecting personal opinions, bracketing, and keeping an audio trail of the raw data, I reduced the threat. In analyzing the data, I compared the similarities and differences between each participant's responses by

looking for patterns and themes. In addition, I noted and discussed the discrepant responses.

## Presentation of Results

The results of this study are presented in Chapter 4 as direct quotes and interview excerpts, descriptions and interpretations of the data, and identification of discrepant cases. In addition, common themes are discussed and compared to the key words found in the literature. The adjustments that were made to the interview protocol and the collection of the data are also mentioned in Chapter 4.

## Ethical Protection of Research Participants

As the researcher in this study, I ensured that the participants were not harmed and that the necessary precautions were taken to ensure the safety and wellbeing of all research participants. The following precautions were followed in this study. Informed consent from all adult participants and approval from the Walden University Institutional Review Board (IRB) was obtained for this study. The Walden University IRB approval number for this study is 07-11-12-0053549 and the expiration date is July 10, 2013. The ethics principle of respect for persons was not be breached in this study because the study was explained to every participant, and individuals had the right and the option to choose whether they wanted to participate or remain in the study. In other words, the research participants had complete independence and control over their participation in the study and could have stopped participating at any time during the study.

In addition, the ethics principle of beneficence was not an issue in this study because there was no harm anticipated and the risks were low for the participants;

likewise, the benefits of this study outweighed any potential risks. Participants were also rewarded for their time and offered information and helpful tips for using e-government services. There was no pain, low risks, minimal discomfort, no loss of privacy, no loss of significant time, or inconvenience mentioned or reported by the participants. More specifically, the major benefit of this study was that the results from this study may be used to help not only the study participants but may also help many other citizens who use public services. As a result of this study, additional citizens might be included in the e-government community through new or reformed public policies and gain an enhanced understanding of e-government services.

Lastly, the ethics principle of justice was adhered to because all participants were treated equally and equitably. Anyone who visited the University City library and two DSS locations, as well as my coworkers, had an equal opportunity of being chosen to participate in this study. In addition, all participants who participated in this study received the incentive payment, and helpful information about how to use e-government services. Once the interview was over, all participants received e-government information containing websites and helpful tips, mentioned as one of the benefits in this study in Chapter 1 (see Appendix D).

## Summary

The research method and design that was used for this study was the qualitative phenomenological approach. The components of this study included selecting a sample of a population to study; collecting data through in-depth semi-structured interviews; and

ensuring validity, reliability, and trustworthiness of the data collection and analysis processes. A brief description of the how the results were analyzed was also discussed, as was the importance of how the ethical protection of all research participants was ensured in the study. Next, Chapter 4 contains a summary of the results and responses to the research and interview questions and a presentation of the themes using excerpts and direct quotes from the participants.

# Chapter 4: Results

## Introduction

The purpose of this qualitative phenomenological study was to investigate the lived experiences of citizens who use public services and their perceived barriers and benefits of e-government services. This study was designed to answer the following primary research question and four sub questions. These research questions provided the foundation for the interview questions asked in this study. The main research question is as follows: To what extent do barriers and benefits affect citizens' decisions to access local e-government services, such as applying for unemployment and medical benefits, paying taxes, or paying a speeding ticket? The subquestions were:

1. What effects do the costs of personal computers, smart devices, and Internet access and fees have on the use of e-government services?
2. How do technology skills and familiarity with computers affect citizens' use of e-government services?
3. How do trust of paperless transactions and privacy concerns about personal information affect citizens' use of e-government services?
4. How do peer and family experiences with the Internet affect citizens' use of e-government services?

This chapter consists of the following sections: (a) a description of the research participants, (b) the data collection process, (c) the data analysis process, (d) the results by the research question and sub questions as linked to the interview questions, (e) the

emergent themes from the raw data, (f) the evidence of quality of this study, and (g) a summary of the chapter.

## Research Participants

The research population in this study consisted of individuals who use public services in Charlotte, North Carolina. More specifically, I interviewed eight females and two males, for a total of 10 participants. I identified the portrayed ethnicity of each participant which included one multi-ethnic participant, four Blacks, four Whites, and one Hispanic. Eight participants self-identified their ages. The ages of the participants included a 25-year-old, 26-year-old, 37-year-old, 42-year-old, 49-year-old, 55-year-old, 62-year-old, and 65-year-old and were disclosed when I asked if they were 18 years or older in the prequalification stage of the study. The other two participants were researcher-identified as being 55 years of age or older. In addition, based on the interview responses it was determined that seven out of the 10 research participants were employed at the time of the interview. Two participants were retired and one was looking for work but unemployed. At least five of the participants had a bachelor's degree or higher.

Five of the research participants were identified as e-government users and five were not. For the purposes of anonymity and confidentiality, the research participants in this chapter are referred to as RP 1 through RP 10. Based on my field notes, I determined that nine out of 10 participants were comfortable being interviewed, but RP 1 appeared to be a little uncomfortable. RP 2 and RP 3 were very talkative, RP 3 was also very funny and appeared to be very happy participating in the study, and RP 4 and RP 5 appeared to

be in a rush and talked very fast throughout the interview. RP 6 appeared to be very comfortable and confident, and he was laid back in his chair during most of the interview.

Overall, the participants seemed very receptive and willing to participate in the study through sharing their points of views on e-government. I did not have any participant issues during this study. Furthermore, RP 7 appeared to be comfortable, relaxed, and laughed a lot. Equally important to note, RP 7 did not want to accept the $10.00 gift card, but I convinced her to take the gift card and possibly give it to someone else if she did not feel comfortable taking it. RP 8 seemed very unsure about her responses and frequently asked if she could respond a certain way or if her responses were correct. I had to reassure RP 8 that there were no right or wrong answers throughout the interview. RP 9 appeared to be distracted and our interview was interrupted for approximately 3 minutes when someone barged into her office without knocking. RP 10 appeared to be trying hard to give certain responses that she thought I wanted to hear or responses that would not embarrass her.

RP 1, RP 4, RP 8, RP 9, and RP 10 were non e-government users. RP 2, RP 3, RP 5, RP 6, and RP 7 were e-government users. It is important to note that finding non e-government users to participate in the study was more difficult than finding e-government users. Participants were initially recruited at the University City Library and the two departments of social services in Charlotte, North Carolina, but there was a very slow and limited response rate from these locations. Therefore, the sample selection process of participants was amended, with Walden University's IRB approval to include referrals

from participants and coworkers from the nonprofit organization and public school where I work. These coworkers were not supervised by me.

## Data Collection Process

The data collection process for this study began when Walden University's Institutional Review Board (IRB) gave its approval. In addition to the changes in the sample selection process mentioned above, the University City Library and the two offices of the Mecklenburg County Department of Social Services did not allow me to post recruitment flyers at their locations, but they did allow me to distribute flyers. The library allowed me to walk around inside and approach customers to distribute flyers but the Social Services offices instructed me to distribute flyers outside of the buildings and to refrain from blocking the entrances. Additionally, I gave flyers to participants I interviewed and asked them to give flyers to people they knew who might want to participate in the study. I also distributed flyers directly to coworkers, and I did not need to post any flyers at either of my work office locations. Once I found five e-government users and five non e-government users, it was not necessary for me to recruit any more participants because all of the interviews were productive.

Once participants called me to indicate their willingness to participate in the study, I asked if they were 18 years of age or older and if they used e-government services. These were the two prequalification questions mentioned in Chapter 3. Once eligibility for the study was determined, I scheduled a date, time, and place for the interview to occur.

There were a total of 10 participants interviewed in this study. The interviews were all conducted between August 7, 2012 and September 4, 2012. The interview locations included three different Public Library locations for three participants, one conference room in an office building for three of the participants, and four participants' offices. Before any interview questions were asked, all participants were given the informed consent to review and sign, the form was explained, participants were given the opportunity to ask questions, and participants were informed that they could withdraw from the study at any time. Participants were then informed that they would be asked eight compound interview questions and they did not have to answer any question that made them uncomfortable. Participants were also given a copy of the informed consent to keep for their records.

I established rapport before asking any interview questions by asking the participants how they were doing and by making them feel at ease. No participants withdrew from the study or refrained from answering any of the interview questions. All participants were given a $10.00 gas card, a list of e-government websites, and helpful tips at the end of the interview.

The research participants were interviewed once face-to-face. During the interviews, I also took field notes documenting visual cues, tone, body language, and noteworthy responses. The shortest interview was approximately 15 minutes and the longest was approximately 45 minutes. Several participants were contacted a second time by phone to confirm and verify particular responses. The participants who were not

contacted had verified their responses during the interview when asked for clarification. During the interview, participants were recorded using a digital audio recorder. RP 1 and RP 2 were also audio recorded using Microsoft One Notes on my laptop. RP 3 through RP 10 were only recorded using the digital audio recorder because RP 1 and RP 2 appeared to be a little distracted by the laptop.

Eight compound interview questions were used to collect data to answer the research question and the four subquestions of this study. The interview guide (see Appendix C) was used to ensure consistency in all of the semistructured interviews. In addition, probing and follow-up questions were used to clarify responses and to encourage participants to elaborate on their responses. The probing and follow-up questions varied by interview and by how detailed the participants were during the interview. Once all of the questions were answered, I thanked each participant for his or her time and stopped the recorder.

## Data Analysis Process

Ten transcribed sets of participant responses were the data analyzed in this study. I followed the four data analysis steps outlined by Creswell (2009) that were detailed in Chapter 3. The data analysis steps used in this study are explained later in this section. Prior to coding and deconstructing the data into themes, I transcribed the audio recordings into a transcript for each participant. These transcripts included verbatim interview questions and responses. Once the transcription process was complete, I coded the data.

**Bracketing**

As mentioned in Chapter 3, bracketing is the process in which researchers must set aside their personal experiences with the phenomenon of the study as much as possible (Creswell, 2007). I put aside my judgment of the data until all of the data was collected, and I was able to maintain an objective perspective. I was also very careful not to mention any preidentified themes or keywords from the literature in the interview questions posed to the research participants. Likewise, in an effort to bracket my biases towards the perceptions of the participants in an effective manner, it was necessary for me to acknowledge my previous knowledge, ideas, and beliefs about e-government services.

More specifically, Creswell (2009) defined reflexivity as a process where researchers disclose and reflect on how their biases, values, and personal background influence their interpretations formed during the study. I do not believe that my opinions about e-government services biased the study or participants in any way. However, Creswell (2009) noted that it is impossible for researchers to remove all of their biases when conducting studies.

