

**LOCAL e-GOVERNMENT TRANSFORMATION:
A COMPARATIVE CASE STUDY OF
SURABAYA, INDONESIA AND
DAVAO, PHILIPPINES**

By

**Enrique B. Batara
20152020011**

DISSERTATION

**Submitted to the Doctoral Program
Post-Graduate Studies Universitas Muhammadiyah Yogyakarta
In Partial Fulfillment of the Requirements for the Degree of
Doctor in Political Science**



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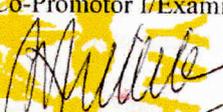
This dissertation has been affirmed and ratified in front of the
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ABSTRACT

This study examines the association of technology acceptance variables with the behavioral intention of adopting e-government transformation from the perspective of city government employees in Indonesia and the Philippines. e-Government transformation is defined by four dimensions: using new technology systems; redesigning of governmental processes; restructuring of governmental organization; and, changing the organizational culture and behavior. Specifically, this research sought to critically analyze the extent to which performance expectancy, effort expectancy, social influence, facilitating conditions, anxiety and attitude affect the behavioral intention, and the extent to which age and length of work experience moderate the relationships. Combined quantitative and qualitative approaches were used in the conduct of this research. Variables were operationalized into indicators, which were converted into a self-reported survey questionnaire. Survey data obtained from purposively-sampled city government employees were analyzed using structural equation modeling. Interview responses were content-analyzed to validate the quantified data. Overall, this study had a sample of 160 city government employees, coming from the department/division head level and staff level. On the whole, findings indicate that attitude is a pivotal predictor of intention to adopt e-government transformation across all four dimensions, while performance expectancy, social influence and facilitating conditions also positively influence the intention to adopt process redesign, organizational structuring, and cultural and behavioral change in the city government. Respondents' length of work experience appears as a significant moderating variable. Respondents' age does not appear to be a moderating factor. For e-government transformation to be adoptable and effectual, supporting and facilitating conditions are necessary. Structural, technical and financial support, as well as legal framework, for local e-government transformation should be in place. Activities which could promote maintaining and sustaining the positive attitude and right performance expectations towards it should be regularly carried out. Political leadership and political will must be demonstrated by significant actors and stakeholders.

ABSTRAK

Penelitian ini menguji hubungan antara variabel penerimaan teknologi dengan niat perilaku untuk mengadopsi transformasi e-government dari perspektif pegawai pemerintah kota di Indonesia dan Filipina. Transformasi e-Government didefinisikan oleh empat dimensi: menggunakan sistem teknologi baru; mendesain ulang proses pemerintahan; restrukturisasi organisasi pemerintah; dan, mengubah budaya dan perilaku organisasi. Secara khusus, penelitian ini berusaha menganalisis secara kritis sejauh mana harapan kinerja, harapan kerja, pengaruh sosial, kondisi fasilitasi, kecemasan dan sikap mempengaruhi niat perilaku, dan sejauh mana usia dan lama pengalaman kerja memoderasi hubungan. Pendekatan kuantitatif dan kualitatif gabungan digunakan dalam penelitian ini. Variabel dioperasionalkan menjadi indikator, yang diubah menjadi kuesioner survei yang dilaporkan sendiri. Data survei yang diperoleh dari sampel pegawai pemerintah kota secara purposive dianalisis dengan menggunakan pemodelan persamaan struktural. Tanggapan wawancara adalah analisis isi untuk memvalidasi data terukur. Secara keseluruhan, penelitian ini memiliki sampel 160 pegawai pemerintah kota, berasal dari tingkat kepala departemen / kepala divisi dan tingkat staf. Secara keseluruhan, temuan menunjukkan bahwa sikap merupakan prediktor yang sangat penting untuk mengadopsi transformasi e-government di keempat dimensi, sementara harapan kinerja, pengaruh sosial dan kondisi fasilitasi juga secara positif mempengaruhi niat untuk mengadopsi perancangan ulang proses, penataan organisasi, dan budaya dan perubahan perilaku di pemerintahan kota. Pengalaman kerja panjang responden muncul sebagai variabel moderasi yang signifikan. Usia responden tidak tampak sebagai faktor moderat. Agar transformasi e-government dapat disesuaikan dan efektif, diperlukan kondisi pendukung dan fasilitasi. Dukungan struktural, teknis dan finansial, serta kerangka hukum, untuk transformasi e-government lokal harus dilakukan. Kegiatan yang dapat mempromosikan mempertahankan dan mempertahankan sikap positif dan ekspektasi kinerja yang tepat terhadapnya harus dilakukan secara rutin. Kepemimpinan politik dan kemauan politik harus ditunjukkan oleh aktor dan pemangku kepentingan yang signifikan.

PREFACE

As the adage goes: ‘change in this world is the only thing that does not change’. This work is mainly motivated by my belief in the principle that for change to be good, it should be directed. Thus, change in the way people govern themselves, especially in this time of technological advancement, should be properly directed and guided by knowledge gained through systematic studies. Hopefully, this work contributes to the needed body of knowledge towards that end.

This work would not have been possible without the invaluable support of people and institutions. First of all, I wish to thank the Jusuf Kalla School of Government, Universitas Muhammadiyah Yogyakarta, and MSU-Iligan Institute of Technology for the scholarship endowments. Profound gratitude goes to my mentors in the program: Prof. Dr. Achmad Nurmandi, Prof. Dr. Tulus Warsito, Dr. Ulung Pribadi, Dr. Hasse J., and Dr. Mega Hidayati. I would also like to thank the Promotion Team members and the Panel of Examiners during the proposal, results presentation and closed examination stages, and the reviewers of the journal ‘Transforming Government: People, Process and Policy’, for their very important insights and inputs to the research paper.

Grateful acknowledgments are due to the research respondents in Surabaya and Davao, whose cooperation resulted to the successful completion of this research. I give thanks as well to Laeli and Aulia for their indispensable help, the UMY lecturers and staff whom I have had the opportunity to be acquainted with, and my MSU-IIT colleagues, who are too many to mention.

I sincerely thank my sister and brothers for the unconditional assistance and backing-up in the course of this academic venture. To my greatest teachers, Rasad and Zenaida, this work and the title appertained to it is proudly offered. To my wife Angelie Kris and children Bran and Zen, sources of great inspiration and love, my utmost gratefulness goes to you. Your sacrifices have constantly driven me to push on. This is for you.

Finally, praise be to God. God’s will is great and best.

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LIST OF ABBREVIATIONS

AMOS	Analysis of a Moment Structures
BI	Behavioral Intention
CBD	Central Business District
CDO	Chief Data Officer
CFI	Comparative Fit Index
CIO	Chief Information Officer
DICT	Department of Information and Communications Technology
DOI	Diffusion of Innovation
EE	Effort Expectancy
EGDI	e-Government Development Index
EGMP	e-Government Master Plan
FC	Facilitating Conditions
GFI	Goodness-of-Fit-Index
GISP	Government Information Systems Plan
GRMS	Government Resources Management System
IAC	International Academy of Chief Information Officers
IBM	International Business Machines
ICT	Information and Communication Technology
IDSA	Indonesia Digital Society Award
IFI	Incremental Fit Index
IP	Internet Protocol
IR	Index of Reform
IT	Information Technology
LWE	Length of Work Experience
NCC	National Computer Center
NITC	National Information Technology Council
OPEN	Online Procedures Enhancement for Civil Applications
PDS	Philippine Digital Strategy
PE	Performance Expectancy
PLS	Partial Least Squares

RMR	Root Mean Square Residual
SCT	Social Cognitive Theory
SI	Social Influence
SMS	Short Message System
SPSS	Statistical Package for the Social Sciences
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
TU	Technology Usage
UMEGA	Unified Model of e-Government Adoption
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
US	United States
UTAUT	Unified Theory of Acceptance and Use of Technology
WCPU	Women and Children Protection Unit

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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

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.

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.

CHAPTER II

REVIEW OF RELATED LITERATURE, THEORETICAL FRAMEWORK AND HYPOTHESES

2.1 e-Government Policies of Indonesia and Philippines

The introduction of ICT for the public sector in Indonesia began in 2000 with the establishment of the coordinating team for ICT Development, through Presidential Instruction No. 50/2000, as a high-level task force to advance the use of electronic media, facilitate the government's communication, interaction and transactions, and to provide guidelines and recommendations on ICT development including e-government (Pudjianto, et al., 2011). Further, Presidential Instruction No. 6/2001 officially introduced the term 'e-government' in the country at the same time mandated the Indonesian government to use ICT to support the practices of effective governance. To this end, a specific national e-government policy was ordered in Presidential Instruction No. 3/2003 which, aside from providing a legal basis for nationwide e-government implementation, also laid down several objectives: to facilitate communication between central and local governments; to gain openness and transparency; to control and ensure accountability towards implementation of effective governance; and, to enable a transformation towards the information society era (ibid).

Transforming e-government thus is one key objective of the national e-government policy. In this regard, the current Indonesian President, Mr. Jokowi, warned all local authorities that he will stop the general allocation fund and special allocation fund if they cannot setup and manage One-Stop Services unit by the end of 2015 (Susanto, 2015). As a result, the central and local governments in Indonesia allocated billions or even trillions budget for designing and implementing e-government for public services (Tif, 2014 in Susanto, 2015). Furthermore, a five-phase roadmap was framed to provide a direction towards achieving an e-government vision and sustaining the benefits of a mature e-government environment: 1) create e-leadership; 2) enable the environment for strengthening e-government legislation and cyber laws; 3) build out an ICT infrastructure that has a cross-cutting effect throughout the country; 4) implement national pilot projects; and 5) manage changes and business process re-engineering which incorporates the best practices (Harjadi and Satriya,

2000 in Pudjianto, et al., 2011). Implementation of e-government in the country's governmental institutions show major disparities which accordingly are caused by factors such as management obstacles, infrastructure problems and inadequacy of resources (Furuholt and Wahid, 2008 in Pudjianto, et al., 2011).

The implementation of e-government in Indonesia outside of the central government is conditioned by the state's constitutional and legal framework. Regional autonomy was enacted in Indonesia through Law No. 22/1999 and was delegated to the regional/district level by Law No. 32/2004, hence providing local governments with the freedom to regulate their internal and external affairs with consent from provincial governors (Pudjianto, et al., 2011). As a city with the best e-government services in Indonesia, Surabaya has already had a master plan for e-government and has been developing e-government systems based on it. Also, the local authority has defined two e-government success indicators (output and usage indicators) and their target levels declared on the Medium-Term Local Development Plan (Susanto, 2015).

A series of policies ushered in government computerization and e-government in the Philippines since 1971 until recently. Chronologically, the following took place (Lallana, Pascual and Soriano, 2002): Executive Order 322 created the National Computer Center (NCC) in 1971 as the primary agency responsible for directing IT use for national development and rationalizing computerization in the country. Through Executive Order 190 in 1994, the National Information Technology Council (NITC) was created and designated as the central policy body on ICT matters in the country, which was later reorganized in 1998 as the highest planning and policy advisory body on IT matters by Executive Order 469. In 2000, Republic Act 8792 or the e-Commerce Act was enacted, an important milestone for ICT development and e-government in the Philippines, because it defines the government's policies on electronic transactions and provides the legal framework for enabling the country to engage in e-commerce. It also mandates government online by 2002. Also in the same year, Executive Order 265 approved and adopted a Government Information Systems Plan (GISP) as a framework and guide for all computerization efforts in government. The GISP aims to create a system of governance that will lead to: faster and better delivery of public goods and services; greater transparency in government operations; increased capacities of public sector organizations; and proactive participation of citizens in governance. The GISP

was to be implemented in three phases: Phase 1 - Setting Up the Enabling Environment; Phase 2 - Building the GISP Information Infrastructure; and, Phase 3 - Sustaining GISP.

The current administration of the Philippine government has come up with the e-Government Master Plan (EGMP) that serves as a blueprint for the integration of ICTs for the whole of government (<http://i.gov.ph/>). In particular, the government has formulated the Philippine Digital Strategy (PDS) for 2011-2015 with the following targets: improved efficiency in government operations; public online services become increasingly interactive, transactional and ultimately interconnected (networked); increased citizen participation in governance and innovation; enhanced public trust and increased transparency in government; enhanced competitiveness of the country's industries; and more empowered citizens and communities (<http://icto.dost.gov.ph>). Among the policy changes being proposed is the establishment of a Department of Information and Communications Technology (DICT) which is seen as crucial in developing and promoting a policy and legal environment, as well as an effective and efficient regulatory regime that will help steer the Philippines to the forefront of the global information economy. In this regard, Republic Act 10844 was enacted on May 23, 2016, creating the said DICT dedicated to the functions of: ICT policy-making and planning; improved public access; resource sharing and capacity-building; and consumer protection and industry development (Sabillo, 2016). The law also mandates the creation of regional offices to help implement plans and programs while there is an option to form sectoral and industry task forces.

2.2 The e-Government Contexts of Surabaya and Davao

Surabaya is known to be the leading e-government in Indonesia. In the technological aspect, the city has progressed through the different stages of e-government development. Its website services range from the basic informational, to interactive online services (applications for birth, marriage, death, online patient registration, etc.), and transactional (GRMS). These are all in one portal or Single Point of Access (www.surabaya.go.id). The GRMS or Government Resources Management System is a system implemented through the integration and consistency of the starting step of activity planning/budget - the implementation - the process of selecting the provider of goods/services, controlling and monitoring as well as evaluating the

performance of the implementation of the activities/personnel. It consists of the following processes: e-Budgeting, e-Project Planning, e-Procurement, e-Delivery, e-Controlling, e-Performance. The GRMS was developed by Surabaya City Government in order to support local financial management (Surabaya City Government, n.d.). Through this, the city has achieved its target level for the delivery of online services, and is predicted to increase the number of online services in the near future (Susanto, 2015). The city is also making optimal use of the Web 2.0 technology. Social media platforms such as Twitter, Facebook, Google+ and LinkedIn are presently utilized. The policy on ICT implementation in the city is evidenced by the institutionalization of ICT management, exemplified by the operations of the following city agencies: ICT Office, Media Center, Information Services, and Command Center. The political leadership commitment of immediate past Mayors and the present Mayor can be garnered through the awards and achievements for e-Government received by the city government since 2004 up to the present. The city government's vision and mission express the principles that guide its organizational culture: good governance, innovativeness, efficiency, empowerment, and transparency. Thus, it is apparent that conditions which are facilitative to e-government transformation in Surabaya are existing.

Davao has been recognized as relatively ahead in terms of e-government in the Philippines (Obi and Iwasaki, 2015). Technologically, the city has also advanced through the various e-government stages. Its website services span from the basic informational to interactive online services, e.g. applications for licenses and permits, assistance, life events-birth, marriage, death, annulment, e-procurement bids and awards, on-line inquiry on legislation, investment, infrastructure permits, business directory, etc. (www.davaocity.gov.ph). The city government also has intranetworking facilities. All of these are in a single point of access or Portal. In addition, the city is making optimal utilization of the Web 2.0 technology via the social media networks such as Twitter and Facebook. Moreover, most of the contents on the city's resources and available services were promoted in the city's website, aside from its compliance with the Full Disclosure Policy mandated by the national government (Hari, 2014). The policy on ICT by the city government is demonstrated by the implementation of the City Computerization Program starting 1990, and in the current institutionalization of ICT management and development through the Information and Communication

Technology Center and City Information Center. The leadership and commitment of the current Mayor towards e-government development is shown through her prioritization, in the top ten, of infrastructure development, which includes the ICT infrastructure of the city government. This is steered by what she calls as ‘leadership by example’ and establishment of mechanisms that will ensure an efficient and effective governance. The city government’s vision and mission articulate the principles which guide its organizational culture: efficiency, effectiveness, empowerment, and being state-of-the art by the use of research and application. Hence, conditions that are facilitative of e-government transformation are obviously in place in Davao.

2.3 e-Government Transformation

The study of e-government development and transformation factors has been pursued vigorously by individual scholars and organizations since e-government was utilized by states. Two studies on a global scale highlight crucial factors in the transformation of e-government. According to the UNDESA (2014), transforming government through a ‘whole-of-government’ approach requires the following enabling factors: a) new forms of collaborative leadership and shared organizational culture manifested by re-shaped values, mindsets, attitudes and behaviors; b) new forms of institutional frameworks for effective coordination, cooperation and accountability across government, between governments and with relevant non-public actors; c) innovative coordination processes and mechanisms, which are inclusive and accessible, for service delivery, and citizen engagement and empowerment; d) citizen- and user-centric collaborative mechanisms to engage citizens in service delivery and decision-making; and, e) appropriate ICT management strategies in harnessing the power of new technology for enhanced collaboration.

A longitudinal study of the world’s e-governments, for a period spanning a decade or ten years, by the Waseda University-International Academy of Chief Information Officers (or Waseda-IAC) ranks e-governments utilizing nine main indicators: network preparedness/infrastructure; management organization/efficiency; online services/functioning applications; national portal/homepage; government chief information officer (CIO); e-government promotion; e-participation/digital inclusion; open government; and cyber security (Obi and Iwasaki, 2015). The study’s findings

point out certain factors that explain the e-governments' development or lack thereof, which include: a) the lack of ICT human resources, especially CIOs, development and capacity building; b) key for success of e-government projects is enough funding or financial resources; c) more encouragement of citizen engagement as digital inclusion in e-government initiatives; d) developed countries showcase progression of numerous online service applications; e) local e-government issues must be given more attention; f) high usage of mobile devices may be taken advantage of for the practice of 'mobile-government'; g) implementation of 'open government'/'open data' and sharing with 'big data'; and h) because the digital gap has become wider in terms of accessibility, usability, and affordability, ways to narrow down the gap must be put in place. Evidently, the two studies yield several common factors observed from e-governments worldwide which are essential for transformation.

Factors on the technological aspect of transformation have been and continue to be investigated on by scholars. In a study, Peristeras et al. (2009) attempted to look into how and how much information and communication technologies could or should change or even revolutionize the interfaces of society and governance. They classified society-governance interfaces as society to political system interface (includes interactions through public policy analysis, formulation and selection), and society to administrative system interface (includes interactions through public-service provision process). Consequently, the authors propose that ICT or 'intelligent technology' could benefit four major areas: a) linked data, information reuse, and semantic interoperability; b) knowledge creation, storage and distribution; c) mass collaborative public networks; and d) cross-organizational processes.

The use of new technologies such as Web 2.0, also known as 'read-write web', which includes blogs, wikis, social networking hubs, Web-based communication modes, photo-sharing, video-casting and sharing, audio-sharing, mash-ups, widgets, virtual worlds, micro-blogs, social annotation, bookmarking of websites (Chun, et al., 2010; Choudhury, 2014) has generated more researches on e-government. For Mergel, et al. (2009), Web 2.0 technologies has presented public organizations the prospect of creating actual transformative opportunities regarding key issues of transparency, accountability, communication and collaboration and to further civic engagement with government. Moreover, by adding in Web 2.0, e-government is making extra leaps in

its transformation over the last decade, evidenced by its being well-received and supported after adoption (Sivarajah, et al., 2014).

One of the technologies of Web 2.0 is the social networking hub or platforms. Today, e-governments all over are using social networks. In fact, in 31 ‘informational world cities’, even if only a few services realize a high number of users, governments actually access user-citizens with their social media activities in platforms such as Twitter, YouTube and Facebook (Mainka, et al., 2014).

Although there are policy challenges still to be addressed, ‘Open Data’ and ‘Big Data’ presents substantial potential and capacities for e-government services for the reasons that Big and Open Data can promote collaboration, create real-time solutions to challenges, boost greater openness and bring in a new era of policy- and decision-making (Bertot, et al., 2014). As public organizations are transforming, so is citizen involvement. Resulting from the combination of Open Data and mobile e-services, citizens have become significant participants in data generation, data acquisition, and service generation and development (Johansson, et al., 2015). Related to this is the finding that especially in transformed e-government services such as self-service delivery, citizen ‘loyalty’ is explained by the quality of service and citizen satisfaction (Chatfield and AlAnazi, 2013). In other words, acceptability of e-service transformation is influenced by its perceived service- and citizen-centricity.

A distinctive government service, public procurement, is one of those which has transformed because of ICT. Thai (2009) articulates that public procurement officials are those who have to act decisively on utilizing new technology to enhance efficiency in such function and service, thus the widespread practice of e-procurement. Along this, Nurmandi and Kim (2015) say that developing the e-procurement process, organizational structures and initiatives, for more efficiency and effectiveness, are dependent on a high degree of the public organization’s human resources program.

South Korea’s Online Procedures Enhancement for Civil Applications (OPEN) system, of the Seoul Metropolitan Government, has often been mentioned as a transformational breakthrough or benchmark in e-government. A study of the OPEN using an institutional framework of analysis (Kim, et al., 2009) concluded that among three institutional mechanisms: normative, regulatory and mimetic; the regulatory mechanism or the enactment of an enforceable regulation was the most prominent in

causing the development, enforcement, modification and institutionalization of the system, making it an effective mechanism for anti-corruption. Further, strong and determined leadership and strategic planning were found out to be major influences for the system's institutionalization.

In a study of the 20 most populated cities in the US, it was found out that aside from having plenty of financial resources, larger technological capacity through the presence of expansive ICT departments determine the sophistication of e-government and e-governance (D'Agostino, et al., 2011). Some of the assumed functions of an ICT department in a public organization such as a city are to design, implement and develop the city's website or e-government portal. An e-government portal is an important link between citizens and government, therefore regular evaluation of portal quality needs to be done, and improvement should be acknowledged by city administrators. A framework for e-government portal quality evaluation can be done by factoring in the following dimensions (Ziemba, et al., 2014): functional suitability; performance efficiency; compatibility; usability; security; maintainability; and, portability. Ensuring the quality of the portal is fundamental and essential in transforming e-government.

Transforming e-government then necessitates a broad range of changes in the bureaucratic environment. It must be cognizant of new available ICT systems and applications. Steps to improve or totally change designs of service processes must be done considering largely the demands of citizens and the maximum provision to them. Elements of the organization, both human (and their internal qualities) and structural, should be adaptable to change.

This study utilizes the transformational change framework (Werrakody, et al., 2011) which shows the process as moving from one state or situation ('as is') to another state or situation ('to be'). The 'to be' situation, as adapted from Hammer and Champy (1993), should show basic developments and major change in the organizational structure, its culture, and processes driven by the introduction of new ICT in order to realize actual government transformation (see Table 2.1 below).

Table 2.1 e-Government Transformation Core Constructs

Core Constructs	Indicators	Source
New ICT systems	<ul style="list-style-type: none"> - optimal use of Web 2.0 - implementation of Open Data - use of text-based Short Message System (SMS) 	Werrakody, et al. (2011) Hammer and Champy (1993) Obi and Iwasaki (2015) Peristeras, et al. (2009) Chun, et al. (2010) Choudhury (2014) Mergel, et al. (2009) Sivarajah, et al. (2014) Manka, et al. (2014) Bertot, et al. (2014) Johannson, et al. (2015)
Process re-design	<ul style="list-style-type: none"> - providing citizen-centered services - setting up 'one-stop-shop' or single-point entry portal - integration of processes - service delivery through multiple channels 	Werrakody, et al. (2011) Hammer and Champy (1993) UNDESA (2014) Peristeras, et al. (2009) Ziemba, et al. (2014)
Organizational structuring	<ul style="list-style-type: none"> - establishment of ICT department - institutionalizing professional leadership and management of ICT through CIO/CDO - shifting back-office activities to front-office - vigorous human training and re-tooling 	Werrakody, et al. (2011) Hammer and Champy (1993) UNDESA (2014) Obi and Iwasaki (2015) Nurmandi and Kim (2015) Kim, et al. (2009) D'Agostino, et al. (2011)
Cultural and behavioral change	<ul style="list-style-type: none"> - collaborative leadership in the organization - shared services within the organization - shared services among organizations - citizen service-centeredness in carrying out of job 	Werrakody, et al. (2011) Hammer and Champy (1993) Peristeras, et al. (2009) Bertot, et al. (2014) Chatfield and AlAnazi (2013) Kim, et al. (2009)

2.4 e-Government Adoption Literature

Whether e-government is adopted or not by stakeholders in society is a question that has challenged many scholars. In e-government adoption literature, a range of theories and models have been used to determine which variables could account for the adoption and use of e-government by different stakeholders. Table 2.2 below presents a mapping and classification of recent scholarly works which indicate that much attention has been focused on the adoption of e-government services and systems, and data have been collected mostly from citizen-users. Thus, there is a need for more researches which shall focus on other essential e-government aspects and stakeholders. To fill this gap, this study focused on the adoption intention of local government employees, a less-studied population. This is the first cross-country study on the adoption of practices and activities essential for e-government transformation.

Table 2.2 Mapping and Classification of e-Government Adoption Literature

Author/s	Theory/model	Variables or key concepts	Adoption or use target	Sample population
Hung, S. Y., Chang, C. M., & Yu, T. (2006)	Theory of planned behavior (TPB)	perceived usefulness, ease of use, perceived risk, trust, compatibility, external influences, interpersonal influence, self-efficacy, <u>facilitating condition</u>	online tax filing and payment system	Citizen-taxpayers
Hung, S. -Y., Tang, K. -Z., Chang, C. -M., & Ke, C. -D. (2009)	Theory of planned behavior (TPB)	perceived usefulness, perceived ease of use, training, compatibility, external influence, interpersonal influence, self-efficacy, <u>facilitating conditions</u>	electronic document management system	Government employees
Aboelmaged, M. G. (2010)	Technology acceptance model (TAM), theory of planned behavior (TPB)	perceived usefulness, subjective norm, attitude, social influence, behavioral intention	e-procurement	Supply chain partners
Lin, F., Fofanah, S. S., & Liang, D. (2011)	Technology acceptance model (TAM)	attitude, perceived usefulness, perceived ease of use, information system quality, information quality, behavioral intention	e-government initiatives (not specified)	Citizen-users
Carter, L., Schaupp, L. C., Hobbs, J., & Campbell, R. (2012)	N/A	performance expectancy, social influence, facilitating conditions, optimism bias, perceived reputation, perceived risk	e-tax filing	Citizen-taxpayers
Bonsón, E., Torres, L., Royo, S., & Flores, F. (2012)	N/A	Sophistication index, public administration style	Web 2.0 and social media	Local government
Weerakkody, V., El-Haddadeh, R., Al-Sobhi, F., Shareef, M. A., & Dwivedi, Y. K. (2013)	Extended unified theory of acceptance and use of technology (UTAUT)	performance expectancy, effort expectancy, social influence, facilitating conditions, trust of the internet, trust of intermediary, behavioral intention, usage behavior	e-government services (not specified)	Citizen-users
Hung, S. -Y., Chang, C. -M., & Kuo, S.-R. (2013)	Theory of planned behavior (TPB)	perceived usefulness, perceived ease of use, trust, interactivity, external influence, interpersonal influence, self-efficacy, <u>facilitating conditions</u>	Mobile e-government services (not specified)	Citizen-users
Rana, N. P., Dwivedi, Y. K., Lal, B., Williams, M. D., & Clement, M. (2015)	Unified model of e-government adoption (UMEGA)	performance expectancy, effort expectancy, social influence, facilitating conditions, anxiety, attitude, behavioral intention	e-District system (broad range of services)	Citizens
Alryalat, M.A.A., Rana, N. P., & Dwivedi, Y. K. (2015)	Extended theory of reasoned action (TRA)	perceived usefulness, perceived trust, self-efficacy, attitude, subjective norm	online PAN card registration system	Citizen-users

Table 2.2 continuation

Rana, N. P., Dwivedi, Y. K., Williams, M. D., & Weerakkody, V. (2016)	Unified model for e-government adoption (UMEGA)	performance expectancy, effort expectancy, social influence, facilitating conditions, anxiety, attitude, behavioral intention	Online public grievance redressal system	Citizen-users
Dwivedi, Y.K., Rana, N.P., Janssen, M., Lal, B., Williams, M.D., & Clement, M. (2017)	Unified model for e-government adoption (UMEGA)	performance expectancy, effort expectancy, social influence, facilitating conditions, perceived risk, attitude, behavioral intention	online permanent account number card registration system	Citizen-users
Venkatesh, V., Hoehle, H. & Aljafari, R. (2017)	N/A	Interface design (with 16 dimensions), satisfaction, behavioral intention	Website	Citizens

2.5 Theoretical Framework

The intention to use technology and its use behavior has been studied and analyzed on account of certain variables believed to be affecting it. This study is firstly anchored on the unified theory of acceptance and use of technology (UTAUT) by Venkatesh, et al (2003). This theory consists of four main constructs: performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC), which are independent variables that influence the dependent variables behavioral intention (BI) and technology usage (TU). Behavioral intention is seen as a critical predictor of technology use. Gender, age, experience and voluntariness of use are moderating variables hypothesized to influence on behavioral intention by the independent variables. The wide use of this theory in the study of technology adoption across a range of technology platforms, application scenarios and geographical settings shows the validity of the constructs' generalizability (Al-Gahtani, et al., 2007; Chan, et al., 2010; Gupta, et al., 2008). However, some recent studies have shown weaknesses of the model. Although variables' relationships have been found out to be significant, relationships of performance expectancy and facilitating conditions with behavioral intention are non-significant (Rana, et al., 2013; Dwivedi, et al., 2017). Further, the model's fit indices were found to have significantly underperformed (Rana, et al., 2015; Dwivedi, et al., 2017). Despite these, as observed by Rana, et al. (2013), the UTAUT has not been so comprehensively tested in e-government adoption research, and its true theoretical capability could be evaluated by more research on e-government adoption.

Hence, this research paper argues that the UTAUT's core constructs be tested further through this study.

This study is also anchored on the theory of reasoned action (TRA) (Ajzen and Fishbein 1980) which proposes that behavioral intention, and consequently behavior, is influenced by two variables: attitude toward behavior and subjective norm. It posits as well that 'attitude' towards an innovation is hypothesized to be determined by the users' perceived usefulness and perceived ease of use. Both the TRA and TAM (theory of acceptance model) argue that, all other conditions constant, individuals execute behaviors towards which they have a positive affect (Ajzen and Fishbein 1980). In the TPB (theory of planned behavior) model, Ajzen (1991) proposes that attitude towards behavior is generally found to precisely predict the individual's behavioral intentions. In spite of these, these models were found to be not performing ideally in terms of degree of freedom and fit of indices (Rana, et al., 2015; Dwivedi, et al. 2017). Moreover, Armitage and Conner (2001, p. 475) remark that "more generally, previous meta-analyses of the TRA/TPB have tended to analyze data from participants more than once, have failed to report reliability statistics, and treated all studies as equivalent, with no attempt to weight their data in favor of studies with more participants." Besides, an analysis of the literature reveals that only a very few number of relationships for the TRA model have been tested and therefore any conclusion about its performance, and the nature of the relationships' exact effect sizes, would be premature (Rana, et al., 2013). Yet, despite these flaws, the TPB is a valuable model for predicting a broad array of behavioral intentions and behaviors as indicated by studies and meta-analytic evaluations (Armitage and Conner, 2001), and empirical tests of the TRA has shown that attitude performs an exceptionally crucial role in determining behavioral intention. For these reasons, this research paper employs attitude as one of the determinant variables.

