

Similarities and Differences of E-Commerce and e-Government: Insights from a Pilot Study

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Abstract

So far, empirically grounded studies, which compare the phenomena of e-Commerce and e-Government, have been in short supply. However, such studies it has been argued would most likely deepen the understanding of the sector-specific similarities and differences leading to potential cross-fertilization between the two sectors as well as to the establishment of performance measures and success criteria. This paper reports on the findings of an empirical research pilot, which is the first in a series of planned exploratory and theory-testing studies on the subject.

1. Introduction

E-Commerce and e-Business have been portrayed as private-sector siblings and antecedents of e-Government [1]. At face value, many transactional and informational phenomena observed in private-sector e-Commerce arenas seem to be mirrored in e-Government, and vice versa. Also, field-/front office work and back office work in both sectors have undergone major changes in the wake of introducing capabilities and methods, which exploit computer-mediated networks such as the Internet and the Web. Interestingly, few studies exist, if any, which capture lessons learned and summarize current practices, or establish measures across sector boundaries for success of this rapid socio-technical evolution¹. The organizational and social impacts and consequences in the e-Commerce/e-Government evolution, however, may represent the far more challenging problems to understand than the admittedly non-trivial (technical) interplay of systems and networks.

This paper summarizes the findings of an empirical pilot on the subject, which surfaces several expected and some surprising differences and similarities of e-Commerce and e-Government. The respective lessons learned, the current practices, and the metrics of success might benefit both sectors and both evolutionary paths. Deeper understanding of the complex mesh of

technological, organizational, and social factors and processes in both e-Commerce and e-Government might lead to practice-relevant cross-fertilization and reduction of unnecessary reduplication. This paper is organized as follows. First, we recap the distinction between the public and private sectors, both in general and in information-technology-related contexts. Second, we briefly review pertinent literature on e-Commerce and e-Government. Third, we introduce and discuss the study design followed by the presentation and discussion of our findings. We conclude by laying out the design and orientation of the subsequent studies in this research series.

2. The Public-Private Distinction

Traditionally, public-to-private differences have been identified in three areas: (1) environmental drivers and constraints, (2) organizational mandates and scope, and (3) internal processes, complexities, and incentives [2]. Among other distinguishing dimensions, the private sector has been praised for its higher agility, greater resourcefulness, less burdensome bureaucracy, and stronger motivation to proactively innovate when compared with public sector organizations [3-5, 2, 6]. However, as Perry and Rainey observed, in practice the distinction between the two sectors might be troublesome, since apart from the clear-cut cases of publicly owned, and publicly funded organizations versus privately owned, and privately funded firms, all shades of grey, that is, hybrids exist, which considerably blur the sector boundaries and make the distinction between public and private sector organizations less meaningful, if not even problematic at times [7]. We recognize that our initial comparison has to remain at a relatively high level of observation and analysis. More fine-grained sub-sector-specific analysis might be found necessary.

3. Sector Differences and Similarities as Seen by Traditional Information Systems (IS) Research

In contrast to private Management Information Systems (MIS), which are mainly geared at increasing economic efficiency and profitability, their public counterparts (PMIS) had to simultaneously provide both economic and political efficiencies and also serve a policy mission [4]. Further, unlike private MIS, PMIS yielded only few labor savings. Finally, the (at times extreme)

¹ The International Journal of Electronic Business has published a special issue on "e-Government and e-Business as Complementary Innovations: Transferable Lessons and Diffusion Dynamics" (IJEB, vol 4, iss 2, 2004). However, the issue falls short of providing any systematic comparison or synopsis of the two phenomena.

scarcity of skilled labor had been a chronic challenge for public IT managers and CIOs for decades (ibid).

To a certain extent, those differences might also hold when comparing e-Commerce with e-Government, and vice versa. In a recent study, public IS managers were found to pursue different priorities in their IT investments than their private colleagues: In rank order, the top five priorities for public-sector CIOs were (1) the implementation of an IT architecture, (2) cultural change, (3) hiring/retaining skilled professionals, (4) unifying/streamlining, and (5) simplifying business processes [8]. By contrast, private-sector CIOs ranked their priorities as (1) simplifying business processes, (2) improving service, (3) effective relationships with senior executives, (4) preventing intrusions, and (5) the implementation of IT architecture (ibid).