**Manual Data Coding**

Coding is the process of breaking down interview responses into smaller clusters or pieces of information (Creswell, 2009). First, I transcribed the audio recordings from each participant's interview and typed my field notes. Second, in order to manually code the research data, I read and reread the transcripts repeatedly for clarity and

familiarization to gain a general impression of the data and to identify early themes in the data. I highlighted key phrases, statements, and responses. Third, I began to analyze and code the data by developing a list of significant statements about how individuals experienced e-government, and then I developed a list of nonrepetitive and nonoverlapping statements (Creswell, 2007). Fourth, I used the coded data to generate common ideas to transform into themes. In order to generate themes, I looked for reoccurring words, keywords and phrases; the context in which the keywords and phrases were used; and connecting words and meaning to signify causal relationships.

The fifth step was critical to explaining the phenomenon. In this step, I examined the themes for meaning, the lived essence of the participants, and the relationship of the themes to the phenomenon of e-government and to the research question and subquestions to present as narrative. During this step, I was able to engage with the data and "debracket" in order to interpret the data. Finally, I explained all of the data and tied the results and themes together with the literature reviewed and the conceptual framework in Chapter 5. These data analysis steps were recursive. Creswell (2007) stated that "qualitative research does take time, involves ambitious data analysis, results in lengthy reports, and does not have firm guidelines" (p. 51). Yet, Creswell's steps for phenomenological analysis were easily modified for my purposes.

As a part of my data analysis process, I completed the following steps. I used a Microsoft Excel spreadsheet for coding and analyzing the data. I used one spreadsheet for each interview question to document essential responses, to record my field notes, to

code the data, and to develop themes. For example, the essential responses to interview question 3 were that participants contact the government by phone, in person, by mail, and or on the Internet. Then, the responses to interview question 3 were coded as Method of Contact (MOC). The theme that derived from this interview question was "We Have to Contact the Government." I also noted the main responses to the interview questions and eliminated responses that did not answer the questions. Next, I determined how many times certain key responses were mentioned, and then I compared and contrasted the participants' responses to develop the themes, to determine discrepant cases, and to find meaning within the data.

The described barriers and benefits of e-government services through the lived experiences of the research participants were essential to answering the research questions and filling gaps in the literature reviewed. The themes created were based on the common experiences, perceptions, feelings, values, and beliefs of the research participants about e-government barriers and benefits. Additionally, the themes were selected based on the frequency and commonalities stated among all or most of the research participants. Some of the themes were synonymous with the preliminary themes in the literature, but new themes also emerged from the data in this study. A description and interpretation of the themes are found later in the chapter.

**Discrepant Cases**

According to Creswell (2007), discrepant cases are exceptions or variations in the data and an active search for disconfirming evidence is essential to analysis rigor. In

other words, I looked for ambiguous cases and responses contrary to what was found in the literature. I also looked for differences and opposing positions among participants' individual and aggregate responses. Finally, I searched for inconsistencies in the participants' responses. For example, if a participant gave one response to an interview question and gave a contradictory response in another interview question, this would be considered a discrepant case and inconsistent. In addition, if one or two participants out of 10 gave answers that none of the others gave then these answers would be considered discrepant cases. The discrepant cases will be summarized in the themes section.

## Results

The research questions in this study were based on preliminary categories of trust including security and privacy, costs, social capital, and cultural views. The data analysis and findings revealed that the research participants' responses about e-government services were similar to some of those reported in previous research studies, but there were also variations, emergent themes, and several gaps filled in the literature reviewed. My goal was to find meaning from fresh data to gain an understanding of the lived experiences of citizens' perceptions of e-government services.

Several general results were noted that may increase the overall comprehension of e-government access. First, several of the elderly participants in this study were very computer savvy and articulate about e-government services and using the Internet. Second, higher levels of education did not equate to use of e-government services or familiarity with e-government services. Third, citizens like having options for contacting

the government even if they do not utilize all of the options that exist. Fourth, participants were not aware of many of the government services provided online and were surprised to learn about the types of e-services provided and the information they could obtain. Fifth, for the participants who were e-government users, the benefits of e-government tended to outweigh the barriers. For the non e-government users, the barriers tended to overshadow the benefits of e-government use. An elaboration of the results by research question is provided next. The section following defines the themes that developed in this study. Both sections contain participant excerpts and direct quotes from the interviews.

**Research Question**

This main research question was the driving force of this study: To what extent do barriers and benefits affect citizens' decisions to access local e-government services, such as applying for unemployment and medical benefits, paying taxes, or paying a speeding ticket? Interview questions 6 and 7 provided most of the data to answer this research question. Interview question 6 related to the participants' concerns and likes about using computers and the Internet and if their concerns and likes were their reasons for using or not using e-government services. Interview question 7 related to what would motivate the participants' to begin using e-government services or to use it more often.

The participants' common concerns regarding using computers and the Internet included trust, unclear vocabulary, privacy, security, viruses, bugs, hacking, identity theft, safety, and confidentiality. On the other hand, participants appreciated that computers and the Internet are quick and both provide immediate information and

answers to a multitude of questions. Additionally, participants believed that computers are convenient, easy to use, and accessible; and there are so many activities that can be completed on the computer and the Internet such as emailing, creating reports, and researching topics.

It is important to note that the participants' concerns were directly linked to what would motivate them to start using e-government services or to use e-government services more frequently. In response to interview question 7, participants described various tactics or methods that the government could implement to encourage and motivate their use of e-government services. Several participants would like to see government websites contain more information on the services that they most need, clarity of the information provided on government websites, and the use of clear vocabulary. In addition, participants would also like to see government information placed in one place on one website that is easy to navigate. Participants would like websites to issue a user agreement for site visitors to sign, to include a written security policy and security statement, and to include a security icon that is visible on the website.

**Subquestion 1**

What effects do the costs of personal computers, smart devices, and Internet access and fees have on the use of e-government services? Interview questions 2, 4, and 6 provided the data to answer to this sub question. Interview question 4 was designed to determine a participant's computer ownership, location of computer use, and types of activities completed on the computer. All of the participants in this study owned a

computer, but one participant did not use her computer and she did not complete any activities on the computer. According to RP 1, “I do have a computer but I’m not knowing how to use it right now.” When asked where she would use the computer as a probing question, RP 1 stated the following:

> At home, library, or wherever I might would be able to be accessible [wherever I can access a computer]. I can’t use it [my computer] at home on the Internet because I don’t have Internet service. I don’t even have a home based line [home phone] right now.

The other nine participants owned computers at home with Internet access, and seven of those nine participants used computers at work and for work related activities. All of the participants in this study owned smart devices or mobile phones. Smart devices allow individuals to complete many tasks on the Internet from their device without accessing a computer. Not all mobile phones have the capabilities of the smart phone.

Equally important to note is most of the participants used their computers for leisure activities but not all participants used e-government services. Most of the participants, with the exception of RP 1, used their computers for activities such as emailing, social networking sites such as Facebook and Twitter, online shopping, bill paying, for school work, and for research. These were the most common uses for computers and the Internet, but a few participants also noted that they played games; downloaded, uploaded, and looked at pictures; and used online banking. Based the

participants' responses, all of them have had access to computers and have used a computer at some point, even if only for work related purposes.

In interview question 2, regarding participants' public services needs and wants, one participant mentioned that Internet access is too expensive. RP 1 stated that "I need some classes to this kind of stuff to learn how to operate computer[s] [and the] Internet, and I can't afford Internet right now." However, none of the other nine participants mentioned that computers or Internet access were expensive or that they had problems gaining access to computers. Additionally, none of the participants suggested that using the Internet was a cheaper option for contacting the government versus contacting the government using traditional methods. In interview question 6, regarding participants' likes about using computers and the Internet, there were only two other times that cost or money was discussed in this study. The first time was when RP 3 stated the following:

> I make a lot of cards, so I make things on my computer. It saves you money sometimes doing that. I go to different shopping [websites], the stores I go to and see what the sales are. So I make up my shopping [lists]. It always saves time.

The second was when RP 6 stated the following:

> I ordered some books for my daughter the other day, I can order used books online and have them shipped to her cheaper than I can ship em' directly. So I mean it's almost a no brainer. I spent $20.00 bucks to buy her 2 books to have them delivered. But if I just got the books, but if I just ship em' it'll cost $15.00.

So it is just a no brainer that I can order them used and have them shipped to her a lot quicker.

**Subquestion 2**

How do technology skills and familiarity with computers affect citizens' use of e-government services? Interview questions 1, 2, 3, and 5 provided the data to answer this subquestion. Interview question 1 was devised to determine what types of public services participants use whether through traditional methods or on the Internet. This determination was important to make because it explains why participants need to contact the government, if they contact the government online, and how often. There were 10 different public services that participants were asked about. The responses revealed that the research participants all have paid or currently pay county, state, and federal taxes; used the Department of Motor Vehicles services; and used Public Library services either through traditional methods of contacting the government, on the Internet, or a combination of both.

According to responses to interview question 1, 9 out of 10 participants have also contacted the government to find information on different aspects of the government and public services. The data also showed that 8 out of 10 participants pay a city water bill, apply and search for jobs, and download or complete applications using a variety of methods. The majority of the research participants reported that they have researched political candidates on the Internet, by reading about them in print form, or through the media. Over half of the participants applied for unemployment services at some point in

time, and exactly half of the participants have filed one or more police reports using different contact methods.

Interview question 2 was aimed at establishing what public services participants need, want, or use that I did not mention in interview question 1. Based on the research findings, several participants indicated that they need more information on social security and that they visit the social security website for information, but it is not very detailed. There were many variations in responses to this interview question. Four of the participants suggested that they did not need, use, or want any other services that I did not mention. One participant needed to find more information online about housing for first time homebuyers, and another participant needed more detailed information on retirement benefits. Another participant reported that she needed more information on immigration and permanent resident cards for her mother and information on veteran's benefits. One participant needed free computer classes to teach her how to use e-government services and how to navigate through the websites.

Interview question 3 was constructed to determine the methods that participants use to contact the government, how often they contact the government, and if they ever contact the government via the Internet. All research participants indicated that they contacted the government by phone. Nine participants contacted the government in person and less than half by mail. The participants' common responses for contact with the government using different methods were reported as: three or four times a month,

once or twice a month, once every 3 months, three or four times a year, twice a year, and on an as needed basis.