And thirdly, this study also employs the social cognitive theory (SCT) to explain behavioral intention in the ICT context. As applied by Compeau and Higgins (1995), the model has the following core constructs: outcome expectations (performance); outcome expectations (personal); self-efficacy; affect; and, anxiety. In particular, this study took the SCT construct anxiety and made it as a predictor variable, taking into consideration that the model permits it to cover the study of technology

acceptance and use in general even though studies indicated a problem in its measurement (Compeau and Higgins, 1995). Also, studies have shown that the SCT model have underperformed as regards some of the variables, majority of the fit indices, and variance on behavioral intention, which is low compared to other models (Rana, et al., 2015; Dwivedi, et al., 2017). Still, anxiety has been found to be a significant determining variable in the behavioral intention to adopt e-government (Olatubosun and Rao, 2012). This research paper contends that anxiety needs to be tested as a factor for behavioral intention because the literature shows that it has not been studied as much as the other factors.

This research looks into the use and adoption of transformative features of e-government in the two cities from the lenses of the e-government use and adoption models discussed above.

2.6 Application of Model

Behavioral Intention

The dependent variable for this study is e-government transformation defined by the core constructs: new ICT systems, process re-design, organizational structuring and cultural and behavioral change (Werrakody et al., 2011). Stated in behavioral terms, the following are the dependent variables:

Behavioral intention 1 (BI1) – use of new ICT systems;

Behavioral intention 2 (BI2) – adoption of process re-design;

Behavioral intention 3 (BI3) – adoption of organizational structuring; and,

Behavioral intention 4 (BI4) – adoption of cultural and behavioral change.

In transforming e-government, new ICT systems are important. It must make optimal use of Web 2.0 technologies, implement Open Data, and utilize text-based mobile short message service (SMS) technology. One of the key factors in e-government transformation is the use of new technologies which consequently requires transformation in the other key areas: process, organization structure and culture, and members' behavior (Hammer and Champy, 1993; Peristeras, et al., 2009; Werrakody, et al., 2011). In this regard, using the Web 2.0 technologies (Chun, et al., 2010; Choudhury, 2014; Sivarajah, et al., 2014) is now a must if e-governments are serious

in creating actual transformative opportunities regarding key issues of transparency, accountability, communication and collaboration (Mergel, et al., 2009), and actually accessing user-citizens through social media platforms (Mainka, et al., 2014). Implementing Open Data presents substantial potential and capacities for refreshing and boosting e-government services (Bertot, et al., 2014) and at the same time making citizens become significant participants in data generation, data acquisition, and service generation and development (Johansson, et al., 2015). Further, e-service transformation through Open Data is perceived as service- and citizen-centric (Chatfield and AlAnazi, 2013). Significantly important likewise is the use of mobile-based technology such as SMS in the delivery of government services (Obi and Iwasaki, 2015; Johansson, et al., 2015).

Transforming processes through redesigning results from the utilization of new technology (Hammer and Champy, 1993; Werrakody, et al., 2011). E-procurement is one widely practiced transformed process (Thai, 2009). With regard to redesigning processes, transformation accordingly necessitates the provision of citizen-centered services, 'one-stop-shops', integration and the use of multiple channels to deliver service (UNDESA, 2014; Peristeras, et al., 2009; Ziembra, et al., 2014). In addition, organizational structuring must be done in the following ways: establishment of ICT department; institutionalizing professional leadership and management of ICT through Chief Information Officer/Chief Data Officer; shifting of back-office activities to front-office; and vigorous human resource training and re-tooling (Werrakody, et al., 2011; Hammer and Champy, 1993; UNDESA, 2014; Obi and Iwasaki, 2015; Nurmandi and Kim, 2015; Kim, et al., 2009; D'Agostino, et al., 2011). Finally, e-government transformation subsequently requires cultural and behavioral change including collaborative leadership in the organization, shared services within the organization and among organizations, and citizen service-centeredness in carrying-out the job (Werrakody, et al., 2011; Hammer and Champy, 1993; Peristeras, et al., 2009; Bertot, et al., 2014; Chatfield and AlAnazi, 2013; Kim, et al., 2009).

Performance Expectancy

Performance expectancy is defined as the extent to which a person believes that using a system will help him or her to attain gains in job performance (Venkatesh,

et al., 2003). Performance expectancy is a strong predictor of intention to use technology in voluntary scenarios (Venkatesh et al., 2003) and satisfaction with technology in mandatory settings (Chan et al., 2010). Performance expectancy is a strong predictor of intention to use diverse technologies. Al-Gahtani et al. (2007) found that performance expectancy had a positive effect on intention of IT use among Saudi Arabians. It also has significant positive influence on intention to use Virtual World, a 3D environment and voice over IP technology (Fetscherin and Lattemann, 2008). A study on adoption of wireless Internet services via mobile technology reveals strong causal relationships between usefulness and adoption intentions (Lu, et al., 2005). Performance expectancy also has significant effect on intention to use various systems and processes. For instance, consumer intention to adopt mobile banking in Taiwan was significantly impacted by performance expectancy (Yu, 2012). Xu and Gupta (2009) found that performance expectancy was positively related to potential and experienced customers' behavioral intention and adoption of location-based services in Singapore. In Australia, performance expectancy positively influences behavioral intention and utilization of Accounting Information Systems (Aoun, et al., 2010). For intention to use ICT-enabled education and learning, performance expectancy was observed to be influential. In a study in the US, performance expectancy is a key component of the behavioral intent to use tablet personal computer integration in higher education (Moran et al., 2010). The usefulness of the technology (measured as performance expectancy) was the main predictor of secondary school teachers' acceptance and use of a digital learning environment (Pynoo, et al., 2010).

Perceived usefulness (also measured as performance expectancy) was also found out as a significant influence to the use of virtual learning environment by Chinese graduate students (van Raaij et al., 2006). Moreover, performance expectancy has a positive relationship to the intention to use mobile learning in Saudi Arabia (Nassuora, 2013) and to acceptance of mobile learning for higher education students in Thailand (Jairak, et al., 2009). An international comparison of technology adoption in the US and Korea revealed that performance expectancy significantly affects behavioral intention (Im, et al., 2011). Performance expectancy likewise has positively influenced the adoption and use of ICT in a government organization in India (Gupta, et al., 2008), the adoption of e-government services in Kuwait (AlAwadhi and Morris,

2009) and intention to use government e-services in Saudi Arabia (Alshehri, et al., 2013).

In this study, performance expectancy is the extent to which a person believes that using new ICT systems, adopting process re-design, adopting organizational structuring and adopting cultural and behavioral change will help him or her to attain gains in job performance.

Effort Expectancy

Effort expectancy is defined as the degree of ease associated with the use of the system (Venkatesh, et. al., 2003). On a conceptual level, Carter and Belanger (2005) argue that citizens' intentions to use a state e-government service will increase if citizens perceive the service to be easy to use, while Stamati et al. (2011) posits that perceived ease of use (measured as effort expectancy) will have a positive effect on the behavioral intention to adopt transformational government citizens' services in Greece. As for using ICT in a governmental organization, effort expectancy impacts significantly the behavioral intention to do so (Gupta, et al., 2008). Chan et al. (2010) found that effort expectancy was a significant determinant of citizens' satisfaction to mandatory adoption of smart cards, an e-government technology in Singapore. Acceptance and adoption of e-government services are positively affected by effort expectancy in Kuwait (AlAwadhi and Morris, 2009), in Saudi Arabia (Alshehri et al., 2013) and in the United Arab Emirates (Alrashidi, 2012). In learning technology platforms, effort expectancy is also a strong predictor of behavioral intent, such as the use of tablet personal computer integration in higher education (Moran et al., 2010) and secondary school teachers' acceptance and use of a digital learning environment (Pynoo, et al., 2010).

As used in this study, effort expectancy is the degree of ease associated with using new ICT systems, adopting process re-design, adopting organizational structuring and adopting cultural and behavioral change.

Social Influence

Social influence is defined as the degree to which an individual perceives that important others believe that he or she should use the new system (Venkatesh, et al.,

2003). A study in Taiwan (Yu, 2012) revealed that consumer intention to adopt mobile banking Taiwan was significantly impacted by social influence, the empirical evidence of the study indicates that social influence is the most powerful factor in affecting people's intention to use mobile banking. Structural equation analysis reveals strong causal relationships between social influence and adoption of wireless Internet services via mobile technology (Lu, et al., 2005). Further, a study by Gupta, et al. (2008) shows that social influence impact the behavioral intention to use ICT in a governmental organization in India. Subjective norm (measured as social influence) has significant influence to use of virtual learning environment by Chinese graduate students (van Raaij, et al., 2006), while in Saudi Arabia, social factors (also measured as social influence) have a positive influence on use of mobile learning (Nassuora, 2013). In the same vein, social factors have a significant positive relationship with attitude and behavioral intention to acceptance of mobile learning for higher education students in Thailand (Jairak, et al., 2009). In a study of secondary school teachers' acceptance and use of a digital learning environment, the construct social influence was the main predictor of self-reported frequency of use (Pynoo, et al., 2010). Social influence significantly affects behavioral intention in an international comparison of technology adoption in US and Korea (Im, et al., 2011).

In the context of a social networking site in the workplace, social influences or the expectations of others are especially significant because it refers to the extent to which members in a society (coworkers in this case) influence each other's behavior and experience social pressure to perform in a particular manner (Sledgianowski and Kulviwat, 2009). Specifically, social influences will be positively related to knowledge sharing intention when using the organization's social networking site (Harden, 2012). However, social influence has no significant effect on citizens' behavioral intention and satisfaction in a mandatory adoption setting (Chan, et al., 2010).

In this study, social influence is the degree to which a respondent perceives that significant others believe that he or she should use new ICT systems, adopt process re-design, adopt organizational structuring and adopt cultural and behavioral change.

Facilitating Conditions

Facilitating conditions are defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system (Venkatesh, et. al., 2003). In an international comparison of technology adoption in US and Korea (Im, et al., 2011), facilitating conditions have significant effects on use behavior. Moreover, Gupta, et al. (2008) found out that facilitating conditions also positively influence usage, and affect actual use in a government organization in India. In Saudi Arabia, facilitating conditions had a positive effect on behavioral intention to use e-government services, and this relationship would be moderated by Internet experience only (Alshehri, et al., 2013). Significant and positive relationships between facilitating conditions and behavioral intention to use mobile learning were shown in Thailand (Jairak, et al., 2009) and also in Saudi Arabia (Nassuora, 2013). Facilitating conditions was observed to have positive effects on users' intention and satisfaction on a mandatory adoption of government technology in Singapore (Chan, et al., 2010).

As used in this study, facilitating conditions are the degree to which a respondent believes that an organizational and technical infrastructure is available to support the use of new ICT systems, adoption of process redesign, adoption of organizational structuring and adoption of cultural and behavioral change.

Anxiety

In the context of computer technology, anxiety is an individual's apprehension or fear when he or she is faced with the possibility of using computers (Simonson, et al., 1987). In a specific sense, computer anxiety relates to users' general perception of computer usage (Venkatesh, 2000). Extended from computer anxiety, and compared with the former concept, technology anxiety focused on a user's state of mind about general technology tools whereas computer anxiety is more narrowly focused on anxiety related to personal computer usage. Moreover, technology anxiety also demonstrated the mental status specifically in terms of people's willingness as derived from the competency to use technology-based tool (Meuter, et al., 2003). A study of the readiness of public servants on the adoption of e-government in Nigeria observed that self-efficacy and anxiety appear to be significant determinants of intention, and

that in particular, computer anxiety has a significant influence on behavioral intention (Olatubosun and Rao, 2012). Even though extensive research has been done on anxiety in the fields of psychology and information systems, its role as a predictor of behavioral intention in the context of e-government adoption has not been substantially investigated.

In this study, anxiety is the respondent's apprehension or fear when he or she is faced with the possibility of using new ICT systems, adopting process re-design, adopting organizational structuring and adopting cultural and behavioral change.

Attitude

Attitude towards behavior is defined as the degree to which an individual makes a favorable or unfavorable evaluation or appraisal of the behavior in question (Ajzen, 1991). Attitude is an important construct of the theory of reasoned action (TRA) (Ajzen and Fishbein, 1980) which theorizes that 'attitude' towards an innovation is hypothesized to determine by the users' perceived usefulness and perceived ease of use. Both the TRA and TAM (Theory of Acceptance Model) argue that, all other conditions constant, individuals execute behaviors towards which they have a positive affect (Ajzen and Fishbein, 1980). In the TPB (Theory of Planned Behavior) model, Ajzen (1991) proposes that attitude towards behavior is generally found to precisely predict the individual's behavioral intentions.

At the conceptual level, in consumer research, attitude is the construct that receives most attention and is used most widely for predicting consumers' likelihood to adopt a new technology (Erevelles, 1998). It is also believed in user participation research that, prior to system development, users are likely to have vaguely formed beliefs and attitudes concerning the system to be developed (Hartwick and Barki, 1994). A prospective user's overall attitude toward using a given system is an antecedent to intentions to adopt (Davis, 1989).

The relationship between attitude and behavioral intention have been presented in several studies (Hung, et al., 2009; Lu et al., 2010; Hung et al., 2013; Rana et al., 2015). Attitude plays a significant influence on behavioral intention across different ICT platforms in different countries. Use of tablet personal computer integration in higher education in the US (Moran, et al., 2010); acceptance and use of

mobile learning in Thailand (Jairak, et al., 2009) and Saudi Arabia (Nassoura, 2013) are positively predicted by attitude. This is also true to e-government and its services. In Mauritius, user's intention to use the e-tax filing and payment system has been strongly influenced by attitude (Mahadeo, 2009). Attitude, which is positively influenced by perceived usefulness and perceived ease of use, was an important determinant of users' acceptance of e-government services in Malaysia (Suki and Ramayah, 2010). Behavioral intention to adopt e-government in Nigeria (Olatubosun and Rao, 2012) and in Jordan (Rabaa'i, 2015) was positively influenced by attitude. A study on American citizens' attitudes toward Open Government and Government 2.0 had the following findings: recent use of Government 2.0 does contribute to positive attitudes toward Government 2.0; those who value transactions with e-government have a positive attitude regarding Open Government and Government 2.0; and, general trust in government leads to a positive attitude toward the new ends and means of e-government (Nam, 2012).

As used in this study, attitude is defined as the degree to which a respondent makes a favorable or unfavorable evaluation or appraisal of using new ICT systems, adopting process re-design, adopting organizational structuring and adopting cultural and behavioral change.

Age and Length of Work Experience

The UTAUT model hypothesizes a moderating influence by age on the relationships among performance expectancy, effort expectancy, social influence, and behavioral intention to use technology and also on the relationship between facilitating conditions and usage behavior (Venkatesh and Morris, 2000; Venkatesh et al., 2003). A study (Yu, 2012) has shown that age significantly moderated the effect of effort expectancy (more important to old respondents) and the effort of social influence (more salient to young respondents), and the effect of facilitating conditions to behavioral intention. Older consumers tend to face more difficulty in processing new or complex information, thus affecting their learning of new technologies (Morris, et al., 2005; Plude and Hoyer 1985 in Venkatesh, et al., 2012). AbuShanab and Pearson (2007) observed that performance expectancy's effect on behavioral intention was stronger for older users, contradicting the UTAUT prediction that performance expectancy's effect

on behavioral intention would be stronger for younger users. AbuShanab and Pearson (2007) also observed a stronger effect of effort expectancy on behavioral intention for younger users. On the other hand, Hamner and Al-Qahtani (2009) reported a negative relationship between citizens' age and their willingness to use e-government technology. Age appears to be under-examined by researchers studying technology adoption in developing countries (Chopra and Rajan, 2016).

There is a lack of knowledge in e-government literature on the role of length of work experience. As Rana et al. (2013) have observed, "although the UTAUT is a unified model mapped created from eight established models of IS adoption research including the TAM (theory of acceptance model), the DOI (diffusion of innovation), and the TPB (theory of planned behavior), the UTAUT has not been widely used to analyze adoption of e-government services from an employee perspective" (p. 419). In view of this, this research proposes the inclusion of length of work experience as a moderating variable for the basic reason that results will be extracted from local government employees.

2.7 Research Model and Hypotheses

This research utilizes a linear regression model (Figure 2.1) wherein the independent variables performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC) anxiety (ANX) and attitude (AT) are hypothesized to be associated with the dependent variable behavioral intention (BI). Moreover, age (AGE) and length of work experience (LWE) are proposed as moderating variables. Moderators are variables whose variation influences the strength or the direction of a relationship between an independent variable and dependent variable (Baron and Kenny, 1986). Moderator variables can either be metric (e. g., consumer psychological constructs like arousal or intelligence) or categorical (e. g., gender or social class) in nature (Henseler and Fassott, 2010).

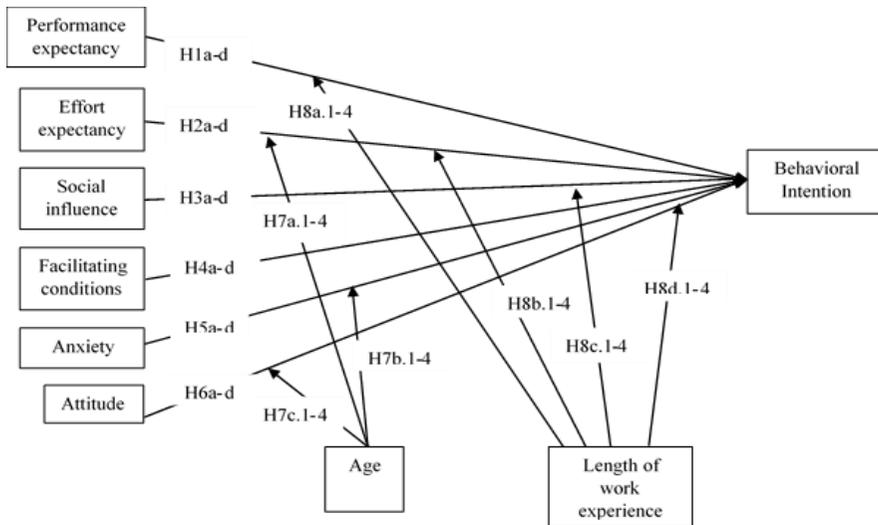


Figure 2.1 Research model showing the hypothesized associations among variables (Adapted from Venkatesh, et al., 2003; Ajzen and Fishbein, 1980; Compeau and Higgins, 1995)

This study tests the following hypotheses:

H1a-d. Performance expectancy is positively associated with BI1 – BI4.

H2a-d. Effort expectancy is positively associated with BI1 – BI4.

H3a-d. Social influence is positively associated with BI1 – BI4.

H4a-d. Facilitating conditions are positively associated with BI1 – BI4.

H5a-d. Anxiety is negatively associated with BI1 – BI4.

H6a-d. Attitude is positively associated with BI1 – BI4.

H7a.1-4 Age will significantly moderate the association between effort expectancy and BI1 – BI4.

H7b.1-4 Age will significantly moderate the association between anxiety and BI1 – BI4.

H7c.1-4 Age will significantly moderate the association between attitude and BI1 – BI4.

H8a.1-4 Length of work experience will significantly moderate the association between performance expectancy and BI1 -BI4.

H8b.1-4 Length of work experience will significantly moderate the association between effort expectancy and BI1 – BI4.

H8c.1-4 Length of work experience will significantly moderate the association between social influence and BI1 – BI4.

H8d.1-4 Length of work experience will significantly moderate the association between attitude and BI1 – BI4.

Operationalization of the variables are shown in Table 2.3 below. Studies from where some items for constructs have been sourced are cited.

Table 2.3 Operationalization of Variables

Variables	Indicators
Age	AGE1 21-35 AGE2 36-45 AGE3 46-55 AGE4 56-65
Length of work experience	LWE1 0-5 years LWE2 6-10 years LWE3 11-15 years LWE4 16 years plus
Position in organization	POS1 Department/division head POS2 Staff
Performance expectancy (PE) (Davis, 1989; Davis et al., 1989)	PE1 completion of tasks in less time and at less cost PE2 achievement of set goals and objectives PE3 enhancement of service quality PE4 increase overall productivity
Effort expectancy (EE) (Davis, 1989; Davis et al., 1989)	EE1 implementing would be easy EE2 using or adopting would be easy EE3 interaction with co-workers would be unproblematic EE4 adjustment would be uncomplicated
Social influence (SI) (Venkatesh et al., 2003)	SI1 must be done because other cities are doing it SI2 must be done because other departments/divisions are doing it SI3 must be done because citizens expect it SI4 must be done because citizens demand it
Facilitating conditions (FC) (Venkatesh et al., 2003)	FC1 having the knowledge and skill to use it FC2 technical support and assistance would be available FC3 financial support is available FC4 city administration supports it
Anxiety (ANX) (Venkatesh et al., 2003)	ANX1 feeling of hesitancy in using or doing it ANX2 feeling of worry that it will not work out as expected ANX3 feeling of being overwhelmed by it ANX4 feeling of concern that citizens will not like it
Attitude (AT) (Davis et al., 1989; Fishbein and Ajzen 1975)	AT1 it is a good idea AT2 it is a worthwhile thing to do AT3 it is likeable AT4 it is nice
Behavioral intention (BI) (Venkatesh, et al., 2003)	BI1 intending to do it BI2 predicting that one would do it BI3 planning to do it very soon

CHAPTER III

RESEARCH METHOD

3.1 Research Design

This research paper comparatively and aggregately analyzes the variables influencing the adoption of e-government transformation in the cities of Surabaya, Indonesia and Davao, Philippines using quantitative (statistical analysis of survey data) and qualitative (content analysis of interview responses) approaches. The main unit of analysis is the individual employee of the government organization in both cities. The summative orientations of the respondents on the variables influencing the behavioral intention to adopt e-government transformation is the research topic. Survey research method and interviews were utilized for the gathering of data from respondents who were selected using purposive sampling. Data was analyzed quantitatively through structural equation modeling, path analysis and confirmatory factor analysis statistical tools. Qualitative data was content-analyzed to corroborate quantitative data.

3.2 Sampling Technique

Purposive sampling was employed in this study. To ensure bias reduction, employees from the staff and middle-level bureaucracy, i.e., department or division heads, were requested to take part in the survey. The researcher decided to distribute 120 survey questionnaires for each city, for a total of 240 questionnaires. The researcher handed out 120 questionnaires to 23 agencies/offices, and another 120 questionnaires to 12 departments/offices, in Surabaya and Davao, respectively. Out of these, 78 and 82 usable questionnaires were returned by the respondents, respectively, generating a total of 160 usable responses for analysis, or a 66.7% response rate.

3.3 Respondents of the Study

The study had an aggregate sample size of 160 city government employees. The Surabaya sample size of 78 was composed of 13 department/division heads and 65 staff-level personnel. The Davao sample size of 82 consisted of 8 department/division heads and 74 staff-level personnel. Tables 3.1 and 3.2 below presents the distribution of the respondents according to department/division and position.

Table 3.1 Distribution of Surabaya respondents by department/division and position

Department/division	Head	Staff
1. <i>Badan Kepegawian dan Diklat Surabaya</i>	1	3
2. <i>Badan Lingkungan Hidup</i>		3
3. <i>Badan Koordinasi Pelayanan dan Penanaman Modal</i>	1	4
4. <i>Dinas PU Bina Marga dan Pematusan</i>	1	4
5. <i>Dinas Cipta Karya dan Tata Ruang</i>	1	3
6. <i>Dinas Kependudukan dan Pencacatan Sipil</i>	1	3
7. <i>Dinas Komunikasi dan Informatika</i>		4
8. <i>Dinas Perdagangan dan Perindustrian</i>	1	4
9. <i>Dinas Kebudayaan dan Pariwisata</i>	1	3
10. <i>Dinas Pengelolaan Bangunan dan Tanah</i>	1	4
11. <i>Bagian Bina Program Setkota</i>	1	4
12. <i>Bagian Pemerintahan dan Otoda Setkota</i>	1	3
13. <i>Bagian Hukum Setkota</i>		3
14. <i>Bagian Organisasi dan Tata Laksana Setkota</i>	1	2
15. <i>Bagian Perekonomian dan Usaha Daerah Setkota</i>	1	4
16. <i>Bagian Kerjasama Setkota</i>		4
17. <i>Bagian Perlengkapan Setkota</i>	1	3
18. <i>Bagian Kesejahteraan Rakyat Setkota</i>		4
19. <i>Satuan Polisi Pamong Praja Setkota</i>		3

Table 3.2 Distribution of Davao respondents by department/division and position

Department/division	Head	Staff
1. City Administrator's Office		4
2. City Information Technology Center	1	6
3. City General Services Office		7
4. Barangay Cultural Communities and Affairs	1	6
5. City Information Office	1	6
6. City Environment and Natural Resources	1	5
7. Office of the City Planning and Development Coordinator	1	9
8. City Cooperative Development Office	1	5
9. City Social Services and Development Office		4
10. City Civil Registrar's Office		10
11. Office of the City Budget Officer	1	7
12. City Economic Enterprise	1	5

3.4 Research Instruments

Quantitative data to evaluate the research model was gathered through a structured questionnaire (please see Appendix 3, p. 154). It consists of three parts: a) the first part to extract data for the variables age, length of work experience, and position in the organization; b) the second part explains the four e-government dimensions by identifying their operational meanings; and, c) the third part to draw responses on statements pertaining to the independent and dependent variables. A five-

point Likert-type level of agreement scale (Vagias, 2006) ranging from Strongly Disagree to Strongly Agree was used to measure responses on indicators of the constructs PE, EE, SI, FC, ANX, AT and BI. Qualitative data was obtained from the key informants of departments/divisions using an interview guide consisting of open-ended questions (please see Appendix 4, p. 157).

3.5 Data Gathering Procedure

Before the actual gathering of data, the survey questionnaire was subjected to a pre-testing. It was administered to selected twenty (20) persons working in Yogyakarta City government who use ICT in their operations and delivery of services. This pre-test was necessary to assess the validity and reliability of the constructs. To get the reliability of the questionnaire, the coefficient of Cronbach's alpha (1951) should be taken into account. The minimum Cronbach's alpha values should be greater than 0.70 to indicate reliability of the instrument (Nunnally, 1978). If items shall have low corrected-item total correlation of less than 0.40, the cut-off value suggested by Hair et al. (2006), those items will be dropped. Also, a pre-test was done find out if the instrument is effective in obtaining data, whether it is adequate or inadequate as to its question format, choice of words and organization. After the questionnaire was finalized, actual data gathering was conducted following these procedures:

- a) Research entry protocol. A formal letter expressing the intention of doing the research was communicated electronically to the chief executive, or to an authorized representative, and the department/division heads of both cities before the actual field visit of the researcher. During the actual field visit, a similar communication, in hard copy, was given to the same city officials.
- b) Questionnaires were distributed to the respondents. During this time, the researcher was present to facilitate the administration of the survey instrument. Retrieval was done immediately after each respondent has finished answering it to ensure that the minimum response rate of 65%, which is considered acceptable (Hikmet and Chen, 2003), was attained. In many cases, the researcher had to come back to the respondents after a day or two to retrieve the questionnaires.
- c) Interviews with key informants were conducted. Interviews were digitally recorded to ensure accurate documentation.

d) Data was promptly organized and coded in preparation for analysis.

3.6 Data Analysis

Data gathered from the survey respondents were analyzed using licensed versions of IBM SPSS Statistics (version 19), Smart Partial Least Squares (PLS version 3) and IBM SPSS Analysis of a Moment Structures (AMOS version 24).

Assessment of the reliability and convergent validity of the constructs was done through the determination of the coefficient of Cronbach's alpha (1951). The minimum Cronbach's alpha values must be greater than 0.70 to indicate reliability and validity of constructs (Nunnally, 1978). Discriminant validity of variables was verified by calculating the covariance estimates between pairs of latent variables (Anderson and Gerbing, 1988). Churchill (1979) has suggested that convergent and discriminant validities should be examined for construct validity.

Based on the suggestions of Chin (1998), the assessment of the structural model in order to test the hypotheses requires estimates for path coefficients (β) or regression weights, determination of coefficient (R^2), and estimates for total effects between the exogenous and endogenous variables. Assessing the structural model, using structural equation modeling, should be based on the path coefficient's (β) direction algebraic sign, magnitude and significance (Chin, 1998, 2010; Götz et al., 2010; Henseler et al., 2009; Urbach and Ahlemann, 2010). In PLS, the individual path coefficients of the structural model can be interpreted as standardized beta coefficients of ordinary least squares regressions (Henseler et al., 2009, p. 304), while in AMOS, these are the standardized regression weights between variables in the model (Arbuckle, 2016). Path coefficients or regression weights should exceed .100 to account for a certain impact within the structural model (Urbach & Ahlemann, 2010). Furthermore, path coefficients or regression weights, either positive (in the expected direction) or negative, should be significant at least at the 0.05 level (Henseler et al., 2009; Urbach and Ahlemann, 2010).

Since the main purpose of the structural model is to assess the relationships between hypothetical constructs (Götz et al., 2010), the most essential criterion for the assessment of the structural model is the coefficient of determination or squared multiple correlations (R^2) of each of the constructs in the model. R^2 values should be

sufficiently high for the model to have a minimum level of explanatory power (Chin, 1998, 2010; Götz et al., 2010; Henseler et al., 2009; Urbach and Ahlemann, 2010). In PLS, R^2 values represent “the amount of variance in the construct in question that is explained by the model” (Chin, 2010, p. 674). Chin (1998) considers R^2 values of approximately 0.67, 0.33, and 0.19 as substantial, moderate and weak respectively.