Although subjected to identical sector specifics, traditional PMIS and e-Government systems (EGIS) appear different in a number of ways [9]. Therefore, a detailed analysis of the characteristics of EGIS and e-Commerce systems and applications appears necessary for developing deeper understanding.

4. Recent e-Commerce and e-Government Literature Related to the Subject

The most recent comprehensive literature review on electronic Commerce, which we were able to find, dates back from the year 2000 and covers literature published in the timeframe of 1993 through 1999 [10]. It revealed that the early literature on the subject fell into mainly three broad categories: (1) technology-related topics, (2) application-related topics (including inter- and intra-organizational systems), and (3) support and implementation-related topics (ibid). For e-Government research, any comprehensive review and classification of the literature is still missing (Grönlund's contributions are aimed at determining the scientific quality of e-Government research rather than classifying the topical emphases [11, 12]). As a consequence, those reviews do not lend themselves to a sound basis for comparison. Further, we deliberately exclude a review of the literature of New Public Management (NPM). Opposed to a few scholars, practitioners, and politicians, we do not consider e-Government a fulfillment of NPM-based ideas, but rather an independent phenomenon with roots in all traditions of public administration.

Therefore in the following we portray the two bodies of literatures separately and link them as appropriate. Since 2000, however, the e-Commerce and the e-Government-related streams of literature have independently reported on effects and outcomes, which indicate similarities, differences, as well as different emphases in the two sectors. Increased trust, risk and knowledge sharing, improved economies of scale and

scope, shortened time to market, lower transaction cost, reduced information asymmetries, and improved coordination were found among the effects in the private sector as a consequence of the introduction of e-Commerce [13, 14]. E-Government has reportedly led to business process change, process speedups, increased internal efficiency, improved information sharing and interoperation, greater transparency and accountability, greater proximity to citizens, and improved service levels among other effects [1, 15-18].

In the private sector, e-Commerce applications have been increasingly integrated with traditional information systems and their respective infrastructures in recent years [19]. In supply chains, for example, the management of sourcing (reverse auctioning), coordination, and electronic exchanges via e-Commerce applications had a strong influence on the improvement of operational performance of private-sector firms (ibid). Inter-organizational collaboration in e-Commerce has been facilitated through the alignment and interfacing of workflows and processes in a way, which preserves organizational autonomy [20]. Organizational transformation in terms of changing processes and business models was observed to be driven by e-Commerce-based effects such as the immediacy of deliverability, higher information intensity, customizability, service bundling, cost reductions, risk containment, standards, and access to complementary services [21]. Other authors document the withering of information asymmetries between supply chain members as a consequence of ubiquitous Web-based information availability [22]. Although upon implementation significant org-culture related changes are incorporated into the standards, both economic and political drivers seem to foster the standardization of e-Commerce and other information system types [23]. A key to successful e-Commerce implementation has been found in top-management support [24].

Unlike in the private sector, the drivers of e-Government initiatives seem to be mainly political rather than economical [25, 26, 17, 27]. To some authors, Government-to-citizen (G2C) applications resemble customer-relationship management (CRM) systems, while government-to-business (G2B) applications remind of supply-chain management (SCM) systems in the private sector [28], see also [29]; furthermore, government-to-government (G2G) applications appear to be similar to enterprise-resource planning (ERP) systems geared towards internal effectiveness and efficiency (IEE) (ibid). In fact, e-Government initiatives have led to comparable impacts like e-Commerce initiatives in the private sector, in that they have been found instrumental for increasing government-internal effectiveness and efficiency as well as external service levels and responsiveness [30, 26, 17]. Also, an increase in collaboration and particularly the

sharing of knowledge and information has been observed in the course of e-Government initiatives [31], which, however, was influenced by a number of interacting factors such as context-embeddedness, practice-embeddedness, organization, and technology (ibid., also [32, 33]). Beyond the sharing of knowledge, interoperation of application and integration of information and processes have taken center stage in e-Government [34-36] on national as well as on inter- and transnational levels [37]. Such initiatives seemingly need to be supported by adequate policy models [38]. Interestingly, the expectations regarding (desirable) effects and outcomes of e-Government seem to differ between government officials and citizens: while government officials are fairly confident about those effects and outcomes, citizens apparently are less sure but rather concerned about security and privacy as a study based on early data shows [39]. Like in the private sector, top management support has been found critically important for the success of e-Government initiatives [26].

