GOVERNMENT-TO-BUSINESS (G2B) PERSPECTIVES IN E-GOVERNMENT

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ABSTRACT

In the field of electronic government (e-government) the area of government-to-business (G2B) has received limited attention, compared to the much more researched area of government-to-citizen (G2C) [7] [11] [22]. This research explores the factors affecting the development of the G2B domain. Specifically we look at the primary modes of interaction that a business has with e-government, and examine the factors that either promote or hinder G2B interaction between government and small and medium enterprises (SMEs). We present a theoretical model of these constructs in this work-in-progress paper. The contribution of this research can provide important insights to both practitioners and researchers in the area of e-government.

KEYWORDS:
E-government, electronic government, government-to-business, G2B, SME

INTRODUCTION

The goal of this paper is to highlight the important ways that governments and businesses interact in a web environment, and also identify the main factors that are advancing and/or inhibiting their interaction. E-government facilitates the interaction between governments and other stakeholder entities largely through web-based applications. E-government initiatives are geared towards four primary stakeholders: citizens, employees, businesses, and government agencies. The citizen-to-government (C2G) category has received extensive attention in current e-government literature [7] [11] [22]. The other three main areas of e-government: government-to-employee (G2E), government-to-business (G2B), and government-to-government (G2G) have received significantly less focus.

E-business is a broad term used to describe many business activities that are facilitated via the use of electronic technologies [16]. Business transactions online typically occur in the commercial domain. An equally important component of business transactions online occurs when a business interacts with government. This specific category of interaction is referred to as government-to-business (G2B) services. The main objective of G2B implementation is for the government to use electronic means to satisfy the service needs of businesses [17].
Government services are clustered into the following groups: human services; community services; justice services; transportation services; land resources; business services; financial services and other [1]. Each of the above listed service clusters has components that are relevant to businesses. For example, through an e-government portal or website, businesses can learn about new and continuing government projects that they can bid on. Non-profit businesses can also use e-government portals to submit grant proposals and funding requests. Additionally, businesses form an integral part of the supply chain of government agencies providing a variety of raw materials, products, and services. The primary research question guiding this project is what factors influence a business’s decision to use e-government services? We examine the effect of firm level and government level factors on the type of G2B participation.

The next section of this paper presents an overview of the G2B domain. This is followed by a discussion of firm level factors affecting the G2B domain followed by the government level factors affecting the G2B domain. Next we present our conceptual framework and methodology. Lastly, we discuss the implications of this study and present conclusions.

**OVERVIEW OF THE G2B DOMAIN**

The G2B domain focuses on the interaction between government and businesses via a computer mediated environment. One of the earliest examples of G2B interaction is via electronic data interchange (EDI), which represents a standardized method for sharing documents. EDI technology is used for transactions such as online procurement of products by both businesses and governments, with benefits such as reduced transactions costs and increased operational efficiency [14].

Another application area for G2B interaction is for taxation. As companies capitalize on growth opportunities in the global arena, governments have been challenged to implement the necessary legislation to keep pace with business developments. One area where governments have been slow to respond is with the effective collection of sales taxes from online businesses. Governments’ inability to expedite the collection of taxes from web purchases is a global issue [4]. Implementation of e-government policies and protocol can expedite solutions to online taxation challenges by facilitating direct interaction between the government and its business stakeholder. Stakeholder participation can reduce some of the inherent challenges associated with e-government projects [2].

**Firm Level Factors in G2B**

In this section we examine seven firm level factors that can impact B2G participation. Firms are complex entities that vary significantly, but at a minimum, all firms have processes, transactions, structure, politics, and culture [8]. The firm level factors examined in this paper are firm size, information technology (IT) experience, business domain, IT capabilities, revenue, and trust.

*Size:* Both large and small firms can benefit from the leveling of the playing field that the internet presents. The internet has made it possible for small entrepreneurs, previously limited by
physical boundaries, to extend into global markets. Firm size, which typically references the number of employees, is an important variable that is used to distinguish firms today. Firm size can be divided into four categories: micro-firm – less than 10 employees; small-firm – 10-49 employees; medium-firm – 50-249 employees; and large-firm > 249 employees [13]. Additionally, empirical data indicates that larger firms visit e-government websites more frequently than smaller firms [13].

**IT Experience:** IT experience of a firm identifies the amount of time that the business is involved in the implementation of IT initiatives. IT initiatives range from the implementation of EDI, customer relationship management systems (CRM), supply chain management systems (SCM), databases, groupware, networking and telecommunications infrastructure, internet, e-commerce, to large scale enterprise resource planning systems (ERP), and everything in between. One recent study identified positive relationships between a firm’s internet use and e-government, and between a firm’s groupware use and e-government [13]. Firms today acknowledge that the successful implementation of e-commerce applications can provide a competitive advantage to the company [18]. Successful implementation of e-commerce initiatives can serve as a catalyst for other types of online interaction including G2B operations.

**Business Domain:** Business domain is the industry or primary field of operation of the company. The 2007 North American Industry Classification System (NAICS) classifies businesses into 10 main categories, each of which can be subdivided into much more detail with specific examples [12]. In total NAICS codes represent 1170 industries utilized by three different countries: United States, Canada, and Mexico. Businesses are required to report their six digit NAICS code when filing taxes with the Internal Revenue Service (IRS). The earnings that a company reports to the IRS are examined for consistencies with industry norms and inconsistencies can trigger an audit [3]. Existing industry norms may explain why one category of business uses more or less e-government services when compared to another.