Moderating effects of the variables age and length of work experience on the relationships between the exogenous and endogenous constructs was estimated through PLS structural equation modeling. This was employed to study the interaction effect of continuous moderating variables (Hair, et al., 2013; SmartPLS Version 2.0, n.d.). Given the large number of exogenous constructs, each moderating variable was run separately to ensure that adequate statistical power was obtained. To assess the significance of interaction and main effects, a bootstrap resampling procedure was performed. Estimates for effect size (f^2) was done by comparing the proportion of variance explained (as expressed by the determination coefficient R^2) of the main effect model with the full model ((Henseler and Fassott, 2010), and effect sizes of 0.02 may be interpreted as weak, effect sizes from 0.15 as moderate, and effect sizes above 0.35 as strong.

The structural model fit was tested by calculating model fit estimates by means of AMOS and reporting the following fit indices: incremental fit index [IFI (Bollen, 1989)]; comparative fit index [CFI (Bentler, 1990)]; goodness-of-fit-index [GFI (Arbuckle, 2016)]; and the root mean square residual [RMR (Arbuckle, 2016)]. The measures of fit for the above-mentioned models are enumerated in Table 3.3 below.

Table 3.3 Model fit indices and measures

Index	Recommended value
Incremental fit index (IFI)	≥ 0.900
Comparative fit index (CFI)	≥ 0.900
Goodness-of-fit index (GFI)	≥ 0.950
Root mean square residual (RMR)	≤ 0.04

CHAPTER IV

RESULTS AND DISCUSSION

This part presents results and discussion of data collected from the study sample, consisting of 160 purposively-sampled city government employees of Davao, Philippines and Surabaya, Indonesia. Quantitative analysis was done using licensed versions of IBM SPSS Statistics (version 19), IBM SPSS AMOS (version 24) and Smart PLS (version 3). Qualitative data gathered through interviews and open-ended questions in the survey tool are correspondingly presented to substantiate the quantified data.

This is divided into three sections: the first section presents the descriptive analysis of the demographic profile data of the sample on the aggregate and comparative levels; the second section presents the statistical and descriptive analysis of the response data from the sample, also on the aggregate and comparative levels; and, the third section presents a proposed model of e-government transformation adoption based on this study's findings.

The presentation for the second section follows the order of the four research models of this study, corresponding to the four dependent variables under investigation: 1. intention to use new ICT systems (model 1); 2. intention to adopt process redesign (model 2); 3. intention to adopt organizational structuring (model 3); and, 4. intention to adopt cultural and behavioral change (model 4).

4.1. Demographic Profile

This section reports the findings and descriptive analysis of two demographic variables measured in this study: age and length of work experience of the city government employees. These are presented in two sets: the aggregate or summative data, and the comparative or by-city data.

4.1.1 Aggregate demographic profile of sample

Figure 4.1 below shows the age bracket distribution of the aggregate sample. A significant percentage are in the 21-35 bracket (33.1%) and 36-45 bracket (38.8%), while the rest are in the 46-55 bracket (20.6%) and 56-65 (7.5%). In general, majority

of the employees in both city governments are relatively young, but a considerable number, with a cumulative percentage of 28.1, are in the older age bracket.

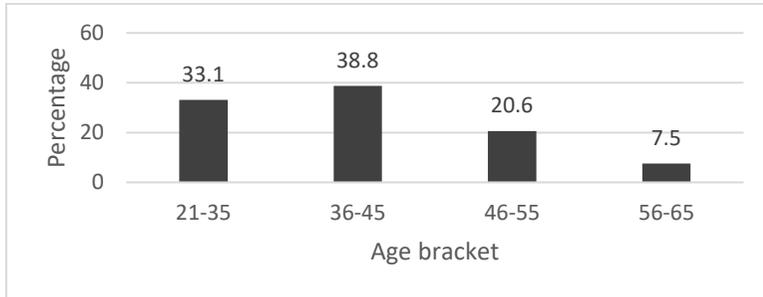


Figure 4.1 Age bracket distribution of sample (in %)

As shown in Figure 4.2 below, a minority of the sample have worked in the city government for ten years and less, with 13.1% for 0-5 years and 31.9% for 6-10 years. On the other hand, a majority of them have been employed in the city government for 11 years and more, with 26.9% for 11-15 years and 28.1% for 16 years and more. This indicates that majority of the respondents have longer work experience in the city government.

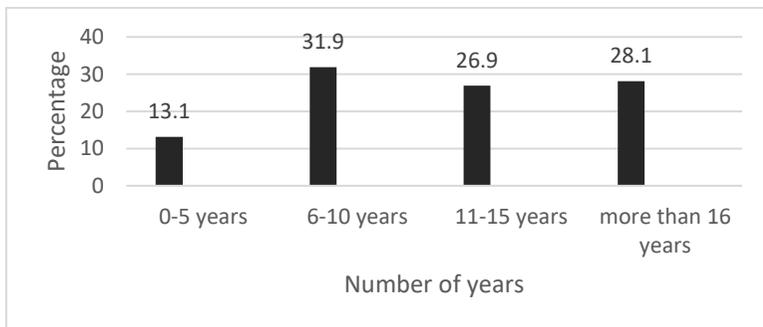


Figure 4.2 Length of work experience distribution of sample (in %)

4.1.2 Comparative demographic profile of sample

Figure 4.3 below shows the comparative age distribution of the sample from Surabaya and Davao city governments. It appears that majority of the Surabaya sample belong to the 21-45 age brackets, with a cumulative percentage of 78.2, while a minority, with a cumulative percentage of 21.8, are in the 46-65 brackets. On the other

hand, majority of the Davao sample belong to the 21-45 age brackets, with a cumulative percentage of 65.8, while a minority are in the 46-65 age brackets, with a cumulative percentage of 34.2.

However, a comparison reveals that there are more Surabaya sample who are in the 21-45 age brackets than the Davao sample. Conversely, there are more Davao sample who are in the 46-65 age brackets than the Surabaya sample. Hence, it can be inferred that more city government employees in Davao are comparatively older than Surabaya city government employees.

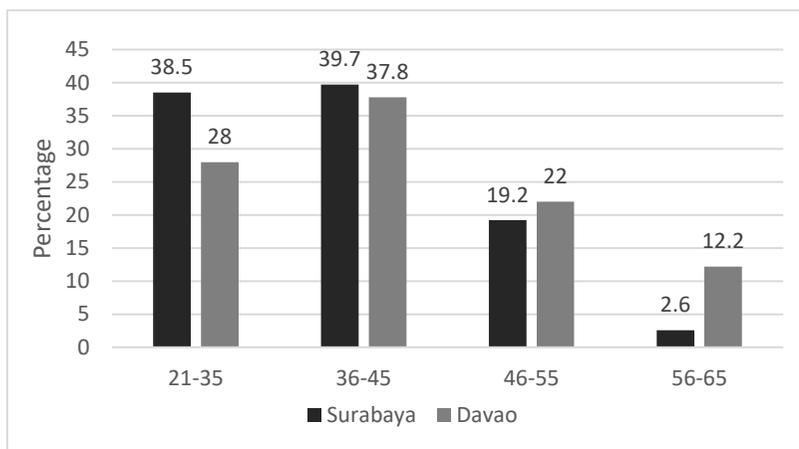


Figure 4.3 Comparative age bracket distribution of sample (in %)

As shown in Figure 4.4 below, majority of the Surabaya sample have been working in the city government for ten years or less, with a cumulative percentage of 52.5, while a minority of them, with a cumulative percentage of 47.4, have been in the city government service for 11 years and more. On the other hand, a minority of the Davao sample, with a cumulative percentage of 37.8, have been working in the city government for ten years or less, while a majority of them, with a cumulative percentage of 62.2, have been in the city government service for 11 years and more. Thus, more employees in Davao have been in the city government service than the Surabaya employees. This is consistent with the earlier result: that more Davao city government employees are older compared to Surabaya employees.

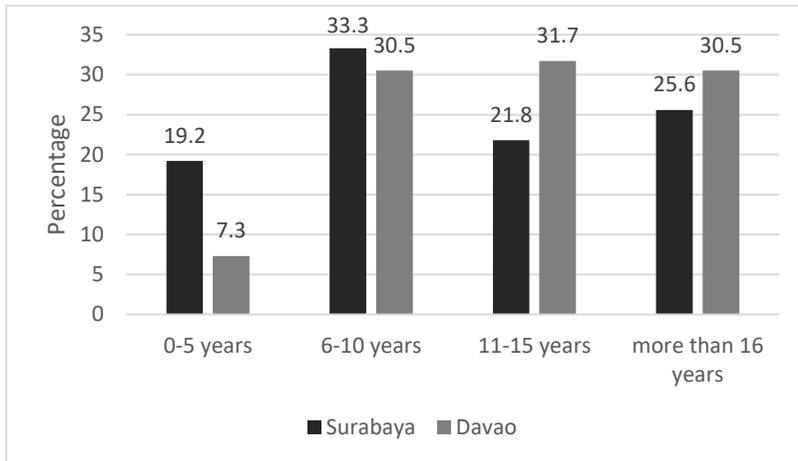


Figure 4.4 Comparative length of work experience distribution of sample (in %)

4.2 Descriptive and Statistical Analysis

This section reports the descriptive and statistical analysis of the response data on the independent, dependent and moderating variables measured in this study. These are presented in four sets, corresponding to the four models tested. Each set is further sub-divided into two: the aggregate or summative data and the comparative or by-city data analyses.

4.2.1.1 Aggregate analysis for model 1: intention to use new ICT systems

Descriptive statistics

The findings in Table 4.1 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 1. Except for anxiety, the mean values of most of the constructs (excluding EE3 and EE4) were above four, indicating the general positive response to the indicators for PE, EE, SI, FC, AT and BI. Mean values for anxiety were above two, which suggests that there is general disagreement on the anxiety indicators. The standard deviation of the construct items ranges from .533 to .819, again excepting anxiety, which indicates that the responses were mostly positive or neutral. Higher standard deviation values for anxiety, ranging from .846 to 1.409, suggests that there was generally a negative response to the indicators.

Table 4.1 Mean and standard deviation for items in model 1 (N=160)

Construct	Item	Mean	SD
Performance Expectancy	PE1	4.3188	.62818
	PE2	4.3313	.53461
	PE3	4.4313	.53343
	PE4	4.3125	.59545
Effort Expectancy	EE1	4.0438	.68540
	EE2	4.0375	.65288
	EE3	3.9750	.79265
	EE4	3.9625	.75974
Social Influence	SI1	4.0438	.81916
	SI2	4.1813	.68103
	SI3	4.2375	.62934
	SI4	4.0125	.80866
Facilitating Conditions	FC1	4.1250	.66114
	FC2	4.1750	.61990
	FC3	4.2250	.67246
	FC4	4.4250	.57789
Anxiety	ANX1	2.1938	1.04909
	ANX2	2.0563	.97288
	ANX3	2.0563	.94667
	ANX4	2.0125	.84665
Attitude	AT1	4.3500	.59558
	AT2	4.2688	.67032
	AT3	4.2875	.64805
	AT4	4.3063	.56074
Behavioral Intention	BI1	4.3312	.68883
	BI2	4.1625	.61314
	BI3	4.3000	.69861

Reliability and validity analysis

Table 4.2 below presents the results of the reliability analysis applying Cronbach's alpha, which signifies the internal consistency of indicator items that measure the same construct. A minimum Cronbach's alpha value of 0.70 indicate reliability and validity of constructs (Nunnally, 1978). The alpha values of the constructs range from .759 to .902, which means that all constructs have shown high reliability level.

Table 4.2 Reliability analysis of constructs ($N=160$)

Construct	Number of items	Cronbach's alpha α	Reliability type
Performance Expectancy	4	.847	High
Effort Expectancy	4	.849	High
Social Influence	4	.759	High
Facilitating Conditions	4	.841	High
Anxiety	4	.884	High
Attitude	4	.860	High
Behavioral Intention	3	.902	High

Discriminant validity of the variables was tested by calculating the covariance estimates between pairs of variables in the model (Anderson and Gerbing, 1988). The covariance between a pair of variables should be less than the square root of the average variance extracted (shown diagonally in bold numbers in Table 4.3 below) of each variable. A variable is believed to be different from other variables if the square root of average variance extracted for it is greater than its correlations with other variables (Barclay and Smith, 1997). For example, the covariance between PE and EE is 2.230, which is less than the square root of average variance extracted for PE (3.564) and EE (5.693). Hence, PE is different from EE, or in other words, there is discriminant validity between both variables. All variables in model 1 passed this test.

Table 4.3 Covariances of variables in model 1

Variable	PE	EE	SI	FC	ANX	AT	BI
PE	3.564						
EE	2.230	5.693					
SI	2.613	3.179	4.987				
FC	2.188	2.776	2.567	4.335			
ANX	-2.138	-3.000	-2.364	-2.572	10.692		
AT	2.666	1.915	2.774	2.249	-2.180	4.305	
BI	2.001	1.727	1.907	1.940	-1.905	2.824	3.037

Structural model test

The test of the research model fit was done using the following fit indices: incremental fit index (IFI); comparative fit index (CFI); goodness-of-fit-index (GFI); and, root mean square residual (RMR), all of which were estimated using Amos. Table 4.4 below summarizes the model fit test.

Table 4.4 Model fit results for model 1

Index	Recommended value	Model value
Incremental fit index (IFI)	≥ 0.900	1.000
Comparative fit index (CFI)	≥ 0.900	1.000
Goodness-of-fit index (GFI)	≥ 0.950	1.000
Root mean square residual (RMR)	≤ 0.04	.000

The results show that the research model passed all fit indices with relatively high competences, evidenced by the model values exceeding the recommended values. With this, it is now consequential to assess the regression weights of variables corresponding to the hypotheses of the study.

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant (p value) at least at the .050 level (Henseler et al., 2009; Urbach and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. The coefficient of determination (R^2) values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.5 below presents this analysis.

Table 4.5 Regression weights and hypothesis testing for model 1

Relationship	Standardized regression weight	Hypothesis supported?	Significance (p)
PE → BI	.099	No	Ns
EE → BI	.098	No	Ns
SI → BI	-.090	No	Ns
FC → BI	.080	No	Ns
ANX → BI	-.046	No	Ns
AT → BI	.669	Yes	<0.001
R ² (BI)	.638		

Legend: Ns=not significant

Findings shown in Table 4.5 above reveal that among all six independent variables, only attitude (AT) had an impact on behavioral intention (BI), with a regression weight of .669, significant at less than 0.001 level. This does not mean however that the other variables do not impact the dependent variable, but suggests that AT had more impact compared to the others. Anxiety (ANX) is shown to have a negative regression weight value as hypothesized, although its p value is not significant. Social influence (SI) is revealed to be the least associated with BI because it had the highest negative regression weight value. The finding that the R² value of BI, which is .638, suggests that the independent variables account for about 64% of the variance in BI. In other words, the independent variables in the model can moderately explain 64% of the BI, and the remaining 36% can be explained by other variables.

Only one hypothesis for model 1 is supported by the findings: that attitude is positively associated with intention to use new ICT systems. The findings do not support the other hypotheses.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done using bootstrapping technique in partial least squares structural equation modeling (Hair, et al., 2013). Researchers have suggested an interpretation of effect sizes from 0.02 as weak, from 0.15 as moderate, and above

0.35 as strong (Henseler and Fassott, 2010). Table 4.6 below summarizes the effects of the variables age and length of work experience.

Table 4.6 Moderating effects and hypothesis testing for model 1

Moderator→ Predictor	Standardized regression weight	Moderating effect size (f^2)	Significance (p)	Hypothesis supported?
AGE → EE	-0.226	0.054	Ns	No
AGE → ANX	0.281	0.086	Ns	No
AGE → AT	-0.365	0.153	Ns	No
LWE → PE	-0.176	0.032	Ns	No
LWE → EE	-0.074	0.006	Ns	No
LWE → SI	-0.155	0.024	Ns	No
LWE → AT	-0.331	0.142	Ns	No

Legend: Ns=not significant

All the hypotheses for moderating effects of the variables age (AGE) and length of work experience (LWE) on certain independent variables are not supported by the results. Even though regression weight values in some moderator-predictor relationships are significant (both in positive and negative directions): i.e. AGE→EE (-0.226), AGE→ANX (0.281), AGE→AT (-0.365), LWE→PE (-0.176), LWE→SI (-0.155), and LWE→AT (-0.331); their moderating effect sizes (f^2) are not statistically significant. Thus, age and length of work experience of the city government employees did not moderate the associations of independent and dependent variables in model 1.

Table 4.7 Summary of hypotheses testing results for model 1

Hypothesis	Result
H1a. Performance expectancy is positively associated with intention to use new ICT systems.	Rejected
H2a. Effort expectancy is positively associated with intention to use new ICT systems.	Rejected
H3a. Social influence is positively associated with intention to use new ICT systems.	Rejected
H4a. Facilitating conditions are positively associated with intention to use new ICT systems.	Rejected
H5a. Anxiety is negatively associated with intention to use new ICT systems.	Rejected
H6a. Attitude is positively associated with intention to use new ICT systems.	Accepted
H7a.1 Age will significantly moderate the association between effort expectancy and intention to use new ICT systems.	Rejected
H7b.1 Age will significantly moderate the association between anxiety and intention to use new ICT systems.	Rejected
H7c.1 Age will significantly moderate the association between attitude and intention to use new ICT systems.	Rejected
H8a.1 Length of work experience will significantly moderate the association between performance expectancy and intention to use new ICT systems.	Rejected
H8b.1 Length of work experience will significantly moderate the association between effort expectancy and intention to use new ICT systems.	Rejected
H8c.1 Length of work experience will significantly moderate the association between social influence and intention to use new ICT systems.	Rejected
H8d.1 Length of work experience will significantly moderate the association between attitude and intention to use new ICT systems.	Rejected

The summary of results for hypotheses testing for associations between the independent and dependent variables, and for the effects of moderating variables are presented in Table 4.7 above. The study shows that in using new ICT systems for e-government transformation, attitude towards this behavioral intention is the pivotal variable, and that age and length of work experience do not appear as moderating variables. This result is supported by the following commentaries from respondents:

“new ICT systems in this era are needed in running the e-government systems” (Surabaya respondent)

“it should be done because technology development is very fast” (Davao respondent)

Responses to variable indicators

This part presents the responses of the city government employees to the various indicators of the constructs of the study. A five-point Likert-type level of agreement scale, ranging from “Strongly Disagree” to “Strongly Agree”, was used to measure the respondents’ perceptions regarding the constructs.

Table 4.8 Responses to performance expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Tasks would be completed in less time and at less cost		.6	.6	61.9	36.3
2. Set goals and objectives of the department would be achieved			3.1	60.6	36.3
3. Service quality would be enhanced			1.9	53.1	45.0
4. Overall productivity of the department would be increased			6.9	55.0	38.1

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all indicators for performance expectancy (PE). In fact, a large majority of them, with a cumulative percentage of more than 90% for “agree” and “strongly agree”, indicated that using new ICT systems for transformative government would satisfy expectations on the performance of the city government in terms of: completion of tasks in less time and less cost; achievement of set goals and objectives; enhancement of service quality; and, increase in the overall productivity of the department or agency.

Table 4.9 Responses to effort expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Implementing would be easy		1.9	15.6	58.8	23.8
2. Using and adopting would be easy		1.3	15.6	61.3	21.9
3. Interaction with co-workers would be unproblematic		3.1	16.9	56.3	23.1
4. Adjustment would be uncomplicated		3.1	21.3	51.9	23.8

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for effort expectancy (EE). A large majority of them, with a cumulative percentage of more than 70% for “agree” and “strongly agree”, signified that using new ICT systems for transformative government would meet their expectations on the efforts related to it: easy implementation; ease of use and adoption; unproblematic interaction with co-workers; and, uncomplicated adjustment. However, noteworthy is the result that more than 15% of the respondents took a neutral position for all indicators.

Table 4.10 Responses to social influence indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It must be done because other cities are doing it	.6	2.5	13.8	55.0	27.5
2. It must be done because other departments/divisions are doing it		1.3	11.9	54.4	32.5
3. It must be done because citizens expect it		.6	8.8	56.9	33.8
4. It must be done because citizens demand it		2.5	18.1	51.9	26.9

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for social influence (SI). With cumulative percentages for “agree” and “strongly agree” ranging from not less than 70% to not more than 91.7%, a large majority of them believed that using new ICT systems for transformative government must be done because of the following social influences: other cities are doing it; other departments or divisions are doing it; citizens expect it; and that, citizens demand it. It should be noted still that some respondents disagree with the indicator statements.

Table 4.11 Responses to facilitating conditions indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I have the knowledge and skill for it		.6	14.4	56.9	28.1
2. Technical support and assistance would be available		1.3	8.1	62.5	28.1
3. Financial support is available		1.9	8.1	55.6	34.4
4. The city administration supports it		.6	2.5	50.6	46.3

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with the indicators for facilitating conditions (FC). With a cumulative frequency of 85% for “agree” and “strongly agree”, the respondents believed that they have the knowledge and skill for using new ICT systems. Around 91% of them agree and strongly agree that technical support and assistance would be available, while 90% agree and strongly agree that financial support is available. Around 97% of the city government employees believed that the city administration supports the use of new ICT systems.

Table 4.12 Responses to anxiety indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I am hesitant in using or doing it	23.1	52.5	11.9	6.9	5.6
2. I worry that it will not work out as expected	27.5	53.1	8.8	7.5	3.1
3. I feel overwhelmed by it	26.9	53.1	10.0	7.5	2.5
4. I am concerned that citizens will not like it	26.9	52.5	13.8	6.3	.6

N=160

Note: some items have missing responses

Majority of the sample were not anxious about using new ICT systems. Around 86% of them said that they are not hesitant in using or doing it, around 81% believed that it will work out as expected, 80% did not feel overwhelmed by it, and around 79% were not concerned that citizens will not like it. Only a few respondents agreed with or were not sure with the anxiety indicators.

Table 4.13 Responses to attitude indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It is a good idea	.6		2.5	57.5	39.4
2. It is a worthwhile thing to do		1.3	2.5	61.3	34.4
3. I like it			4.4	59.4	35.6
4. It is a nice thing		.6	3.1	61.3	35.0

N=160

Note: some items have missing responses

Majority of the city government employees showed positive attitudes towards using new ICT systems. More than 90% of them believed that it is a good idea; it is a worthwhile thing to do; it is a nice thing to do; and that it is likeable.

Table 4.14 Responses to behavioral intention indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I intend to do it		1.3	8.8	45.6	44.4
2. I predict that I would do it		1.3	8.1	63.8	26.9
3. I plan to do it very soon		1.3	10.0	46.3	42.5

N=160

Note: some items have missing responses

Majority of the sample indicated positive intentions towards using new ICT systems in the city government. Not less than 90% intended to do it and predicted that they would do it. Nearly 89% planned to do it very soon. Only very few are not sure about their intentions.

4.2.1.2 Comparative analysis of model 1 cases: Davao and Surabaya

Descriptive Statistics

The findings in Table 4.15 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 1 for both cities. For performance expectancy (PE), means for all indicators in both cities are above four, indicating the general positive response of the sample. The same indication can be derived from the standard deviations for all indicators, which range from .47284 to .76120.

Means for effort expectancy indicators for Davao are all above four, while standard deviations range from .52819 to .58241, indicating the general agreement to the statements. The means for Surabaya, which are all in the range of three, and standard deviations, ranging from .71016 to .93521, suggest that responses are less positive and more neutral.

There was also a generally positive response to social influence indicators from the Davao sample as shown in the means of above four, and standard deviations ranging from .53835 to .55052 in all indicators. On the other hand, there was a trend from positive to neutral responses in the Surabaya sample as shown by the means ranging from 4.2692 to 3.7949 and standard deviations from .71483 to .98109.

A similar positive trend in responses for facilitating conditions' indicators, with means not going below four and standard deviations ranging from .47712 to .50293, was observed for the Davao sample. While a positive to neutral trend was

observed from the Surabaya sample with means varying between 4.3333 and 3.8974 and standard deviations between .63791 and .77249.

Responses of the Davao sample for the anxiety indicators were generally negative, from disagreement to strong disagreement, as shown in the means which are within the one scale and standard deviations varying from .60324 to .65032. Responses of the Surabaya sample showed a trend from neutrality to disagreement, as shown in the means which are within the two scale and standard deviations varying from .99591 to 1.20722.

Both the Davao and Surabaya sample generally responded positively to the attitude indicators as shown by means which are all within the scale of four. In the same way, samples from both cities revealed their generally positive responses to the behavioral intention indicators which are also all within the scale of four.

Table 4.15 Comparative mean and standard deviation

Construct	Item	Mean		SD	
		Davao	Surabaya	Davao	Surabaya
Performance Expectancy	PE1	4.3293	4.3077	.47284	.76120
	PE2	4.3415	4.3205	.47712	.59202
	PE3	4.3659	4.5000	.48463	.57547
	PE4	4.4024	4.2179	.49341	.67703
Effort Expectancy	EE1	4.2317	3.8462	.52819	.77421
	EE2	4.2317	3.8333	.52819	.71016
	EE3	4.2073	3.7308	.53835	.93521
	EE4	4.2073	3.7051	.58241	.83912
Social Influence	SI1	4.2805	3.7949	.55052	.97180
	SI2	4.2805	4.0769	.55052	.78574
	SI3	4.2073	4.2692	.53835	.71483
	SI4	4.2073	3.8077	.53835	.98109
Facilitating Conditions	FC1	4.3415	3.8974	.47712	.74885
	FC2	4.3537	3.9872	.48105	.69308
	FC3	4.4146	4.0256	.49569	.77249
	FC4	4.5122	4.3333	.50293	.63791
Anxiety	ANX1	1.7805	2.6282	.64835	1.20722
	ANX2	1.7805	2.3462	.60908	1.18241
	ANX3	1.8171	2.3077	.65032	1.13169
	ANX4	1.7927	2.2436	.60324	.99591
Attitude	AT1	4.3171	4.3846	.46820	.70675
	AT2	4.2927	4.2436	.48401	.82471
	AT3	4.2927	4.2821	.48401	.78785
	AT4	4.2805	4.3333	.47854	.63791
Behavioral Intention	BI1	4.4756	4.3333	.52647	.69631
	BI2	4.1951	4.1667	.50769	.61193
	BI3	4.1707	4.2949	.51651	.70451

N= 82 (Davao) 78 (Surabaya)

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant at least at the .050 level (Henseler et al., 2009; Urbach and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. Regression weight values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.16 below presents this analysis.

Table 4.16 Regression weights and hypothesis testing for Davao (D) and Surabaya (S)

Relationship	Standardized regression weight		Hypothesis supported?		Significance (p)	
	D	S	D	S	D	S
PE → BI	-.019	.120	No	No	Ns	Ns
EE → BI	.006	.123	No	No	Ns	Ns
SI → BI	.008	-.099	No	No	Ns	Ns
FC → BI	.105	.067	Yes	No	<0.05	Ns
ANX → BI	.000	-.064	No	No	Ns	Ns
AT → BI	.891	.580	Yes	Yes	<0.001	<0.001
R ² (BI)	.941	.502				

Legend: Ns=not significant

The tests for the regression weights between performance expectancy (PE) and behavioral intention (BI) showed that there is no positive association between the two variables in both Davao and Surabaya. Results also showed that there is no positive association between effort expectancy (EE) and behavioral intention (BI) in both cities. Likewise, there is no positive association between social influence (SI) and behavioral intention (BI). Tests showed that there is a positive association between facilitating conditions (FC) and behavioral intention (BI) in Davao while there is none in Surabaya. Anxiety (ANX) is not negatively associated with behavioral intention (BI) in both cities. Results showed that attitude (AT) is significantly associated with behavioral intention (BI) in Davao and Surabaya, with regression weight values of .891 and .580 respectively. Thus, the study shows that based on the research model, facilitating conditions and attitude are the pivotal factors for using new ICT systems by employees

of the Davao city government. On the other hand, attitude is the only key variable for using new ICT systems by employees of the Surabaya city government.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done by bootstrapping using partial least square structural equation modeling (Hair, et al., 2013). Researchers have suggested an interpretation of effect sizes: from 0.02 as weak, from 0.15 as moderate, and above 0.35 as strong (Henseler and Fassott, 2010). Table 4.17 below summarizes the effects of the variables age and length of work experience.

Table 4.17 Moderating effects and hypothesis testing for Davao (D) and Surabaya (S)

Moderator → Predictor	Standardized regression weight		Moderating effect size (f ²)		Significance (p)		Hypothesis supported?	
	D	S	D	S	D	S	D	S
AGE → EE	-0.519	0.002	0.369	0.000	<0.05	Ns	Yes (-)	No
AGE → ANX	0.592	0.197	0.540	0.040	<0.01	Ns	Yes (+)	No
AGE → AT	-0.451	-0.169	0.255	0.030	<0.05	Ns	Yes (-)	No
LWE → PE	-0.581	0.090	0.511	0.008	<0.05	Ns	Yes (-)	No
LWE → EE	-0.517	0.047	0.366	0.002	<0.05	Ns	Yes (-)	No
LWE → SI	-0.579	-0.063	0.503	0.004	<0.05	Ns	Yes (-)	No
LWE → AT	-0.525	-0.176	0.381	0.032	<0.05	Ns	Yes (-)	No

Legend: Ns=not significant

The tests for moderating effects of age (AGE) revealed that it strongly moderates in the negative direction the relationship between effort expectancy and behavioral intention of the Davao sample. This means that older employees tend to believe that using new ICT systems would require more effort. However, age has no effect on effort expectancy in the case of the Surabaya sample. Age also strongly and positively moderates the effect of anxiety on behavioral intention of the Davao sample, which implies that older employees tend to be anxious about using new ICT systems. Conversely, age has no effect on anxiety for the Surabaya sample. Age strongly moderates in the negative direction the effect of attitude on behavioral intention of the Davao sample as well, which suggests that older employees are likely to show negative attitudes regarding the use of new ICT systems. On the other hand, age does not appear to affect the association between attitude and behavioral intention of Surabaya city

government employees. This could be explained by this study's earlier finding that there are more older employees in Davao compared to Surabaya.