In summary, the literature suggests similarities between e-Commerce and e-Government in areas such as (1) process improvements, (2) backend (process) integration, (3) cost savings, (4) information sharing, (5) vertical and horizontal e-systems integration, (6) increased responsiveness and service quality, (7) standardization efforts, and (8) the criticality of senior leadership support. Differences between the sectors seem to mainly prevail regarding (1) the drivers and motivations for e-Commerce and e-Government, (2) stakeholder expectations, and (3) resource availability. With this study we intend to enrich the understanding of these differences and similarities.

5. Research Question and Methodology

Study Questions. The two central study questions of this research are:

- (1) What is *similar* in private-sector e-Commerce and public-sector e-Government, and how does it matter?
- (2) What is *different* in private-sector e-Commerce and public-sector e-Government, and how does it matter?

Answering these two study questions would most probably help identify opportunities for cross-sector fertilization, which in turn might improve the sector-specific approaches and initiatives. In the absence of any related comparative research antecedents and with a rather thin theoretical foundation relative to the study problem at hand, we decided that an exploratory research approach is in order [40-42].

Both e-Commerce and e-Government projects and implementations are engrained in institutional and social settings [43, 44] leading to a mesh of socio, technical, and

organizational complexities, which defy the reduction of the study problem to a few variables. Under those conditions and accounting for the exploratory nature of the undertaking, we opted for the empirical format of focus group discussions, which has proven highly effective in such study situation [45-49], particularly, since the interaction between participants leads to rich data and high data quality [42].

Sampling Method. The sampling had to be purposive [50], since certain criteria outlined below had to be met in order to qualify for meaningful data. We also stratified the sample using Anthony's framework, which distinguishes between professionals, supervisors with operational control, managers, and strategic planners [51] and chose the managerial level for the pilot, since that level appeared to us high enough for capturing strategic aspects and motives as well as low enough to identify specifics of implementation and outcomes. Individuals were selected on the basis of willingness to participate and on the basis of prior involvement in and experience with e-Commerce or e-Government projects. For both sectors, participants were selected from organizations in the US Pacific Northwest, which has been found highly developed in both e-Commerce (for example, Amazon.com, Boeing, Microsoft, etc.) and e-Government [52, 53, 16]. We required that the projects, in which the participants had been involved, had been of strategic nature to the organization. Also, the project had to contain a major transactional component. In the private-sector focus group we ended up with six individuals from leading e-Commerce-engaged organizations representing various industries, while we had five individuals from the public sector representing the executive branch of various levels of government.

Data Collection. In the letter of invitation to prospective participants from the private sector, we verbally and graphically introduced the concepts of business-to-consumer (B2C), business-to-business (B2B), business-to-government (B2G), business-to-employee (B2E), and IEE. Likewise, we introduced the concepts of G2C, G2B, G2G, and government-to-employee (G2E) as well as IEE in the invitation letters to prospective participants from the public sector. Intentionally, we framed and pre-structured the discussion in that way for systematic comparability. We did not believe that this framing and pre-structuring would hamper the expert discussion in any way, on the contrary. For both groups we also introduced the two dimensions of "informational" and "transactional" for each of the above concepts. On two consecutive days we held half-day focus group discussions with the selected participants, first with the private sector participants, the next day with the public sector participants. The moderator first introduced the focus group format to the participants; she then re-introduced the e-Commerce and e-Government concepts

as already outlined in the invitation letters. She explained to participants that the first session would be dedicated to the “informational” aspects of the five concepts followed by a second session on the “transactional” aspects. Prior to each session, participants were asked to prepare and write down discussion points for each concept as far as those applied to their projects and experience. The moderator then launched the focus group discussion with an opening question and facilitated the discussion, while three observers took notes and administered the audio recording [48]. The audio tracks were transcribed yielding over 170 pages of transcripts. Also, over 40 pages of notes were taken.

