Taking a Back Seat? Integrating Trust in E-Government Service Delivery in South Africa

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ABSTRACT

The problem of citizen distrust for government is a growing phenomenon across Africa. The decline in citizen trust has major implications for e-government development in South Africa. Yet trust is considered a key ingredient for building quality e-services and citizen customer loyalty to e-government initiatives. The paper aims to examine trust in e-government service delivery, highlights key considerations in building "trust-based" e-government service delivery model for South Africa and recommends measures to promote a sustainable e-government service delivery. The paper is based on experiences, lessons and observations made from the Cape Gateway Project, a leading e-government initiative in South Africa. The study offers insights into our understanding of citizen trust, and how to investigate it in relation to e-government service delivery in an African context.

1. INTRODUCTION

The development of e-government process in its many guises is attracting increased attention from government, business and civil society in South Africa. Governments, businesses and increasing sections of civil society are now advocating that e-service delivery must be considered as a more viable, quick and efficient method for conducting transactions with the public sector and elected representatives Early efforts in e-government development in South Africa were driven by concerns to close the digital divide through the provision of the necessary back-bone infrastructure/hardware, (i.e. computers, internet, service provider infrastructure etc.), and the human capacity to mediate the new service delivery format (DPSA, 2001). Realizing that the gains made in the modernization of the technology infrastructure were necessary, but not sufficient, citizens have started to demand better quality services from their governments (Taylor, et. al. 2006). Fueling the new thinking globally is the "growing culture of rights," which attributes access to information as a basic human right (Parent, et. al, 2005).

The continent of Africa trails the rest of the world in e-government development with 14 percent of the global population, 2 percent of global internet users, or only 6 million out of more than 800 million people owning personal computers (Gebremichael, and Jackson, 2006). Even as South Africa adopts e-government, (Detolly, 2006) questions are emerging about its potential benefits and degree of sustainability of the e-service delivery revolution (Alexander et. al, 2006) . Additional questions linger around issues of how to promote equitable e-service delivery to citizen customers and generate long-term trust and loyalty to the new service delivery mechanism (Frazer-Moleketi, 2006). It stands to reason that to build the long term loyalty and customer base that is necessary for governments to achieve economies of scale in service provision, users need to trust not only the humans in charge, but the technology infrastructure that drives e-government in Africa.

Unlike in e-business, the question of trust in e-government in South Africa seems to have taken a back seat. Partly to blame is the fact that the "development of trust-based relationships" has been overshadowed by problems of pervasive government corruption across Africa (Sunday Times, 2006; City Press, 2006: Mail and Guardian, 2006). The incapacity or unwillingness to prosecute high crimes tends to betray citizen trust in government. In South Africa, the rising poverty levels and growing HIV and AIDs epidemic (UNAIDS, 2005) are oftentimes perceived as indicators of government inefficiency and failure. It is therefore not surprising that some ordinary citizens in Africa hold the perception that government is synonymous with "corruption," "poor service delivery" "uncaring attitudes" and "culture of empty promises" (Sunday Times, 2006). In contrast, governments in developed nations serve the civil society better, are held to account, and play a pivotal role in the delivery of quality services to citizens. Despite the fact that accountability in government remains somewhat an illusion, and information and communication technology (ICT) infrastructure remains appalling, some African organizations (e.g. African Information Society Initiative (AISI), NEPAD, etc.) are working tirelessly to promote ICT use, good governance credentials and trust.

Eliminating the "trust deficit" in Africa requires governments to "strategically integrate trust" in e-government transformation and e-value creation. Of concern to citizens around the world is the fear that "information security risks" could further erode any semblance of trust in e-service delivery. This paper therefore aims to examine the issue of trust in e-government service delivery, highlight key considerations in building a "trust-based" e-government service delivery model for South Africa, and recommend guidelines to deliver sustainable e-government trust. The study is based on our experiences, lessons and observations from the Cape Gateway Project, a leading e-government initiative in the Western Cape Province in South Africa.

The rest of the paper is organized as follows: the next section provides a brief background on trust and e-government service delivery in South Africa. This is followed by a framework for the development and integration of trust in e-government service delivery in South Africa. The third section reviews the literature on the role of trust in e-government development. In section 4, we conclude with insights on key considerations for integrating trust into e-value creation in e-government service delivery.