The study found out that length of work experience (LWE) strongly moderates in the negative direction the associations between performance expectancy, effort expectancy, social influence, attitude and behavioral intention of the Davao sample. These findings imply that employees who have worked relatively longer in the Davao city government had a tendency: to believe that using new ICT systems does not necessarily affect the city government's performance positively; to suppose that using new ICT systems would require more effort; to assume that social influences or factors are not important considerations in using new ICT systems; and, to exhibit negative attitudes toward using new ICT systems. On the other hand, the Surabaya city government employees' length of work experience does not affect their beliefs on performance expectancy, suppositions on efforts needed, assumptions on social influences, and attitudes toward using new ICT systems. This could also be explained by the observation that more Davao employees have longer work experience than Surabaya employees and thus, are comparatively older, which makes them inclined to be resistant to new things, such as new ICT systems.

Table 4.18 below shows the summary of hypothesis testing results from the Davao and Surabaya samples for the study's model 1 (using new ICT systems). Results indicate that facilitating conditions and attitude are the crucial factors for using new ICT systems by the Davao city government employees. Moreover, their age appears to be strongly influencing positively the effect of anxiety on their intention to use new ICT systems, at the same it negatively influences the effects of effort expectancy and attitude. Length of work experience was also found out to negatively influence the effects of performance expectancy, effort expectancy, social influence and attitude on the intention to use new ICT systems. On the other hand, attitude seems to be the crucial factor for using new ICT systems by the Surabaya city government employees. Their age and length of work experience do not appear to influence in any manner the effects of predictor variables on the intention to use new ICT systems.

Table 4.18 Comparative summary of hypotheses testing results for model 1

Hypothesis	Result	
	Davao	Surabaya
H1a. Performance expectancy is positively associated with intention to use new ICT systems.	Rejected	Rejected
H2a. Effort expectancy is positively associated with intention to use new ICT systems.	Rejected	Rejected
H3a. Social influence is positively associated with intention to use new ICT systems.	Rejected	Rejected
H4a. Facilitating conditions are positively associated with intention to use new ICT systems.	Accepted	Rejected
H5a. Anxiety is negatively associated with intention to use new ICT systems.	Rejected	Rejected
H6a. Attitude is positively associated with intention to use new ICT systems.	Accepted	Accepted
H7a.1 Age will significantly moderate the association between effort expectancy and intention to use new ICT systems.	Accepted (-)	Rejected
H7b.1 Age will significantly moderate the association between anxiety and intention to use new ICT systems.	Accepted (+)	Rejected
H7c.1 Age will significantly moderate the association between attitude and intention to use new ICT systems.	Accepted (-)	Rejected
H8a.1 Length of work experience will significantly moderate the association between performance expectancy and intention to use new ICT systems.	Accepted (-)	Rejected
H8b.1 Length of work experience will significantly moderate the association between effort expectancy and intention to use new ICT systems.	Accepted (-)	Rejected
H8c.1 Length of work experience will significantly moderate the association between social influence and intention to use new ICT systems.	Accepted (-)	Rejected
H8d.1 Length of work experience will significantly moderate the association between attitude and intention to use new ICT systems.	Accepted (-)	Rejected

Responses to variable indicators

This part presents in a comparative manner the responses of the Davao and Surabaya samples to the indicators of variables in the research model.

Table 4.19 Responses to performance expectancy indicators (in %)

City	Response	Indicator statement			
		1. Tasks would be completed in less time and at less cost	2. Set goals and objectives of the department would be achieved	3. Service quality would be enhanced	4. Overall productivity of the department would be increased
Davao	SD				
Surabaya					
Davao	D				
Surabaya		1.3			
Davao	N				
Surabaya		1.3	6.4	3.8	14.1
Davao	A	67.1	65.9	63.4	59.8
Surabaya		56.4	55.1	42.3	50.0
Davao	SA	32.9	34.1	36.6	40.2
Surabaya		39.7	38.5	53.8	35.9

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

All of the Davao sample, with a cumulative 100% response for “agree” and “strongly agree”, believe that using new ICT systems would result to completion of tasks in less time and at less cost. Almost all of the Surabaya sample, with a cumulative 96.1% response for “agree” and “strongly agree”, also believe that using new systems would meet expectations of efficiency and effectiveness.

All of the Davao sample or 100% believe that using new ICT systems would help achieve the set goals and objectives of the department or agency. Likewise, a large majority or 93.6% of the Surabaya sample believes that using new systems would meet performance expectations in terms of achieving the department’s or agency’s goals and objectives.

All of the Davao sample or 100% believe that using new ICT systems would enhance the quality of their service. A large majority of the Surabaya sample or 96.1% similarly believes that using new ICT systems would enhance the service quality of their department in particular and the city government in general.

All of the Davao sample or 100% believe that using new ICT systems would increase the productivity of their department, while a large majority or 85.9% of the Surabaya sample also believe that using new ICT systems would enhance their respective department’s output.

These results clearly show that majority of the employees in the city governments of Davao and Surabaya believe that using new ICT systems would meet all the performance expectancy indicators.

Table 4.20 Responses to effort expectancy indicators (in %)

City	Response	Indicator statement			
		1. Implementing would be easy	2. Using and adopting would be easy	3. Interaction with co-workers would be unproblematic	4. Adjustment would be uncomplicated
Davao	SD				
Surabaya					
Davao	D				1.2
Surabaya		3.8	2.6	6.4	5.1
Davao	N	4.9	4.9	6.1	4.9
Surabaya		26.9	26.9	28.2	38.5
Davao	A	67.1	67.1	67.1	65.9
Surabaya		50.0	55.1	44.9	37.2
Davao	SA	28.0	28.0	26.8	28.0
Surabaya		19.2	15.4	19.2	19.2

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 95.1% response for “agree” and “strongly agree”, consider that using new ICT systems would be easy to implement. Also, a majority of the Surabaya sample, with a cumulative 69.2% response for “agree” and “strongly agree”, consider using new ICT systems would be easy to implement.

Likewise, majority of the Davao sample (95.1%) and Surabaya sample (70.5%) consider the use and adoption of new ICT systems to be easy.

Interaction with co-workers in the new ICT systems’ use environment would be unproblematic according to majority of the Davao sample (93.9%) and majority of the Surabaya sample (64.1%).

Adjustment to the new ICT systems’ use setting would be uncomplicated according to majority of the Davao sample (93.9%) and Surabaya sample (56.4%).

A notable result in this regard is that some Surabaya respondents, from 26.9% to 38.5% of the sample, are not sure about the effort expectancy indicators, as compared to a very few Davao respondents.

The results presented above indicate that majority of the Davao and Surabaya city government employees find using of new ICT systems to be relatively easy in terms of the effort expectancy indicators.

Table 4.21 Responses to social influence indicators (in %)

City	Response	Indicator statement			
		1. It must be done because other cities are doing it	2. It must be done because other departments or divisions are doing it	3. It must be done because citizens expect it	4. It must be done because citizens demand it
Davao	SD				
Surabaya		1.3			
Davao	D				
Surabaya		5.1	2.6	1.3	5.1
Davao	N	4.9	4.9	6.1	6.1
Surabaya		23.1	19.2	11.5	30.8
Davao	A	62.2	62.2	67.1	67.1
Surabaya		47.4	46.2	46.2	35.9
Davao	SA	32.9	32.9	26.8	26.8
Surabaya		21.8	32.1	41.0	26.9

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 95.1% response to “agree” and “strongly agree”, and majority too of the Surabaya sample, with a cumulative 69.2% response to “agree” and “strongly agree”, are convinced that using new ICT systems must be done because other cities are doing it.

Because other departments or divisions are doing it, majority of the Davao sample (95.1%) and Surabaya sample (78.3%) are convinced as well that using new ICT systems must be done also.

Majority of the Davao sample (93.9%) and Surabaya sample (87.2%) are similarly convinced that using new ICT systems must be done because citizens expect it. Moreover, majority of the Davao and Surabaya samples, with 93.9% and 62.8% respectively, are also convinced that citizens demand for new ICT systems to be used in the city government.

Although not significant but worth noting are the findings that some Surabaya respondents, from 11.5% to 30.8% of the sample, are not sure about the social influence

indicators. Also, a few Davao respondents, from 4.9% to 6.1% of the sample, are not sure of the social influence indicators either.

The study's findings suggest that majority of the city government employees of Davao and Surabaya find the social influence indicators to be relatively convincing for them to use new ICT systems.

Table 4.22 Responses to facilitating conditions indicators (in %)

City	Response	Indicator statement			
		1. I have the knowledge and skill for it	2. Technical support and assistance would be available	3. Financial support is available	4. The city administration supports it
Davao	SD				
Surabaya					
Davao	D				
Surabaya		1.3	2.6	3.8	1.3
Davao	N				
Surabaya		29.5	16.7	16.7	5.1
Davao	A	65.9	54.6	58.5	48.8
Surabaya		47.4	60.3	52.6	52.6
Davao	SA	34.1	35.4	31.5	51.2
Surabaya		21.8	20.5	26.9	41.0

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

All of the Davao sample, with a cumulative 100% response to “agree” and “strongly agree”, are certain that they have the knowledge and skill for using new ICT systems. Majority of the Surabaya sample, with a cumulative 69.2% response to “agree” and “strongly agree”, are also certain that they are knowledgeable and skillful enough for using new ICT systems.

All of the Davao sample (100%) and majority of the Surabaya sample (80.8%) are likewise certain that technical support and assistance would be available for the use of new ICT systems. Besides, all of the Davao sample (100%) and majority of the Surabaya sample (79.5%) are certain as well that financial support would be available.

All of the Davao sample (100%) and majority of the Surabaya sample (93.6%) are similarly certain that their respective city administrations support the use of new ICT systems in the city government.

It must be mentioned that the results show some Surabaya respondents as being not sure about the facilitating conditions indicators, from 5.1% up to 29.5% of the sample.

Nevertheless, the study revealed that majority of the government employees are certain that the indicators for facilitating conditions in the use of new ICT systems are present in their respective city governments.

Table 4.23 Responses to anxiety indicators (in %)

City	Response	Indicator statement			
		1. I am hesitant in using or doing it	2. I worry that it will not work out as expected	3. I feel overwhelmed by it	4. I am concerned that citizens will not like it
Davao	SD	30.5	29.3	28.0	28.0
Surabaya		15.4	25.6	25.6	25.6
Davao	D	64.6	65.9	65.9	67.1
Surabaya		39.7	39.7	39.7	37.2
Davao	N	1.2	2.4	2.4	2.4
Surabaya		23.1	15.4	17.9	25.6
Davao	A	3.7	2.4	3.7	2.4
Surabaya		10.3	12.8	11.5	10.3
Davao	SA				
Surabaya		11.5	6.4	5.1	1.3

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 95.1% response for “disagree” and “strongly disagree”, are confident that they are not hesitant in using new ICT systems. Majority of the Surabaya sample too, with a cumulative 55.1% response to “disagree” and “strongly disagree”, are confident that they would not hesitate in using new ICT systems.

Majority of the Davao sample (95.2%) and the Surabaya sample (65.3%) are not worried that using new ICT systems will not work out as expected. Nor do they feel overwhelmed by it according to the majority of Davao respondents (93.9%) and Surabaya respondents (65.3%).

In addition, majority of the Davao sample (95.1%) and Surabaya sample (62.8%) are not concerned that citizens will not like the use of new ICT systems in the city government.

Despite the abovementioned findings, some respondents from both cities still expressed their neutrality and agreement on the anxiety indicators. Nonetheless, the study showed that majority of the city government employees in Davao and Surabaya are confident that anxiety indicators do not affect their intention to use new ICT systems in the government.

Table 4.24 Responses to attitude indicators (in %)

City	Response	Indicator statement			
		1. It is a good idea	2. It is a worthwhile thing to do	3. I like it	4. It is a nice thing
Davao	SD				
Surabaya		1.3			
Davao	D				
Surabaya			2.6		1.3
Davao	N		1.2	1.2	1.2
Surabaya		5.1	3.8	7.7	5.1
Davao	A	68.3	68.3	68.3	69.5
Surabaya		46.2	53.8	50.0	52.6
Davao	SA	31.7	30.5	30.5	29.3
Surabaya		47.4	38.5	41.0	41.0

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

All of the Davao sample, with a cumulative 100% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 93.6% response to “agree” and “strongly agree”, believe that using new ICT systems is a good idea.

Using new ICT systems is a worthwhile thing to do according to majority of Davao respondents (98.8%) and majority of Surabaya respondents (92.3%). Moreover, majority of the Davao sample (98.8%) and Surabaya sample (91.0%) signified that they like using new ICT systems. Majority of the Davao sample (98.8%) and Surabaya sample (93.6%) also believe that using new ICT systems is a nice thing.

The study’s findings thus indicate that majority of the government employees of Davao and Surabaya manifest positive attitudes with regard to the use of new ICT systems in their respective city governments.

Table 4.25 Responses to behavioral intention indicators (in %)

City	Response	Indicator statement		
		1. I intend to do it	2. I predict that I would do it	3. I plan to do it very soon
Davao	SD			
Surabaya				
Davao	D			
Surabaya		1.3	1.3	1.3
Davao	N	1.2	4.9	6.1
Surabaya		9.0	7.7	10.3
Davao	A	50.0	70.7	70.7
Surabaya		44.9	64.1	46.2
Davao	SA	48.8	24.4	23.2
Surabaya		44.9	26.9	42.3

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 98.8% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 89.8% response to “agree” and “strongly agree”, expressed that they intend to use new ICT systems. Also, majority of Davao respondents (95.1%) and majority of Surabaya respondents (91.0%) predicted that they would use new ICT systems. Likewise, majority of them, 93.9% for Davao and 88.5% for Surabaya, conveyed that they plan to use new ICT systems very soon.

The study clearly revealed that majority of the Davao and Surabaya city government employees affirmed their intention to use new ICT systems in their respective city governments.

4.2.2.1 Aggregate analysis for model 2: intention to adopt process redesign

Descriptive statistics

The findings in Table 4.26 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 2. Mean values for all performance expectancy (PE) indicators are above four and standard deviations range from .75546 to .83626 indicating that there is general agreement to the items. There is a general trend of agreement to neutrality for all effort expectancy (EE) indicators and social influence indicators (except for SI3) as the mean values are within three scale and standard deviations vary between .77234 and .97272. The same general trend of

agreement to neutrality for facilitating conditions is suggested by the indicators' mean values, which are between 4.1750 and 3.9063, and standard deviations which are between .75974 and .80425. Mean values which are within the scale of two and standard deviations between .91451 and 1.05208 signify the overall trend of negative responses to all anxiety indicators. While for attitude indicators, mean values all within the scale of four and standard deviations varying between .73199 and .80525 point to an overall positive response tendency. There is an overall trend of agreement to neutrality for behavioral intention indicators, evidenced by mean values from 4.0188 to 3.8813 and standard deviations ranging from .81936 to .96997.

Table 4.26 Mean and standard deviation for items in model 2 (N=160)

Construct	Item	Mean	SD
Performance Expectancy	PE1	4.0562	.81840
	PE2	4.1188	.75546
	PE3	4.1063	.83626
	PE4	4.0625	.77450
Effort Expectancy	EE1	3.8437	.77335
	EE2	3.8438	.77335
	EE3	3.8062	.85043
	EE4	3.8188	.82319
Social Influence	SI1	3.8313	.97272
	SI2	3.9750	.82378
	SI3	4.0312	.77234
	SI4	3.8813	.90680
Facilitating Conditions	FC1	3.9063	.79144
	FC2	3.9625	.75974
	FC3	4.0312	.80425
	FC4	4.1750	.77338
Anxiety	ANX1	2.3062	1.05208
	ANX2	2.1937	1.03095
	ANX3	2.1375	.91451
	ANX4	2.1625	.95751
Attitude	AT1	4.1625	.79216
	AT2	4.1250	.79898
	AT3	4.0750	.80525
	AT4	4.1063	.73199
Behavioral Intention	BI1	4.0188	.93480
	BI2	3.8813	.81936
	BI3	3.9063	.96997

Reliability and validity analysis

Table 4.27 below presents the results of the reliability analysis applying Cronbach's alpha, which signifies the internal consistency of indicator items that

measure the same construct. A minimum Cronbach's alpha value of 0.70 indicate reliability and validity of constructs (Nunnally, 1978). The alpha values of the constructs range from .884 to .931, which means that all constructs have shown high reliability level.

Table 4.27 Reliability analysis of constructs (N=160)

Construct	Number of items	Cronbach's alpha α	Reliability type
Performance Expectancy	4	.931	High
Effort Expectancy	4	.915	High
Social Influence	4	.860	High
Facilitating Conditions	4	.887	High
Anxiety	4	.914	High
Attitude	4	.914	High
Behavioral Intention	3	.884	High

Discriminant validity of the variables was tested by calculating the covariance estimates between pairs of variables in the model (Anderson and Gerbing, 1988). The covariance between a pair of variables should be less than the square root of the average variance extracted (shown diagonally in bold numbers in Table 4.28 below) of each variable. A variable is believed to be different from other variables if the square root of average variance extracted for it is greater than its correlations with other variables (Barclay and Smith, 1997). For instance, the covariance between PE and EE is 5.274, which is less than the square root of average variance extracted for PE (8.351) and EE (8.202). Hence, PE is different from EE, or in other words, there is discriminant validity between both variables. All variables in model 2 passed this test.

Table 4.28 Covariances of variables in model 2

Variable	PE	EE	SI	FC	ANX	AT	BI
PE	8.351						
EE	5.274	8.202					
SI	6.584	5.813	8.427				
FC	6.174	5.458	6.190	7.269			
ANX	-2.550	-3.006	-3.188	-2.710	12.322		
AT	5.645	4.560	6.288	5.740	-2.756	7.737	
BI	5.153	3.437	5.142	4.554	-1.931	5.174	5.265

Structural model test

The test of the research model fit was done using the following fit indices: incremental fit index (IFI); comparative fit index (CFI); goodness-of-fit-index (GFI); and, root mean square residual (RMR), all of which were estimated by Amos. Table 4.29 below summarizes the model fit test.

Table 4.29 Model fit results for model 2

Index	Recommended value	Model value
Incremental fit index (IFI)	≥ 0.900	1.000
Comparative fit index (CFI)	≥ 0.900	1.000
Goodness-of-fit index (GFI)	≥ 0.950	1.000
Root mean square residual (RMR)	≤ 0.04	.000

The results show that the research model passed all fit indices with relatively high competences, evidenced by the model values exceeding the recommended values. It is now consequential to assess the regression weights of variables corresponding to the hypotheses of the study.

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant (p value) at least at the .050 level (Henseler et al., 2009; Urbach and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. The coefficient of determination (R^2) values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.30 below presents this analysis.

Table 4.30 Regression weights and hypothesis testing for model 2

Relationship	Standardized regression weight	Hypothesis supported?	Significance (p)
PE → BI	.347	Yes	<0.001
EE → BI	-.131	No	<0.05
SI → BI	.208	Yes	<0.01
FC → BI	.055	No	Ns
ANX → BI	.014	No	Ns
AT → BI	.442	Yes	<0.001
R ² (BI)	.757		

Legend: Ns=not significant

Findings shown in Table 4.30 above reveal that among all six independent variables, only performance expectancy (PE), social influence (SI) and attitude (AT) had impact on intention to adopt process redesign. Among these three pivotal variables, attitude has the highest regression weight value, followed by performance expectancy and social influence.

An interesting find here is the negative regression weight value between effort expectancy (EE) and behavioral intention (BI), with a significant p value of <0.05. This means that negative responses to effort expectancy indicators lead to negative responses to behavioral intention indicators. The finding that the R² value of BI, which is .757, suggests that the independent variables account for about 76% of the variance in BI. In other words, the independent variables in the model can substantially explain 76% of the BI, and the other 23% can be explained by other variables.

Three hypotheses for model 2 are supported by the findings: that performance expectancy, social influence, and attitude are positively associated with intention to adopt process redesign. The findings do not support the other hypotheses.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done using bootstrapping procedure in PLS structural equation modeling. Researchers have suggested an interpretation of effect sizes: from 0.02 as weak, from 0.15 as moderate, and above 0.35 as strong (Henseler

and Fassott, 2010). Table 4.31 below summarizes the effects of the variables age and length of work experience.

Table 4.31 Moderating effects and hypothesis testing for model 2

Moderator→ Predictor	Standardized regression weight	Moderating effect size (f^2)	Significance (p)	Hypothesis supported?
AGE → EE	-0.252	0.068	Ns	No
AGE → ANX	0.369	0.158	Ns	No
AGE → AT	-0.267	0.077	Ns	No
LWE → PE	-0.142	0.021	Ns	No
LWE → EE	-0.245	0.064	Ns	No
LWE → SI	-0.188	0.037	Ns	No
LWE → AT	-0.322	0.115	Ns	No

Legend: Ns=not significant

All the hypotheses for moderating effects of the variables age (AGE) and length of work experience (LWE) on certain independent variables are not supported by the results. Even though regression weight values in some moderator-predictor relationships are significant (both in positive and negative directions): i.e. AGE→EE (-0.252), AGE→ANX (0.369), AGE→AT (-0.267), LWE→PE (-0.142), LWE-EE (-0.245), LWE→SI (-0.188), and LWE→AT (-0.322); their moderating effect sizes (f^2) are not statistically significant. Thus, age and length of work experience of the city government employees did not moderate the associations of independent and dependent variables in model 2.

The summary of results for hypotheses testing for associations between the independent and dependent variables, and for the effects of moderating variables are presented in Table 4.32 below. The study shows that in adopting process redesign for e-government transformation, performance expectancy, social influence and attitude towards this behavioral intention are the pivotal variables. Age and length of work experience do not appear as moderating variables. Substantiating these results are the following remarks of respondents:

“using the system makes it more efficient” (Surabaya respondent)

“it’s more effective and efficient, nowadays everything need to be fast” (Davao respondent)

“the fast and easy process of public services is the fundamental thing for efficiency and optimizing the output of information that are needed by the citizens” (Surabaya respondent)

“The number of population that keep increasing means that the level of demand is also increasing. With the technology nowadays, it will be a waste if we cannot use it well.” (Davao respondent)

Table 4.32 Summary of hypotheses testing results for model 2

Hypothesis	Result
H1b. Performance expectancy is positively associated with intention to adopt process redesign.	Accepted
H2b. Effort expectancy is positively associated with intention to adopt process redesign.	Rejected
H3b. Social influence is positively associated with intention to adopt process redesign.	Accepted
H4b. Facilitating conditions are positively associated with intention to adopt process redesign.	Rejected
H5b. Anxiety is negatively associated with intention to adopt process redesign. adopt process redesign.	Rejected
H6b. Attitude is positively associated with intention to adopt process redesign.	Accepted
H7a.2 Age will significantly adopt process redesign. moderate the association between effort expectancy and intention to adopt process redesign.	Rejected
H7b.2 Age will significantly moderate the association between anxiety and intention to adopt process redesign.	Rejected
H7c.2 Age will significantly moderate the association between attitude and intention to adopt process redesign.	Rejected
H8a.2 Length of work experience will significantly moderate the association between performance expectancy and intention to adopt process redesign.	Rejected
H8b.2 Length of work experience will significantly moderate the association between effort expectancy and intention to adopt process redesign.	Rejected
H8c.2 Length of work experience will significantly moderate the association between social influence and intention to adopt process redesign.	Rejected
H8d.2 Length of work experience will significantly moderate the association between attitude and intention to adopt process redesign.	Rejected

Responses to variable indicators

Table 4.33 Responses to performance expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Tasks would be completed in less time and at less cost	.6	2.5	13.1	55.0	28.1
2. Set goals and objectives of the department would be achieved	.6	1.9	7.5	61.9	27.5
3. Service quality would be enhanced		1.3	13.8	51.9	31.9
4. Overall productivity of the department would be increased	.6	1.3	13.1	58.1	26.3

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all indicators for performance expectancy (PE). A large majority of them, with a cumulative percentage of not less than 83.1% for “agree” and “strongly agree”, indicated that adopting process redesign would satisfy expectations on the performance of the city government in terms of: completion of tasks in less time and less cost; achievement of set goals and objectives; enhancement of service quality; and, increase in the overall productivity of the department or agency.

Table 4.34 Responses to effort expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Implementing would be easy		3.1	23.1	56.9	16.3
2. Using and adopting would be easy		3.8	21.3	58.8	15.6
3. Interaction with co-workers would be unproblematic		3.8	23.8	54.4	16.9
4. Adjustment would be uncomplicated		4.4	25.0	51.8	18.1

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for effort expectancy (EE). With a cumulative percentage of not less than 69.9% for “agree” and “strongly agree”, majority of the sample signified that adopting process redesign would meet their expectations on the efforts related to it such as: easy implementation; ease of use and adoption; unproblematic interaction with co-workers; and, uncomplicated

adjustment. However, the result that between 21.3% and 25% of the respondents took a neutral position for all indicators is worth noting.

Table 4.35 Responses to social influence indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It must be done because other cities are doing it	.6	5.6	17.5	53.1	21.3
2. It must be done because other departments/divisions are doing it		1.3	18.8	55.0	23.8
3. It must be done because citizens expect it		1.3	18.1	53.8	26.3
4. It must be done because citizens demand it		4.4	21.9	48.8	23.8

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for social influence (SI). With cumulative percentages for “agree” and “strongly agree” ranging from not less than 72.6% to not more than 80.1%, a large majority of them believed that adopting process redesign must be done because of the following social influences: other cities are doing it; other departments or divisions are doing it; citizens expect it; and that, citizens demand it. It should be noted that some respondents disagree with the indicator statements, and between 17.5% to 21.9% are neutral on the indicators.

Table 4.36 Responses to facilitating conditions indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I have the knowledge and skill for it	.6	1.3	22.5	55.0	20.0
2. Technical support and assistance would be available		3.1	15.0	61.3	20.0
3. Financial support is available		3.8	13.1	56.3	26.3
4. The city administration supports it		1.9	10.6	52.5	34.4

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with the indicators for facilitating conditions (FC). With a cumulative response of 75.0% for “agree” and “strongly agree”, the respondents believed that they have the knowledge and skill for adopting process redesign. Around 81% of them agree and strongly agree that technical support and assistance would be available, while approximately 83% agree and strongly

agree that financial support is available. Around 87% of the city government employees believed that the city administration supports the adoption of process redesign. In spite of these, between 10.6% to 22.5% are undecided about the indicators.

Table 4.37 Responses to anxiety indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I am hesitant in using or doing it	20.6	44.4	20.0	10.6	3.8
2. I worry that it will not work out as expected	25.0	43.8	18.8	8.8	3.1
3. I feel overwhelmed by it	23.8	46.3	20.6	8.1	.6
4. I am concerned that citizens will not like it	24.4	44.4	20.6	8.8	1.3

N=160

Note: some items have missing responses

Majority of the sample were not anxious about adopting process redesign. Around 65% of them said that they are not hesitant in doing it, around 69% believed that it will work out as expected, about 70% did not feel overwhelmed by it, and around 69% were not concerned that citizens will not like it. A few respondents agreed with the indicators, suggesting that they are relatively anxious with the behavioral intention. Between 18.8% and 20.6% of the sample were not sure with the anxiety indicators.

Table 4.38 Responses to attitude indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It is a good idea	.6	1.9	8.8	55.0	33.1
2. It is a worthwhile thing to do		1.3	10.0	57.5	30.0
3. I like it		.6	14.4	55.6	28.1
4. It is a nice thing		.6	13.8	56.9	28.1

N=160

Note: some items have missing responses

Majority of the respondents showed positive attitudes towards adopting process redesign. About 88% of them believed that it is a good idea; about 87% think that it is a worthwhile thing to do; about 84% agree that it is likeable; and, 85% indicate that it is a nice thing to do.

Table 4.39 Responses to behavioral intention indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I intend to do it	1.3	2.5	15.0	49.4	30.6
2. I predict that I would do it		3.8	16.3	61.9	16.9
3. I plan to do it very soon	1.3	2.5	24.4	41.9	28.8

N=160

Note: some items have missing responses

Majority of the sample indicated positive intentions towards adopting process redesign in the city government. Not less than 79% intended to do it and predicted that they would do it, while about 71% planned to do it very soon. A few respondents, between 15.0% and 24.4%, are not sure about their intentions.

4.2.2.2 Comparative analysis of model 2 cases: Davao and Surabaya

Descriptive statistics

The findings in Table 4.40 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 2. There is a general trend of agreement by the Davao sample to all performance expectancy (PE) indicators shown by mean values which are all in the scale of four and standard deviations between .46319 and .47712. On the other hand, mean values ranging from 3.9231 to 3.7692 and standard deviations between .91059 and 1.04103 show the general trend of positive to neutral responses from the Surabaya sample to the performance expectancy indicators.

The same trend of generally positive responses to effort expectancy (EE) indicators from the Davao sample is observed from the mean values which are all within the scale of four and standard deviations ranging from .63248 to .65447. Likewise, the same trend of generally positive to neutral responses from the Surabaya sample can be observed from the mean values which are all in the scale of three and standard deviations ranging from .81415 to .94996 for the effort expectancy indicators.

Responses for social influence (SI) and facilitating conditions (FC) indicators from the Davao sample reveal the similar overall positive tendency, the mean values of which are all within the scale of four and standard deviations all within the .5 measure. While the similar overall positive to neutral tendency of responses from the Surabaya sample to indicators for social influence and facilitating conditions can be observed

from the mean values which are all within the scale of three and standard deviations measured from .90444 to 1.19244.

Table 4.40 Comparative mean and standard deviation

Construct	Item	Mean		SD	
		Davao	Surabaya	Davao	Surabaya
Performance Expectancy	PE1	4.3049	3.7949	.46319	1.01109
	PE2	4.3049	3.9231	.46319	.93655
	PE3	4.3415	3.8590	.47712	1.04103
	PE4	4.3415	3.7692	.47712	.91059
Effort Expectancy	EE1	4.0976	3.5769	.64040	.81415
	EE2	4.0976	3.5769	.64040	.81415
	EE3	4.0854	3.5128	.63248	.94996
	EE4	4.0610	3.5641	.65447	.90582
Social Influence	SI1	4.1585	3.4872	.53216	1.19244
	SI2	4.1585	3.7821	.53216	1.01479
	SI3	4.1220	3.9359	.55311	.94443
	SI4	4.1220	3.6282	.55311	1.11785
Facilitating Conditions	FC1	4.1707	3.6282	.51651	.92735
	FC2	4.1829	3.7308	.50008	.90702
	FC3	4.2683	3.7821	.54544	.94865
	FC4	4.3537	3.9872	.57461	.90444
Anxiety	ANX1	1.9634	2.6667	.82320	1.14718
	ANX2	2.0000	2.3974	.83148	1.17705
	ANX3	2.0244	2.2564	.84584	.97282
	ANX4	2.0244	2.3077	.84584	1.04828
Attitude	AT1	4.2805	4.0385	.47854	1.01216
	AT2	4.2073	4.0385	.53835	.99925
	AT3	4.1707	3.9744	.58383	.97999
	AT4	4.1707	4.0385	.58383	.85951
Behavioral Intention	BI1	4.4146	4.0128	.52000	.94654
	BI2	4.0854	3.8718	.52590	.82744
	BI3	4.0732	3.8974	.56175	.97488

N= 82 (Davao) 78 (Surabaya)

For anxiety (ANX) indicators, both Davao and Surabaya samples exhibited generally negative responses as can be made out from the mean values which vary between 2.6667 and 1.9634 and standard deviations which vary between .82320 and 1.17705.