Data Analysis. In this study we mainly used Strauss and Corbin coding methodology [54]. In four passes, the transcripts and emerging concepts were analyzed. First, the two researchers independently read the transcripts identifying units of data. Our impression from the collection exercise was confirmed during this phase that we had in fact managed to collect rich and high-quality data in all four sessions. In the second pass, the two researchers read the transcripts again and consolidated the units of data. In an open coding process [54], each unit of data was then assigned to a preliminary category or subcategory whose dimensions and properties were developed from the data. New categories and subcategories were introduced, in case existing categories did not apply [55]. Convergence and assignment of categories, which the two researchers had identified independently, was performed at each step of the data analysis. In a subsequent pass, an axial coding process was applied, during which the converged categories/clusters and subcategories (emphasized in SMALL CAPITALS below) were analyzed regarding their inherent structures and processes leading to paradigms, whose internal relationships were identified wherever possible [54]. In the final pass, a selective coding process was performed, in which the resulting concepts and theories were related to each other. Surprisingly, the categories/clusters developed for e-Government by and large also emerged for the e-Commerce data analysis allowing for relatively straightforward linkage of the concepts found in the two sectors.

6. Findings

In this section, in which we present the results, we would like to begin with reminding the reader of the inherent constraints and limitation of our approach: We are seeking rich and qualitative data, which we hope helps us develop a deep and broad conceptual foundation of comparing e-Commerce and e-Government, which we can later subject to rigorous quantitative testing. None of these findings below have attached any claim of any generalizability. They are intended to serve as steppingstones in this theory-building effort.

Nine categories/clusters were developed from the coding process: (1) information management (2) process management (3) citizen/customer focus (4) digital divide (5) security (6) cost/benefit (7) stakeholders relations (8) standardization (9) resources. We will present the findings from both sectors alongside each other.

6.1 Information Management

Information management along with process management (next subsection) played a major role in the discussions of all four sessions. While the public sector participants highlighted the EASE OF USE of Web-based applications, which are simple and clear, as necessary prerequisite of usage, their private sector counterparts also pointed at USABILITY in terms of functionality. However, they remarked that users enjoy a fair amount of discretion regarding for what and how they use the system. WEBPAGE LIFE CYCLE MANAGEMENT and CONTENT MANAGEMENT were seen as major challenges in e-Commerce, which may severely impact the CREDIBILITY of information provided. If web content becomes obsolete or incorrect, the effects on the business could be very negative. Yet, maintaining content and structure of websites current has become a major resource and cost issue. For the e-Government side also government’s LEGAL LIABILITY for the information provided was emphasized. In the public sector, it was said, the INFORMATION VOLUME had become very high through e-Government, increasingly necessitating the development of a sound INFORMATION EXCHANGE strategy. Participants from both sectors emphasized the growing need for rethinking and restructuring the RECORD KEEPING, archiving, and document life management strategies. For private firms, also governments strictly regulated the archiving requirements for certain products, services, and contracts. ELECTRONIC DELIVERY MODES AND CHANNELS were a central theme in both groups; interestingly, while governments were concerned about those in terms of the digital divide, the private firms viewed them from the standpoint of effectiveness of communication. Both groups also mentioned the availability, accessibility, data minability, and the secure processing of PERSONAL INFORMATION and personalizable information as critical to success. If citizens and customers become wary of using the respective e-systems for the fear of disclosing an unacceptable degree of sensitive information, then the electronic system usage might drop it was said. On the other hand, citizens and customers value the availability of REAL-TIME INFORMATION, rich in FEATURES, tailored in content, and available 24/7, as a plus according to both groups. Again, both groups reported on the much-increased volume of INFORMATION SHARING with other organizations, which yielded numerous benefits including cost savings and improved information quality.