Finally, interview question 5 was created to ascertain participants' technology skills and familiarity with computers. This interview question was specifically designed to provide the data to answer sub question 2. Two out of 10 participants claimed that they have advanced computer knowledge and one admitted to having very little computer knowledge. Six participants indicated that they have somewhere between very little computer knowledge and advanced computer knowledge. RP 3 stated "if I know what I am doing, I'm advanced. If it's something new, I'm a beginner and it takes me a while to catch on." Also important to note is that RP 10 described herself as having between very little and advanced computer knowledge but her other responses indicated that she has very little computer knowledge. RP 10 was a discrepant case.

**Subquestion 3**

How do trust of paperless transactions and privacy concerns about personal information affect citizens' use of e-government services? Interview questions 6 and 7 provided data to answer this sub question. The majority of participants identified privacy and security as concerns for using computers and the Internet. More specifically, participants indicated that they are concerned about identity theft, viruses, computer bugs, hacking, financial fraud, and improper use of their personal information. Although contacting the government on the Internet is technically considered paperless, RP 7 liked

using e-government services because she can print confirmations and applications. Specifically, RP 7 stated the following:

> I can make a paper copy and have a paper copy so it proves that I have done what I have done and if I have to go far enough as presenting it then I have [it] that's all dates and everything that I did what I was saying I did.

On the other hand, when asked what would motivate RP 2 to use e-government services more frequently for financial transactions, she stated the following:

> Yeah, it would have to be that they no longer [take paper], and that's what scares me if and when they say they no longer take paper. They say we are going to be a paperless world. I don't believe it. We are never going to do that; we have to have a backup.

Other participants were concerned about the person who receives their personal information submitted via the Internet as well as their personal information being sold to various people or companies. All of the concerns mentioned are reasons that participants chose not to use financial e-government services or not to use e-government services at all.

**Subquestion 4**

How do peer and family experiences with the Internet affect citizens' use of e-government services? Interview question 8 was devised to provide the data to answer this sub question. There were two components of interview question 8: peer and family computer activities and peer and family influences on participants' computer and Internet

use. Many participants indicated that their peers and family members frequently pay their bills online, take online classes, conduct research, and use social networking websites. Other participants revealed that their peers and family members use MapQuest, read online newspapers, search for the weather, shop online, and use music websites. In addition, a few participants also claimed that their peers and family members surf the web, research vacation spots, rent cars, research and search for information, email, apply and search for jobs, and work from home on the Internet.

Six out of 10 participants reported that their peers and family members' experiences with the Internet have directly influenced their use of the Internet. Nine out of 10 participants suggested that their peers and family members have also recommended websites to them. Only one participant indicated that she has ever received recommendations for government websites. The data also revealed that four participants strongly believed that their peers and family members did not have a direct influence on their computer and Internet use. For example, when asked if his peers and family members recommend any websites for him to use RP 5 stated the following:

> A lot of my friends, they recommend websites like Instagram, but I am not on Instagram because I feel like it's pointless because you just take pictures and I just feel like why take pictures and I can post that to Facebook or Twitter. So why do I have to have a separate website for that? Um but other than just social networking references, I haven't really received any other references as far as [other websites or government websites]. I usually use the Internet for things that I need, I mean

they tell me things about the Internet but I don't [pursue it] if it is not something I feel like is helpful to me, yeah, I don't use it at all.

**Summation of Results**

Participants noted many barriers and benefits of using e-government services. A more detailed discussion of which barriers and benefits are similar to previous studies is discussed in Chapter 5. Costs of computers, smart devices, and Internet access were only mentioned once by one participant. Regardless of technology skills and familiarity with computers, all participants have had to use some type of public service whether frequently or sporadically. The participants in this study used multiple public services through a variety of contact methods. Those who did not use e-government services relied on traditional methods of contacting the government. However, all participants tended to favor contacting the government by phone.

The majority of participants have issues surrounding trust, mainly security and privacy; however, half of the participants continued to use certain e-government services despite having concerns. Over half of the research participants admitted that their peers and family members influenced their computer and Internet use. Peer and family members' influences included recommending websites, sharing their personal experiences with the Internet, sharing pictures with family and friends, communicating with each other, and staying in contact via social networking websites and emailing.

Each interview question provided the data to answer the research questions and allowed the participants to describe the essence of their experiences and perceptions of e-

government. Some of the findings suggested that there are quite a few variations in the participants' experiences but there were also several commonalities. After a thorough and in-depth review of the data, the analysis resulted in the discovery of themes.

## Themes

I originally discovered over 10 themes, but I was able to combine themes and eliminate others that were not as common. I reduced the number of themes to five prominent themes. Creswell (2009) noted that qualitative studies typically result in many themes, but the researcher should seek to narrow those themes to five or six main themes. As several of the interview question responses overlapped, there are several themes that connect with more than one research question and interview question. For this reason, it was necessary for me to describe and define the themes in its own section for clarity. Additional discrepant cases are discussed within the theme where the most logical relationship exists.

The research participants' lived experiences were captured during the data collection process in this study. The data analysis process generated five common themes and patterns that were prevalent in most or all of the interviews conducted. According to Creswell (2007), part of the data analysis takes place when "the researcher analyzes the data for specific themes, aggregating information into large clusters of ideas and providing details that support the themes" (p. 244). The themes that emerged from this study are the essence of the lived experiences of the research participants and their

perceptions of e-government services. See Table 1 for the themes that emerged in this study and how commonly they were mentioned among the participants.

Table 1

*Themes Derived From the Data Analysis of Interview Responses*

| Themes | Participants | Percentage |
|---|---|---|
| Time is Valuable | 10 | 100% |
| Security and Privacy are Important | 9 | 90% |
| Computer Use and Knowledge Have and Have Nots | 10 | 100% |
| We Have to Contact the Government | 10 | 100% |
| I Want and Need | 10 | 100% |

**Time Is Valuable**

The theme of "Time is Valuable" emerged from the data collected through interview question 6 and also answered the main research question of this study. See Table 2 for common responses associated with the theme Time is Valuable.

Table 2

*Time is Valuable*

| Participant Statements | Perceptions | Observations |
|---|---|---|
| RP 3: It's time [takes time] no matter how you deal with the government, you're going to sit and wait, either on the phone or in person. Even if you have an appointment, you are going to sit and wait and the time can [be] anywhere from 15 minutes to two or three hours. So if you go on the Internet, you can see [and] read what you need to know [instantly] and then I just go there [in person or call] for clarification but you can always find a phone number. | Immediate | Participant appeared frustrated when discussing traditional methods. |
| RP 5: It's a quick resource to get the information that you definitely need. Um, you don't have to wait around for a lag time, um you don't have to be placed on hold, so it's right there at your hands. | Fast<br>No Wait<br>No buffer time | Participant smiled. |
| RP 6: Well, just the ease of use, I can sit down and in five minutes I can pay all my bills and schedule it for when I need it to be paid and I don't have to pay things ahead of time. | Convenient | Participant confidently shook head. |

Through analyzing the data and rereading the interview transcripts, I recognized that time was very valuable to the research participants. In addition, saving time is a major benefit of using e-government services and using computers and the Internet in general. The research participants did not appreciate time lost standing in physical lines and waiting in phone queues.

**Security and Privacy Are Important**

The theme of "Security and Privacy Are Important" emerged from interview question 6 and also provided the data to answer the main research question and subquestion 3 of this study. Equally important to note, security and privacy are derived from the overarching theme of trust, but the majority of the research participants consistently used the terms security and privacy. In addition, some participants did not believe that using the Internet is safe, especially when conducting financial transactions.

RP 8 was a discrepant case as it relates to security and privacy because she was more concerned about her kids safety on the Internet and online predators. RP 8 was the only participant who mentioned this particular concern about using computers and the Internet, but her concern was rational. Overall, security, privacy, trust, and safety were valid concerns of the participants in this study. Regardless of e-government use, many participants voiced similar concerns and some continued to be willing to use e-government services despite their concerns. Others feared their information would be stolen on the Internet. See Table 3 for the participant responses related to this theme.

Table 3

*Security and Privacy Are Important*

| Participant Statements | Perceptions | Observations |
|---|---|---|
| RP 4: The only concern I have is the whole like security um breach, how people are hacking in and can take your information at any time. So I don't try to use too many different sites that I don't know and don't trust. I don't put too much out there. | Security<br>Hackers | Participant talked very fast and expressed her points with her hands. |
| RP 9: I think, ah there's too much that can go wrong with using computers and the Internet as far as viruses, ah people gathering private information, ah stealing. If you put your credit card out there, it's gonna get stolen, somebody will figure out a way to hack it and steal it. | Identity Theft<br>Financial Theft | Participant frowned and was very adamant about her beliefs. |
| RP 10: Absolutely, identity theft or fraud. I definitely do not shop online; I don't like visiting sites that require you to put in any personal information. I believe that can be linked back to you or in the wrong hands of other people. . . . It just tends to scare me where the information might go or where it ends up. | Fear<br>Fraud | Participant crossed her arms and raised her voice. |

**Computer Use and Knowledge Haves and Have Nots**

The theme of "Computer Use and Knowledge Have and Have Nots" emerged from interview questions 4, 5, 6, and 8. This theme also provided the data to answer sub questions 1, 2, and 4. Computer use and knowledge encompasses many different ideas from the participants' perspectives. This theme includes the participants' use of computers, their knowledge of computers, how they find information, and the knowledge

they gain from using computers. This theme also explains the influences that other individuals have over the participants' use of computers and the Internet. See Table 4 for the combination of responses related to this theme.

Table 4

*Computer Use and Knowledge Have and Have Nots*

| Participant Statements | Perceptions | Observations |
|---|---|---|
| RP 1: I probably would rather the personal interaction but I would like to have the opportunity and exposure of knowing [how to contact the government on the computer]. I would like to know how to do these things and [then] I [could] make my choices of what way I will go about doing it. | Does not know how to use the computer to contact the government<br><br>Prefers personal interaction<br><br>Having a choice is important | Participant appeared to be confused and a little agitated. |
| RP 3: Computers are fun. They make you feel smart, especially when it [computers] works. Um and the Internet can broaden your experience, you can check on a whole world of things and nobody needs to know it." | Can gain a lot of knowledge from using computers | Participant smiled and laughed. |

*table continues*

| | | |
|---|---|---|
| RP 4: Yes, um they have to because then I won't explore, for instance Pinterest. I am addicted now because people have told me about it. Like oh my gosh, so a lot of my websites that I have been to [visited or used] are because of referrals from friends and family. | Must have referrals from friends and family<br><br>Social capital | Participant nodded head in agreement and smiled. |
| RP 6: Personally, I love the Internet. I mean I use it all the time. Um for information, I read USA Today and Charlotte.com two or three times a day. I am a researcher so I mean I am always wanting to know this or that or looking up something that might be out there . . . . I love the Internet. | Computers are very useful<br><br>Finds needed information | Participant folded his hands behind his head and propped his feet on his desk. |
| RP 10: No they don't. They can talk to me about it, but it's just not enough for me to go and access it myself. | Friends and family have no impact on computer use | Participant looked very serious. |

All of the participants in this study have used computers and the Internet at some point in their lives. Some participants were more frequent computer and Internet users than others, very few participants considered themselves as having advanced computer knowledge, and others considered themselves as having somewhere between very little computer knowledge and advanced computer knowledge. The majority of participants used computers for personal and work related activities more so than they did for e-government services, if they used e-government services at all.