There is a general positive response to attitude (AT) indicators from the Davao sample as shown by mean values all within the scale of four and standard deviations from .47854 to .58383, while there is a general positive to neutral response to attitude indicators from the Surabaya sample as shown by mean values that are between 4.0385 and 3.9744 and standard deviations from .85951 to .99925.

Responses from the Davao sample on behavioral intention (BI) indicators are generally positive, with all mean values in the scale of four and standard deviations from .52000 to .56175, whereas responses from the Surabaya sample are generally positive to neutral as shown by mean values ranging from 4.0128 to 3.8718 and standard deviations from .82744 to .97488.

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant at least at the .050 level (Henseler et al, 2009; Urbach and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. Regression weight values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.41 below presents this analysis.

Table 4.41 Regression weights and hypothesis testing for Davao (D) and Surabaya (S)

Relationship	Standardized regression weight		Hypothesis supported?		Significance (p)	
	D	S	D	S	D	S
PE → BI	.172	.361	Yes	Yes	<0.05	<0.001
EE → BI	-.046	-.153	No	No	Ns	Ns
SI → BI	.085	.219	No	No	Ns	Ns
FC → BI	.080	.080	No	No	Ns	Ns
ANX → BI	.002	.019	No	No	Ns	Ns
AT → BI	.642	.401	Yes	Yes	<0.001	<0.001
R ² (BI)	.800	.741				

Legend: Ns=not significant

The tests for the regression weights between performance expectancy (PE) and behavioral intention (BI) showed that there is positive association between the two variables in both Davao and Surabaya, with regression weights of .172 and .361 respectively. Results also showed that there is no positive association between effort expectancy (EE) and behavioral intention (BI) in both cities. Likewise, there is no positive association between social influence (SI) and behavioral intention (BI). Tests also showed that there is no positive association between facilitating conditions (FC)

and behavioral intention (BI) in Davao and Surabaya. Anxiety (ANX) is not negatively associated with behavioral intention (BI) in both cities. Results showed that attitude (AT) is significantly associated with behavioral intention (BI) in Davao and Surabaya, with regression weight values of .642 and .401 respectively. Thus, the study shows that based on the research model, performance expectancy and attitude are the pivotal factors for adopting process redesign by employees of the Davao and Surabaya city governments.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done using bootstrapping technique in partial least square SEM. Researchers have suggested an interpretation of effect sizes: from 0.02 as weak, from 0.15 as moderate, and above 0.35 as strong (Henseler and Fassott, 2010). Table 4.42 below summarizes the effects of the variables age and length of work experience.

Table 4.42 Moderating effects and hypothesis testing for Davao (D) and Surabaya (S)

Moderator → Predictor	Standardized regression weight		Moderating effect size (f ²)		Significance (p)		Hypothesis supported?	
	D	S	D	S	D	S	D	S
AGE → EE	-0.573	-0.087	0.489	0.008	<0.01	Ns	Yes (-)	No
AGE → ANX	0.613	0.191	0.601	0.038	<0.01	Ns	Yes (+)	No
AGE → AT	-0.490	-0.162	0.316	0.027	<0.05	Ns	Yes (-)	No
LWE → PE	-0.538	-0.079	0.406	0.006	<0.05	Ns	Yes (-)	No
LWE → EE	-0.534	-0.187	0.398	0.036	<0.01	Ns	Yes (-)	No
LWE → SI	-0.570	-0.126	0.482	0.016	<0.05	Ns	Yes (-)	No
LWE → AT	-0.551	-0.198	0.436	0.055	<0.05	Ns	Yes (-)	No

Legend: Ns=not significant

The tests for moderating effects of age (AGE) revealed that it strongly moderates in the negative direction the relationship between effort expectancy and behavioral intention of the Davao sample. This means that older employees tend to believe that adopting process redesign would require more effort. However, age has no effect on effort expectancy in the case of the Surabaya sample. Age also strongly and positively moderates the effect of anxiety on behavioral intention of the Davao sample, which implies that older employees tend to be anxious about adopting process redesign.

Conversely, age has no effect on anxiety for the Surabaya sample. Age moderately affects in the negative direction the association of attitude on behavioral intention of the Davao sample, which suggests that older employees are likely to show negative attitudes regarding the adoption of process redesign. On the other hand, age does not appear to affect the association between attitude and behavioral intention of Surabaya city government employees.

The study found out that length of work experience (LWE) strongly moderates in the negative direction the associations between performance expectancy, effort expectancy, social influence, attitude and behavioral intention of the Davao sample. These findings imply that employees who have worked relatively longer in the Davao city government had a tendency: to believe that adopting process redesign does not necessarily affect the city government's performance positively; to suppose that adopting process redesign would require more effort; to assume that social influences or factors are not important considerations in adopting process redesign; and, to exhibit negative attitudes toward adopting process redesign. On the other hand, the Surabaya city government employees' length of work experience does not affect their beliefs on performance expectancy, suppositions on efforts needed, assumptions on social influences, and attitudes toward adopting process redesign. Again, these results could be rationalized by this study's prior finding that more Davao employees are older and have longer work experience than Surabaya employees.

Below is Table 4.43 showing the summary of hypothesis testing results from the Davao and Surabaya samples for the study's model 2 (adopting process redesign). Results indicate that performance expectancy and attitude are the pivotal variables which predict the intention of Davao and Surabaya city government employees to adopt process redesign. Age is shown to have a strong positive moderating effect on the influence of anxiety, and strong and moderate negative effects, respectively, on the influence of effort expectancy and attitude on intention of Davao city government employees. Their length of work experience turns out to have strong negative moderating effects on the influence of performance expectancy, effort expectancy, social influence and attitude on intention to adopt process redesign. On the contrary, both age and length of work experience of Surabaya city government employees do not affect in any way the predictor variables of intention to adopt process redesign.

Table 4.43 Comparative summary of hypotheses testing results for model 2

Hypothesis	Result	
	Davao	Surabaya
H1b. Performance expectancy is positively associated with intention to adopt process redesign.	Accepted	Accepted
H2b. Effort expectancy is positively associated with intention to adopt process redesign.	Rejected	Rejected
H3b. Social influence is positively associated with intention to adopt process redesign.	Rejected	Rejected
H4b. Facilitating conditions are positively associated with intention to adopt process redesign.	Rejected	Rejected
H5b. Anxiety is negatively associated with intention to adopt process redesign.	Rejected	Rejected
H6b. Attitude is positively associated with intention to adopt process redesign.	Accepted	Accepted
H7a.2 Age will significantly moderate the association between effort expectancy and intention to adopt process redesign.	Accepted (-)	Rejected
H7b.2 Age will significantly moderate the association between anxiety and intention to adopt process redesign.	Accepted (+)	Rejected
H7c.2 Age will significantly moderate the association between attitude and intention to adopt process redesign.	Accepted (-)	Rejected
H8a.2 Length of work experience will significantly moderate the association between performance expectancy and intention to adopt process redesign.	Accepted (-)	Rejected
H8b.2 Length of work experience will significantly moderate the association between effort expectancy and intention to adopt process redesign.	Accepted (-)	Rejected
H8c.2 Length of work experience will significantly moderate the association between social influence and intention to adopt process redesign.	Accepted (-)	Rejected
H8d.2 Length of work experience will significantly moderate the association between attitude and intention to adopt process redesign.	Accepted (-)	Rejected

Responses to variable indicators

Table 4.44 Responses to performance expectancy indicators (in %)

City	Response	Indicator statement			
		1. Tasks would be completed in less time and at less cost	2. Set goals and objectives of the department would be achieved	3. Service quality would be enhanced	4. Overall productivity of the department would be increased
Davao	SD				
Surabaya		1.3	1.3		1.3
Davao	D				
Surabaya		5.1	3.8	2.6	2.6
Davao	N				
Surabaya		26.9	15.4	28.2	26.9
Davao	A	69.5	69.5	65.9	65.9
Surabaya		39.7	53.8	37.2	50.0
Davao	SA	30.5	30.5	34.1	34.1
Surabaya		25.6	24.4	29.5	17.9

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

All of the Davao sample, with a cumulative 100% response for “agree” and “strongly agree”, believe that adopting process redesign would result to completion of tasks in less time and at less cost. Majority of the Surabaya sample, with a cumulative 65.3% response for “agree” and “strongly agree”, also believe that adopting process redesign would meet expectations of efficiency and effectiveness.

All of the Davao sample or 100% believe that adopting process redesign would help achieve the set goals and objectives of the department or agency. Likewise, a majority or 78.2% of the Surabaya sample believes that adopting process redesign would meet performance expectations in terms of achieving the department’s or agency’s goals and objectives.

All of the Davao sample or 100% believe that adopting process redesign would enhance the quality of their service. A majority of the Surabaya sample or 66.7% similarly believes that adopting process redesign would enhance the service quality of their department in particular and the city government in general.

All of the Davao sample or 100% believe that adopting process redesign would increase the productivity of their department, while a majority or 67.9% of the Surabaya

sample also believe that adopting process redesign would enhance their respective department's output.

It must be mentioned that some respondents from Surabaya, between 15.4% and 28.2% of the sample, were not sure regarding the performance expectancy indicators.

These results clearly show that majority of the employees in the city governments of Davao and Surabaya believe that adopting process redesign would meet all the performance expectancy indicators.

Table 4.45 Responses to effort expectancy indicators (in %)

City	Response	Indicator statement			
		1. Implementing would be easy	2. Using and adopting would be easy	3. Interaction with co-workers would be unproblematic	4. Adjustment would be uncomplicated
Davao	SD				
Surabaya					
Davao	D	2.4	2.4	2.4	3.7
Surabaya		3.8	5.1	5.1	5.1
Davao	N	8.5	8.5	8.5	7.3
Surabaya		38.5	34.6	39.7	43.6
Davao	A	65.9	65.9	67.1	68.3
Surabaya		47.4	51.3	41.0	34.6
Davao	SA	23.2	23.2	22.0	20.7
Surabaya		9.0	7.7	11.5	15.4

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 89.3% response for “agree” and “strongly agree”, consider that adopting process redesign would be easy to implement. Also, a majority of the Surabaya sample, with a cumulative 56.4% response for “agree” and “strongly agree”, consider that adopting process redesign would be easy to implement.

Likewise, majority of the Davao sample (89.3%) and Surabaya sample (59%) consider the use and adoption of process redesign to be easy.

Interaction with co-workers in the redesigned processes' environment would be unproblematic according to majority of the Davao sample (78.6%) and majority of the Surabaya sample (52.5%).

Adjustment to the redesigned processes' setting would be uncomplicated according to majority of the Davao sample (89.0%) and half of the Surabaya sample (50%).

A notable result in this regard is that some Surabaya respondents, from 34.6% to 43.6% of the sample, are not sure about the effort expectancy indicators, as compared to a very few Davao respondents.

The results presented above indicate that majority of the Davao and Surabaya city government employees find the adoption of process redesign to be relatively easy in terms of the effort expectancy indicators.

Table 4.46 Responses to social influence indicators (in %)

City	Response	Indicator statement			
		1. It must be done because other cities are doing it	2. It must be done because other departments or divisions are doing it	3. It must be done because citizens expect it	4. It must be done because citizens demand it
Davao	SD				
Surabaya		1.3			
Davao	D				
Surabaya		11.5	2.6	2.6	9.0
Davao	N	7.3	7.3	9.8	9.8
Surabaya		28.2	30.8	26.9	34.6
Davao	A	69.5	69.5	68.3	68.3
Surabaya		35.9	39.7	38.5	28.2
Davao	SA	23.2	23.2	22.0	22.0
Surabaya		19.2	24.4	30.8	25.6

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 92.7% response to “agree” and “strongly agree”, and majority too of the Surabaya sample, with a cumulative 55.1% response to “agree” and “strongly agree”, are convinced that adopting process redesign must be done because other cities are doing it.

Because other departments or divisions are doing it, majority of the Davao sample (92.7%) and Surabaya sample (64.1%) are convinced as well that adopting process redesign must be done also.

Majority of the Davao sample (90.3%) and Surabaya sample (69.3%) are similarly convinced that adopting process redesign must be done because citizens

expect it. Moreover, majority of the Davao and Surabaya samples, with 90.3% and 53.8% respectively, are also convinced that citizens demand for process redesign to be adopted in the city government.

Although not significant but worth noting are the findings that some Surabaya respondents, from 26.9% to 34.6% of the sample, are not sure about the social influence indicators. Also, a few Davao respondents, from 7.3% to 9.8% of the sample, are not sure of the social influence indicators either.

The study's findings suggest that majority of the city government employees of Davao and Surabaya find the social influence indicators to be relatively convincing for them to adopt process redesign.

Table 4.47 Responses to facilitating conditions indicators (in %)

City	Response	Indicator statement			
		1. I have the knowledge and skill for it	2. Technical support and assistance would be available	3. Financial support is available	4. The city administration supports it
Davao	SD				
Surabaya		1.3			
Davao	D				
Surabaya		2.6	6.4	7.7	3.8
Davao	N	6.1	4.9	4.9	4.9
Surabaya		39.7	25.6	21.8	16.7
Davao	A	70.7	72.0	63.4	54.9
Surabaya		38.5	50.0	48.7	50.0
Davao	SA	23.2	23.2	31.7	40.2
Surabaya		16.7	16.7	20.5	28.2

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 93.9% response to “agree” and “strongly agree”, are certain that they have the knowledge and skill for adopting process redesign. Majority of the Surabaya sample, with a cumulative 55.2% response to “agree” and “strongly agree”, are also certain that they are knowledgeable and skillful enough for adopting process redesign.

Majority of the Davao sample (95.2%) and Surabaya sample (66.7%) are likewise certain that technical support and assistance would be available for the

adoption of process redesign. Besides, majority of the Davao sample (95.1%) and Surabaya sample (69.2%) are certain as well that financial support would be available.

Majority of the Davao sample (95.2%) and majority of the Surabaya sample (78.2%) are certain that their respective city administrations support the adoption of process redesign in the city government.

It must be mentioned that the results show some Surabaya respondents as being not sure about the facilitating conditions indicators, from 16.7% up to 39.7% of the sample.

Nevertheless, the study revealed that majority of the government employees of both cities are certain that the indicators for facilitating conditions in the adoption of process redesign are present in their respective city governments.

Table 4.48 Responses to anxiety indicators (in %)

City	Response	Indicator statement			
		1. I am hesitant in using or doing it	2. I worry that it will not work out as expected	3. I feel overwhelmed by it	4. I am concerned that citizens will not like it
Davao	SD	28.0	26.8	26.8	26.8
Surabaya		12.8	23.1	20.5	21.8
Davao	D	54.9	53.7	51.2	51.2
Surabaya		33.3	33.3	41.0	37.2
Davao	N	9.8	12.2	14.6	14.6
Surabaya		30.8	25.6	26.9	26.9
Davao	A	7.3	7.3	7.3	7.3
Surabaya		14.1	10.3	9.0	10.3
Davao	SA				
Surabaya		7.7	6.4	1.3	2.6

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 82.9% response for “disagree” and “strongly disagree”, are confident that they are not hesitant in adopting process redesign. However, only some of the Surabaya respondents, with a cumulative 46.1% response to “disagree” and “strongly disagree”, are confident that they would not hesitate in adopting process redesign.

Majority of the Davao sample (80.5%) and the Surabaya sample (56.4%) are not worried that adopting process redesign will not work out as expected. Nor do they

feel overwhelmed by it according to the majority of Davao respondents (78.0%) and Surabaya respondents (61.5%).

In addition, majority of the Davao sample (78.0%) and Surabaya sample (59.0%) are not concerned that citizens will not like the adoption of process redesign in the city government.

Despite the abovementioned findings, some respondents from both cities still expressed their neutrality and agreement on the anxiety indicators. Nonetheless, the study showed that majority of the city government employees in Davao and Surabaya are confident that anxiety indicators do not affect their intention to adopt process redesign in the government.

Table 4.49 Responses to attitude indicators (in %)

City	Response	Indicator statement			
		1. It is a good idea	2. It is a worthwhile thing to do	3. I like it	4. It is a nice thing
Davao	SD				
Surabaya		1.3			
Davao	D				
Surabaya		3.8	2.6	1.3	1.3
Davao	N	1.2	6.1	9.8	9.8
Surabaya		16.7	14.1	19.2	17.9
Davao	A	69.5	67.1	63.4	63.4
Surabaya		39.7	47.4	47.4	50.0
Davao	SA	29.3	26.8	26.8	26.8
Surabaya		37.2	33.3	29.5	29.5

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 98.8% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 76.9% response to “agree” and “strongly agree”, believe that adopting process redesign is a good idea.

Adopting process redesign is a worthwhile thing to do according to majority of Davao respondents (93.9%) and majority of Surabaya respondents (80.7%). Moreover, majority of the Davao sample (90.2%) and Surabaya sample (76.9%) signified that they like adopting process redesign. Majority of the Davao sample

(90.2%) and Surabaya sample (79.5%) also believe that adopting process redesign is a nice thing.

The study's findings thus indicate that majority of the government employees of Davao and Surabaya manifest positive attitudes with regard to the adoption of process redesign in their respective city governments.

Table 4.50 Responses to behavioral intention indicators (in %)

City	Response	Indicator statement		
		1. I intend to do it	2. I predict that I would do it	3. I plan to do it very soon
Davao	SD			
Surabaya		1.3		1.3
Davao	D			
Surabaya		2.6	3.8	2.6
Davao	N	1.2	9.8	12.2
Surabaya		15.4	16.7	24.4
Davao	A	56.1	72.0	68.3
Surabaya		48.7	61.5	42.3
Davao	SA	42.7	18.3	19.5
Surabaya		30.8	16.7	28.2

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 98.8% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 79.5% response to “agree” and “strongly agree”, expressed that they intend to adopt process redesign. Also, majority of Davao respondents (90.3%) and majority of Surabaya respondents (78.2%) predicted that they would adopt process redesign. Likewise, majority of them, 87.8% for Davao and 70.5% for Surabaya, conveyed that they plan to adopt process redesign very soon.

The study clearly revealed that majority of the Davao and Surabaya city government employees affirmed their intention to adopt process redesign in their respective city governments.

4.2.3.1 Aggregate analysis for model 3: intention to adopt organizational structuring

Descriptive statistics

The findings in Table 4.51 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 3. Mean values for all performance expectancy (PE) indicators are within the scale of three and standard deviations range from .82681 to .94336 indicating that there is a general trend of agreement and neutrality to the items.

Table 4.51 Mean and standard deviation for items in model 3 ($N=160$)

Construct	Item	Mean	SD
Performance Expectancy	PE1	3.8750	.94336
	PE2	3.9875	.86865
	PE3	3.9875	.90413
	PE4	3.9563	.82681
Effort Expectancy	EE1	3.6750	.87989
	EE2	3.6562	.87629
	EE3	3.5750	1.01900
	EE4	3.5500	1.00189
Social Influence	SI1	3.7625	1.03089
	SI2	3.8000	.88878
	SI3	3.9375	.90204
	SI4	3.7063	.97514
Facilitating Conditions	FC1	3.7750	.85377
	FC2	3.7750	.86838
	FC3	3.8375	.86793
	FC4	4.0500	.88168
Anxiety	ANX1	2.4063	1.07748
	ANX2	2.2687	1.03232
	ANX3	2.2688	1.02621
	ANX4	2.3438	1.00968
Attitude	AT1	4.0062	.87233
	AT2	3.8688	.97852
	AT3	3.8875	.93154
	AT4	3.9125	.85699
Behavioral Intention	BI1	4.0813	.79283
	BI2	3.8688	.76168
	BI3	4.0500	.89583

There is also a general trend of agreement to neutrality for all effort expectancy (EE) indicators and social influence indicators as the mean values are within the three scale and standard deviations vary between .87629 and 1.03089. The same general trend of agreement to neutrality for facilitating conditions is suggested by the indicators' mean values, which are between 4.0500 and 3.7750, and standard deviations

which are between .85377 and .88168. Mean values which are within the scale of two and standard deviations between 1.00968 and 1.07748 signify the overall trend of negative responses to all anxiety indicators. While for attitude indicators, mean values varying from 4.0062 to 3.8688 and standard deviations varying between .85699 and .97852 point to an overall positive and neutral response tendency. There is an overall trend of agreement to neutrality for behavioral intention indicators, evidenced by mean values from 4.0813 to 3.8688 and standard deviations ranging from .76168 to .89583.

Reliability and validity analysis

Table 4.52 below presents the results of the reliability analysis applying Cronbach's alpha, which signifies the internal consistency of indicator items that measure the same construct. A minimum Cronbach's alpha value of 0.70 indicate reliability and validity of constructs (Nunnally, 1978). The alpha values of the constructs range from .870 to .927, which means that all constructs have shown high reliability level.

Table 4.52 Reliability analysis of constructs (N=160)

Construct	Number of items	Cronbach's alpha α	Reliability type
Performance Expectancy	4	.927	High
Effort Expectancy	4	.912	High
Social Influence	4	.895	High
Facilitating Conditions	4	.921	High
Anxiety	4	.919	High
Attitude	4	.920	High
Behavioral Intention	3	.870	High

Discriminant validity of the variables was tested by calculating the covariance estimates between pairs of variables in the model (Anderson and Gerbing, 1988). The covariance between a pair of variables should be less than the square root of the average variance extracted (shown diagonally in bold numbers in Table 4.53 below) of each variable. A variable is believed to be different from other variables if the square root of average variance extracted for it is greater than its correlations with other variables (Barclay and Smith, 1997). For instance, the covariance between PE and EE is 7.663,

which is less than the square root of average variance extracted for PE (10.219) and EE (11.161). Hence, PE is different from EE, or in other words, there is discriminant validity between both variables. All variables in model 3 passed this test.

Table 4.53 Covariances of variables in model 3

Variable	PE	EE	SI	FC	ANX	AT	BI
PE	10.219						
EE	7.663	11.161					
SI	8.084	8.250	10.851				
FC	8.185	8.025	8.122	9.671			
ANX	-.663	-1.256	-.791	-1.495	13.705		
AT	8.081	6.942	8.536	8.223	-1.382	10.594	
BI	6.270	5.238	5.995	6.137	-.640	6.994	7.628

Structural model test

The test of the research model fit was done using the following fit indices: incremental fit index (IFI); comparative fit index (CFI); goodness-of-fit-index (GFI); and, root mean square residual (RMR), all of which were estimated using Amos. Table 4.54 below summarizes the model fit test.

Table 4.54 Model fit results for model 3

Index	Recommended value	Model value
Incremental fit index (IFI)	≥ 0.900	1.000
Comparative fit index (CFI)	≥ 0.900	1.000
Goodness-of-fit index (GFI)	≥ 0.950	1.000
Root mean square residual (RMR)	≤ 0.04	.000

The results show that the research model passed all fit indices with relatively high competences, evidenced by the model values exceeding the recommended values. It is now consequential to assess the regression weights of variables corresponding to the hypotheses of the study.

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant (p value) at least at the .050 level (Henseler, et al., 2009; Urbach and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. The coefficient of determination (R^2) values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.55 below presents this analysis.

Table 4.55 Regression weights and hypothesis testing for model 3

Relationship	Standardized regression weight	Hypothesis supported?	Significance (p)
PE → BI	.238	Yes	<0.001
EE → BI	-.001	No	Ns
SI → BI	-.057	No	Ns
FC → BI	.165	Yes	<0.05
ANX → BI	.030	No	Ns
AT → BI	.599	Yes	<0.001
R^2 (BI)	.795		

Legend: Ns=not significant

Findings shown in Table 4.55 above reveal that among all six independent variables, performance expectancy (PE), facilitating conditions (FC) and attitude (AT) had impact on intention to adopt organizational structuring. Among these three pivotal variables, attitude has the highest regression weight value, followed by performance expectancy and facilitating conditions.

The finding that the R^2 value of BI, which is .795, suggests that the independent variables account for about 80% of the variance in BI. In other words, the independent variables in the model can substantially explain 80% of the BI, and the other 20% can be explained by other variables.

Three hypotheses for model 3 are supported by the findings: that performance expectancy, facilitating conditions, and attitude are positively associated with intention to adopt organizational structuring. The findings do not support the other hypotheses.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done using bootstrapping technique in PLS structural equation modeling. Researchers have suggested an interpretation of effect sizes: from 0.02 as weak, from 0.15 as moderate, and above 0.35 as strong (Henseler and Fassott, 2010). Table 4.56 below summarizes the effects of the variables age and length of work experience.

Table 4.56 Moderating effects and hypothesis testing for model 3

Moderator→ Predictor	Standardized regression weight	Moderating effect size (f ²)	Significance (p)	Hypothesis supported?
AGE → EE	-0.374	0.163	Ns	No
AGE → ANX	0.312	0.108	Ns	No
AGE → AT	-0.267	0.077	Ns	No
LWE → PE	-0.274	0.081	Ns	No
LWE → EE	-0.348	0.138	<0.05	Yes
LWE → SI	-0.284	0.087	Ns	No
LWE → AT	-0.354	0.144	<0.05	Yes

Legend: Ns=not significant

All the hypotheses for moderating effects of the variable age (AGE) on certain independent variables are not supported by the results. Even though regression weight values in some moderator-predictor relationships are significant (both in positive and negative directions): i.e. AGE→EE (-0.374), AGE→ANX (0.312), AGE→AT (-0.267), their moderating effect sizes (f²) are not statistically significant. On the other hand, the study revealed that length of work experience (LWE) has negatively affected the effect of effort expectancy (EE) and attitude (AT) on the behavioral intention. Other moderator-predictor results show significant regression weights, i.e. LWE→PE (-0.274) and LWE→SI (-0.284), but their moderating effect sizes (f²) are not statistically significant. Thus, age of the city government employees did not moderate the associations of certain independent and dependent variables in model 3. Length of work experience however was found to have moderate and strong negative moderating

effects, respectively, on the associations between effort expectancy, attitude and intention to adopt organizational structuring.

Table 4.57 Summary of hypotheses testing results for model 3

Hypothesis	Result
H1c. Performance expectancy is positively associated with intention to adopt organizational structuring.	Accepted
H2c. Effort expectancy is positively associated with intention to adopt organizational structuring.	Rejected
H3c. Social influence is positively associated with intention to adopt organizational structuring.	Rejected
H4c. Facilitating conditions are positively associated with intention to adopt organizational structuring.	Accepted
H5c. Anxiety is negatively associated with intention to adopt organizational structuring.	Rejected
H6c. Attitude is positively associated with intention to adopt organizational structuring.	Accepted
H7a.3 Age will significantly moderate the association between effort expectancy and intention to adopt organizational structuring.	Rejected
H7b.3 Age will significantly moderate the association between anxiety and intention to adopt organizational structuring.	Rejected
H7c.3 Age will significantly moderate the association between attitude and intention to adopt organizational structuring.	Rejected
H8a.3 Length of work experience will significantly moderate the association between performance expectancy and intention to adopt organizational structuring.	Rejected
H8b.3 Length of work experience will significantly moderate the association between effort expectancy and intention to adopt organizational structuring.	Accepted (-)
H8c.3 Length of work experience will significantly moderate the association between social influence and intention to adopt organizational structuring.	Rejected
H8d.3 Length of work experience will significantly moderate the association between attitude and intention to adopt organizational structuring.	Accepted (-)

The summary of results for hypotheses testing for associations between the independent and dependent variables, and for the effects of moderating variables are presented in Table 4.57 above. Thus, the study shows that in adopting organizational structuring for e-government transformation, performance expectancy, facilitating conditions and attitude towards this behavioral intention are the pivotal variables. In this regard, some respondents gave the following opinions:

“it will make everything easier, make the service quick. In the end, we hope it will achieve the purpose of clean, transparent and accountable governance” (Surabaya respondent)

“it could make each public service become more efficient and effective” (Davao respondent)

“After Risma became the mayor of Surabaya, she immediately implemented all of those programs... programs such as e-performance and e-delivery... adding other applications that transformed the manual public services into online public services” (Surabaya respondent)

“I think adoption by the staff is very easy and quick because of the support of the technical experts and the concept of user interface. . . application is made easier for users” (Davao respondent)

Length of work experience appear to moderately and strongly affect in the negative direction the influence of effort expectancy and attitude, respectively, on the intention to adopt organizational structuring. This may be accounted for by the earlier finding that majority of the respondents have been in the city government service for a relatively longer time, thus, they tend to be unwilling in adopting changes, especially in the organizational aspects.

Responses to variable indicators

Table 4.58 Responses to performance expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Tasks would be completed in less time and at less cost	.6	3.1	13.1	61.9	18.8
2. Set goals and objectives of the department would be achieved	.6	.6	13.8	60.0	23.1
3. Service quality would be enhanced		.6	14.4	58.1	24.4
4. Overall productivity of the department would be increased		.6	15.6	61.9	20.0

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all indicators for performance expectancy (PE). A large majority of them, with a cumulative percentage

of not less than 80.7% for “agree” and “strongly agree”, indicated that adopting organizational structuring would satisfy expectations on the performance of the city government in terms of: completion of tasks in less time and less cost; achievement of set goals and objectives; enhancement of service quality; and, increase in the overall productivity of the department or agency.

Table 4.59 Responses to effort expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Implementing would be easy	5.6		24.4	57.5	10.6
2. Using and adopting would be easy		5.0	27.5	55.0	10.6
3. Interaction with co-workers would be unproblematic		8.1	26.3	50.0	12.5
4. Adjustment would be uncomplicated		10.0	27.5	47.5	12.5

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for effort expectancy (EE). With a cumulative percentage of not less than 60.0% for “agree” and “strongly agree”, majority of the sample signified that adopting organizational structuring would meet their expectations on the efforts related to it such as: easy implementation; ease of use and adoption; unproblematic interaction with co-workers; and, uncomplicated adjustment. However, the result that between 24.4% and 27.5% of the respondents took a neutral position for all indicators is worth noting.