1.1 Background: Trust and E-Government Service Delivery in South Africa

In South Africa, the notion of *Ubuntu* and the principles of *Batho Pele* are the most significant attempts to build a "people-centered" culture in government service delivery. The term "*ubuntu*" embraces human values such as compassion, respect, kindness, inclusivity and the ideals of human life. It is a Zulu term that describes the fact that "a person is what he or she is because of other people in society." The *Batho Pele* principles are about customers expressing their rights. The term *Batho Pele* means "people first" and is a Government of South Africa (GSA) program that aims to re-brand service delivery in ways that promote the needs of the individuals in South Africa (DPSA, 2001). Government can show trust in its services when it demonstrates *Ubuntu* and *Batho Pele* in its operations and its relationship with citizens.

Trust can be perceived in the context of the socio-economic/political context facing a newly democratic South Africa. Recent press reports on demonstrations against poor service delivery by municipalities in South Africa indicates both rising levels of frustration, and the decline in trust about government's capability to deliver basic services to the people . Also, the claims by some religious constituencies that South Africa has lost her "moral bearings" are a further indication about growing frustrations with government conduct (Tutu, 2006). The effect of such negative perceptions not only lowers investor confidence, but locally it leads to a severe dissolution of trust between citizens and their government. In some countries,

distrust from citizens has slowed the erection of e-government structures and its deployment (Evans and Yen, 2006).

To what extent the adoption of the *Batho Pele* principles and "*Ubuntu*" ideology has succeeded in making service delivery customer focused in South Africa remains unclear. There are obvious signs of citizen disaffection with service delivery despite the on-going public service delivery transformation. This leads us to the argument that trust-based e-government solutions provide an alternative means to improve not only quality of service delivery, but also enlist the e-loyalty that is expected from satisfied citizen customers. If trust continues to take a back-seat, there are fears that the same problems (i.e., lack of trust, digital divide, etc.) that beset e-business could beset e-government (Mullen and Horner, 2004) in South Africa.

The e-government transformation in Western Cape Province is being driven by the Cape Gateway Project (DeTolly, 2006). To operationalize the Provincial Government of the Western Cape's vision, a multi-lingual and multi-channel e-government program was developed by the Center for e-Innovation. Despite its initial success, the moral basis for developing sophisticated e-government services amidst growing poverty is now being questioned (Alexander, et. al., 2006). To avoid the erosion of trust in this project, this issue needs to be addressed.

2. FRAMEWORK FOR THE DEVELOPMENT OF TRUST IN E-GOVERNMENT IN AFRICA

Trust is increasingly perceived as a significant barrier to the development of e-government services globally (Mullen and Horner, 2004; Tassabehji and Elliman, 2006). It is not different in South Africa. Because of its history of discrimination

Figure 1. Framework for engendering trust in e-government in South Africa, 2007

and apartheid, strenuous and purposeful efforts have been made by the GSA to engender trust in e-government services. From an analysis and examination of the different efforts, we have constructed the framework for engendering government e-service delivery in South Africa (see Figure 1).

According to the framework in Figure 1, e-government service delivery in South Africa rests on a foundation of trust by citizens and organizations. Specifically, e-service delivery by the GSA is supported on three pillars (the Batho Pele Principle, a trust "balance sheet" and a set of sustainability criteria). These pillars, in turn, rest on the trust foundation. As can be deduced from the figure, e-government services are liable to be shaky and ineffective if one or more of these pillars are destroyed. In the rest of this section, we discuss these supporting pillars.

2.1. Batho Pele Principles: Conceptualizing Trust in the Public Sector in South Africa

Trust is the glue that binds the GSA to its citizens and organizations. This tie is fashioned from and cemented by the value-based aspects stipulated in the *Batho Pele Principle.*

The GSA adopted the *Batho Pele* principles in 1997, and this provides a good starting point to understand how South Africa has approached the question of trust in public service delivery. The *Batho Pele* principles cover eight key human valued-based areas (See Figure 2). The aim is to ensure that public service delivery provides all citizens an opportunity for effective consultation, technology solutions that promote broad-based access to services, the treatment of citizens with respect (i.e. courtesy), maintenance of service standards at all government levels (i.e. including security apparatus), transparency, complaint handling (i.e. redress) and value for money to all tax payers (White Paper, 1997). The *Batho Pele* principles are expected to be the first port of call to engender codes of trust in both citizens and businesses in their interaction with government.

