CHAPTER I
INTRODUCTION

1.1 Background of the Study

Ever since states have utilized information and communication technology (hereinafter referred to as ICT) in government, commonly called now as e-government, scholars have studied factors for its adoption and use. These studies have made use of a variety of models and theories, implemented to different e-government services and systems, and analyzed for the most part citizens. Unlike much of the literature on the behavioral intention to adopt technological services and systems by government, this research focuses on the intention of the 'operators' of government, the government employees, a less-studied population. Moreover, this study concentrates on their behavioral intention to adopt or use the various practices and activities which takes place in the transformation of ICT-enabled government.

One of the main functions of government, and a very important reason why it is necessary in any society, is the delivery of services to citizens. Each level of government, from the national to the lowest unit, must provide a wide variety of services. Among the three branches of government, this work is primarily performed by the executive. Under the executive branch is the administration, often referred to as the bureaucracy, which is the 'real government' because most of the people who work for the government belong in it (Ranney, 2001). It is so because bureaucracy's core function is to implement law and policy, and to administer government business (Heywood, 2007).

A state's governmental bureaucracy is multi-level. In a unitary state, below the central government usually are the regions, provinces, districts, cities, municipalities, and other units. One can find in each of these organizations a hierarchy of authority, and an organization based on purpose and function. Thus, ministries, departments or divisions, agencies, offices or bureaus comprise any public organization.

There are key interrelated systems that are common in government organizations: culture; power and influence; administrative managerial; technological; resource acquisition and development; legal/regulatory; environmental interface; and,

incentives, inducements and rewards (Rusaw, 1998). The cultural and technological systems are of most importance for this research paper.

Organizational culture reveals the common patterns or mental programs of thinking, feeling, acting and reacting by people (Hofstede, 1980; Rusaw, 1998). It also directs members towards what goals to pursue, develops the organizations core mission, hence setting the 'right ways' of doing things (Rusaw, 1998). Further, Schein (1992) identifies two main purposes of organizational culture: survival and adaptation to external environment; and perpetuation of this ability to survive and adapt through integration of internal processes. Thus, changes in the external environment necessitate cultural changes in the bureaucratic organization.

The other key system in the organization, technological system, refers to the variety of technical knowledge bases and their application in the execution of functions (Rusaw, 1998). It includes the combination of human expertise and information. In the contemporary world, information is already automated. Administrative functions are computerized. This is one very clear example of how an external thing, in this case computerization technology, has been adopted by bureaucracy. The interrelatedness of organizational culture and modern technology in today's bureaucracies is seen evidently in this phenomenon called e-government.

As a result of the unparalleled advancement in information and communication technology, delivery of services to citizens is now by e-government. E-government or the use of ICT and its application by the government for the provision of information and public services to the people (UNDESA, 2004) is now the norm. In fact, as of 2014, e-government is practiced in all 193 member-states of the United Nations (UNDESA, 2014). Such was the pace of adaptation mode of state bureaucracies. And this has trickled down to the lower bureaucratic levels. Local governments, being at the frontline of public service delivery, had to keep up with e-government practice in order to satisfy the imperatives of efficiency, effectiveness, social inclusion and transparency in governance (Falk, 2011; Bannister and Connolly, 2012; van der Meer, Gelders and Rotthier, 2014).

While some states are still in the stage of adaptation and adoption of the technology, others are already in the stage of transformation. As the United Nations E-Government Survey 2012 (in UNDESA, 2014) reports:

With public sectors offering an increased number of services, the focus is shifting from what kinds of services are provided to how they are provided. In many countries, a host of services provided, are increasingly coordinated and customized to better fit the needs of citizens. In many instances service delivery operations are integrated early in the value chain or services are bundled in a single-entry point for the citizens. (p. 85)

Undoubtedly, e-government is now a worldwide bureaucratic feature. At present, the 'how' is basically the use of ICT systems. While technological changes, such as new hardware and software and media, may not be difficult to keep abreast with, there are related elements in the bureaucratic organization that need to be transformed as well. In a proposed framework of transformational change (Weerakkody, et al. 2011), three other elements are identified, all of which are interrelated and are consequential to the utilization of new ICT systems: process redesign; organizational structuring; and, cultural and behavioral change. These are subsumed under two concepts which have been prominent in many scholarly works on e-government: integration and transformation (Layne and Lee, 2001; Hiller and Belanger, 2001; Wescott, 2001; Moon, 2002; West, 2004; Cisco, 2007; Alhomod, et al. 2012).