**We Have to Contact the Government**

The theme of "We Have to Contact the Government" emerged from participant responses to interview questions 1, 2, and 3, which also provided the data to answer sub question 4. The connection of this theme was made to subquestion 4 because regardless

of peer and family influences, all participants and most citizens for that matter, have to contact the government for some reason whether on the Internet or through traditional methods. This theme includes the common public services that research participants use, frequency of use, and all of their methods for contacting the government and finding information on the government and public services.

In addition to the services mentioned in interview question 1, participants also mentioned public services that were not listed as a response to interview question 2. Out of the 10 public services listed in interview question 1, participants consistently reported using at least six or more of those services on a monthly, bimonthly, quarterly, biannually, or as needed basis. Refer to Figure 1 for the additional public services used by participants.

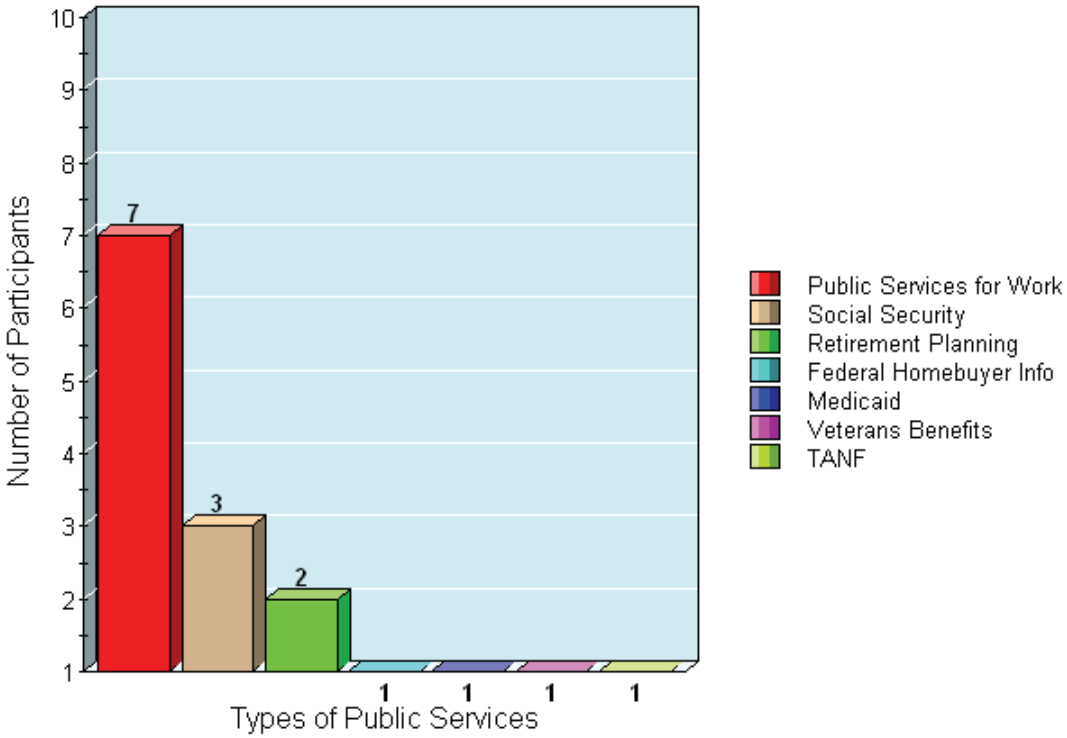


*Figure 1.* Used public services noted by the participants.

Table 5

*We Have to Contact the Government*

| Participant Statements | Perceptions | Observations |
|---|---|---|
| RP 2: I have done some research on public meetings like, uh, when they were doing something on the street that I live on and they sent out emails and information about what they were going to do to the road. | E-government can be used to conveniently contact the government. | Participant smiled and looked pleased that she was able to contact the government on the Internet. |
| RP 3: It depends on where I run into a road block. If I go on a website and I can't understand it or don't know, then I will go to the phone. If the phone doesn't work, then I will go in person and if that doesn't work, I go buy something to drink. | Contacting the government is done in a variety of ways and can be frustrating. | Participant laughed at her response. |
| RP 9: I read magazines, journals, I am a big reader, watch TV, read newspapers, journals, and I watch the news . . . . I would go to the blue pages in the government section of the phone book and call and ask them what I need to do and then I would probably write. | Traditional methods of contacting the government, reading, and watching TV are the best ways to contact the government and get information. | Participant did not have a readable expression. |

None of the other participants mentioned public meetings in their response, which led me to determine that RP 2 is probably more civically engaged than other participants. I considered this case to be a discrepant case as it relates to contacting the government for these reasons. Another discrepant case for this theme, that is noteworthy, is RP 9. RP 9 is

a non e-government user, and she mentioned several methods that she uses to contact the government and to find out more information on the government and public services. These methods were not mentioned as a traditional or contemporary method. In addition, RP 9 reported various nontraditional methods for how she researches political candidates and finds information on the government and public services.

Overall, the participants suggested that contacting the government can be stressful and it is often necessary to use more than one method or a combination of methods. Phone contact was the preferred method for participants in this study. Refer to Figure 2 for the methods of contacting government by percentage of phone, in-person, Internet, and mail contacts.

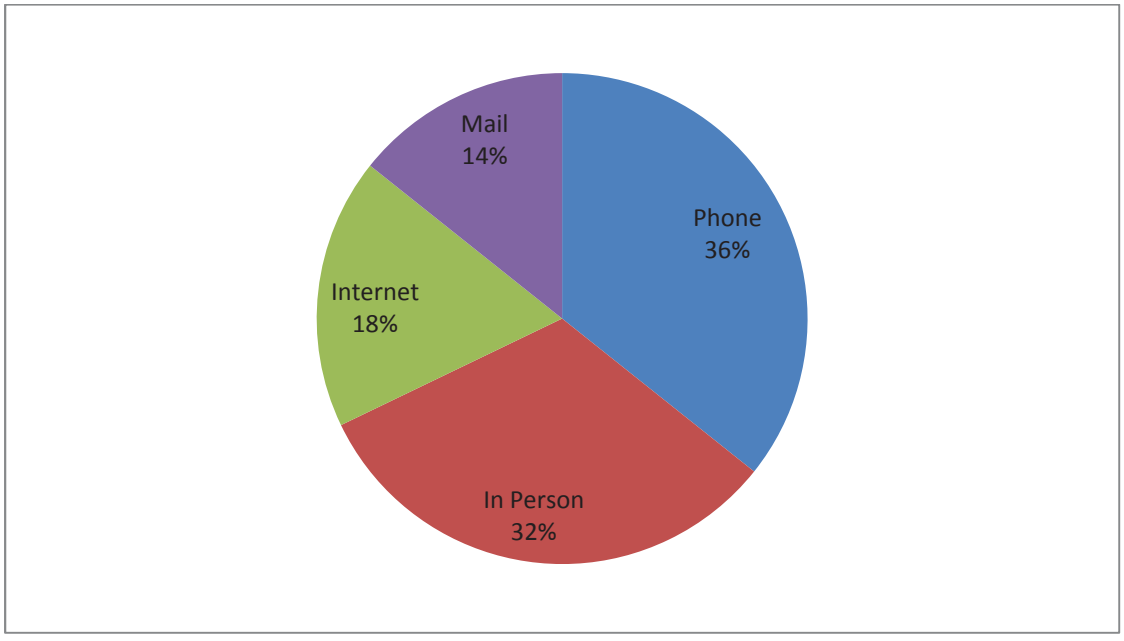


*Figure 2.* Percentages of participants' preferred methods for contacting the government.

Based on the fact that the participants are all from diverse backgrounds and age ranges, it was logical to determine that all of the participants need and use public services for a variety of reasons based on their individual needs. It is inevitable that participants will need to contact the government, even if only to pay taxes, which all citizens have to do as required by law. As citizens must interact with the government in some shape, form, or fashion, this theme emerged and is suggestive of growing public service use.

**I Want and Need**

The theme of "I Want and Need" emerged from participant responses to interview questions 2 and 7 and also provided the data to the main research question of this study. This theme includes participant responses comprised of their needs and wants from e-government services, what would motivate them to use e-government services, and the reality of whether there is anything the government can do to encourage e-government use.

The research participants have made it clear that under certain circumstances they will not use e-government services, but there are some things that the government can do to encourage their use of e-government services. In addition, participants wanted to see better and clearly outlined security policies and statements on government websites. The data revealed that some participants believed that it is too easy for thieves and hackers to obtain and to steal their information. Participants also revealed that clear vocabulary and being able to understand the information on government websites is very important to them.

Table 6

*I Want and Need*

| Participant Statements | Perceptions | Observations |
|---|---|---|
| RP 2: I don't think as long as I am capable [of going in person to pay my bills then I will not pay online], that doesn't interest me in the least. They [the government] could give me a discount or something but if it was a 10-15% discount or something. I still wouldn't take it. | Nothing can make me use e-government except maybe a significant discount. | Participant crossed her arms and looked very serious. |
| RP 4: Um, maybe like sometimes how on banking sites that have that little security code [icon], maybe like if they had something that said this website is encrypted or some type of added security. Not just a line that says it but some back up because if it's new, we are not really just going to believe that since you put that little icon there, that it's secure. | Security icon<br>Detailed security Policy | Participant tilted her head and intertwined her hands. |
| RP 5: I think making it [e-government websites], the verbiage on the website user friendly. They have to, I feel like, um the people who put these websites together have to understand that they need to use everyday language. | Clarity<br>Understandable vocabulary<br>Specificity | Participant spoke very stern. |

In addition to the statements in Table 6, RP 1 claimed that she would like to have free computer classes offered within her schedule. In regards to vocabulary, RP 3 stated "it [a government website] is written like they already assume you know what they are talking about. If I go to something for the first time, I want them to assume I'm stupid." Additionally, RP 7 indicated that government websites can be very vague. This concludes

the description of the five themes that emerged in this study, and the next section will explain how I ensured reliability and validity in this research study.