Table 4.60 Responses to social influence indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It must be done because other cities are doing it	.6	3.1	23.1	50.0	20.0
2. It must be done because other departments/divisions are doing it		1.9	26.9	51.3	18.1
3. It must be done because citizens expect it		1.3	21.3	50.6	25.0
4. It must be done because citizens demand it		3.8	30.0	45.6	18.1

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for social influence (SI). With cumulative percentages for “agree” and “strongly agree” ranging

from not less than 63.7% to not more than 75.6%, a majority of them believed that adopting organizational structuring must be done because of the following social influences: other cities are doing it; other departments or divisions are doing it; citizens expect it; and that, citizens demand it. It should be noted that some respondents disagree with the indicator statements, and between 21.3% to 30.0% are neutral on the indicators.

Table 4.61 Responses to facilitating conditions indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I have the knowledge and skill for it		1.9	25.6	56.3	14.4
2. Technical support and assistance would be available		2.5	25.0	55.6	15.0
3. Financial support is available		2.5	20.6	58.1	16.9
4. The city administration supports it		.6	15.6	52.5	29.4

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with the indicators for facilitating conditions (FC). With a cumulative response of 70.7% for “agree” and “strongly agree”, the respondents believed that they have the knowledge and skill for adopting organizational structuring. Around 71% of them agree and strongly agree that technical support and assistance would be available, while 75% agree and strongly agree that financial support is available. Around 82% of the city government employees believed that the city administration supports the adoption of organizational structuring. In spite of these, between 15.6% and 25.6% are undecided about the indicators.

Table 4.62 Responses to anxiety indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I am hesitant in using or doing it	15.6	43.8	20.6	15.0	3.1
2. I worry that it will not work out as expected	20.0	43.1	21.3	11.9	1.9
3. I feel overwhelmed by it	20.6	41.3	22.5	12.5	1.3
4. I am concerned that citizens will not like it	16.9	41.9	25.0	13.1	1.3

N=160

Note: some items have missing responses

Majority of the sample were not anxious about adopting organizational structuring. Around 59% of them said that they are not hesitant in doing it, around 63% believed that it will work out as expected, about 62% did not feel overwhelmed by it, and around 59% were not concerned that citizens will not like it. A few respondents agreed with the indicators, suggesting that they are relatively anxious with the behavioral intention. Between 20.6% and 25.0% of the sample were not sure with the anxiety indicators.

Table 4.63 Responses to attitude indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It is a good idea	.6		15.0	57.5	25.0
2. It is a worthwhile thing to do		1.3	20.0	53.8	21.9
3. I like it		1.3	20.6	53.8	21.9
4. It is a nice thing		.6	20.6	56.3	20.6

N=160

Note: some items have missing responses

Majority of the respondents showed positive attitudes towards adopting organizational structuring. About 82% of them believed that it is a good idea; about 76% think that it is a worthwhile thing to do; about 76% agree that it is likeable; and, about 77% indicate that it is a nice thing to do.

Table 4.64 Responses to behavioral intention indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I intend to do it		1.3	11.3	59.4	26.9
2. I predict that I would do it			23.8	59.4	15.6
3. I plan to do it very soon		2.5	17.5	46.3	32.5

N=160

Note: some items have missing responses

Majority of the sample indicated positive intentions towards adopting organizational structuring in the city government. Not less than 75% intended to do it and predicted that they would do it, while about 79% planned to do it very soon. A few respondents, between 11.3% and 23.8%, are not sure about their intentions.

4.2.3.2 Comparative analysis of model 3 cases: Davao and Surabaya

Descriptive statistics

The findings in Table 4.65 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 3. There is a general trend of agreement and neutrality by the Davao sample to all performance expectancy (PE) indicators shown by mean values ranging from 4.0244 to 3.9878 and standard deviations between .83878 and .86031. On the other hand, mean values ranging from 3.9872 to 3.7564 and standard deviations between .78923 and 1.03429 show the general trend of positive to neutral responses from the Surabaya sample to the performance expectancy indicators.

The same trend of generally positive to neutral responses to effort expectancy (EE) indicators from the Davao sample is observed from the mean values which are all within the scale of three and standard deviations ranging from .97977 to 1.02454.

Likewise, the same trend of generally positive to neutral responses from the Surabaya sample can be observed from the mean values which are all in the scale of three and standard deviations ranging from .75780 to 1.04127 for the effort expectancy indicators.

Responses for social influence (SI) and facilitating conditions (FC) indicators from the Davao sample reveal the similar overall positive to neutral tendency, the mean values of which are all within the scale of three and standard deviations varying between .86737 and .94925. While the similar overall positive to neutral tendency of responses from the Surabaya sample to indicators for social influence and facilitating conditions can be observed from the mean values which range from 4.1154 to 3.6282 and standard deviations measured from .80551 to 1.17216.

For anxiety (ANX) indicators, both Davao and Surabaya samples exhibited generally negative responses as can be made out from the mean values which vary between 2.1341 and 2.6923, and standard deviations which vary between .93969 and 1.14311.

There is a general positive to neutral response to attitude (AT) indicators from the Davao sample as shown by mean values all within the scale of three and standard deviations from .81502 to .87669, while there is also a general positive to neutral

response to attitude indicators from the Surabaya sample as shown by mean values that are between 4.0641 and 3.9615 and standard deviations from .82955 to 1.10006.

Responses from the Davao sample on behavioral intention (BI) indicators are generally positive and neutral, with mean values ranging from 4.1829 to 3.8659 and standard deviations from .86937 to .89067, whereas responses from the Surabaya sample are generally positive to neutral as shown by mean values ranging from 4.0769 to 3.8590 and standard deviations from .76827 to .90371.

Table 4.65 Comparative mean and standard deviation

Construct	Item	Mean		SD	
		Davao	Surabaya	Davao	Surabaya
Performance Expectancy	PE1	3.9878	3.7564	.83878	1.03429
	PE2	3.9878	3.9872	.83878	.90444
	PE3	4.0122	3.9615	.85337	.95947
	PE4	4.0244	3.8846	.86031	.78923
Effort Expectancy	EE1	3.6829	3.6667	.97977	.76730
	EE2	3.6829	3.6282	.97977	.75780
	EE3	3.6585	3.4872	.99653	1.04127
	EE4	3.6341	3.4615	1.02454	.97624
Social Influence	SI1	3.8049	3.7179	.88106	1.17216
	SI2	3.7927	3.8077	.88524	.89816
	SI3	3.7805	4.1026	.87523	.90582
	SI4	3.7805	3.6282	.87523	1.07037
Facilitating Conditions	FC1	3.8415	3.7051	.86737	.83912
	FC2	3.8049	3.7436	.88106	.85942
	FC3	3.8659	3.8077	.88558	.85368
	FC4	3.9878	4.1154	.94925	.80551
Anxiety	ANX1	2.1341	2.6923	.93969	1.14311
	ANX2	2.1585	2.3846	.94894	1.10760
	ANX3	2.1829	2.3590	.95747	1.09277
	ANX4	2.1829	2.5128	.95747	1.04127
Attitude	AT1	3.9512	4.0641	.81502	.93057
	AT2	3.8415	3.8974	.85302	1.10006
	AT3	3.8171	3.9615	.87669	.98617
	AT4	3.8171	4.0128	.87669	.82955
Behavioral Intention	BI1	4.1829	4.0769	.89067	.80210
	BI2	3.9024	3.8590	.86937	.76827
	BI3	3.8659	4.0385	.88558	.90371

N= 82 (Davao) 78 (Surabaya)

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant at least at the .050 level (Henseler, et al., 2009; Urbach

and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. Regression weight values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.66 below presents this analysis.

Table 4.66 Regression weights and hypothesis testing for Davao (D) and Surabaya (S)

Relationship p	Standardized regression weight		Hypothesis supported?		Significance (p)	
	D	S	D	S	D	S
PE → BI	.151	.353	Yes	Yes	<0.05	<0.01
EE → BI	.050	-.018	No	No	Ns	Ns
SI → BI	-.172	-.025	No	No	<0.05	Ns
FC → BI	.103	.155	No	No	Ns	Ns
ANX → BI	.026	.018	No	No	Ns	Ns
AT → BI	.862	.421	Yes	Yes	<0.001	<0.001
R ² (BI)	.933	.673				

Legend: Ns=not significant

The tests for the regression weights between performance expectancy (PE) and behavioral intention (BI) showed that there is positive association between the two variables in both Davao and Surabaya, with regression weights of .151 and .353 respectively. Results also showed that there is no positive association between effort expectancy (EE) and behavioral intention (BI) in both cities. Likewise, there is no positive association between social influence (SI) and behavioral intention (BI), although there is a remarkable negative association between social influence and behavioral intention for Davao. Tests also showed that there is no positive association between facilitating conditions (FC) and behavioral intention (BI) in Davao and Surabaya. Anxiety (ANX) is not negatively associated with behavioral intention (BI) in both cities. Results showed that attitude (AT) is significantly associated with behavioral intention (BI) in Davao and Surabaya, with regression weight values of .862 and .421 respectively. Thus, the study shows that based on the research model, performance expectancy and attitude are the pivotal factors for adopting organizational structuring by employees of the Davao and Surabaya city governments.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done using bootstrapping procedure in partial least square SEM. Researchers have suggested an interpretation of effect sizes: from 0.02 as weak, from 0.15 as moderate, and above 0.35 as strong (Henseler and Fassott, 2010). Table 4.67 below summarizes the effects of the variables age and length of work experience.

Table 4.67 Moderating effects and hypothesis testing for Davao (D) and Surabaya (S)

Moderator → Predictor	Standardized regression weight		Moderating effect size (f ²)		Significance (p)		Hypothesis supported?	
	D	S	D	S	D	S	D	S
AGE → EE	-0.504	-0.111	0.341	0.013	Ns	Ns	No	No
AGE → ANX	0.573	0.202	0.490	0.042	<0.05	Ns	Yes	No
AGE → AT	-0.395	-0.119	0.185	0.014	Ns	Ns	No	No
LWE → PE	-0.445	-0.047	0.247	0.002	Ns	Ns	No	No
LWE → EE	-0.496	-0.149	0.326	0.023	<0.05	Ns	Yes	No
LWE → SI	-0.510	-0.045	0.352	0.002	<0.05	Ns	Yes	No
LWE → AT	-0.471	-0.161	0.286	0.027	Ns	Ns	No	No

Legend: Ns=not significant

The tests for moderating effects of age (AGE) revealed that it has no effect on effort expectancy in both the Davao and Surabaya samples. Age strongly and positively moderates the effect of anxiety on behavioral intention of the Davao sample, which implies that older employees tend to be anxious about adopting organizational structuring, whereas it has no moderating effect for the Surabaya sample. Age does not appear to affect the association between attitude and behavioral intention of Davao and Surabaya city government employees.

The study found out that length of work experience (LWE) does not affect the performance expectancy of both Davao and Surabaya respondents. While it does not influence the associations between effort expectancy, social influence and behavioral intention of Surabaya respondents, it strongly moderates in the negative direction the associations between effort expectancy, social influence, and behavioral intention of Davao respondents. These findings imply that employees who have worked relatively

longer in the Davao city government had a tendency to suppose that adopting organizational structuring would require more effort, and to assume that social influences or factors are not important considerations in adopting organizational structuring. Length of work experience of both Davao and Surabaya respondents does not affect their attitudes towards adopting organizational structuring.

Below is Table 4.68 showing the summary of hypothesis testing results from the Davao and Surabaya samples for the study's model 3 (adopting organizational structuring). Results show that performance expectancy and attitude are the key factors which influence the intention of Davao and Surabaya city government employees to adopt organizational structuring. For Davao employees, age is found to have a strong positive influence the effect of anxiety on the behavioral intention. Length of work experience is also revealed to strongly influence negatively the effects of effort expectancy and social influence on intention to adopt organizational structuring. On the other hand, age and length of work experience do not seem to influence the effects of predictor variables on the intention of Surabaya employees to adopt organizational structuring. This might be explained by the prior findings that compared to Surabaya employees, more Davao employees are older and have been in the city government service longer.

Table 4.68 Comparative summary of hypotheses testing results for model 3

Hypothesis	Result	
	Davao	Surabaya
H1c. Performance expectancy is positively associated with intention to adopt organizational structuring.	Accepted	Accepted
H2c. Effort expectancy is positively associated with intention to adopt organizational structuring.	Rejected	Rejected
H3c. Social influence is positively associated with intention to adopt organizational structuring.	Rejected	Rejected
H4c. Facilitating conditions are positively associated with intention to adopt organizational structuring.	Rejected	Rejected
H5c. Anxiety is negatively associated with intention to adopt organizational structuring.	Rejected	Rejected
H6c. Attitude is positively associated with intention to adopt organizational structuring.	Accepted	Accepted
H7a.3 Age will significantly moderate the association between effort expectancy and intention to adopt organizational structuring.	Rejected	Rejected
H7b.3 Age will significantly moderate the association between anxiety and intention to adopt organizational structuring.	Accepted (+)	Rejected
H7c.3 Age will significantly moderate the association between attitude and intention to adopt organizational structuring.	Rejected	Rejected
H8a.3 Length of work experience will significantly moderate the association between performance expectancy and intention to adopt organizational structuring.	Rejected	Rejected
H8b.3 Length of work experience will significantly moderate the association between effort expectancy and intention to adopt organizational structuring.	Accepted (-)	Rejected
H8c.3 Length of work experience will significantly moderate the association between social influence and intention to adopt organizational structuring.	Accepted (-)	Rejected
H8d.3 Length of work experience will significantly moderate the association between attitude and intention to adopt organizational structuring.	Rejected	Rejected

Responses to Variable Indicators

Table 4.69 Responses to performance expectancy indicators (in %)

City	Response	Indicator statement			
		1. Tasks would be completed in less time and at less cost	2. Set goals and objectives of the department would be achieved	3. Service quality would be enhanced	4. Overall productivity of the department would be increased
Davao	SD				
Surabaya		1.3	1.3		
Davao	D				
Surabaya		6.4	1.3	1.3	1.3
Davao	N	11.0	11.0	11.0	11.0
Surabaya		15.4	16.7	17.9	20.5
Davao	A	67.1	67.1	64.6	63.4
Surabaya		56.4	52.6	51.3	60.3
Davao	SA	19.5	19.5	22.0	23.3
Surabaya		17.9	26.9	26.9	16.7

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 86.6% response for “agree” and “strongly agree”, believe that adopting organizational structuring would result to completion of tasks in less time and at less cost. Majority the Surabaya sample, with a cumulative 74.3% response for “agree” and “strongly agree”, also believe that adopting organizational structuring would meet expectations of efficiency and effectiveness.

Majority of the Davao sample or 86.6% believe that adopting organizational structuring would help achieve the set goals and objectives of the department or agency. Likewise, a majority or 79.5% of the Surabaya sample believes that adopting organizational structuring would meet performance expectations in terms of achieving the department’s or agency’s goals and objectives.

Majority of the Davao sample or 86.6% believe that adopting organizational structuring would enhance the quality of their service. A majority of the Surabaya sample or 78.2% similarly believes that adopting organizational structuring would enhance the service quality of their department in particular and the city government in general.

Majority of the Davao sample or 86.7% believe that adopting organizational structuring would increase the productivity of their department, while a majority or

77.0% of the Surabaya sample also believe that adopting organizational structuring would enhance their respective department's output.

It must be mentioned that some respondents from Surabaya, between 15.4% and 20.5% of the sample, were not sure regarding the performance expectancy indicators.

These results clearly show that majority of the employees in the city governments of Davao and Surabaya believe that adopting organizational structuring would meet all the performance expectancy indicators.

Table 4.70 Responses to effort expectancy indicators (in %)

City	Response	Indicator statement			
		1. Implementing would be easy	2. Using and adopting would be easy	3. Interaction with co-workers would be unproblematic	4. Adjustment would be uncomplicated
Davao	SD	7.3	7.3		
Surabaya		3.8			
Davao	D			8.5	11.0
Surabaya			2.6	7.7	9.0
Davao	N	22.0	22.0	22.0	19.5
Surabaya		26.9	33.3	30.8	35.9
Davao	A	53.7	53.7	52.4	52.4
Surabaya		61.5	56.4	47.4	42.3
Davao	SA	14.6	14.6	14.6	14.6
Surabaya		6.4	6.4	10.3	10.3

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 68.3% response for “agree” and “strongly agree”, consider that adopting organizational structuring would be easy to implement. Also, a majority of the Surabaya sample, with a cumulative 67.9% response for “agree” and “strongly agree”, consider that adopting organizational structuring would be easy to implement.

Likewise, majority of the Davao sample (68.3%) and Surabaya sample (62.8%) consider the use and adoption of organizational structuring to be easy.

Interaction with co-workers in the restructured organization environment would be unproblematic according to majority of the Davao sample (67%) and majority of the Surabaya sample (57.7%).

Adjustment to the restructured organization setting would be uncomplicated according to majority of the Davao sample (67%) and majority of the Surabaya sample (52.6%).

A notable result in this regard is that some Surabaya respondents, from 26.9% to 35.9% of the sample, are not sure about the effort expectancy indicators, as compared to between 19.5% and 22.0% Davao respondents.

The results presented above indicate that majority of the Davao and Surabaya city government employees find the adoption of organizational structuring to be relatively easy in terms of the effort expectancy indicators.

Table 4.71 Responses to social influence indicators (in %)

City	Response	Indicator statement			
		1. It must be done because other cities are doing it	2. It must be done because other departments or divisions are doing it	3. It must be done because citizens expect it	4. It must be done because citizens demand it
Davao	SD				
Surabaya		1.3			
Davao	D	1.2	1.2	1.2	1.2
Surabaya		5.1	2.6	1.3	6.4
Davao	N	22.0	23.2	23.2	23.2
Surabaya		24.4	30.8	19.2	37.2
Davao	A	59.8	58.5	59.8	59.8
Surabaya		39.7	43.6	41.0	30.8
Davao	SA	14.6	14.6	13.4	13.4
Surabaya		25.6	21.8	37.2	23.1

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 74.4% response to “agree” and “strongly agree”, and majority too of the Surabaya sample, with a cumulative 65.3% response to “agree” and “strongly agree”, are convinced that adopting organizational structuring must be done because other cities are doing it.

Because other departments or divisions are doing it, majority of the Davao sample (73.1%) and Surabaya sample (65.4%) are convinced as well that adopting organizational structuring must be done also.

Majority of the Davao sample (73.2%) and Surabaya sample (78.2%) are similarly convinced that adopting organizational structuring must be done because

citizens expect it. Moreover, majority of the Davao and Surabaya samples, with 73.2% and 53.9% respectively, are also convinced that citizens demand for organizational structuring to be adopted in the city government.

Although not significant but worth noting are the findings that some Surabaya respondents, from 19.2% to 37.2% of the sample, are not sure about the social influence indicators. Also, a few Davao respondents, from 22.0% to 23.2% of the sample, are not sure of the social influence indicators either.

The study's findings suggest that majority of the city government employees of Davao and Surabaya find the social influence indicators to be relatively convincing for them to adopt organizational structuring.

Table 4.72 Responses to facilitating conditions indicators (in %)

City	Response	Indicator statement			
		1. I have the knowledge and skill for it	2. Technical support and assistance would be available	3. Financial support is available	4. The city administration supports it
Davao	SD				
Surabaya					
Davao	D	1.2	1.2	1.2	1.2
Surabaya		2.6	3.8	3.8	
Davao	N	18.3	22.0	18.3	17.1
Surabaya		33.3	28.2	23.1	14.1
Davao	A	63.4	59.8	61.0	51.2
Surabaya		48.7	51.3	55.1	53.8
Davao	SA	14.6	14.6	17.1	28.0
Surabaya		14.1	15.4	16.7	30.8

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 78.0% response to “agree” and “strongly agree”, are certain that they have the knowledge and skill for adopting organizational structuring. Majority of the Surabaya sample, with a cumulative 62.8% response to “agree” and “strongly agree”, are also certain that they are knowledgeable and skillful enough for adopting organizational structuring.

Majority of the Davao sample (74.4%) and Surabaya sample (66.7%) are likewise certain that technical support and assistance would be available for the adoption of organizational structuring. Besides, majority of the Davao sample (78.1%)

and Surabaya sample (71.8%) are certain as well that financial support would be available.

Majority of the Davao sample (79.2%) and majority of the Surabaya sample (84.3%) are certain that their respective city administrations support the adoption of organizational structuring in the city government.

It must be mentioned that the results show some Davao respondents (from 17.1% to 22.0%) and Surabaya respondents (from 14.1% to 33.3%) as being not sure about the facilitating conditions indicators.

Nevertheless, the study revealed that majority of the government employees of both cities are certain that the indicators for facilitating conditions in the adoption of organizational structuring are present in their respective city governments.

Table 4.73 Responses to anxiety indicators (in %)

City	Response	Indicator statement			
		1. I am hesitant in using or doing it	2. I worry that it will not work out as expected	3. I feel overwhelmed by it	4. I am concerned that citizens will not like it
Davao	SD	19.5	19.5	19.5	19.5
Surabaya		11.5	20.5	21.8	14.1
Davao	D	51.2	48.8	46.3	46.3
Surabaya		35.9	37.2	35.9	37.2
Davao	N	15.9	18.3	20.7	20.7
Surabaya		25.6	24.4	24.4	29.5
Davao	A	11.0	11.0	11.0	11.0
Surabaya		19.2	12.8	14.1	15.4
Davao	SA				
Surabaya		6.4	3.8	2.6	2.6

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 70.7% response for “disagree” and “strongly disagree”, are confident that they are not hesitant in adopting organizational structuring. However, only some of the Surabaya respondents, with a cumulative 47.4% response to “disagree” and “strongly disagree”, are confident that they would not hesitate in adopting organizational structuring.

Majority of the Davao sample (68.3%) and the Surabaya sample (57.7%) are not worried that adopting organizational structuring will not work out as expected. Nor

do they feel overwhelmed by it according to the majority of Davao respondents (65.8%) and Surabaya respondents (57.7%).

In addition, majority of the Davao sample (65.8%) and Surabaya sample (51.3%) are not concerned that citizens will not like the adoption of organizational structuring in the city government.

Despite the abovementioned findings, some respondents from both cities still expressed their neutrality and agreement on the anxiety indicators. Nonetheless, the study showed that majority of the city government employees in Davao and Surabaya are confident that anxiety indicators do not affect their intention to adopt organizational structuring in the government.

Table 4.74 Responses to attitude indicators (in %)

City	Response	Indicator statement			
		1. It is a good idea	2. It is a worthwhile thing to do	3. I like it	4. It is a nice thing
Davao	SD				
Surabaya		1.3			
Davao	D			1.2	1.2
Surabaya			2.6	1.3	
Davao	N	11.0	20.7	20.7	20.7
Surabaya		19.2	19.2	20.5	20.5
Davao	A	70.7	62.2	61.0	61.0
Surabaya		43.6	44.9	46.2	51.3
Davao	SA	15.9	14.6	14.6	14.6
Surabaya		34.6	29.5	29.5	26.9

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 86.6% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 78.2% response to “agree” and “strongly agree”, believe that adopting organizational structuring is a good idea.

Adopting organizational structuring is a worthwhile thing to do according to majority of Davao respondents (76.8%) and majority of Surabaya respondents (74.4%). Moreover, majority of the Davao sample (75.6%) and Surabaya sample (75.7%) signified that they like adopting organizational structuring. Majority of the Davao

sample (75.6%) and Surabaya sample (78.2%) also believe that adopting organizational structuring is a nice thing.

The study's findings thus indicate that majority of the government employees of Davao and Surabaya manifest positive attitudes with regard to the adoption of organizational structuring in their respective city governments.

Table 4.75 Responses to behavioral intention indicators (in %)

City	Response	Indicator statement		
		1. I intend to do it	2. I predict that I would do it	3. I plan to do it very soon
Davao	SD			
Surabaya				
Davao	D			
Surabaya		1.3		2.6
Davao	N	7.3	18.3	22.0
Surabaya		11.5	24.4	17.9
Davao	A	54.9	61.0	57.3
Surabaya		59.0	59.0	46.2
Davao	SA	35.4	18.3	18.3
Surabaya		26.9	15.4	32.1

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 90.3% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 85.9% response to “agree” and “strongly agree”, expressed that they intend to adopt organizational structuring. Also, majority of Davao respondents (79.3%) and majority of Surabaya respondents (74.4%) predicted that they would adopt organizational structuring. Likewise, majority of them, 75.6% for Davao and 78.3% for Surabaya, conveyed that they plan to adopt organizational structuring very soon.

The study clearly revealed that majority of the Davao and Surabaya city government employees affirmed their intention to adopt organizational structuring in their respective city governments.

4.2.4.1 Aggregate analysis for model 4: intention to adopt cultural and behavioral changes

Descriptive statistics

The findings in Table 4.76 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 4. Mean values for all performance expectancy (PE) indicators are within the scale of three and standard deviations range from .89293 to .98087 indicating that there is a general trend of agreement and neutrality to the items.

Table 4.76 Mean and standard deviation for items in model 4 ($N=160$)

Construct	Item	Mean	SD
Performance Expectancy	PE1	3.8625	.98087
	PE2	3.9125	.89293
	PE3	3.9625	.91037
	PE4	3.9125	.94094
Effort Expectancy	EE1	3.5750	.92178
	EE2	3.8437	3.33185
	EE3	3.5188	1.01543
	EE4	3.5000	1.04611
Social Influence	SI1	3.6500	1.06517
	SI2	3.7500	.92485
	SI3	3.8250	.99401
	SI4	3.7125	.98023
Facilitating Conditions	FC1	3.7063	.89441
	FC2	3.6438	.87844
	FC3	3.7125	.94094
	FC4	3.8688	.95905
Anxiety	ANX1	2.4187	1.06678
	ANX2	2.3500	1.11140
	ANX3	2.3688	1.13615
	ANX4	2.3750	1.07428
Attitude	AT1	3.9188	.88290
	AT2	3.8125	.90552
	AT3	3.8563	.92381
	AT4	3.8312	.88468
Behavioral Intention	BI1	3.9375	.87371
	BI2	3.7625	.81254
	BI3	3.8625	.87945

There is also a general trend of agreement to neutrality for all effort expectancy (EE) indicators and social influence indicators as the mean values are within the three

scale and standard deviations vary between .92178 and 3.33185. The same general trend of agreement to neutrality for facilitating conditions is suggested by the indicators' mean values, which are between 3.6438 and 3.8688, and standard deviations which are between .87844 and .95905. Mean values which are within the scale of two and standard deviations between 1.06678 and 1.13615 signify the overall trend of negative responses to all anxiety indicators. While for attitude indicators, mean values varying from 3.8125 to 3.9188 and standard deviations varying between .88290 and .92381 point to an overall positive and neutral response tendency. There is an overall trend of agreement to neutrality for behavioral intention indicators, evidenced by mean values from 3.7625 to 3.9375 and standard deviations ranging from .81254 to .87945.

Reliability and validity analysis

Table 4.77 below presents the results of the reliability analysis applying Cronbach's alpha, which signifies the internal consistency of indicator items that measure the same construct. A minimum Cronbach's alpha value of 0.70 indicate reliability and validity of constructs (Nunnally, 1978). The alpha values of the constructs range from .816 to .947, which means that all constructs have shown high reliability level.

Table 4.77 Reliability analysis of constructs (N=160)

Construct	Number of items	Cronbach's alpha α	Reliability type
Performance Expectancy	4	.947	High
Effort Expectancy	4	.816	High
Social Influence	4	.925	High
Facilitating Conditions	4	.939	High
Anxiety	4	.931	High
Attitude	4	.928	High
Behavioral Intention	3	.887	High

Discriminant validity of the variables was tested by calculating the covariance estimates between pairs of variables in the model (Anderson and Gerbing, 1988). The covariance between a pair of variables should be less than the square root of the average variance extracted (shown diagonally in bold numbers in Table 4.78 below) of each variable. A variable is believed to be different from other variables if the square root of

average variance extracted for it is greater than its correlations with other variables (Barclay and Smith, 1997). For instance, the covariance between PE and EE is 9.459, which is less than the square root of average variance extracted for PE (11.890) and EE (23.996). Hence, PE is different from EE, or in other words, there is discriminant validity between both variables. All variables in model 4 passed this test.

Table 4.78 Covariances of variables in model 4

Variable	PE	EE	SI	FC	ANX	AT	BI
PE	11.890						
EE	9.459	23.996					
SI	10.091	11.115	12.734				
FC	9.826	9.724	10.271	11.327			
ANX	-1.139	-3.137	-1.805	-2.040	15.887		
AT	8.165	8.767	9.214	8.373	-1.540	10.581	
BI	6.925	6.812	7.290	7.026	-1.055	7.105	8.304

Structural model test

The test of the research model fit was done using the following fit indices: incremental fit index (IFI); comparative fit index (CFI); goodness-of-fit-index (GFI); and, root mean square residual (RMR), all of which were estimated by Amos. Table 4.79 below summarizes the model fit test.

Table 4.79 Model fit results for model 4

Index	Recommended value	Model value
Incremental fit index (IFI)	≥ 0.900	1.000
Comparative fit index (CFI)	≥ 0.900	1.000
Goodness-of-fit index (GFI)	≥ 0.950	1.000
Root mean square residual (RMR)	≤ 0.04	.000

The results show that the research model passed all fit indices with relatively high competences, evidenced by the model values exceeding the recommended values. It is now consequential to assess the regression weights of variables corresponding to the hypotheses of the study.

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant (p value) at least at the .050 level (Henseler, et al., 2009; Urbach and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. The coefficient of determination (R^2) values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.80 below presents this analysis.

Table 4.80 Regression weights and hypothesis testing for model 4

Relationship	Standardized regression weight	Hypothesis supported?	Significance (p)
PE → BI	.168	Yes	<0.05
EE → BI	-.008	No	Ns
SI → BI	.054	No	Ns
FC → BI	.236	Yes	<0.01
ANX → BI	.001	No	Ns
AT → BI	.490	Yes	<0.001
R ² (BI)	.761		

Legend: Ns=not significant

Findings shown in Table 4.80 above reveal that among all six independent variables, performance expectancy (PE), facilitating conditions (FC) and attitude (AT) had impact on intention to adopt organizational structuring. Among these three pivotal variables, attitude has the highest regression weight value, followed by facilitating conditions and performance expectancy.