6.2 Process Management

HIGH TRANSACTION VOLUMES were reported as a much-welcomed result of e-Gov transaction projects. Government participants pointed at the cost savings per transaction, the economies of scale in both G2C and G2B contexts. This outcome was not explicitly mentioned but rather taken for granted in the private sector group. That group stressed the increased INTERNAL SERVICE requirements and also the high demand for ON-GOING SUPPORT along with high transaction volumes. Also, the more integrated supply-chain management (SCM) techniques and systems were used the more complexity had grown. The government group in turn emphasized that high-volume transaction processing had also required substantial upfront BUSINESS PROCESS REDESIGN. However, in some instances, processes were not redesigned but rather just web-enabled (MANUMATION, [56]) resulting in suboptimal outcomes. Both groups discussed the organization/contract SIZE factor in B2B and G2B. In their process- and interaction-related behavior, small and medium enterprises (SME) it was said resembled much more the B2C and G2C patterns and requirements than those of B2B and G2B, which for some large private firms caused some concerns since SME would resent not being accepted as an equal partner to large companies under the B2B umbrella. Government participants were also concerned about the (lack of acceptable) PERFORMANCE of transactional EGIS, which might be related to the lack of process redesign. It appeared that private firms were much more highly integrated in terms of EXCHANGE OPERATIONS than government agencies, whose exchanges mainly pertained to information sharing. In e-Commerce, the SPEED OF TRANSACTION greatly mattered according to the discussants. Also, the TRACKING and the potential ROLLBACK OF TRANSACTIONS was seen as critically important in both groups, in terms of service quality and comfort to users. Furthermore, TRANSACTIONAL AVAILABILITY was expected on a 24/7 basis according to both groups, also with the capacity of facilitating RECURRING TRANSACTIONS. Government participants discussed that they had tried to learn from the BEST PRACTICES in e-Commerce when designing transactional EGIS (this was also said with respect to information management, standardization, and resource management). The private sector participants reported that their organizations favored a SWITCH FROM PUSH TO PULL mechanisms in transaction processing. Both groups noticed that the RELIABILITY of payment platforms in transactional processing was of the essence for all alternative methods offered. It was said that for ensuring compliance with GOVERNMENT REGULATIONS frequent audits occurred checking government contract-related e-Commerce transactions.

6.3 Citizen/Customer Focus

In this cluster the main issues that were raised involved subjects of CITIZEN/CUSTOMER SATISFACTION, EXPECTATION MANAGEMENT, providing FULL SUPPORT and CITIZENS NEEDS.

The expectation according to previous literature on emphasizing the customer as the core of the business activity was found as improper [13]. Adversatively, the e-Government highest reference was 'the citizen' and 'customer'. The differences between e-Government and e-Commerce were not only in terms of emphasizing the subject as a whole but also in terms of the way they captured the role of the customer/citizen in their realm. The e-Government focus group was referring to the citizen/customer as a partner. Putting a particular attention on understanding the citizen/customer needs, involve them in the decision-making processes, manage their expectation to leverage their satisfaction of the e-Government services and promote usage and access of populations that might encounter difficulties. The main assumption that underlies the discussion was that PRIORITY OF CITIZENS trumps cost considerations. The e-Commerce focus group treated the customer as a more passive actor. The perspective was more of a top-down, that is, what are the means by which a company should REACH a broader customer base, means to capture customer attention, define and implement the items that the customer needs to see and creating SPECIALIZED PORTALS fitting customer profiles. The interest in the customer needs mainly evolved around the desire for increasing revenue and benefit, giving companies a more proactive role in determining and defining the customer needs rather than involving customers in the business process definition. The paradox that evolved was that TRACKING CUSTOMERS/CITIZENS SATISFACTION had also an important role in the discussion, however mainly for the fear of complaints from customers or the fear of pullout of customers rather than trying to understand their needs. Government participants emphasized the crucial role of SERVICE ETHICS which was absent from the discussions of private sector participants.

6.4 Digital Divide

The cluster of digital divide was very minor in terms of weight it was given by e-Commerce focus group, while it served a big portion of the attention in their counterparts from the e-Government sector. Additionally, e-Government identifies challenges of ACCESS, REACH, LANGUAGE (TRANSLATION and localization), literacy, usage, infrastructure as *digital divide* and defines them as such. Whereas, e-Commerce were mainly referring to the concept in an indirect way through reaching a broader base of customers, having COMMUNICATION challenges between them and customers or internally, raising some translation issues and access management.

When referring to ‘access management’, while e-Government treated this mainly with respect to the digital divide, e-Commerce reflected this term mainly through security aspects (see section 6.5). E-Government is interested to empower citizens in order to create a greater internal efficiency in their informational and business processes. Their service is intended to be delivered to the citizens. The public sector does not have the e-Commerce discretion and luxury to close a ‘product’ line because it is not beneficial, it rather has to provide certain services to all citizens/customers. The only discretion government has regards the methods and channels, by which they provide these services. This is why their major concerns is digital divide, allowing more people opportunities to use their services virtually.