## Trustworthiness of the Study

According to Creswell (2007), four terms that are commonly used for validation and evaluation of qualitative studies are credibility, transferability, dependability, and confirmability. I will explain how I ensured each of these forms of reliability and validity in this study. First, I ensured credibility by using member checking to ensure that I accurately captured the data. I made follow-up phone calls with several participants to correct errors or mistakes in the transcripts and to ask for clarification of unclear responses. I confirmed the responses of other participants during the initial interview. As a result of member checking, I made a few minor changes and noted them in the transcripts.

Second, transferability is normally associated with being able to generalize results to other contexts or settings, but in qualitative studies, transferability means that connections can be made between the elements of this study and the experiences of other individuals not in the study (Creswell, 2009). However, it is important to note that no generalization is being attempted in this study due to the small sample size. Third, dependability was ensured by using consistent methods throughout the study so that other researchers can replicate or expand the study. I was the only researcher in this study; therefore, there was no conflicting interpretation of the data or coding schemes. Triangulation of different data sources and collection methods was also used. I used the

following data sources and collection methods in this study: previous research studies; in-depth interviews; observations of participants' body language, tone, and visual cues; and field notes. I also used an interview guide to ensure consistency in all of the semi-structured interviews.

Fourth, I ensured confirmability by checking and rechecking the data throughout the study. I listened to the audio recorded interview of each participant multiple times and I reread the transcripts many times. Additionally, I identified and described discrepant cases, and referred to the raw data as often as possible when determining and describing the study's themes. Finally, I used bracketing to separate my personal opinions of the phenomenon from the perceptions of the research participants during the data analysis process. One specific bracketing technique that I used was reflexivity, and this was described earlier in the chapter. All four of these main qualitative methods contributed to the research rigor, reliability, and validity of this study.

## Summary

In this chapter, the purpose of this study and a review of the research question and subquestions were presented. Participants' demographics and my impressions of each participant were also provided because this information aided in understanding many of their responses and it is relevant to the study. The data analysis process used in this study included a modified process of Creswell's bracketing commonly found in phenomenological studies, manual coding of the data, and a description and definition of discrepant cases.

The results of this study were first presented by research question and then according to themes that emerged from the data collected. All of the results were collected through the interview responses given by the participants, notes, and observations. There were 10 main results that stood out or were surprising. First, the barriers outweighed the benefits of using e-government services in many cases. Second, the cost of computers, smart devices, and Internet access rarely were reported as concerns for almost all of the participants. In fact, several participants believed that using computer programs and shopping online saves money and time. Third, if participants feel uncomfortable or unsatisfied using computers to contact the government, then they will use traditional methods. Fourth, for the most part, participants contact the government by phone regardless of their technology skills. Fifth, older adults still tend to use mail as a method of contacting the government, but this method is becoming obsolete.

Sixth, finding information online is typically easier and faster than calling government offices. Seventh, participants are more trusting of sharing their financial and personal information if they or people they know have not experienced problems such as identify theft. Eighth, the majority of participants do not receive recommendations from peers and family members for government websites, but they do receive many recommendations for personal and social websites. Ninth, participants do not contact the government as often as I assumed.

Out of all of the results, the one finding that I did not expect was related to conducting financial transactions on the Internet. Tenth, and most surprising to me, is the

fact that some individuals will pay bills and shop online, but will not use e-government services that involve financial transactions. This chapter also included five themes that played a major role in the described participants' perceptions of e-government services use. Those themes and patterns were: Time is Valuable, Security and Privacy Are Important, Computer Use and Knowledge Haves and Have Nots, We Have to Contact the Government, and I Want and Need.

The results and findings of this study revealed more than what is listed above and a more detailed interpretation of the findings as it relates to the literature reviewed and the conceptual framework is provided in the next chapter. Chapter 5 also contains the limitations of this study and implications for social change as a result of this study. Recommendations for action and further research are discussed, and my experience as the researcher and a conclusion of all five chapters are provided.

# Chapter 5: Discussion, Recommendations, and Conclusions

## Introduction

Electronic government, also known as e-government, is the use of technology to contact and conduct business with the government. The topic of e-government was selected for this study because many individuals are not able to benefit from e-government services (Aerschot & Rodousakis, 2008; Bélanger & Carter, 2009; Hong et al., 2008). The purpose of this qualitative phenomenological study was to describe the lived experiences of citizens who use public services and their perceived barriers and benefits of e-government services. Ten research participants were recruited to participate in this study. Five participants were e-government users and five were not. In depth semistructured interviews were conducted to collect the data for this study. One main research question and four subquestions were the basis of this research study and were used to devise the eight interview questions asked of each participant.

This chapter includes an interpretation of the findings by research question and sub questions and describes the limitations of the study. In addition, the conceptual framework of this study is explained in relation to the findings. More specifically, the interpretation of the findings is compared to what has been found in the literature reviewed. The implications for social change, recommendations for action, and the recommendations for further research are also discussed. Finally, this chapter concludes with my experiences conducting this study and my reflection of the study.

## Interpretation of Findings

The findings from this research study present detailed and fresh insights into the barriers and benefits of using e-government services from the perspectives of citizens who use public services in Charlotte, North Carolina. The research was guided by one main research question and four subquestions. The findings are discussed in the following section by research question. In addition to providing the answers to the research questions, the findings are discussed and compared to the literature reviewed and whether the data are supported by other researchers, studies, and the conceptual framework.

### Research Question

To what extent do barriers and benefits affect citizens' decisions to access local e-government services, such as applying for unemployment and medical benefits, paying taxes, or paying a speeding ticket? The answer to this question was that the barriers and benefits of e-government services, to a large extent, influence citizens' decisions to use e-government services more so than costs of computers, Internet access, technology skills, and peer influences. Based on the data collected, not owning a computer does not determine e-government usage to a large extent but having clear vocabulary on websites, finding needed information, and ensuring privacy and security significantly affect e-government use. The results of this study suggested that Aerschot and Rodousakis (2008) were correct when they claimed that citizens appreciated that e-government is fast and

can be used at convenient times, but citizens do not like that e-government lacks human interaction and support, they are afraid of viruses, and they are worried about security.

The data collected in this study also contradicted particular claims by other researchers. For instance, Islam (2007) declared that citizens cannot find needed information on government websites. This claim was not supported by the participants in this study. The data collected indicated that participants can and do find an abundance of information on the Internet as well as on government websites. However, some participants wanted more information on certain public services to be provided on the Internet. E-government users continue to use e-government services for the benefits and convenience, but non e-government users are more concerned about security and privacy issues than considering the benefits of e-government use.

**Subquestion 1**

What effects do the costs of personal computers, smart devices, and Internet access and fees have on the use of e-government services? The answer to this question is that the costs of personal computers, smart devices, and Internet access do not have a prominent effect on the use of e-government services in this study. This answer was evident because all of the participants in this study owned mobile phones or smart devices, and they owned computers or had access to them. RP 1 was the only participant who mentioned that computers and Internet access are expensive but that she can access computers in multiple places. If RP 1 had Internet access at home, she claimed that she would use the Internet for e-government services but not for financial transactions. For

RP 1, knowing how to use a computer, having a working computer, and having affordable Internet access would have a significant influence on her use of e-government services.

On the other hand, computer ownership and having Internet access do not necessarily equate to e-government use for informational or financial transactions. Participants in this study who were not e-government users all owned computers and had access to computers at work. However, half of the participants made a conscious effort not to use e-government services. In addition, participants with smart phones can also access government websites from their phone if they choose to do so. Money may be a determinant of e-government use, but in this study, it was not a major factor. According to Khalil (2011), money is supposed to be a strong predictor of e-government use. In this study, money was only an issue for one participant. The other nine participants had sufficient income, which has a major impact on what one can afford or considers a necessity. If more unemployed participants had been included in the study, I suspect that they would have had concerns about the costs of computers, smart devices, and Internet access based on studies by Aercschot and Rodousakis (2008), Asgarkhani (2005), Khalil (2011), and Quinn (2010).

**Subquestion 2**

How do technology skills and familiarity with computers affect citizens' use of e-government services? The answer to this question is that technology skills and familiarity with computers have a variable influence on citizens' using e-government services. This

answer is due to the mixture of participant responses. Technology skills were not predictive of e-government use because there were participants with moderate and advanced technology skills who do not use e-government services. RP 3, an e-government user, responded that volunteers and librarians assist her when she needs help with the Internet at the public library. RP 3's response indicated that individuals with low technology skills can and will seek help to use the Internet.

Based on the participants' responses, the answer to this question is more related to concerns about participants' comprehension and use of websites and less related to technology skills. It is important to note that participants who commented that government websites are vague, use unclear vocabulary, and are not user-friendly continue to use e-government services as one of their primary choices for contacting the government. The participants appeared to have enough computer knowledge to use e-government services. However, they identified government websites as new barriers to e-government use. Yet, these barriers did not prevent e-government use.

When discussing websites barriers, participants mentioned that websites do not always contain the necessary information that they are looking for, the terminology is not clear, acronyms are not clearly explained, and contact information for resources mentioned are not provided on particular government websites. These are nuisances for participants when trying to use e-government services, but not enough to discourage use. However, understanding the information on government websites is very important for citizens and the success of e-government. According to West (2008), half of Americans

in the United States read at an eighth grade level, and many government websites are written at a higher level than eighth grade. This is an important lesson for the government to be aware of because electronic and printed materials need to be revised so that more citizens can understand the documents they are being asked to read and complete.

**Subquestion 3**

How do trust of paperless transactions and privacy concerns about personal information affect citizens' use of e-government services? The answer to this question was that trust of paperless transactions and privacy concerns about personal information extensively affect citizens' use of e-government services. This is a major e-government concern and the most commonly referred to barrier. Lack of trust and concerns about privacy have caused participants not to use certain e-government services or to refrain from using e-government services all together. This answer was supported by all of the participants' responses to the interview questions. Horsburgh et al. (2011) were correct when they suggested that security, privacy, and inappropriate use of private information are fears of citizens when using e-government. Nine out 10 participants mentioned security and privacy as serious concerns and for five of the participants; these concerns were enough to prevent e-government use.