The finding that the R^2 value of BI, which is .761, suggests that the independent variables account for about 76% of the variance in BI. In other words, the independent variables in the model can substantially explain 76% of the BI, and the other 24% can be explained by other variables.

Three hypotheses for model 4 are supported by the findings: that performance expectancy, facilitating conditions, and attitude are positively associated with intention to adopt cultural and behavioral changes. The findings do not support the other hypotheses.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done using bootstrapping technique in PLS structural equation modeling. Researchers have suggested an interpretation of effect sizes: from 0.02 as weak, from 0.15 as moderate, and above 0.35 as strong (Henseler and Fassott, 2010). Table 4.81 below summarizes the effects of the variables age and length of work experience.

Table 4.81 Moderating effects and hypothesis testing for model 4

Moderator→ Predictor	Standardized regression weight	Moderating effect size (f ²)	Significance (p)	Hypothesis supported?
AGE → EE	-0.380	0.169	Ns	No
AGE → ANX	0.322	0.116	Ns	No
AGE → AT	-0.316	0.111	Ns	No
LWE → PE	-0.379	0.168	<0.05	Yes
LWE → EE	-0.389	0.178	<0.05	Yes
LWE → SI	-0.386	0.175	Ns	No
LWE → AT	-0.363	0.152	<0.05	Yes

Legend: Ns=not significant

All the hypotheses for moderating effects of the variable age (AGE) on certain independent variables are not supported by the results. Even though regression weight values in some moderator-predictor relationships are significant (both in positive and negative directions): i.e. AGE→EE (-0.380), AGE→ANX (0.322), AGE→AT (-0.316), their moderating effect sizes (f²) are not statistically significant. On the other hand, the study revealed that length of work experience (LWE) has strong negative effects on performance expectancy (PE), effort expectancy (EE) and attitude (AT) on the behavioral intention. The moderator-predictor results for LWE→SI show a significant regression weight (-0.284), but the moderating effect size (f²) is not statistically significant. Thus, age of the city government employees did not moderate the associations of certain independent and dependent variables in model 4. Length of work experience however was found to have strong negative moderating effects on the

associations between performance expectancy, effort expectancy, attitude and intention to adopt cultural and behavioral changes.

Table 4.82 Summary of hypotheses testing results for model 4

Hypothesis	Result
H1d. Performance expectancy is positively associated with intention to adopt cultural and behavioral changes.	Accepted
H2d. Effort expectancy is positively associated with intention to adopt cultural and behavioral changes.	Rejected
H3d. Social influence is positively associated with intention to adopt cultural and behavioral changes.	Rejected
H4d. Facilitating conditions are positively associated with intention to adopt cultural and behavioral changes.	Accepted
H5d. Anxiety is negatively associated with intention to adopt cultural and behavioral changes.	Rejected
H6d. Attitude is positively associated with intention to adopt cultural and behavioral changes.	Accepted
H7a.4 Age will significantly moderate the association between effort expectancy and intention to adopt cultural and behavioral changes.	Rejected
H7b.4 Age will significantly moderate the association between anxiety and intention to adopt cultural and behavioral changes.	Rejected
H7c.4 Age will significantly moderate the association between attitude and intention to adopt cultural and behavioral changes.	Rejected
H8a.4 Length of work experience will significantly moderate the association between performance expectancy and intention to adopt cultural and behavioral changes.	Accepted (-)
H8b.4 Length of work experience will significantly moderate the association between effort expectancy and intention to adopt cultural and behavioral changes.	Accepted (-)
H8c.4 Length of work experience will significantly moderate the association between social influence and intention to adopt cultural and behavioral changes.	Rejected
H8d.4 Length of work experience will significantly moderate the association between attitude and intention to adopt cultural and behavioral changes.	Accepted (-)

The summary of results for hypotheses testing for associations between the independent and dependent variables, and for the effects of moderating variables are presented in Table 4.82 above. Thus, the study shows that in adopting cultural and behavioral changes for e-government transformation, performance expectancy,

facilitating conditions and attitude towards this behavioral intention are the pivotal variables. Some respondents expressed the following views:

“each department has its own ICT staff” (Surabaya respondent)

“there is support from all sectors, especially from the leaders, in its implementation” (Davao respondent)

Age does not appear to have moderating effects. Length of work experience seem to strongly moderate in the negative direction the influence of performance expectancy, effort expectancy and attitude on the intention to adopt cultural and behavioral changes. Earlier findings indicate that majority of the respondents have long work experience in the city government and may therefore, be hesitant in adopting changes in terms of behavior and organizational culture.

Responses to variable indicators

Table 4.83 Responses to performance expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Tasks would be completed in less time and at less cost	.6	3.8	15.6	56.3	21.3
2. Set goals and objectives of the department would be achieved		3.1	16.3	57.5	21.3
3. Service quality would be enhanced		3.1	15.0	55.0	25.0
4. Overall productivity of the department would be increased		3.8	18.8	50.6	25.0

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all indicators for performance expectancy (PE). A large majority of them, with a cumulative percentage of not less than 75.6% for “agree” and “strongly agree”, indicated that adopting cultural and behavioral changes would satisfy expectations on the performance of the city government in terms of: completion of tasks in less time and less cost; achievement of set goals and objectives; enhancement of service quality; and, increase in the overall productivity of the department or agency.

Table 4.84 Responses to effort expectancy indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Implementing would be easy		9.4	25.6	53.8	9.4
2. Using and adopting would be easy		9.4	26.3	50.6	11.9
3. Interaction with co-workers would be unproblematic		11.9	26.3	47.5	11.9
4. Adjustment would be uncomplicated		11.9	31.3	39.4	15.0

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for effort expectancy (EE). With a cumulative percentage of not less than 54.4% for “agree” and “strongly agree”, majority of the sample signified that adopting cultural and behavioral changes would meet their expectations on the efforts related to it such as: easy implementation; ease of use and adoption; unproblematic interaction with co-workers; and, uncomplicated adjustment. However, the result that between 25.6% and 31.3% of the respondents took a neutral position for all indicators is worth noting.

Table 4.85 Responses to social influence indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It must be done because other cities are doing it		7.5	26.3	44.4	18.8
2. It must be done because other departments/divisions are doing it		4.4	26.3	50.0	17.5
3. It must be done because citizens expect it		4.4	21.3	49.4	22.5
4. It must be done because citizens demand it		3.8	30.0	45.0	18.8

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with all the indicators for social influence (SI). With cumulative percentages for “agree” and “strongly agree” ranging from not less than 63.2% to not more than 71.9%, a majority of them believed that adopting cultural and behavioral changes must be done because of the following social influences: other cities are doing it; other departments or divisions are doing it; citizens expect it; and that, citizens demand it. It should be noted that some respondents disagree

with the indicator statements, and between 21.3% to 30.0% are neutral on the indicators.

Table 4.86 Responses to facilitating conditions indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I have the knowledge and skill for it		5.0	25.0	55.0	13.1
2. Technical support and assistance would be available		4.4	30.6	51.9	11.3
3. Financial support is available		5.0	28.8	46.9	17.5
4. The city administration supports it		5.0	19.4	50.0	23.8

N=160

Note: some items have missing responses

Majority of the respondents were in agreement with the indicators for facilitating conditions (FC). With a cumulative response of 68.1% for “agree” and “strongly agree”, the respondents believed that they have the knowledge and skill for adopting cultural and behavioral changes. Around 63% of them agree and strongly agree that technical support and assistance would be available, while 64.4% agree and strongly agree that financial support is available. Around 74% of the city government employees believed that the city administration supports the adoption of cultural and behavioral changes. In spite of these, between 19.4% and 30.6% are undecided about the indicators.

Table 4.87 Responses to anxiety indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I am hesitant in using or doing it	16.3	39.4	26.3	13.1	3.1
2. I worry that it will not work out as expected	20.6	38.8	21.3	14.4	3.1
3. I feel overwhelmed by it	20.6	38.8	20.0	15.0	3.8
4. I am concerned that citizens will not like it	18.8	39.4	21.3	17.5	1.3

N=160

Note: some items have missing responses

Majority of the sample were not anxious about adopting cultural and behavioral changes. Around 56% of them said that they are not hesitant in doing it,

around 59% believed that it will work out as expected, about 59% did not feel overwhelmed by it, and around 58% were not concerned that citizens will not like it. A few respondents agreed with the indicators, suggesting that they are relatively anxious with the behavioral intention. Between 20.0% and 26.3% of the sample were not sure with the anxiety indicators.

Table 4.88 Responses to attitude indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. It is a good idea	.6	.6	18.8	56.9	21.3
2. It is a worthwhile thing to do		1.3	23.1	56.3	16.9
3. I like it		1.3	21.9	54.4	20.0
4. It is a nice thing		2.5	22.5	55.0	18.1

N=160

Note: some items have missing responses

Majority of the respondents showed positive attitudes towards adopting cultural and behavioral changes. About 78% of them believed that it is a good idea; about 73% think that it is a worthwhile thing to do; about 74% agree that it is likeable; and, about 73% indicate that it is a nice thing to do.

Table 4.89 Responses to behavioral intention indicators (in %)

Indicator statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I intend to do it		5.0	13.8	57.5	22.5
2. I predict that I would do it		2.5	27.5	55.0	13.8
3. I plan to do it very soon		3.8	22.5	51.3	21.3

N=160

Note: some items have missing responses

Majority of the sample indicated positive intentions towards adopting cultural and behavioral changes in the city government. Not less than 69% intended to do it and predicted that they would do it, while about 73% planned to do it very soon. A few respondents, between 13.8% and 27.5%, are not sure about their intentions.

4.2.4.2 Comparative analysis of model 4 cases: Davao and Surabaya

Descriptive statistics

The findings in Table 4.90 below show the mean and standard deviation (SD) of the items or indicators for the constructs in research model 1. There is a general trend of agreement and neutrality by the Davao sample to all performance expectancy (PE) indicators shown by mean values ranging from 3.9615 to 3.7821 and standard deviations between .86563 and .89505. On the other hand, mean values ranging from 3.9615 to 3.7821 and standard deviations between .92555 and 1.08887 show the general trend of positive to neutral responses from the Surabaya sample to the performance expectancy indicators.

The same trend of generally positive to neutral responses to effort expectancy (EE) indicators from the Davao sample is observed from the mean values which are all within the scale of three and standard deviations ranging from 1.02748 to 1.09122. Likewise, the same trend of generally positive to neutral responses from the Surabaya sample can be observed from the mean values which are all in the scale of three and standard deviations ranging from .72685 to 4.64052 for the effort expectancy indicators.

Responses for social influence (SI) and facilitating conditions (FC) indicators from the Davao sample reveal the similar overall positive to neutral tendency, the mean values of which are all within the scale of three and standard deviations varying between .89908 and .99411. While the similar overall positive to neutral tendency of responses from the Surabaya sample to indicators for social influence and facilitating conditions can be observed from the mean values which range from 3.9359 to 3.5256 and standard deviations measured from .81741 to 1.18093.

For anxiety (ANX) indicators, both Davao and Surabaya samples exhibited generally negative responses as can be made out from the mean values which vary between 2.6282 and 2.2195, and standard deviations which vary between .99411 and 1.22304.

There is a general positive to neutral response to attitude (AT) indicators from the Davao sample as shown by mean values all within the scale of three and standard deviations from .84272 to .88277, while there is also a general positive to neutral

response to attitude indicators from the Surabaya sample as shown by mean values that are between 3.9744 and 3.9103 and standard deviations from .88547 to .96561.

Responses from the Davao sample on behavioral intention (BI) indicators are generally positive and neutral, with mean values ranging from 4.1463 to 3.7073 and standard deviations from .82494 to .89067, whereas responses from the Surabaya sample are also generally positive to neutral as shown by mean values ranging from 3.9231 to 3.7564 and standard deviations from .82471 to .89333.

Table 4.90 Comparative mean and standard deviation

Construct	Item	Mean		SD	
		Davao	Surabaya	Davao	Surabaya
Performance Expectancy	PE1	3.9390	3.7821	.86563	1.08887
	PE2	3.9390	3.8846	.86563	.92555
	PE3	3.9634	3.9615	.88115	.94584
	PE4	3.9634	3.8590	.89505	.98988
Effort Expectancy	EE1	3.5488	3.6026	1.07901	.72685
	EE2	3.5488	4.1538	1.06750	4.64052
	EE3	3.6098	3.4231	1.02748	1.00025
	EE4	3.5244	3.4744	1.09122	1.00291
Social Influence	SI1	3.7561	3.5385	.93704	1.18093
	SI2	3.7439	3.7564	.94033	.91433
	SI3	3.7195	3.9359	.93326	1.04868
	SI4	3.7195	3.7051	.93326	1.03333
Facilitating Conditions	FC1	3.7927	3.6154	.89908	.88612
	FC2	3.7561	3.5256	.92377	.81741
	FC3	3.8049	3.6154	.93543	.94293
	FC4	3.8780	3.8590	.97361	.94970
Anxiety	ANX1	2.2195	2.6282	.99411	1.10617
	ANX2	2.2561	2.4487	1.04007	1.18044
	ANX3	2.3049	2.4359	1.05044	1.22304
	ANX4	2.2683	2.4872	1.03099	1.11359
Attitude	AT1	3.8659	3.9744	.84272	.92546
	AT2	3.7805	3.8462	.86101	.95451
	AT3	3.7683	3.9487	.87910	.96561
	AT4	3.7561	3.9103	.88277	.88547
Behavioral Intention	BI1	4.1463	3.9231	.89058	.87933
	BI2	3.7073	3.7564	.85328	.82471
	BI3	3.7561	3.8590	.82494	.89333

N= 82 (Davao) 78 (Surabaya)

Hypothesis testing: independent and dependent variables

In assessing the relationships of the hypothetical constructs, regression weights should be significant at least at the .050 level (Henseler et al, 2009; Urbach and Ahlemann, 2010), and a weight or coefficient of at least .100 reports a certain impact within the structural model (Urbach & Ahlemann, 2010). These are either positive (i.e. in the expected direction) or negative. Regression weight values of approximately 0.67, 0.33, and 0.19 are considered as substantial, moderate and weak, respectively, in terms of the level of explanatory power (Chin, 1998). Table 4.91 below presents this analysis.

Table 4.91 Regression weights and hypothesis testing for Davao (D) and Surabaya (S)

Relationship	Standardized regression weight		Hypothesis supported?		Significance (p)	
	D	S	D	S	D	S
PE → BI	.109	.171	No	No	Ns	Ns
EE → BI	-.056	.022	No	No	Ns	Ns
SI → BI	.104	.009	No	No	Ns	Ns
FC → BI	.110	.304	No	Yes	Ns	<0.05
ANX → BI	.042	-.043	No	No	Ns	Ns
AT → BI	.723	.414	Yes	Yes	<0.001	<0.001
R ² (BI)	.922	.649				

Legend: Ns=not significant

The tests for the regression weights between performance expectancy (PE) and behavioral intention (BI) showed that there is no positive association between the two variables in both Davao and Surabaya. Results also showed that there is no positive association between effort expectancy (EE) and behavioral intention (BI) in both cities. Likewise, there is no positive association between social influence (SI) and behavioral intention (BI). Tests also showed that there is no positive association between facilitating conditions (FC) and behavioral intention (BI) in Davao, but there is a positive association between the two variables in Surabaya with a regression weight of .304. Anxiety (ANX) is not negatively associated with behavioral intention (BI) in both cities. Results showed that attitude (AT) is significantly associated with behavioral intention (BI) in Davao and Surabaya, with regression weight values of .723 and .414 respectively. Thus, the study shows that based on the research model, attitude is the pivotal factor for adopting cultural and behavioral changes by employees of the Davao

city government, while facilitating conditions and attitude are the key variables for employees of the Surabaya city government.

Hypothesis testing: moderator and predictor variables

This study analyzed the interaction effects of two moderating variables, age (AGE) and length of work experience (LWE), on selected exogenous variables to the endogenous variable. Analysis was done using bootstrapping procedure in partial least square SEM. Researchers have suggested an interpretation of effect sizes: from 0.02 as weak, from 0.15 as moderate, and above 0.35 as strong (Henseler and Fassott, 2010). Table 4.92 below summarizes the effects of the variables age and length of work experience.

Table 4.92 Moderating effects and hypothesis testing for Davao (D) and Surabaya (S)

Moderator → Predictor	Standardized regression weight		Moderating effect size (f ²)		Significance (p)		Hypothesis supported?	
	D	S	D	S	D	S	D	S
AGE → EE	-0.499	-0.170	0.331	0.030	<0.05	Ns	Yes	No
AGE → ANX	0.553	0.183	0.441	0.035	<0.05	Ns	Yes	No
AGE → AT	-0.385	-0.161	0.174	0.027	Ns	Ns	No	No
LWE → PE	-0.459	-0.239	0.267	0.061	Ns	Ns	No	No
LWE → EE	-0.515	-0.170	0.361	0.030	<0.05	Ns	Yes	No
LWE → SI	-0.519	-0.223	0.369	0.052	<0.05	Ns	Yes	No
LWE → AT	-0.471	-0.247	0.286	0.065	<0.05	Ns	Yes	No

Legend: Ns=not significant

The tests for moderating effects of age (AGE) revealed that it has no effect on effort expectancy in the Surabaya sample. However, it has a strong negative effect in the Davao sample, which suggests that older city government employees in that city tend to assume that the intention to adopt cultural and behavioral changes would require relatively more effort.

Age strongly and positively moderates the effect of anxiety on behavioral intention of the Davao sample, which implies that older employees tend to be anxious about adopting cultural and behavioral changes. It has no moderating effect for the Surabaya sample. Age does not appear to affect the association between attitude and behavioral intention of Davao and Surabaya city government employees.

The study found out that length of work experience (LWE) does not affect the performance expectancy of both Davao and Surabaya respondents. While it does not influence the associations between effort expectancy, social influence, attitude and behavioral intention of Surabaya respondents, it strongly moderates in the negative direction the associations between effort expectancy, social influence, attitude and behavioral intention of Davao respondents. These findings imply that employees who have worked relatively longer in the Davao city government had the tendency: to suppose that adopting cultural and behavioral changes would require more effort; to assume that social influences or factors are not important considerations in adopting cultural and behavioral changes; and, to exhibit negative attitudes toward adopting cultural and behavioral changes.

Below is Table 4.93 showing the summary of hypothesis testing results from the Davao and Surabaya samples for the study's model 4 (adopting cultural and behavioral changes). Results show that in adopting cultural and behavioral change, attitude emerge as the crucial variable for Davao and Surabaya city government employees. Age of Davao employees turn up as negatively affecting the influence of effort expectancy, and positively affecting the influence of anxiety on the behavioral intention. Length of work experience strongly moderates in the negative direction the associations between effort expectancy, social influence, attitude and behavioral intention of Davao respondents. Age and length of work experience of Surabaya employees do not affect in any way the influence of predictor variables of intention to adopt cultural and behavioral change.

Table 4.93 Comparative summary of hypotheses testing results for model 4

Hypothesis	Result	
	Davao	Surabaya
H1d. Performance expectancy is positively associated with intention to adopt cultural and behavioral changes.	Rejected	Rejected
H2d. Effort expectancy is positively associated with intention to adopt cultural and behavioral changes.	Rejected	Rejected
H3d. Social influence is positively associated with intention to adopt cultural and behavioral changes.	Rejected	Rejected
H4d. Facilitating conditions are positively associated with intention to adopt cultural and behavioral changes.	Rejected	Accepted
H5d. Anxiety is negatively associated with intention to adopt cultural and behavioral changes.	Rejected	Rejected
H6d. Attitude is positively associated with intention to adopt cultural and behavioral changes.	Accepted	Accepted
H7a.4 Age will significantly moderate the association between effort expectancy and intention to adopt cultural and behavioral changes.	Accepted (-)	Rejected
H7b.4 Age will significantly moderate the association between anxiety and intention to adopt cultural and behavioral changes.	Accepted (+)	Rejected
H7c.4 Age will significantly moderate the association between attitude and intention to adopt cultural and behavioral changes.	Rejected	Rejected
H8a.4 Length of work experience will significantly moderate the association between performance expectancy and intention to adopt cultural and behavioral changes.	Rejected	Rejected
H8b.4 Length of work experience will significantly moderate the association between effort expectancy and intention to adopt cultural and behavioral changes.	Accepted (-)	Rejected
H8c.4 Length of work experience will significantly moderate the association between social influence and intention to adopt cultural and behavioral changes.	Accepted (-)	Rejected
H8d.4 Length of work experience will significantly moderate the association between attitude and intention to adopt cultural and behavioral changes.	Accepted (-)	Rejected

Responses to Variable Indicators

Table 4.94 Responses to performance expectancy indicators (in %)

City	Response	Indicator statement			
		1. Tasks would be completed in less time and at less cost	2. Set goals and objectives of the department would be achieved	3. Service quality would be enhanced	4. Overall productivity of the department would be increased
Davao	SD				
Surabaya		1.3			
Davao	D				
Surabaya		7.7	6.4	6.4	7.7
Davao	N	15.9	15.9	15.9	17.1
Surabaya		15.4	16.7	14.1	20.5
Davao	A	62.2	62.2	59.8	57.3
Surabaya		50.0	52.6	50.0	43.6
Davao	SA	19.5	19.5	22.0	23.2
Surabaya		23.1	23.1	28.2	26.9

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 81.7% response for “agree” and “strongly agree”, believe that adopting cultural and behavioral changes would result to completion of tasks in less time and at less cost. Majority the Surabaya sample, with a cumulative 73.1% response for “agree” and “strongly agree”, also believe that adopting cultural and behavioral changes would meet expectations of efficiency and effectiveness.

Majority of the Davao sample or 81.7% believe that adopting cultural and behavioral changes would help achieve the set goals and objectives of the department or agency. Likewise, a majority or 75.7% of the Surabaya sample believes that adopting cultural and behavioral changes would meet performance expectations in terms of achieving the department’s or agency’s goals and objectives.

Majority of the Davao sample or 81.8% believe that adopting cultural and behavioral changes would enhance the quality of their service. A majority of the Surabaya sample or 78.2% similarly believes that adopting cultural and behavioral changes would enhance the service quality of their department in particular and the city government in general.

Majority of the Davao sample or 80.5% believe that adopting cultural and behavioral changes would increase the productivity of their department, while a

majority or 70.5% of the Surabaya sample also believe that adopting cultural and behavioral changes would enhance their respective department's output.

It must be mentioned that some respondents from both Davao and Surabaya, between 14.1% and 20.5% of the samples, were not sure regarding the performance expectancy indicators.

These results clearly show that majority of the employees in the city governments of Davao and Surabaya believe that adopting cultural and behavioral changes would meet all the performance expectancy indicators.

Table 4.95 Responses to effort expectancy indicators (in %)

City	Response	Indicator statement			
		1. Implementing would be easy	2. Using and adopting would be easy	3. Interaction with co-workers would be unproblematic	4. Adjustment would be uncomplicated
Davao	SD				
Surabaya					
Davao	D	14.6	13.4	9.8	15.9
Surabaya		3.8	5.1	14.1	7.7
Davao	N	22.0	24.4	25.6	22.0
Surabaya		29.5	28.2	26.9	41.0
Davao	A	45.1	43.9	46.3	43.9
Surabaya		62.8	57.7	48.7	34.6
Davao	SA	15.9	15.9	15.9	15.9
Surabaya		2.6	7.7	7.7	14.1

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 61% response for "agree" and "strongly agree", consider that adopting cultural and behavioral changes would be easy to implement. Also, a majority of the Surabaya sample, with a cumulative 65.4% response for "agree" and "strongly agree", consider that adopting cultural and behavioral changes would be easy to implement.

Likewise, majority of the Davao sample (59.8%) and Surabaya sample (65.4%) consider the use and adoption of cultural and behavioral changes to be easy.

Interaction with co-workers in the changed culture and behavior environment would be unproblematic according to majority of the Davao sample (62.2%) and majority of the Surabaya sample (56.4%).

Adjustment to the changed culture and behavior setting would be uncomplicated according to majority of the Davao sample (59.8%) and less than a majority of the Surabaya sample (48.7%).

A notable result in this regard is that some Davao and Surabaya respondents, from 22.0% to 41.0% of the sample, are not sure about the effort expectancy indicators.

The results presented above indicate that majority of the Davao and Surabaya city government employees find the adoption of cultural and behavioral changes to be relatively easy in terms of most of the effort expectancy indicators.

Table 4.96 Responses to social influence indicators (in %)

City	Response	Indicator statement			
		1. It must be done because other cities are doing it	2. It must be done because other departments or divisions are doing it	3. It must be done because citizens expect it	4. It must be done because citizens demand it
Davao	SD				
Surabaya					
Davao	D	3.7	3.7	3.7	3.7
Surabaya		11.5	5.1	5.1	3.8
Davao	N	23.2	24.4	25.6	25.6
Surabaya		29.5	28.2	16.7	34.6
Davao	A	54.9	53.7	53.7	53.7
Surabaya		33.3	46.2	44.9	35.9
Davao	SA	15.9	15.9	14.6	14.6
Surabaya		21.8	19.2	30.8	23.1

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 70.8% response to “agree” and “strongly agree”, and majority too of the Surabaya sample, with a cumulative 55.1% response to “agree” and “strongly agree”, are convinced that adopting cultural and behavioral changes must be done because other cities are doing it.

Because other departments or divisions are doing it, majority of the Davao sample (69.6%) and Surabaya sample (65.4%) are convinced as well that adopting cultural and behavioral changes must be done also.

Majority of the Davao sample (68.3%) and Surabaya sample (75.7%) are similarly convinced that adopting cultural and behavioral changes must be done

because citizens expect it. Moreover, majority of the Davao and Surabaya samples, with 68.3% and 59% respectively, are also convinced that citizens demand for cultural and behavioral changes to be adopted in the city government.

Although not significant but worth noting are the findings that some Davao and Surabaya respondents, from 16.7% to 34.6% of the sample, are not sure about the social influence indicators.

The study's findings suggest that majority of the city government employees of Davao and Surabaya find the social influence indicators to be relatively convincing for them to adopt cultural and behavioral changes.

Table 4.97 Responses to facilitating conditions indicators (in %)

City	Response	Indicator statement			
		1. I have the knowledge and skill for it	2. Technical support and assistance would be available	3. Financial support is available	4. The city administration supports it
Davao	SD				
Surabaya					
Davao	D	2.4	2.4	2.4	2.4
Surabaya		7.7	6.4	7.7	7.7
Davao	N	20.7	25.6	23.2	22.0
Surabaya		29.5	35.9	34.6	16.7
Davao	A	59.8	53.7	53.7	48.8
Surabaya		50.0	50.0	39.7	51.3
Davao	SA	14.6	15.9	18.3	24.4
Surabaya		11.5	6.4	16.7	23.1

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 74.4% response to “agree” and “strongly agree”, are certain that they have the knowledge and skill for adopting cultural and behavioral changes. Majority of the Surabaya sample, with a cumulative 61.5% response to “agree” and “strongly agree”, are also certain that they are knowledgeable and skillful enough for adopting cultural and behavioral changes.

Majority of the Davao sample (69.6%) and Surabaya sample (56.4%) are likewise certain that technical support and assistance would be available for the adoption of cultural and behavioral changes. Besides, majority of the Davao sample

(72%) and Surabaya sample (56.4%) are certain as well that financial support would be available.

Majority of the Davao sample (73.2%) and majority of the Surabaya sample (74.4%) are certain that their respective city administrations support the adoption of cultural and behavioral changes in the city government.

It must be mentioned that the results show some Davao respondents (from 20.7% to 25.6%) and Surabaya respondents (from 16.7% to 35.9%) as being not sure about the facilitating conditions indicators.

Nevertheless, the study revealed that majority of the government employees of both cities are certain that the indicators for facilitating conditions in the adoption of cultural and behavioral changes are present in their respective city governments.

Table 4.98 Responses to anxiety indicators (in %)

City	Response	Indicator statement			
		1. I am hesitant in using or doing it	2. I worry that it will not work out as expected	3. I feel overwhelmed by it	4. I am concerned that citizens will not like it
Davao	SD	19.5	19.5	19.5	19.5
Surabaya		12.8	21.8	21.8	17.9
Davao	D	45.1	45.1	40.2	42.7
Surabaya		33.3	32.1	37.2	35.9
Davao	N	19.5	15.9	20.7	19.5
Surabaya		33.3	26.9	19.2	23.1
Davao	A	13.4	17.1	17.1	15.9
Surabaya		12.8	11.5	12.8	19.2
Davao	SA				
Surabaya		6.4	6.4	7.7	2.6

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 64.6% response for “disagree” and “strongly disagree”, are confident that they are not hesitant in adopting cultural and behavioral changes. However, less than a majority of the Surabaya respondents, with a cumulative 46.1% response to “disagree” and “strongly disagree”, are confident that they would not hesitate in adopting cultural and behavioral changes.

Majority of the Davao sample (64.6%) and the Surabaya sample (53.9%) are not worried that adopting cultural and behavioral changes will not work out as expected.

Nor do they feel overwhelmed by it according to the majority of Davao respondents (59.7%) and Surabaya respondents (59%).

In addition, majority of the Davao sample (62.2%) and Surabaya sample (53.8%) are not concerned that citizens will not like the adoption of cultural and behavioral changes in the city government.

Despite the abovementioned findings, some respondents from both cities still expressed their neutrality and agreement on the anxiety indicators. Nonetheless, the study showed that majority of the city government employees in Davao and Surabaya are confident that most of the anxiety indicators do not affect their intention to adopt cultural and behavioral changes in the government.

Table 4.99 Responses to attitude indicators (in %)

City	Response	Indicator statement			
		1. It is a good idea	2. It is a worthwhile thing to do	3. I like it	4. It is a nice thing
Davao	SD				
Surabaya		1.3			
Davao	D			1.2	1.2
Surabaya		1.3	2.6	1.3	3.8
Davao	N	18.3	25.6	24.4	25.6
Surabaya		19.2	20.5	19.2	19.2
Davao	A	64.6	58.5	58.5	57.3
Surabaya		48.7	53.8	50.0	52.6
Davao	SA	14.6	13.4	13.4	13.4
Surabaya		28.2	20.5	26.9	23.1

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
 N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 79.2% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 76.9% response to “agree” and “strongly agree”, believe that adopting cultural and behavioral changes is a good idea.