6.5 Security

Security was one of the most prominent clusters that challenged e-Government – technical challenges (digital signature, encryption, authentication and critical systems), policy issues (regulations, security standards and ACCESS MANAGEMENT) and social issues (public safety, PRIVACY, INFORMATION DISCLOSURE AND TRUST). While the main concern raised by e-Government involved issues of national security rather than individual security, e-Commerce did not give the subject that much weight. The challenges that e-Commerce brought up in terms of security mainly dealt with the individual level – that is – how to make sure the privacy of customers is being kept. Concerns of e-Commerce are towards a negative impact over trust relations between the customer and the company. Particularly, e-Commerce is aware to its declining reputation due to cases of SHARING INFORMATION with governmental agencies and therefore a lot of effort is being given to building POLICY PROCEDURES to share personal information of customers with third parties and governmental agencies. Once again, like in the cluster of ‘citizen/customer focus’ the trigger to act is not due to privacy concerns but rather the fear to experience turn-over of customers and pullout.

6.6 Cost and Benefits

REDUCING COST was the main original driver for e-Commerce as participants agreed. However, while the savings were reportedly substantial, other benefits also emerged over time among which REVENUE MAXIMIZATION, MORE CHOICES, CUSTOMER LOCK-IN, reduced SERVICE CALL FREQUENCY, and increased SELF-SERVICE were most frequently mentioned. On the downside, some e-Commerce organizations encountered what they called the ROI PARADOX of e-Commerce, that is, continued investing in e-Commerce technology without getting a return. In those cases, some organizations seem to be driven to incur opportunity costs. Similarly, complaints were raised regarding unforeseen cost through vendor-FORCED SYSTEM UPGRADES and changes. Interestingly, the government

group, although they also reported on cost reduction effects through e-Government, emphasized that the main motivation for implementing and using EGIS was the substantial improvement of internal and external service (“Better SERVICE TRUMPS COST!”). Government participants were also enthusiastic about numerous UNFORESEEN BENEFITS through EGIS such as improved interagency operations, increased quality of information, and higher levels of information sharing.

6.7 Stakeholders Relations

This cluster was raised strongly by both e-Government and e-Commerce. E-Government grasped the success or failure of projects as contingent upon the cooperation of the various stakeholders and particularly the SUPPORT OR OBJECTION BY TOP-LEADERSHIP. e-Commerce emphasized less the support of top-leadership and concentrated more on JUGGLING BETWEEN STAKEHOLDERS and balancing the various needs. Particular attention was given in the e-Commerce group to provide SYMMETRIC INFORMATION to the close communities (e.g., investors and employees) in order to avoid misunderstanding or potential frustration. As in the case of the cluster of ‘citizen/customer focus’ also here e-Government paid more attention to involving stakeholders in the process as critical factor of implementing projects, while e-Commerce mainly concentrated in the procedural aspect of INTER-GROUP NETWORKING and relations between stakeholders. Both e-Government and e-Commerce raised concerns regarding handling projects in DIFFERENT JURISDICTIONS.

6.8 Standardization

Standardization was of high level importance to both e-Commerce and e-Government. While e-Commerce emphasized more the security aspect of standardization, e-Government mainly paid attention to format and design issues. The INTEGRATION of various stakeholder information systems (mainly backend technology) was challenging. The reasons for concerns were different - e-Commerce participants were concerned with integration, since their goal was to reach a SINGLE POINT ENTRY for customers that will work efficiently on all levels. However, e-Government participants were concerned with integration of information systems due to their commitment as a public sector to a high CONSISTENCY level towards citizens and customers. Additionally, government was challenged with standardization of presentation. Working with many vendors (e.g. electricity agencies, utility) and creating a level of standardization that sometimes contradict their desire to present their brand and uniqueness. This situation is less typical in the private sector.

6.9 Resources

The e-Commerce group reported that the DIGITIZATION of major archives had been completed over

the years now reaping huge benefits in terms of resource reallocation and flexibility. Yet, even digitized archives and document repositories still require high levels of maintenance in terms of continuously required MIGRATION of documents from aging technology platforms to ever newer ones and to different TECHNOLOGY CHOICES. Increasingly, legacy systems were characterized as a burden rather than an asset due to resource-intensive high maintenance.