Das et al. (2009) claimed that lack of trust in government and in technology are two reasons for not using e-government services. Based my results, the claim by Das et al. was partially supported. Participants indicated having a lack of trust in security, privacy, and technology, but no participants mentioned a lack of trust in government. In

fact, RP 6 stated, “if you can’t trust the government, who can you trust?” On the other hand, other participants are convinced that identity theft and fraud would occur if they put their personal or financial information on the Internet. Some of the findings suggest that if trust is not increased in e-government interactions then e-government services may not be successful or fairly implemented.

**Subquestion 4**

How do peer and family experiences with the Internet affect citizens’ use of e-government services? The answer to this question was that it depends on how strong the participants’ personal experiences, opinions, and values were to them when using the Internet. It also depends on how much participants value their peers, associates, and family members’ opinions. More specifically, nine of the participants were willing to discuss their use of the Internet with peers and family members and listen to suggestions, but despite these discussions, four participants refused to take the advice of others. The answer to this question is varied. According to RCT theorists, outside influences do not affect individuals’ decisions because people make decisions based on what is best for themselves (Boudon, 2009). The results of this study suggest that Boudon’s claim is partially supported. Specifically, six out of 10 participants indicated that their peers, associates, and family members play a significant role in suggesting websites for their personal and leisure use. Only one participant had family and friends who suggested e-government websites.

According to Putnam (2007), social capital is the concept that people are more likely to participate in activities if individuals in their environment are doing so. The results of this study suggest that Putnam's claim is generally supported, but not in the case of e-government use. Participants suggested that peer and family members' negative experiences with the Internet also influenced what type of activities they choose to complete on the Internet. Four out of 10 participants' claims are consistent with Boudon's findings, but my results suggest that outside influences have a major effect on computer Internet use. In fact, most participants in this study were influenced by others when deciding to use the Internet for personal use. Furthermore, e-government use appears to be more dependent on citizens being aware of e-government services and their expectations of e-government systems rather than outside influences.

## Support for the Conceptual Framework

This research was based on the conceptual framework of the Rational Choice Theory (RCT) and the Technology Acceptance Model (TAM). Interview questions 6 and 8 provided the data used to support the conceptual framework of this study. As mentioned in Chapter 1, one basic tenet of RCT is that people will make decisions based on costs and benefits and the opinions of others do not affect decision making (Boudon, 2009). The participants' responses were somewhat supportive of this theory. Four out of 10 participants were consistent with RCT because they indicated that their peers, family members, and associates do not have a significant influence on their Internet and computer use. On the contrary, six out of 10 participants stated that their peers, family

members, and associates do have a direct influence on what websites they use and what type of transactions they are willing to complete on the Internet. This finding suggests that a slight majority of participants are typically willing to take the suggestions of others and to include others in their decision making process when making personal choices and decisions.

According to Boudon (2009), RCT can explain why individuals choose one particular method of interaction over another, such as preferring telephone contact with government personnel over e-government access. Participants' reasons for using their particular contact methods were varied but understandable. In this study, participants preferred phone contact more to other methods, but all participants indicated that they used a combination of methods depending on their needs. E-government users typically contacted the government on the Internet first for information and only then contacted the government by phone if more information was needed. In my study, non e-government users and one e-government user preferred to contact the government in person for financial transactions because they felt more comfortable with human interaction and could ensure that their payments were received.

Based on the TAM, technology acceptance is based on two major variables: Perceived Usefulness and Perceived Ease of Use (Davis, 1989). According to Merchant (2007), another tenet of the TAM is that culture is said to be predictive of technology adoption. Participant responses in this study are consistent with the TAM in regard to perceived usefulness and perceived ease of use. Specifically, participants who used e-

government services consider them fast and convenient and therefore useful. On the other hand, the same participants would also like to see some improvements on making e-government websites more user- friendly and with clear vocabulary to increase ease of use. Otherwise, participants believed that government websites are very useful, are easy to access, and have a wealth of information.

Participants who do not use e-government services claimed that using traditional methods of contacting the government were better for them because they prefer human interaction over a computer and they see humans as being more useful than computers. Non e-government users also indicated that their main reason for not using e-government services was concerns about security and privacy. Non e-government users, for obvious reasons, were not able to comment of the ease of use of government websites, but in general, all participants believed finding information on the Internet is easy and saves time.

The cultural aspects of technology acceptance such as specific attitudes and trust in technology played a major role in the participants' decisions to use e-government. According to Alshehri and Drew's (2010) broad interpretation, cultural aspects that are related to e-government adoption include ethnicity, socioeconomic status, languages of origin, politics, education, religion, life experiences, and different expectations of the e-government system. However, Alshehri and Drew's broad claim was partially supported.

Socioeconomic status, life experiences, and different expectations of e-government appear to be significantly related to adoption of e-government use. On the

contrary, cultural factors such as gender, ethnicity, and education did not have a significant impact on technology acceptance. Specifically, in my study, both males and females had similar views about e-government, and the participants' educational levels and ethnicities did not change these views. Therefore, despite the variations in participant demographics, their beliefs, expectations, and experiences with e-government were quite similar. In my study, participants' personal experiences and beliefs about security and privacy influenced technology acceptance more than race, gender, or educational level. In other words, race, gender, and educational level may not have a significant influence on e-government adoption.

## Limitations of the Study

The first limitation of this study is that the many participants were not found at the anticipated recruitment locations due to lack of response. Therefore, out of convenience, I recruited several of my coworkers not supervised by me to participate in the study, and I asked other participants to give flyers to people they knew to consider participating in the study. It is important to mention that the IRB approved my changes to the recruitment process and I adhered as closely to the original plan as possible. Second, all of the participants owned smart phones or mobile phones, owned computers, or had access to computers, which may not be the reality for some people. Third and similarly, the majority of the participants in this study were also employed or retired and with apparently sufficient income. It is important to note that the results of future studies could

be different if individuals of low SES or if individuals who do not own or have computer assess were purposefully selected for interviews.

Fourth, in any study where the data are self-reported, there are risks of participants having problems remembering exact events, exaggerating events, or allowing one negative experience to outweigh any positive experiences. These risks could skew the results toward negative aspects of e-government services more so than the positive aspects. In this study, all I could do was take the participants' responses at face value and trust that they were as accurate as possible.

## Implications for Social Change

This study detailed the e-government experiences, perceptions, attitudes, and beliefs of citizens who use public services in Charlotte, North Carolina. If the recommendations for action are considered and implemented, there could be several implications of this study for enacting positive social change. As mentioned in Chapter 1, through the provision of e-government services, the government can conserve resources, strengthen the government-citizen relationship, reduce paperwork, increase efficiency and effectiveness, ensure revenue growth, and lower corruption (Kachwamba & Hussein, 2009). Two of this study's implications for social change are based on two of Kachwamba and Hussein's claims. Specifically, based on the results of my study, e-government can improve the government-citizen relationship, and increased efficiency and effectiveness can improve e-government service delivery.

Based on the results of my study, there are several implications of social change that have the potential to transform society.

1. Equality of access to the Internet and e-government services for all citizens can be achieved.

2. Citizens may become better aware of the need and value of the Internet for finding information, applying and searching for jobs, paying bills, downloading applications, and finding immediate answers to their most pressing questions.

3. The Internet can enhance democracy by increasing citizen engagement and political participation, especially in areas where online voting is permitted.

4. Citizens can benefit from economic, educational, and social growth as a result of the Internet and e-government use. Specifically, citizens who attend school online, use online public libraries and other search engines for research, and find eligibility requirements for public services can save money by not having to travel outside of their homes. Therefore, e-government has the potential to improve individuals' overall quality of life.

In addition, public policy makers can use my findings for greater awareness of e-government barriers and benefits, for making decisions about e-government services, and for understanding e-government from the citizens' perspectives. Policy makers could also devise policies that would increase e-government use and improve public service delivery by taking the points of views of citizens into consideration. The government stands to save a significant amount of money and improve their relationship and reputation with

citizens by finding ways to successfully implement, improve, and sustain e-government services.

## Recommendations for Action

Based on the results of this research study, I have three recommendations to government officials, political leaders, and public policy makers. First, appropriate funding should be allocated to reform e-government so that necessary changes can be implemented. This recommendation is based the themes of "We Have to Contact the Government" and "I Want and Need." More specifically, contacting the government is a necessity, and in order to address participants' wants and needs, adequate funding should be available. Unfortunately, many governments do not currently explore or develop expanded funding options for financing and maintaining e-government (Oxford Internet Institute, 2011). The government's current investments in e-government have not been used effectively as needed changes and updates go partially addressed and have not been targeted to try to increase broad citizen e-government usage.

Changes need to be made to government websites. Websites should include the most current information, which means staff members are needed to update the websites frequently. Websites should also be accessible to individuals with disabilities such as those with vision and hearing impairments. As mentioned in Chapter 1, Barrett and Wise (2008) declared that some individuals with disabilities also tend to have vision and hearing impairments and need to use devices that are not compatible with government

web pages. Government websites could also include a help section, a question and answer section, and perhaps a guide for how to use the website's features.

Participants would also like one government sponsored website that contains everything they want and need versus having to use a different website for each needed public service. The idea of one stop portals has been addressed and supported in the literature by several researchers (De Meo et al., 2007; Holden & Millett, 2005; Ho, 2002; Islam, 2007; West, 2004). Finally, government websites must use appropriate terminology, explain what the acronyms used mean, and ensure that the websites are not overwhelmingly busy.

My second recommendation for action is for government agencies to adequately promote e-government websites. This recommendation is based on the themes of "Time is Valuable" and "We Have to Contact the Government." In order for participants to contact the government, they must be aware of the different contact methods and what can and cannot be done using each method. Many of the participants in this study were not aware of some of the services offered on the Internet and the fact that using this contemporary contact method can save time.

According to Eynon and Dutton (2007), there is inadequate promotion of e-government services. Several methods could be used to adequately promote e-government services. Based on the participants' identified computer activities and the description of the computer activities of their peers, associates, and family members, the government could use social media as one method of advertising and promoting e-

government services. Additionally, for individuals who do not use social media or are not familiar with social media, the following suggestions could be used to help promote e-government services. Government offices could post information in their lobbies and waiting areas about how to contact the government on the Internet. Government offices can also play prerecorded messages with directions to visit government websites that callers can listen to when they call government offices. Finally, the government can use the media, newspapers, and billboards to spread the word about e-government services and the benefits of its use.