As shown in Figure 2, it is important to note that trust is reciprocal, and is not a one but two way interaction (Schmid, 1987). Whilst civil society and business demand trust from government it should be a reciprocal process. The citizens experience trust when they encounter elements such as reliability, dependence and positive utility (Josang et. al, 2005) in their interaction with government. When trust prevails, policing costs are reduced (Schmid, 1987). The ability of GSA to "track" and "measure" the evolution of trust in e-service delivery depends on the extent to which its clients (businesses, civil society and other government departments) clearly demonstrate behavioral changes that are based on mutual trust-based relationships or reciprocity.

2.2 Building an e-Government Trust "Balance Sheet" for South Africa

In order to monitor the evolution of trust in e-government, we propose a" balance sheet approach" that tries to integrate the elusive concept of trust into
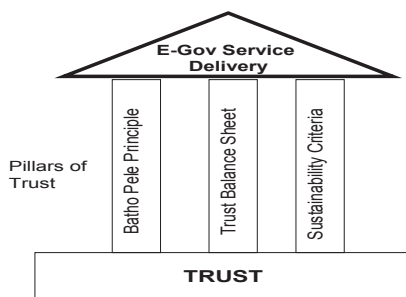
Figure 2. Batho Pele principles-setting government trust in motion in South Africa, 2007
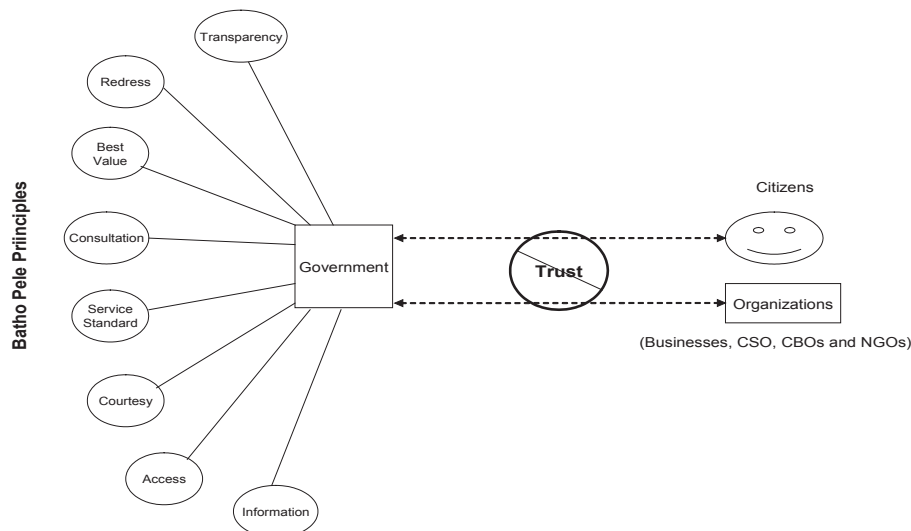
Figure 3. Proposed e-government trust "balance sheet" for South Africa, 2007

Assets: Trust Building Factors (Injections)
-E-Literacy Programs (e-Skills, e-Learning, Closing Digital Divide, etc)
-Indigenous Knowledge & Culture (Cultural Identity)
-Moral Regeneration Campaigns (No Cheating, *Batho Pele*, Honesty)
-Customer Relationship Management (Customer Care, FAQ etc.)
-Information Security and Privacy Investments (e.g. Biometrics)
-E-Service Marketing Strategy
-Rule of Law (Ombudsman, Consumer Council, Small Claims Courts)
-E-Government Code of Ethics for Public Servants
-Political Will (E-champions, Whistle Blowers Informediaries etc.)
-Social Justice (Poverty & HIV Eradication, Income & Gender Equality,
-Access to Basic Services, Quality of Life Transformation, *Ubuntu etc*.)