Adopting cultural and behavioral changes is a worthwhile thing to do according to majority of Davao respondents (71.9%) and majority of Surabaya respondents (74.3%). Moreover, majority of the Davao sample (71.9%) and Surabaya sample (76.9%) signified that they like adopting cultural and behavioral changes.

Majority of the Davao sample (70.7%) and Surabaya sample (75.7%) also believe that adopting cultural and behavioral changes is a nice thing.

The study's findings thus indicate that majority of the government employees of Davao and Surabaya manifest positive attitudes with regard to the adoption of cultural and behavioral changes in their respective city governments.

Table 4.100 Responses to behavioral intention indicators (in %)

City	Response	Indicator statement		
		1. I intend to do it	2. I predict that I would do it	3. I plan to do it very soon
Davao	SD			
Surabaya				
Davao	D			
Surabaya		5.1	2.6	3.8
Davao	N	8.5	30.5	24.4
Surabaya		14.1	28.2	23.1
Davao	A	56.1	56.1	63.4
Surabaya		57.7	53.8	50.0
Davao	SA	32.9	11.0	9.8
Surabaya		21.8	14.1	21.8

Legend: SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree
N= 82(Davao) 78(Surabaya)

Note: some items have missing responses

Majority of the Davao sample, with a cumulative 89.0% response to “agree” and “strongly agree”, and majority of the Surabaya sample, with a cumulative 79.5% response to “agree” and “strongly agree”, expressed that they intend to adopt cultural and behavioral changes. Also, majority of Davao respondents (67.1%) and majority of Surabaya respondents (67.9%) predicted that they would adopt cultural and behavioral changes. Likewise, majority of them, 73.2% for Davao and 71.8% for Surabaya, conveyed that they plan to adopt cultural and behavioral changes very soon.

The study clearly revealed that majority of the Davao and Surabaya city government employees affirmed their intention to adopt cultural and behavioral changes in their respective city governments.

4.3 Proposed theory and model for e-government transformation adoption

Based on the results of the tests on this study's model on the aggregate and comparative levels, this research paper proposes a theory on e-government transformation adoption. On the basis of the acceptable regression weights or path coefficients, and moderating effects on the relationships of variables, it is theorized that performance expectancy (PE), social influence (SI), facilitating conditions (FC), and attitude (AT) are the determinant factors for the behavioral intention (BI) of government employees to adopt e-government transformation. The employees' length of work experience moderates the associations of the independent variables (PE, SI, FC, AT) on the dependent variable (BI). These relationships are shown in Figure 4.5 below.

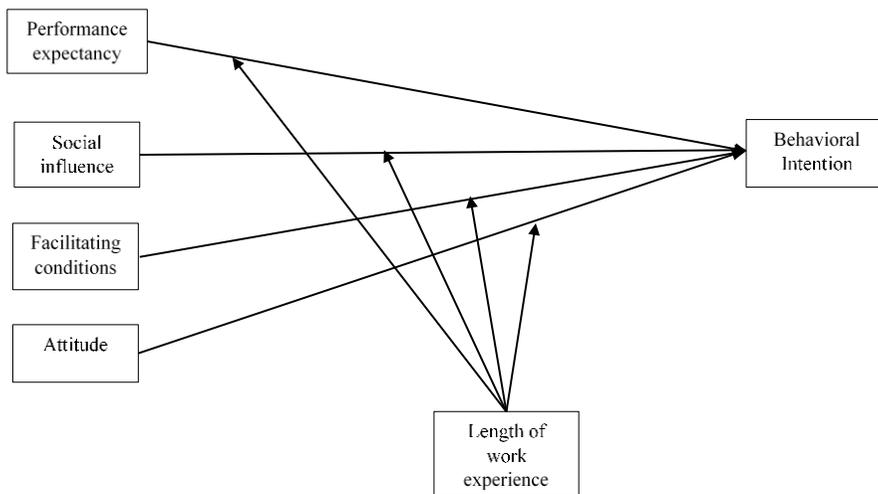


Figure 4.5 Proposed model of e-government transformation adoption

Performance expectancy is a determinant factor for e-government transformation adoption. When government employees understand and appreciate that transformation would result to: completion of tasks in less time and less cost; achievement of set goals and objectives; enhancement of service quality; and, an increase in overall productivity, the more they will tend to adopt and use transformative practices and activities in the government organization.

Social influence is a contributing factor for e-government transformation adoption. Once government employees are made aware that other cities or departments/divisions are doing it, and that citizens expect and demand it, they are more inclined to adopt and use transformative practices and activities in the government organization.

Facilitating conditions influence government employees' intention to adopt e-government transformation. When they actually experience and are made secure in their beliefs that: they have the skill and knowledge for it; there are technical and financial support; and, the city administration or leadership supports it, they are more likely to adopt and use transformative practices and activities in the government organization.

Attitude is a crucial factor for e-government transformation adoption. Having the right and positive mindset: that it is a nice, good, worthwhile and likeable thing to do; among the government employees, would make them more apt to adopt and use e-government transformational activities and practices.

The employees' length of work experience in the government experience would likely moderate the influences of the abovementioned variables' relationships with the behavioral intention to adopt e-government transformation. The understanding and appreciation of performance expectations, awareness of social factors or influences, experiences of facilitating conditions, and development of positive attitudes towards the organizational context are significantly shaped by how long or short the employee has worked in it.

Summary of Hypotheses Testing Results

The tables below, Tables 4.101 and 4.102, present a simplified summary of the hypotheses testing results of this study.

Table 4.101 Summary of hypotheses testing results (aggregate)

Hypothesis	Relationship	Model 1	Model 2	Model 3	Model4
H1	PE (+) → BI	Rejected	Accepted	Accepted	Accepted
H2	EE (+) → BI	Rejected	Rejected	Rejected	Rejected
H3	SI (+) → BI	Rejected	Accepted	Rejected	Rejected
H4	FC (+) → BI	Rejected	Rejected	Accepted	Accepted
H5	ANX (+) → BI	Rejected	Rejected	Rejected	Rejected
H6	AT (+) → BI	Accepted	Accepted	Accepted	Accepted
H7a	AGE → (EE → BI)	Rejected	Rejected	Rejected	Rejected
H7b	AGE → (ANX → BI)	Rejected	Rejected	Rejected	Rejected
H7c	AGE → (AT → BI)	Rejected	Rejected	Rejected	Rejected
H8a	LWE → (PE → BI)	Rejected	Rejected	Rejected	Accepted(-)
H8b	LWE → (EE → BI)	Rejected	Rejected	Accepted(-)	Accepted(-)
H8c	LWE → (SI → BI)	Rejected	Rejected	Rejected	Rejected
H8d	LWE → (AT → BI)	Rejected	Rejected	Accepted(-)	Accepted(-)

Table 4.102 Summary of hypotheses testing results (comparative)

Hypothesis	Relationship	Model 1		Model 2		Model 3		Model 4	
		D	S	D	S	D	S	D	S
H1	PE (+) → BI	R	R	A	A	A	A	R	R
H2	EE (+) → BI	R	R	R	R	R	R	R	R
H3	SI (+) → BI	R	R	R	R	R	R	R	R
H4	FC (+) → BI	A	R	R	R	R	R	R	A
H5	ANX (+) → BI	R	R	R	R	R	R	R	R
H6	AT (+) → BI	A	A	A	A	A	A	A	A
H7a	AGE → (EE → BI)	A(-)	R	A(-)	R	R	R	A(-)	R
H7b	AGE → (ANX → BI)	A(+)	R	A(+)	R	A(+)	R	A(+)	R
H7c	AGE → (AT → BI)	A(-)	R	A(-)	R	R	R	R	R
H8a	LWE → (PE → BI)	A(-)	R	A(-)	R	R	R	R	R
H8b	LWE → (EE → BI)	A(-)	R	A(-)	R	A(-)	R	A(-)	R
H8c	LWE → (SI → BI)	A(-)	R	A(-)	R	A(-)	R	A(-)	R
H8d	LWE → (AT → BI)	A(-)	R	A(-)	R	R	R	A(-)	R

Legend: D (Davao) S
(Surabaya)
A (Accepted)
R (Rejected)

CHAPTER V
CLOSING
(SUMMARY, CONCLUSION, IMPLICATIONS
AND RECOMMENDATIONS)

This research paper sought 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 adopting e-government transformation in the cities of Surabaya, Indonesia and Davao, Philippines; and, 2) to what extent do the respondents' age and length of work experience moderate these associations? This study utilized a research model that critically analyzed the variables which are pivotal in the adoption of e-government transformation from the perspective of government employees in both cities. e-Government transformation is defined as involving four interrelated dimensions, i.e., new ICT systems (model 1), process redesign (model 2), organizational structuring (model 3), and cultural and behavioral change (model 4).

This part is a structured presentation of the following: summary of results on the respondents' demographic profile, and the associations of variables; conclusions drawn from the results; implications inferred from the conclusions; and, recommendations based on the implications.

5.1 Summary of Results

Demographic profile

In general, majority of the employees in both city governments are relatively young, but a considerable number are in the older age bracket. On the comparative level, majority of the Surabaya sample belong to the 21-45 age brackets, while a minority are in the 46-65 brackets. On the other hand, majority of the Davao sample belong to the 21-45 age brackets, while a minority are in the 46-65 age brackets. However, a comparison reveals that there are more Surabaya sample who are in the 21-45 age brackets than the Davao sample. Conversely, there are more Davao sample who are in the 46-65 age brackets than the Surabaya sample.

In general, majority of the respondents have longer work experience (11 years and more) in the city government. On the comparative level, majority of the Surabaya

sample have been working in the city government for ten years or less, while a minority of them have been in the city government service for 11 years and more. On the other hand, a minority of the Davao sample have been working in the city government for ten years or less, while a majority of them have been in the city government service for 11 years and more.

New ICT systems (model 1)

At the aggregate level, the study shows that in using new ICT systems for e-government transformation, attitude towards this behavioral intention is the pivotal variable, and that age and length of work experience do not appear as moderating variables.

Comparative results indicate that facilitating conditions and attitude are the crucial factors for using new ICT systems by the Davao city government employees. Moreover, their age appears to be strongly influencing positively the effect of anxiety on their intention to use new ICT systems, at the same it negatively influences the effects of effort expectancy and attitude. Length of work experience was also found out to negatively influence the effects of performance expectancy, effort expectancy, social influence and attitude on the intention to use new ICT systems. On the other hand, attitude seems to be the crucial factor for using new ICT systems by the Surabaya city government employees. Their age and length of work experience do not appear to influence in any manner the effects of predictor variables on the intention to use new ICT systems.

Process redesign (model 2)

At the aggregate level, the study shows that in adopting process redesign for e-government transformation, performance expectancy, social influence and attitude towards this behavioral intention are the pivotal variables. Age and length of work experience do not appear as moderating variables.

Comparative results indicate that performance expectancy and attitude are the pivotal variables which predict the intention of Davao and Surabaya city government employees to adopt process redesign. Age is shown to have a strong positive moderating effect on the influence of anxiety, and strong and moderate negative effects,

respectively, on the influence of effort expectancy and attitude on intention of Davao city government employees. Their length of work experience turns out to have strong negative moderating effects on the influence of performance expectancy, effort expectancy, social influence and attitude on intention to adopt process redesign. On the contrary, both age and length of work experience of Surabaya city government employees do not affect in any way the predictor variables of intention to adopt process redesign.

Organizational structuring (model 3)

At the aggregate level, the study shows that in adopting organizational structuring for e-government transformation, performance expectancy, facilitating conditions and attitude towards this behavioral intention are the pivotal variables. Length of work experience appear to moderately and strongly affect in the negative direction the influence of effort expectancy and attitude, respectively, on the intention to adopt organizational structuring.

Comparative results show that performance expectancy and attitude are the key factors which influence the intention of Davao and Surabaya city government employees to adopt organizational structuring. For Davao employees, age is found to have a strong positive influence the effect of anxiety on the behavioral intention. Length of work experience is also revealed to strongly influence negatively the effects of effort expectancy and social influence on intention to adopt organizational structuring. On the other hand, age and length of work experience do not seem to influence the effects of predictor variables on the intention of Surabaya employees to adopt organizational structuring.

Cultural and behavioral change (model 4)

At the aggregate level, the study shows that in adopting cultural and behavioral changes for e-government transformation, performance expectancy, facilitating conditions and attitude towards this behavioral intention are the pivotal variables. Age does not appear to have moderating effects. Length of work experience seem to strongly moderate in the negative direction the influence of performance expectancy, effort expectancy and attitude on the intention to adopt cultural and behavioral changes.

Comparative results show that in adopting cultural and behavioral change, attitude emerge as the crucial variable for Davao and Surabaya city government employees. Age of Davao employees turn up as negatively affecting the influence of effort expectancy, and positively affecting the influence of anxiety on the behavioral intention. Length of work experience strongly moderates in the negative direction the associations between effort expectancy, social influence, attitude and behavioral intention of Davao respondents. Age and length of work experience of Surabaya employees do not affect in any way the influence of predictor variables of intention to adopt cultural and behavioral change.

5.2 Conclusion

This study's main objective has been to critically analyze the extent of associations between performance expectancy, effort expectancy, social influence, facilitating conditions, anxiety, attitude and behavioral intention of local government employees to adopt e-government transformation. On the basis of the results presented in the previous section and as a conclusion, this study proposes a theory of e-government transformation adoption, which is graphically represented in a model (please see Figure 4.5, p. 132).

For the employees of both city governments, performance expectancy is a significant determinant factor for e-government transformation adoption. Social influence is a significant contributing factor for e-government transformation adoption. Facilitating conditions significantly influence government employees' intention to adopt e-government transformation. Attitude is a crucial factor for e-government transformation adoption. On the whole, effort expectancy and anxiety appear to be insignificant factors in e-government transformation adoption.

Comparatively, the Davao employees' age and length of work experience in the government experience strongly moderate the influences of the abovementioned variables' relationships with the behavioral intention to adopt e-government transformation. In other words, employees who are older and who have longer work experience in the organization tend to have issues with regard to adopting and using transformative practices and activities. On the other hand, Surabaya city government employees, young and old, with short or long work experience, do not appear to have

issues with e-government transformation adoption. This could perhaps partly explain why Surabaya is in its current state of e-government development.

5.3 Implications

Implications to theory

In the context of this study and from the city government employees' perspective, attitude is the pivotal variable in the intention to use new ICT systems for e-government transformation (model 1). This supports the argument that individuals perform behaviors towards which they have a positive affect (Ajzen and Fishbein 1980; Ajzen 1991; Davis 1989), especially in the use of new ICT systems in government (Nam 2012; Hung et al. 2013; Rana et al. 2015b). Performance expectancy, effort expectancy, social influence, facilitating conditions, and social influence do not emerge as predictors of this particular behavioral intention, thus not advancing support to the prevailing notions of many studies. This finding implies that city government employees in both cities already believe that using new ICT systems can or have already met their expectations in terms of performance and effort. Facilitating conditions are already present. External social factors and individual factors, such as anxiety, do not really matter much. Anxiety also does not come out as a predictor for intention of new ICT systems use, in a way undermining the claim of some studies (Meuter et al. 2003; Olatubosun and Rao 2012).

Performance expectancy, social influence, and attitude are pivotal predictors of the intention to adopt process redesign for e-government transformation (model 2). For this particular dimension, city government employees in both cities view positive impacts on performance and external factors as important reasons to adopt it. An interesting find in this aspect is that effort expectancy negatively influences the behavioral intention. In other words, some city government employees, particularly in Davao, believe that doing it would require more effort.

Performance expectancy, facilitating conditions and attitude come out as the pivotal predictors of the intention to adopt organizational structuring (model 3), and to adopt cultural and behavioral change for e-government transformation (model 4). Adopting both facets of transformational government is reckoned by city government

employees in both cities as valuable for improved performance. Facilitating conditions, i.e. financial, technical, structural, and political, must be present.

The findings support the generally validated models which report that performance expectancy, facilitating conditions, social influence (Lin and Liang, 2011; Carter, et al., 2012; Weerakkody, et al., 2013) and attitude (Rana, et al., 2016; Dwivedi, et al., 2017) are predictor variables of e-government adoption. Moreover, the findings actually extend the predicting power of such variables from the technological aspect of e-government to the process, organizational, cultural and behavioral dimensions of e-government.

In general, age as a moderating variable is not relevant in all four models, invalidating the claims of some studies (Venkatesh and Morris, 2000; Venkatesh, et al., 2003; AbuShanab and Pearson, 2007; Hamner and Al-Qahtani, 2009; Yu, 2012). However, an interesting find by this study is that length of work experience has significant relevance as a moderating variable. It has substantial negative effects on the relationships between effort expectancy, attitude and intention to adopt organizational structuring. It similarly affects the relationships between performance expectancy, effort expectancy, attitude and intention to adopt cultural and behavioral change. These negative moderating effects are very salient among Davao employees who have longer work experience in the city government. On the other hand, age and length of work experience does not in any way affect the Surabaya government employees.

This study has shown that the constructs' roles as predictors (attitude, performance expectancy, facilitating conditions, social influence) and moderator (length of work experience) of behavioral intention can be extended to other dimensions of e-government. This is the evident contribution of this research to the progression of e-government adoption literature: the examination and validation of those constructs' roles in the process, organizational, cultural and behavioral aspects of e-government.

Implications to practice

Attitude stand out as the crucial factor for the intention to adopt the four dimensions of e-government transformation. Thus, maintaining and sustaining the positive attitude about it among city government employees, especially those who have been in the government service for a longer period, is very important for its incremental

realization. For e-government transformation to be adoptable and efficacious, some conditions are necessary. Transforming so as to improve the city government's performance, hence become more effective and efficient, should always be instilled among the employees. The employees, the older ones in particular, should be made to understand that doing so requires additional effort on their part being members of the organization. Moreover, they should also be made to realize that while technology is rapidly improving, at the same time citizens' expectations of government service delivery are also rising and therefore adjustments have to be done. City government officials and decision-makers should see to it that financial, technical, and structural support are present, which necessitates sound political leadership and committed political will. The positive attitude towards the idea and practice of transformational government should be maintained and sustained among city government employees and officials.

5.4 Recommendations

For future research

Appropriate provisions have been carried out by the researcher in the conduct of this study, but certain limitations need to be considered with regard to the interpretation of its findings. First, the determination of the sample size was done through purposive sampling, so the application of results should be done with prudence. Future researchers must take note of the city government employee population size, so that if it is just a small and manageable size, then complete enumeration would be ideal. The result could then be safely generalized to the whole population. Second, the constructs used for the research model were chosen due to their prominence in the literature. Future researchers may consider investigating other variables, and developing constructs which are appropriate in the government organization context. Third, except for the constructs attitude and behavioral intention measures, which were derived from Davis et al. (1989), Fishbein and Ajzen (1975), and Venkatesh et al. (2003) respectively, the measures for all other constructs have been conceptualized by the researchers and should be considered as initial undertakings. Future researchers could frame other measures deemed to be appropriate for the constructs. Fourth, this study made use of a simple linear regression model in hypothesizing the relationships

of the constructs and therefore future research may develop research models that would explore some other nuances in the constructs' relationships.

For policy/decision-makers in government organizations or agencies

In view of the research results' implications to practice, the researcher proposes some feasible actions that must be done by the city government organizations or agencies which consider transformation of their e-government a priority.

Seminars and orientations that are designed to develop, maintain and sustain the right attitude of government employees towards adopting changes or reforms in the organization must be conducted regularly. This recommendation is specifically addressed to the Davao city government, mainly because of the finding that its older employees are found to have negative attitudes toward transformation. For the Surabaya city government, activities to sustain the positive attitude should be continued.

Strategic planning by each organization or agency in order to draw up short-term and long-term development plans should be consistently accomplished. Monitoring and evaluation of the plans' implementation should likewise be done.

Re-tooling and capacity-building activities for the employees are essential for the transformation process. Thus, workshops and in-house trainings on pertinent fields of organizational work facilitated by experts and professionals should be carried out. Again, this is highly recommended for the Davao city government.

Visits and exposures to government agencies or organizations with best e-government practices would be an excellent approach to make employees more well-informed. These could also be useful for benchmarking purposes, to serve as a guide for transformation efforts.

Finally, legislative actions by the local government are crucial for the facilitation of e-government transformation. In order to institutionalize transformational practices, local laws must be enacted. Executive orders must be issued. The legal framework for e-government transformation must be existent.

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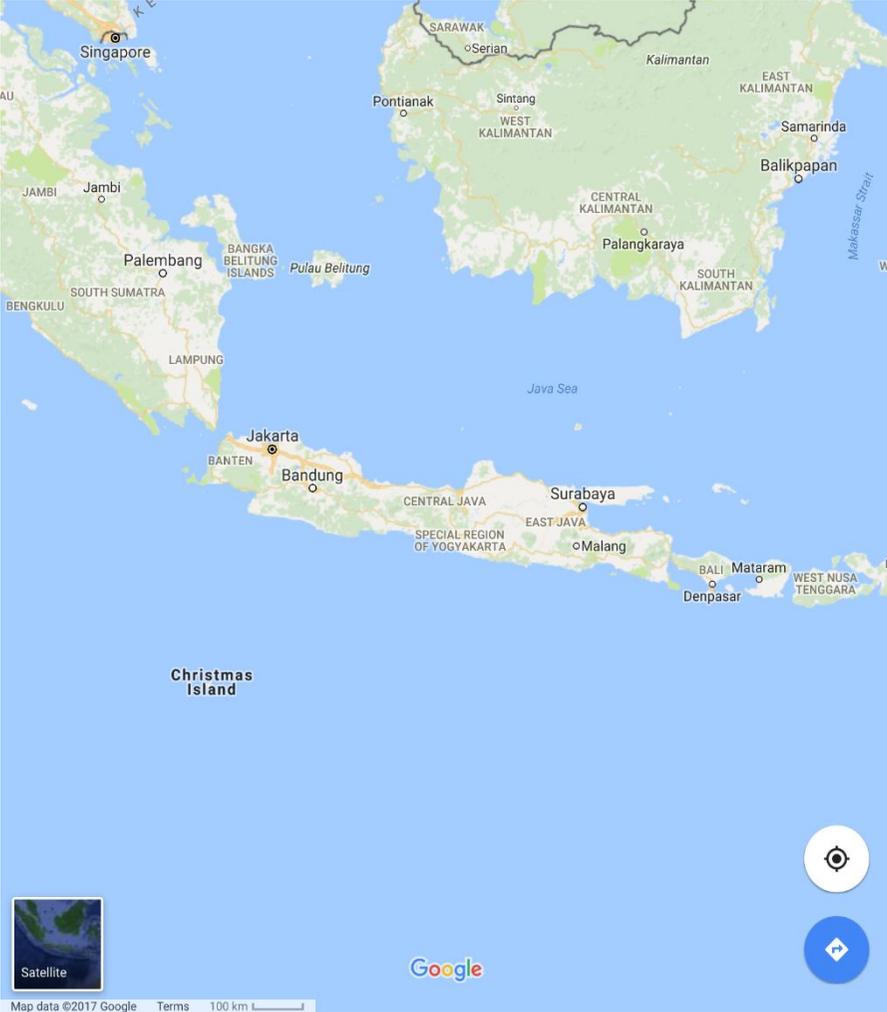
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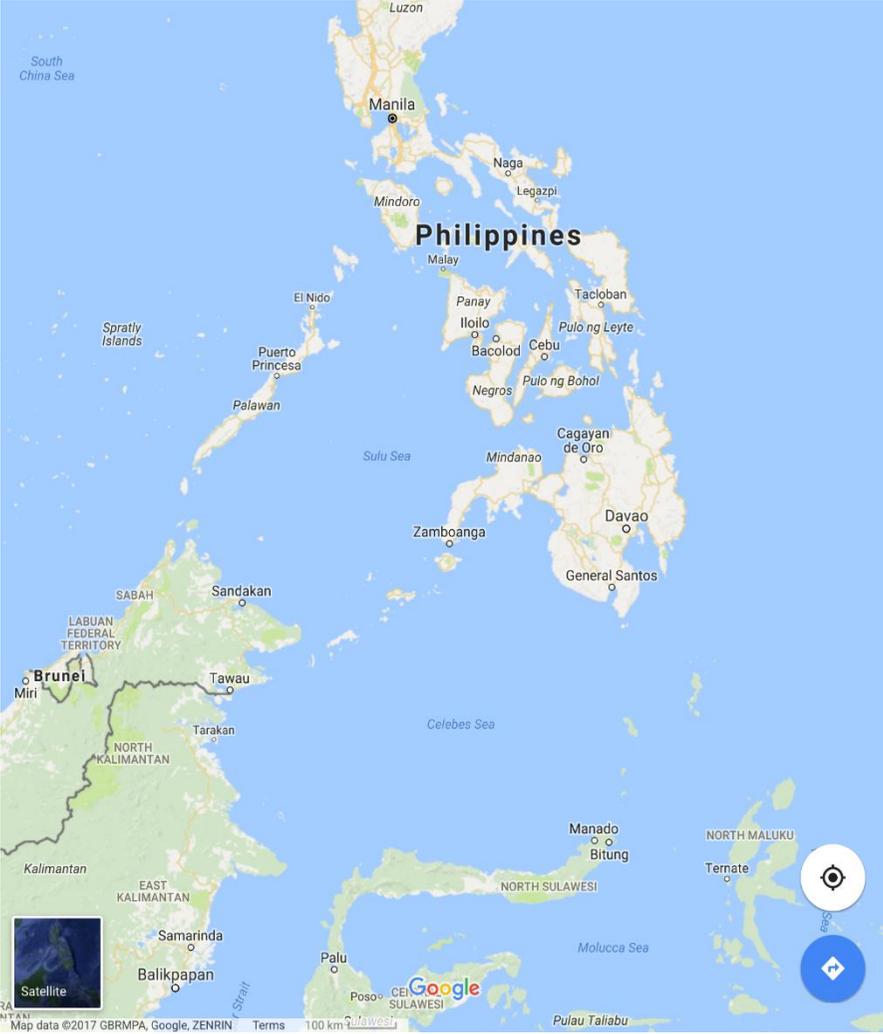
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Appendix 1 Location map of Surabaya, Indonesia



Appendix 2 Location map of Davao, Philippines



Appendix 3 Survey Questionnaire

A. Profile Data

Instruction: Please put a check mark (✓) on the blank space corresponding to your answer.

1. Age: _____ 21-35 _____ 36-45 _____ 46-55 _____ 56-65

2. Number of years working in the city government:

_____ 0-5 _____ 6-10 _____ 11-15 _____ 16 and more

3. Position in the city government:

_____ City Administrator/Chief Data Officer/Chief Information Officer
_____ Department/Division Head
_____ Staff

B. Level of agreement with statements on transforming e-government.

In transforming e-government, new ICT systems are important. It must make optimal use of Web 2.0 technologies, implement Open Data, and utilize text-based mobile short message service (SMS) technology.

It also requires redesigning processes so that the local government can provide citizen-centered services, set up 'one-stop-shop' or single-point entry portal, integrate various processes, and deliver service through multiple channels.

In addition, organizational structuring must be done in the following ways: establishment of ICT department; institutionalizing professional leadership and management of ICT through Chief Information Officer/Chief Data Officer; shifting of back-office activities to front-office; and vigorous human resource training and re-tooling.

Further, e-government transformation necessitates cultural and behavioral change which involves collaborative leadership in the organization, shared services within the organization and among organizations, and citizen service-centeredness in carrying-out the job.

Given this background, this research seeks your thoughts on e-government transformation in your department and your city government in relation to the key activities briefly discussed above. Please encircle the number corresponding to your response for each statement, the numbers having the following meanings:

- 1- Strongly disagree
 2- Disagree
 3- Neither agree nor disagree
 4- Agree
 5- Strongly agree

Response statements	Use new ICT systems	Adopt process redesign	Adopt organizational structuring	Adopt cultural and behavioral change
1. Tasks would be completed in less time and at less cost.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
2. Set goal and objectives of the department would be achieved.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
3. Service quality would be enhanced.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
4. Overall productivity of the department would be increased.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
5. Implementing would be easy.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6. Using and adopting would be easy.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7. Interaction with co-workers would be unproblematic.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8. Adjustment would be uncomplicated.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9. It must be done because other cities are doing it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
10. It must be done because other departments/divisions are doing it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
11. It must be done because citizens expect it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
12. It must be done because citizens demand it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
13. I have the knowledge and skill for it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
14. Technical support and assistance would be available.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
15. Financial support is available.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
16. The city administration supports it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
17. I am hesitant in using or doing it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
18. I worry that it will not work out as expected.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
19. I feel overwhelmed by it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
20. I am concerned that citizens will not like it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
21. It is a good idea.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
22. It is a worthwhile thing to do.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
23. I like it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
24. It is a nice thing.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
25. I intend to do it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
26. I predict that I would do it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
27. I plan to do it very soon.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Aside from your responses, what can you say about the use and adoption of e-government transformation in your department and city government? Please feel free to comment.

Appendix 4 Interview Guide

Name of interviewee: _____

Position/Designation: _____

Date of interview: _____

Time started: _____ ended: _____

	1. What changes has the city's e-government done in terms of:	2. What are the issues and challenges faced in the use and adoption by the employees?	3. What are the prospects for future transformation or changes?
a. new ICT systems (use of Web 2.0 technologies, Open Data, and utilization of text-based mobile short message service (SMS) technology)			
b. redesigning processes (setting up 'one-stop-shop' or single-point entry portal, integrating various processes, and delivering service through multiple channels)			
c. organizational structuring (establishment of ICT department; institutionalizing professional leadership and management of ICT through Chief Information Officer/Chief Data Officer; shifting of back-office activities to front-office; and vigorous human resource training and re-tooling)			
d. cultural and behavioral change (collaborative leadership in the organization, shared services within the organization and among organizations, and citizen service-centeredness in carrying-out the job)			

CURRICULUM VITAE

A. Personal Data

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Children's names : Bran Jairo S. Batara
Zen Yrenée S. Batara

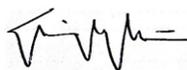
B. Educational Background

- a. Kamague Community School, Iligan City (Elementary) 1977
- b. MSU-IIT Developmental High School, Iligan City 1981
- c. Bachelor of Arts in Political Science 1986
- d. Master of Arts in Philippine Studies 2001

C. Work experience

Lecturer, Political Science Department, College of Arts and Social Sciences, MSU-Iligan Institute of Technology (1988-present)

Yogyakarta, 2 December 2017



ENRIQUE B. BATARA