My third and final recommendation for action is that government agencies expand their current initiatives and partner with businesses and nonprofit organizations to provide subsidized or free computers and Internet access to low income individuals and families. This recommendation is based on the themes of "Computer Use and Knowledge Haves and Have Nots" and "I Want and Need." It can be argued that computer use would increase and citizens would gain more knowledge if more people had computers and Internet access. Comcast is just one example of businesses and organizations that are providing great services to help close the digital divide.

Currently, businesses such as Comcast provides low income families in 39 states and the District of Columbia who have children that receive free or reduced lunch at school, has not subscribed to Comcast Internet services within 90 days, and does not have an overdue Comcast bill, with computers for $149.99 plus tax and Internet access for $9.95 per month (Comcast, 2012). Comcast also offers free Internet training online, in

person, and in print. Unfortunately, Comcast is not a service provider in 11 other states such as North Carolina. However, there is a government initiative in place to ensure that individuals not covered by programs such programs will eventually have Internet access.

President Obama's Wireless Innovation and Infrastructure Initiative is a current plan to expand wireless coverage to 98% of Americans in the United States, to reduce the deficit by nearly $10 billion, and to invest in a nationwide public safety network over the next decade (The White House, 2011). This initiative has potential, but the completion of the plan is not for expected to occur for another nine years. In the meantime, many people will remain without Internet access. Perhaps the government could partner with businesses, such as mobile phone companies and nonprofit organizations, in order to achieve the goals of this initiative in less time.

It is important to note that I did not recommend security icons, statements, or policies being placed on government websites discussed in the "Security and Privacy are Important" theme. The reason I did not recommend these measures for action is because many websites already have security and privacy policies posted and it is required by law (West, 2008). Understandably, the five non e-government users in this study would not know this information because they do not use e-government websites. One e-government user was aware of these policies but still does not trust completing financial transactions on the Internet. Participants in this study were unwavering in their beliefs, even if inaccurate at times.

## Recommendations for Further Research

Based on my experience conducting this research study and reviewing the literature on e-government, I would make the following recommendations for the further research. This study identified new gaps that could be investigated such as cultural views on e-government. One possible new research question could be how trust of government and political figures affects e-government use. A second research question could be how religious views affect e-government use. For example, a more specific question on religious views could be how do certain religions encourage or discourage computer and Internet use. A third research question that could be explored is how does English fluency affect e-government use.

Different sample populations could be interviewed including disenfranchised citizens, unemployed citizens, users of one specific public service like Medicaid for their U.S. born children, and individuals who do not own computers or have limited computer access. These populations could generate different results and points of views on e-government. In addition, interviewing unemployed citizens and people who do not own computers could produce different results from citizens who have sufficient incomes such as most of the ones found in this study. Differences in the sample population such as interviewing citizens of low SES may yield results that are more in line with certain aspects found in the literature on costs of computers and Internet access. Researchers could also use a different methodology such as a mixed methods study or a qualitative

study using a focus group method to add even more data to the current body of knowledge on e-government barriers and benefits.

## Researcher's Experience

My experience as the researcher of this study was very positive overall. I learned a great deal from conducting this research study and from the lived experiences of the participants. My lived experiences with the phenomenon provided me with a basic understanding, and I conducted this study to learn more about the benefits and barriers to e-government use. Some could argue that because I interviewed several coworkers that I could have biased the study by influencing the participants or confirming my basic understanding. I would counter that interviewing several individuals that I personally knew enhanced the credibility of this study because the participants felt more comfortable sharing their experiences with a colleague versus with a stranger.

I took measures to ensure the validity and reliability of this study. I used bracketing, member checking, and triangulation to ensure that my professional relationship and my lived experiences with the phenomenon did not significantly alter each participant's ability to respond objectively. I also followed the interview protocol with every participant and used probing questions when necessary. I abandoned my preconceived notions about e-government, as much as possible, so that I could be unrestricted in learning everything I could from the participants about e-government.

My reflections on the ideas and concepts associated with e-government barriers and benefits led me to several conclusions. Although many disadvantaged individuals

typically do not use e-government services, I learned through this study that disadvantaged individuals are not the only groups of people who do not use e-government services. Participants in this study, who were not disadvantaged, chose not to use e-government services due to their beliefs, experiences, fears, and peer and family influences. I also concluded that the government needs to be more proactive in addressing e-government barriers. I learned that there is a powerful relationship between fear of security and privacy and use of e-government services, even when certain fears appear to be unfounded.

Through the participants' experiences, I learned that change is difficult for many people even if these changes can be helpful. Specifically, when individuals are accustomed to doing the same things repeatedly or using the same methods for contacting the government, they are reluctant to try new methods. For example, because some participants felt that they could depend on always contacting the government by phone using the Internet to contact the government may not appeal to them.

Overall, this study has expanded my research and interviewing skills. I have expanded my knowledge of e-government from the perspectives of citizens, the government, and library workers. I was surprised to learn about President Obama's wireless initiative and the different businesses and organizations that are providing low income families with subsidized or free computers and Internet access, although no programs currently exist in Charlotte, North Carolina. It appears that Charlotte is significantly behind in addressing computer access and skills issues. The city of Charlotte

may not be progressing in public service or e-government delivery at the rate of other major cities.

## Conclusion

This dissertation focused on the values, beliefs, attitudes, experiences, and perceptions of e-government barriers and benefits from citizens who use public services in Charlotte, North Carolina. As general Internet use continues to increase, the number of government and private services offered on the Internet also increases. Likewise, the varieties of activities that individuals can complete on the Internet are also increasing at a rapid rate. For example, years ago the only social networking website available was MySpace and now there are Facebook, Twitter, Pinterest, Google Plus, and LinkedIn to name a few. Many years ago, individuals applied for jobs in person, and now there are many job openings that require electronic applications. As times change, the government should also change the manner in which government services are provided. Otherwise, the delivery of public services will remain stuck in the past.

I discovered that the results of this study confirmed many of the views stated in the literature. I also discovered several new ideas that can add to the body of knowledge on this topic. My discoveries can lead to positive social change, increased civic engagement, digital inclusion, e-government reform, and awareness of the issues surrounding e-government. All citizens deserve to have a choice for contacting the government and to benefit from contacting the government on the Internet, even if they currently choose not to take advantage of it. This concept is similar to the provision of

health care insurance. Citizens may rarely use all of their health care benefits but having access to affordable health care, high quality service, and a choice of doctors is very important. Internet use should be a tool for enhancement not division or a punishment for being disabled, of low socioeconomic status, elderly, or from a lower educational background.

I did not discover as much I had expected on the relationship of certain cultural values and the effect on e-government use. I also realized that the discrepant cases mentioned in Chapter 4 were based on variations in participants' experiences. These discoveries and realizations are important because they set the stage for further studies and e-government reform, and show gaps in the current body of knowledge. My study could help ensure that the United States does not continue to develop into a country of digital haves and haves nots in the form of e-government users and nonusers. On a final note, policy makers, citizens, and public servants should promote digital inclusion, financial wellbeing, educational success, and the right to have options for contacting the government. This is especially true for those who need government services the most and are often unable to express their desires.

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Appendix A: Recruitment Flyer

## RESEARCH PARTICIPANTS NEEDED

**This study will explore the use of e-government, which is the use of the Internet to contact and conduct business with the government such as applying for services and finding information about eligibility requirements for public services.**

**WHO:** Adults, ages 18 or older, who use public services such as applying for jobs or unemployment benefits, downloading forms and applications, paying taxes or tickets, researching political candidates, or any Department of Motor Vehicle services. Participants **may or may not** have experience contacting the government on the Internet.

**WHAT:** Participate in an interview about your experiences with contacting the government in person, by letter, by telephone, or on the Internet; be recorded for approximately one hour; and agree to participate in one follow-up phone call after the interview for approximately 30 minutes or less. You may withdraw from the study at any time or choose not to answer the interview questions.

**WHERE:** Your nearest public library

**BENEFITS/RISKS:** Being in this study should not pose any risks to your safety or well-being and the study involves minimal to no risks.

**COMPENSATION:** Participants who enroll in the study will receive a $10.00 gas card or bus pass.

**CONTACT:** Tamika Russell, a Walden University doctoral student, at tamika.russell@waldenu.edu or at 704-438-8554 for more information.

Appendix B: Informed Consent

**CONSENT FORM**

You are invited to take part in a research study about your use or non- use of electronic government or e-government. E-government is the use of the Internet to contact or conduct business with the government. You can also apply for services or locate information about eligibility requirements for public services. The researcher is inviting adults who use any type of public services, whether e-government or not, to be in the study.

This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part. The researcher will give you a copy of this form to keep for your records.

This study is being conducted by a researcher named **Tamika Russell**, who is a doctoral student at Walden University.

**Background Information:**
The purpose of this study is to learn more about people's experiences with the government on the Internet.

**Procedures:**
If you agree to be in this study, you will be asked to:

- Participate in an interview about your use or non-use of e-government, for approximately one hour, where you will be asked several questions.
- Agree to be audio recorded.
- Participate in a follow up phone call to confirm your responses for approximately 30 minutes or less.

**Voluntary Nature of the Study:**
This study is voluntary. Your decision of whether or not you choose to be in the study will be respected. If you decide to join the study now, you can still change your mind later. You may stop at any time and refrain from answering any questions.

**Risks and Benefits of Participating in the Study:**
Participation involves minimal risk of the minor discomforts. Being in this study should not pose risk to your safety or wellbeing. As a participant in this study, you will be provided with information on e-government services, useful websites, and helpful tips for using e-government websites.

**Payment:**
For enrolling in this study, you will receive your choice of a $10.00 gas card or bus pass as thanks for your time and contributions.

**Privacy:**
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. I will use pseudonyms in place of your name, for example, instead of using John Doe or Jane Doe, I will use Research Participant 1 (RP 1). Data will be kept secure by storing and maintaining the collected information on a password-protected computer and on data storage media such as CDs, DVDs, and flash drives. Print and electronic data storage media will be stored in a locked fire proof file cabinet in the researcher's residence. Data will be kept for a period of 5 years, as required by the university, after which all paper and electronic data will be destroyed.

**Contacts and Questions:**
You may ask any questions you have now or if you have questions later, you may contact the researcher Tamika Russell via phone at 704-438-8554 or via email at tamika.russell@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University's approval number for this study is **07-11-12-0053549** and it expires on **July 10, 2013.**

**Statement of Consent:**

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant _____

Date of Consent _____

Participant's Signature _____

Researcher's Signature _____

# Appendix C: Interview Guide

Electronic government, also known as e-government, is the use of the Internet to contact and conduct business with the government. You can also apply for services or locate information about your eligibility for public services.