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Liabilities: Trust Erosion/Dissolution Factors (Leakages)
-Reputation Bashing (Corruption, Bribery, Bureaucracy etc)
-Identity Theft (Encryption & Digital Signatures thwarted)
-Technology Infrastructure Deficit (Digital Divide, Exclusion)
-Financial Fraud (Money Laundering, Embezzlement etc)
-Policy Vacuum (Trust, Privacy and Security)
-Breakdown in Law and Order (No Rule of Law)
-Lack of Political Will & E-Champions
-Social Injustice (Crime, Inequality, Poor Service Delivery etc)
-High Public Sector Staff Turnover

Net-worth: Trust Based E-Value Creation

Availability	Objectivity
Accuracy	Rapidity
Dependability	Relevancy
Effectiveness	Reliability
Efficiency	Simplicity
Equitability	Usability

e-government program implementation. We perceive e-government trust as a form of socio-economic or political capital or asset. The challenge is to identify methodical ways in which trust can contribute to the "net-worth" of e-service delivery. Conceptually, the GSA should aim for a positive trust "balance sheet," one that consistently adds value to e-service delivery. This requires understanding clearly the difference between "trust building" and "trust dissolution" factors in e-government deployment. The "trust building factors" are what are traditionally referred to as the "assets" or "injections" while the "trust dissolution factors" are the "liabilities" or the "leakages" on an e-government trust balance sheet. The development of "trust building" initiatives ought to be treated as a key focal area driven by, and is largely part of, an overall e-government strategy.

As illustrated in Figure 3, trust building initiatives in South Africa can cover critical aspects such as (i) raising the confidence levels of citizens through e-literacy programs (ii) integration of indigenous knowledge and culture in e-government development, (iii) promotion of "moral regeneration" campaigns, (iv) innovative adoption of customer relationship management in the public sector, (v) investments in information security and privacy, and (vi) exercising the rule of law. For instance, the public may gain trust and confidence when they perceive their governments as serious in upgrading their e-skills base, expressing sensitivity to citizen-customer needs, and more importantly, demonstrating a commitment to prosecute high crimes perpetrated by public officials. The widespread problem of the break-down of the rule of law that characterizes many African countries unfortunately, is a recipe that "extinguishes any residual hope" that may be required to build trust-based relationships between government and civil society.
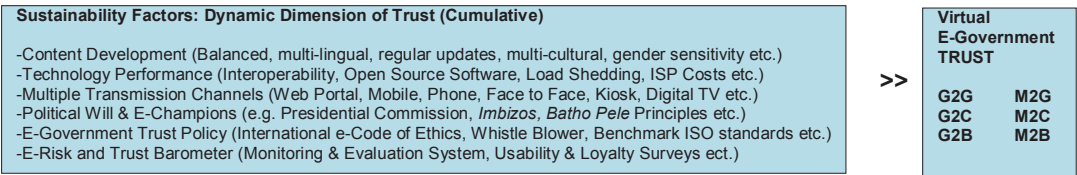
Likewise, it is important that GSA consistently monitor those factors that can be identified to cause "leakages" in trust between government, civil society and the business sector in both the first and second economies.. We identify among others (i) government image related characteristics, (ii) poor integrity of public officials (i.e., due to rampart corruption, financial embezzlement etc), (iii) lack of robust trust and privacy policy framework, (iv) weak technology infrastructure (i.e. urban-rural biases, class biases, etc.), (v) e-risks (e.g. identity theft, hacking, viruses, etc.) and (vi) high staff turnover rates of public officials as some of the key contributing factors to the dissolution of e-government trust in South Africa. The identification of "leakage issues" such as these in civil societal trust in government service delivery is a necessary first step in addressing the matters under discussion here. However, progressing the issue of building trust between the government and civil society, the GSA will need to take further steps to monitor any negative developments or liabilities in trust and should strive to promote "trust building" initiatives or "trust assets" that are related to e-government deployment as already mentioned above.