**IT capabilities:** The IT capabilities of a firm refer to a comprehensive assessment of its understanding, staffing, and strategic use of IT [6]. IT capabilities are more inclusive than IT experience, which mainly focuses on the technologies used. Lack of effective IT capabilities may occur as a result of challenges associated with the digital divide. The digital divide refers to the inequitable distribution of electronic resources to different groups of the society [5]. Ultimately, a firm’s IT capability is positively related to its use of e-government [19].

**Revenue:** The fortune 500 list ranks firms based on the amount of revenue that they generate. There is a positive, but statistically insignificant correlation between firm performance and e-government use; however this relationship may be enhanced over time [13]. Firms with healthy revenue and a positive cash flow are able to divest a greater proportion of their capital to the IT function. As a firm level factor, revenue can be an important predictor of how the firm reacts to different external stimuli such as developments in the e-government domain.

**Trust:** A business’s participation in e-government initiatives is predicated by both confidence in and sustainability of the e-government project [10]. Reduced government intervention in a business’s decision-making activities such as pricing, hiring, and wage determination, can positively transform B2G interactions [15]. As businesses operate more independently without
direct government intervention, they can exercise greater control of internal processes. High
government intervention is more common in developing countries [15] and associated with lower
trust and higher levels of corruption.

**Government Level Factors in G2B**

This study examines the impact of the different levels of government on the development and
use of G2B projects. The focus is the United States (U.S.) government structure, which is
divided into three main levels: federal, state and local. At the local level, government agencies
include counties, municipalities, townships, school districts, special districts, and others that total
approximately 87,504 governmental units [21]. Government structures can vary extensively and
encompass multiple dimensions. From an e-government perspective, federal, state, and local
levels each implement their own portals to serve constituents.

Firstgov.gov launched in 2000, is the primary mechanism for access to information about the
U.S. federal government [9]. This federal site, now called usa.gov, maintains information for:
citizens, businesses and nonprofits, government employees, and visitors to the U.S. [20]. In
addition to the federal government, the fifty states each independently maintain an e-government
homepage. These pages vary from state to state and do not have a standardized template or
format. Lastly, e-government at the local level is even more heterogeneous, with varying stages
of development.

**CONCEPTUAL FRAMEWORK**

Businesses participate in e-government via two main tasks: 1. search-oriented tasks: seeking
information for their business, and 2. transaction-oriented tasks: completing various tasks online
[19]. In addition to the above two levels of interaction, we propose that businesses have a third
task level of interaction with government – network-oriented tasks. This third level is based on
the knowledge that businesses are motivated by economic, market, and technology related
factors to participate in strategic alliances for e-government procurement.

This third level refers to the businesses’ use of an e-government platform to establish online
networks and partnerships with suppliers, customers, and even competitors. Consequently, we
propose that a business has three participatory levels (or task types) in B2G transactions:
search-oriented, transaction-oriented, and network-oriented.

Search-oriented B2G participation examples include looking for contact information about the
government agency, identifying services the agency provides, and searching for job and contract
opportunities at that government agency. Transaction-oriented participation involves the business
completing a task such as licensing, tax filing, or grant submission at the e-government portal.
Lastly, networking opportunities can be available through social computing initiatives such as
message boards, blogs, and chat at the e-government portal. Both firm level and government
level factors affect the business’s level of participation in e-government initiatives. Our
conceptual model identifies two categories of independent variables and one categorical
dependent variable as described below:
1. Independent Variable 1 - Firm level factors consisting of: firm size, IT experience, business domain, IT capabilities, revenue and trust.
2. Independent Variable 2 - Government level which refers to the three hierarchical levels of government: local, state, and federal.
3. Dependent variable - Task type which consists of three categories: 1. search-oriented, 2. transaction-oriented, and 3. network-oriented.

**PROPOSED METHODOLOGY**

This study will be conducted using a mailed survey to businesses. The target of audience for the surveys will be top executives at SMEs. Top executives in SME represent the appropriate target population for a mailed survey examining the business value of e-government in small and medium sized firms [19]. The targeted sample size for this study is 1000 businesses derived from a business directory.

**CONCLUSION**

The area of G2B has received scant attention in the current e-government literature. Governments spend a large portion of their e-government budget on citizen services, and therefore the focus in the web-domain has been strongly citizen focused as well. However, businesses drive the economy and directly interact with all governmental levels on a daily basis. G2B projects can serve as a catalyst to streamline and effectively manage governments’ interaction with businesses.

E-government is an ever increasing application area in the IT domain. One important benefit of using e-government services is the provision of information about new business opportunities online [19]. If businesses and governments are aware of the factors affecting a business’s use of e-government services, strategies can be employed to reduce some of the inherent barriers. Further, an understanding of the factors that support use, can serve as a template to encourage more SMEs to go online to access government services. From a research perspective, this study will provide important insights into the growing area of G2B. From a practitioner perspective, it will give developers insights into what features and tools are most useful for a G2B platform. Ultimately, this research can make an important contribution to the emerging e-government domain.

**REFERENCES**