The resource intensity also led to the increased usage of commercial-off-the-shelf systems (COTS) and outsourcing of e-Commerce application. While the resource/cost problem can in part be addressed through the use of COTS and also VIRTUAL WORKPLACE approaches, an increase in COMPLEXITY with respect to external contractor management reduces the savings effect. In Government, the notorious SCARCITY OF RESOURCES and funds seemingly sparked investment in e-Government, but also led to the same effect of OUTSOURCING and using COTS as in e-Commerce. The government participants emphasized that preserving and keeping human resources was of the essence, since the CUMULATIVE KNOWLEDGE and LONG EXPERIENCE had significantly contributed to the success of EGIS.

7. Summary

In table 1 below we summarize the main differences and similarities between the e-Government and e-Commerce as found in our pilot.

Emphasis/ Topics	E-Commerce Perspective	E-Government Perspective
INFORMATION MANAGEMENT		
Ease of use and usability	Major factor of success	Citizen-centric
Content management	Major challenge – similar perspective	
Information volume	High volumes of information necessitating redesign information exchange strategies and operation – similar perspective	
Record keeping	Focusing on technical issues	Emphasis on legal liability
Real-time information	Feature-rich and tailored content available 24/7 – similar perspective	
PROCESS MANAGEMENT		
Transaction volumes	Far higher and therefore a need for on-going support	high
Business process	More advanced	Not as advanced, still a lot of

redesign		manumation
Speed of transaction	Essential	Non critical
CITIZEN/CUSTOMER FOCUS		
Emphasis of core business	Bottom-line driven	Citizen/customer-centric
Treating customers	Top-down perspective - defining customer needs	Involving customers
Service ethics	No reference	Main challenge
DIGITAL DIVIDE		
Emphasis of cluster	Almost no direct reference to digital divide. Mainly translation issues.	Direct reference to access, reach, language, literacy, content, usage and infrastructure
Access management	Mainly in terms of security or reach of customers	In terms of empowering citizens/customers
Communication challenges	Interpersonal	Stakeholders communication
SECURITY		
Emphasis of cluster	Access management and authentication – security is only one subject	Public safety, national security regulations, security standards and infrastructure – security is a main concern
Privacy	Avoid customer retaliation	Privacy in terms of information disclosure
Level of attention	Individual level	National security
Trust	Challenged by trust issues - similar perspective	
COST/BENEFIT		
Emphasis of cluster	Reducing cost	Improving service
Benefits	Main goal	Unforeseen benefits
STAKEHOLDERS RELATIONS		
Success/failure	Juggling and balancing between stakeholders	Cooperation among stakeholders. Support of top-leadership is necessary
relations	Inter-group networking	Alliances
Jurisdiction	Challenged by the need to work under different jurisdictions	

STANDARDIZATION		
Emphasis of cluster	Security	Format and design
RESOURCES		
Availability of resources	Resourceful	Resource scarce
Outsourcing	High degrees	Highest degrees
Success/failure	No reference	Accumulative knowledge and experience is critical

Table 1 - Differences and Similarities at a Glance

The literature review in section 4 suggests that similarities between e-Commerce and e-Government mainly occur in (1) process improvements, (2) backend (process) integration, (3) cost savings, (4) information sharing, (5) vertical and horizontal e-systems integration, (6) increased responsiveness and service quality, (7) standardization efforts, and (8) the criticality of senior leadership support. Differences between the sectors seem to mainly prevail regarding (1) the drivers and motivations for e-Commerce and e-Government, (2) stakeholder expectations, and (3) resource availability.

In this pilot, although conducted in a local US rather than global context, we empirically found that those concepts presented in the literature played major roles, however, it qualifies those differences and similarities of e-Government and e-Commerce by presenting a more refined and enriched picture. It also adds concepts, which so far were un- or underrepresented in the literature such as differences and similarities in information management, process management, responding to the digital divide, and cost/benefits.

8. Conclusion and Future Research

We intend to repeat the study with participants from other private and public sector organizations as well as other managerial and professional levels. We will then subject those results and insights from the first round of focus group interviews to scrutiny by joining interviewees from both sectors. More robust results are expected by employing this second-stage probing exercise. This will we believe lead to richer theoretical foundations, which we intend to subject to quantitative treatment.

Further comparative research on e-Commerce, on the one hand, and e-Government, on the other hand will we believe (a) improve the understanding of current practices and lessons learned in the two sectors, (b) have the potential for cross-fertilization between the sectors, (c) clarify the nature and origins of both similarities and differences between the evolutionary trajectories of the two phenomena, and (d) help evaluate the relative effectiveness and performance of e-Commerce and e-Government.

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