Whether citizens like it or not, e-government is here to stay. There are only two courses of action a state's bureaucracy can take: to develop and transform; or to stagnate and decay. E-government development is one plausible indicator that it is on the path of transforming into the way it should be practiced, designed and fitted to a state's context. The UN has, for a period covering eight years, surveyed and measured its member states using the e-government development index or EGDI (UNDESA, 2003). This framework placed importance on three dimensions: availability of online services; telecommunication infrastructure; and human capacity. Generally, the series of findings show how a state has fared e-government-wise in terms of development and participation. Viewed simply, it tells a state's current state of e-government relative to other states, and a world region relative to other regions.

The table below (Table 1.1) shows the status of Southeast Asian states' e-government development according to the latest survey (UNDESA, 2014):

Table 1.1 2014 E-Government Development Index (EGDI) World Ranking and Level of Southeast Asian States

State	Rank (out of 193 states)	Level
Singapore	3	Very High
Malaysia	52	High
Brunei Darussalam	86	High
Philippines	95	Middle
Vietnam	99	Middle
Thailand	102	Middle
Indonesia	106	Middle
Cambodia	139	Middle
Laos	152	Middle
Myanmar	175	Low

Data source: United Nations E-Government Survey 2014 (UNDESA, 2014)

The data shows how the Southeast Asian states have progressed in relation to other states in terms of e-government development. Of particular interest to this research paper are the states of Indonesia and the Philippines. Both states have scored on the index corresponding to the level of 'middle'. This is notable due to the fact that three other states, Brunei, Malaysia and Singapore have scored 'high', 'high' and 'very high', respectively. The implications of these findings could be best appreciated in view of the following observations (UNDESA, 2014):

> There is a considerable opportunity for countries with high-EGDI and middle-EGDI to continue to advance their e-government development. With clear strategies, smart investment in ICT infrastructure, continued investment in primary, secondary and tertiary education, as well as through *radical transformation in offering online public services,*[1] governments can achieve more to follow the upward trend. (p. 16)

Given the above knowledge, it is important to know what could account for Indonesia's and Philippines' present e-government state and what variables could be pivotal for the 'transformation' necessary for development and to 'follow the upward

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[1] Italics supplied by the researcher.

trend' in e-government. Of course, any attempt to examine this at the state level would be a gargantuan task. However, examining a whole through its parts could facilitate in shedding light to the larger picture. Therefore, an examination of a specific organization within the states' e-government bureaucracy is a valuable academic endeavor. This research investigates the factors for adopting e-government transformation by local government employees in Surabaya, Indonesia and Davao, Philippines. Underlying the selection of Surabaya and Davao for this research are several reasons.

Firstly, Surabaya is Indonesia's second largest city, it is Indonesia's other industrial heartland and metropolis next to Jakarta (Dick, 2003). A major Indonesian city located on the north-easterly coastline of East Java (please see Appendix 1, p. 152), Surabaya serves as the proud provincial capital and lies alongside the Madura Strait, next to the Mas River. With a population now topping six million people, Surabaya is a leading and spreading city, and has actually become the second biggest in the whole of Indonesia. Today, the city serves as one of the country's main ports of trade, travel and industry, with a richly diverse population and a bustling urban scene set to remain one of Indonesia's economic engines. The city also remains a prominent commercial hub, being home to many modern high-rise offices in its Central Business District (CBD). It has a land area of approximately 145 square miles or 375 square kilometers (http://www.world-guides.com/asia/indonesia/east-java/surabaya/).

Surabaya is regarded as the leading 'digital city' in Indonesia since it has been awarded the Indonesia Digital Society Award (IDSA) in 2014, evidenced by yearly increases in ICT spending which has been induced by the perceived benefits of giving greater attention to IT usage in providing citizen services (Adnani, 2014). In an e-government evaluation study of Indonesian cities, Surabaya came out as first rank in the index of reform (IR) which has the following parameters: citizen service, business permission, planning transparency and finance transparency (Prahono and Elidjen, 2015). Further, it has been found out that the e-government of Surabaya has a significant effect in moderating reliability of the city government, and has a strengthening characteristic to community satisfaction with the city's public services (Nadjib, et. al. 2014).