1. Which services do you use from the following list? You can respond by saying yes or no. Apply for unemployment services; pay your water bill; pay your county, state, or federal taxes; apply and search for jobs; download or complete applications; use the Department of Motor Vehicles; research political candidates; file police reports; use public library services, or find information on government and public services.
2. What additional public services do you need, want, or use that I did not mention in the previous question? Would you use any of these services on the Internet if they were offered?
3. How do you contact the government to access and apply for public services? For example, do you contact the government by mail, by phone, in writing, or through the Internet to access government and public services? How often do you contact the government using your chosen method? Have you ever contacted the government on the Internet?
4. Do you own a computer? If not, where do you use computers and how often do you use a computer? What type of activities do you complete on the computer? For example, do you email, shop online, or use social networking sites such as Facebook?

5. How would you describe your experience with computers and using the Internet? Would you say you have very little computer knowledge, advanced computer knowledge, or somewhere in between the two?
6. What concerns, if any, do you have about using computers and the Internet? What do you like about using computers and the Internet? Are these your reasons for using or not using e-government services?
7. What would encourage or motivate you to begin using or to use e-government services more often, if anything?
8. What types of activities do your friends, associates, or family members complete on the Internet? How have your friends, associates, or family members' experiences with the Internet affected your use of the Internet? For example, have they ever recommended any websites to you?
9. Is there is anything else you would like to add? Do you have any questions?

Appendix D: Helpful Tips for Participants

**E-government Helpful Tips**

**DID YOU KNOW?**

You can complete the following tasks on the Internet:

- Get alerts on street closings, traffic accidents, weather, air quality, and emergency preparedness and resources
- Receive information on the city council, the mayor, the city manager, and the city clerk, as well as city ordinances and information on current and future city plans
- Apply for city jobs, get links to job centers, information on youth employment; and links on how to become a city vendor
- Apply for county jobs, pay water and sewer bills and parking tickets, and report crimes, potholes, graffiti, tall weeds and grass, drain blockage, and flooding.
- Research arrests records, prison inmates, marriage records, property taxes, restaurant grades and inspectors' notes, and city bus schedules.
- Reserve a park shelter, adopt pets, request trash pickups for big and bulky items, request speed bumps and new sidewalks, and find local representatives
- View links to specific city departments, such as social services, where citizens can find information about applying for food stamps, Work First, and Medicaid among other services and information
- Download forms and applications

**Government Websites for Charlotte Citizens:**

City of Charlotte: http://charmeck.org/Pages/default.aspx

Charlotte Housing Authority: http://www.cha-nc.org/

Charlotte Public Libraries: http://www.plcmc.lib.nc.us/

Mecklenburg County: http://charmeck.org/mecklenburg/county/Pages/Default.aspx

Mecklenburg County Department of Social Services:
http://charmeck.org/mecklenburg/county/dss/Pages/Default.aspx

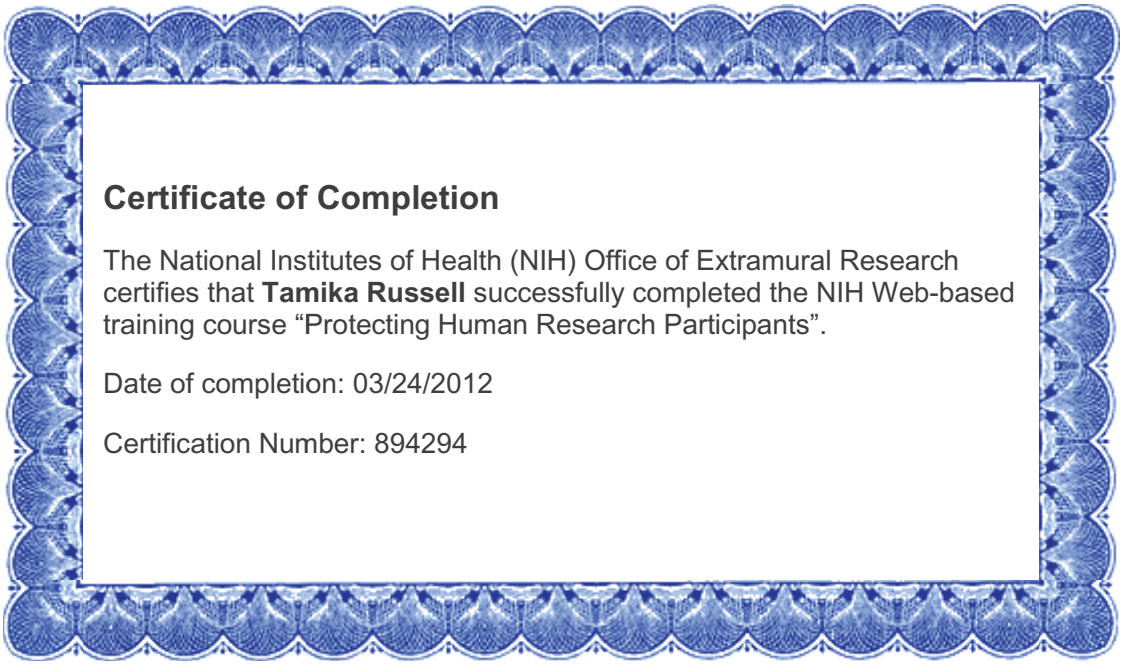
North Carolina Department of Unemployment: https://www.ncesc.com/default.aspx

State of North Carolina: http://ncgov.com/

**Privacy and Security**

- Create a username and password that is difficult for anyone to guess.
- Write your username and password on a sheet a paper and store it in a safe place.
- Never save your password on a public or home computer. Doing so makes it easier for hackers and thieves to steal your information.
- Only put your financial information, such as credit cards and checking accounts, on secure websites.
- Remember that secure websites will never send emails asking for your personal username and passwords or pin numbers for your debit cards.

Appendix E: National Institute of Health (NIH) Certificate of Completion



**Certificate of Completion**

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Tamika Russell** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 03/24/2012

Certification Number: 894294

Curriculum Vitae

# TAMIKA M. RUSSELL

## PROFESSIONAL PROFILE

Highly accomplished professional with an extensive background in client relations, case management, increased retention rates, and college level instruction. Skilled in online teaching and facilitation methods, noteworthy student engagement, and success rates.

### TECHNICAL SKILLS

- Microsoft Word, PowerPoint, Excel, and Publisher
- Online Learning System (OLS), Blackboard, and Ecollege
- SPSS and NVivo

### CLASSROOM SKILLS

- Engaging students
- Increasing retention rates
- Online teaching/facilitation
- Evaluating progress

### MANAGEMENT SKILLS

- Hiring, training, managing
- Team building
- Recruiting
- Policy adherence

## EDUCATION

**Doctorate of Philosophy in Public Policy and Administration, PhD** Projected 2013

Dissertation Topic: Electronic Government Barriers and Benefits as Perceived by Citizens Who Use Public Services
Walden University, Minneapolis, MN

**Master of Public Administration, MPA** May 2009
Related Courses: Human Resources, Leadership, Ethics, Public Policy, and Management
Walden University, Minneapolis, MN

**Bachelor of Science in Psychology (Minor in Sociology)** May 2002
Louisiana State University, Baton Rouge, LA

## PROFESSIONAL EXPERIENCE

**Instructor/Facilitator- University of Phoenix, Phoenix, AZ** July 2010-Present

- Facilitate courses including 'Leading Organizational Development in the Public Sector' and 'Communication Skills for Graduate Study'
- Evaluate APA writing style through feedback, providing suggestions for improvement, and referring students to available resources which has increased overall student grades
- Coach students in preparing for competency exams in which 100% of students earn a passing grade

- Motivates students to learn through encouragement and Socratic teaching methods which results in 99% weekly attendance rates and engaging discussions in all courses taught
- Communicate ideas via online faculty forum to assist in the improvement of myself and other instructors

**Site Coordinator- Charlotte, NC** April 2004-Present

- Assist in hiring, training, and managing a team of 14 site coordinators in meeting organizational goals, adhering to proper procedures, and implementing programming services
- Develop training protocols, team building presentations and exercises, and best practices lectures for staff development
- Recruit volunteers and maintain collaborative relationships with community agencies and business partners
- Evaluate the holistic needs of middle school students by investigating their home life, school attendance, academics, and behavior which ensures that their physical health, mental health, and basic needs are met
- Pair students with volunteer mentors and tutors to assist in their school achievement
- Prevent student dropout rates by instructing at risk students on life management and social skills to prepare them to compete in a global economy
- Encourage students to maintain a 97% passing grade and 95% average daily attendance rate
- Coordinate college tours, secure guest speakers, and arrange career presentations

**Manager-Freedom Schools Program, Charlotte, NC** Summer 2007

- Strengthened the performance of 7 teachers by supervising their facilitation techniques, providing recommendations, and delegating tasks
- Implemented and ensured that the summer reading curriculum was taught effectively and efficiently and as a result 100% of the program participants increased their classroom reading scores upon returning to school in the fall
- Addressed student disciplinary issues for 75 program participants which ensured the safety of everyone and maintained the integrity of the program

**Adolescent Parenting Program Coordinator- CIS, Charlotte, NC** January 2003-April 2004

- Taught parenting skills to teenage mothers through home visits, group meetings, and one on one meetings which resulted in fewer child behavioral problems and decreased parenting related stress
- Provided direct case management to teenage mothers including helping them set and complete their personal and educational goals
- Wrote court reports and attended court hearings on the clients' behalf

- Maintained accurate and comprehensive documentation for each program participant according to state reporting measures and requirements

**PROFESSIONAL ASSOCIATIONS AND ACHIEVEMENTS**

- FBI Citizen's Academy Alumni Association, Member 2007- Present
  - Board Secretary, 2009-2010
- Political Campaign and Voter Registration Volunteer 2008- Present
- Executive Director's Monetary Award Recipient 2010
- Ebenezer Baptist Church Hospitality Ministry 2009-Present
  - Former Chaplain, 2010-2011
- American Society for Public Administration, Member 2006- Present
- Pi Alpha Alpha Honor Society, Member 2007- Present
- Walden University Ambassador 2010- Present
- Communities In Schools
  - Co-created training video and online educational courses for site coordinators in 26 states, 2010
  - Appointed and elected team leader, 2004-2012