Secondly, Davao City is the regional capital and largest city of Mindanao (Catubig, Villano, and Dollery, 2015). Davao City is located in the southeastern part of

Mindanao (please see Appendix 2, p. 153): it is bounded on the north by Davao Province; on the east partly by Davao Province and Davao Gulf; on the south by Davao del Sur; and on the west by North Cotabato. Because of its strategic location, Davao City was developed as a regional trade center for Southern Mindanao; international trade center to the Southern Pacific; and Southern Gateway more particularly to and from the neighboring countries like Indonesia, Malaysia, Brunei, Australia, among others. Davao City, reputedly the largest city in the world, has an area of 244,000 hectares, or 8 per cent of the land area of Southern Mindanao Region or Region XI. It is divided into 3 congressional districts and furthermore divided into 11 administrative districts (www.davao.gov.ph). Its population size is 1.63 million persons, per 2015 population census (web0psa.gov.ph).

Likewise, Davao is deemed an interesting case of e-government transformation. The UNDESA (2014) has cited the city as one of the examples of local portal features that are indicative of integration and transformation. Specifically, the UN study referred to the creation by the Davao Medical Center, as a result of gender and development mainstreaming efforts, of the Women and Children Protection Unit (WCPU) which is a one-stop family crisis intervention center that provides legal, psychiatric and medical services to its patients. This is line with the continuing transformation of the agency based on one of its transformation pillars: sound information technology, that is, the linking of systems and services using the most appropriate technology for their specific needs (Vega, 2015). Moreover, Davao City is one of the cities in Southeast Asia which is developing a 'smart city' (Obi and Iwasaki, 2015). It is apparent that both cities show indicators of e-government transformation, hence their selection.

This inquiry is founded on the belief in the idea that 'politics is about changing, we need to know what is being changed or need to be changed'[2]. Thus, this study about transformational change factors in e-government bureaucracy is well within the discipline of political science.

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[2] by Prof. Dr. Tulus Warsito, spoken during a lecture on 'Philosophy and System of Politics', Universitas Muhammadiyah Yogyakarta, 22 February 2016.

1.2 Research Questions

By analyzing quantitative and qualitative data using the proposed research model, this research seeks to answer the following questions:

1) To what extent are performance expectancy, effort expectancy, social influence, facilitating conditions, anxiety, and attitude associated with the behavioral intention of using and adopting e-government transformation in both cities?

2) To what extent do age and length of work experience in the organization moderate these associations?

1.3 Research Objectives

This paper utilizes a research model that could critically analyze on the comparative and aggregate levels why the city government employees of Surabaya, Indonesia and Davao, Philippines adopt e-government transformation by: a) determining the associations of variables in the use and adoption of e- government transformation; and, b) determining which variables are pivotal in the use and adoption of e-government transformation.

1.4 Significance of the Study

Aside from contributing to the research-based knowledge on e-government, this research paper is important for a number of reasons. Firstly, results can draw up practical implications to the cities in developing and transforming their respective e-government. Also, data from the research respondents could guide the appropriate authorized person/s or organization in crafting programs and strategies to thrust e-government further upward. Moreover, agencies mandated to support or build the capacity of local bureaucracies could understand and value the need for continuous transformational change.

In the literature, there is a dearth of information on e-government change or transformational government from the use and adoption perspective. Also, as observed, although several theories and models have been developed and utilized to analyze e-government adoption, such theories have not been extensively used from an employee perspective (Rana, et al, 2013). This study could, therefore, contribute to building up research-based knowledge in these aspects. Furthermore, this could generate more

interest to conduct research on transformational government, or other concepts subsumed under e-government, among other researchers and students of politics, public administration and technology.

1.5 Scope and Limitations of the Study

This research paper is a study of the behavioral intention to use and adopt e-government transformation in the cities of Surabaya, Indonesia and Davao, Philippines. The research respondents, employees of the local bureaucracy, were selected through purposive sampling. Data from the respondents was gathered from November 2016 up to January 2017. The research instrument recorded self-reported results.