2.3 Building Sustainable Trust-based E-government Model for South Africa

The need to deliver on the opportunity to develop a "trust-driven e-government development model" requires policy makers to view trust not as a short-term gain, but as a long-term strategy for public service transformation. Unless the GSA realizes that trust gained in the short term can easily be lost, it will be difficult to grow the "trust dividend" in a sustainable way. To achieve longer term trust through a partnership based approach to participative governance there is need to identify issues that contribute towards building sustainable civil society trust for e-government which has extra dimensions in a 'virtual world' that are not evident in traditional service delivery approaches. In appreciating the "rainbow nation status" that South Africa prides itself on, it should promote a balanced e-government comprising (i) broad-based e-government content development (i.e. multi-lingual, multicultural, regularly updated, balanced in its coverage, etc.), (ii) the promotion of the widespread use of open software and multiple channels to make e-government accessible to majority poor (e.g. in remote rural locations, poor urban locations/townships, etc.) over time, (iii) the development and nurturing and retention of political will and e-champions, (iv) the crafting of an e-government trust, privacy and confidence strategy, and (vi) regular monitoring of trust and privacy issues to ensure an acceptable level of use of e-government services by critical mass of civil society.

The intrinsic value of "trust-building" assets must always exceed "trust eroding" liabilities in order to generate a desired positive "trust net-worth", considered a key part of the "e-value index" for a government web portal (Maumbe et., al., 2006). We envisage that improvements in e-government service delivery contribute to the "trust net-worth", and can be evaluated at three levels: (i) nature of the information (e.g. static web pages), (ii) transmission methods or communication channels and (iii) nature and sophistication of transactions (Evangelidis, 2004). Maumbe et. al., (2006), identify key internal, external and technical prime movers that contribute individually and collectively (i.e. through interactive mode) towards "e-value creation". The proposed e-value creation framework embeds, trust in the external environment (i.e. based on the cumulative interaction between intra-governmental agencies and strategic stakeholders, including business community and civil society). We expect that e-government information and service quality criterion such as (i) availability, (ii) accuracy, (iii) dependability, (iv) relevance, (v) rapidity and (vi) simplicity among others (see Figure 2), are key indicators that should represent an integral part of "trust-based" e-service delivery evaluation platform in South Africa. The effective development and tracking of such key performance indicators should help in taking the "pulse rate" of the e-government trust net-worth needed to generate the ultimate e-value-induced loyalty expected from satisfied citizen customers in a developing global information society.

Figure 4. Sustainable e-government trust: The dynamic nature of trust in South Africa, 2007

Sustainability Factors: Dynamic Dimension of Trust (Cumulative)		Virtual E-Government TRUST
-Content Development (Balanced, multi-lingual, regular updates, multi-cultural, gender sensitivity etc.) -Technology Performance (Interoperability, Open Source Software, Load Shedding, ISP Costs etc.) -Multiple Transmission Channels (Web Portal, Mobile, Phone, Face to Face, Kiosk, Digital TV etc.) -Political Will & E-Champions (e.g. Presidential Commission, *Imbizos, Batho Pele* Principles etc.) -E-Government Trust Policy (International e-Code of Ethics, Whistle Blower, Benchmark ISO standards etc.) -E-Risk and Trust Barometer (Monitoring & Evaluation System, Usability & Loyalty Surveys ect.)	>>	G2G M2G G2C M2C G2B M2B

Furthermore, it is important for policy makers to realize that trust is a dynamic and not a static phenomenon (Figure 4). If the attainment of "virtual trust-based e-government sustainability" is the goal, it is crucial for the government to deploy multiple transmission channels that affords citizens and businesses, the opportunity to explore various e-service options offered via mobile technologies, especially in remote and poor regions where there is not sufficient 'back-bone' infrastructure to roll out Internet based online services. We therefore suggest the need for the development of some kind of "early warning system" that periodically gauges the status of an e- government trust factor. Without such a tool, inevitable break-down of trust between various service interaction mediums; Government to Government (G2G), Government to Consumer (G2C), Government to Business (G2B) and mobile-Government to Government (mG2G), mobile-Government to Consumer (mG2C), mobile Government to Business (mG2B), and mobile-Government to Business (mG2B) will result, and that will effectively undermine the goal of achieving trust-based e-value creation in the long term.

Currently, the GSA is undergoing an African Union and NEPAD Peer Review Mechanism that ranks African governments according to their economic sustainability, transparency, state of democracy and investment climate (www.aprm.org.za). Such a report is a barometer that could be used as a signal for and by the citizens to assess corruption and gauge their trust for the government. South Africa has passed the Access to Information Act and Protected Disclosures Act (i.e. also known as "Whistle Blowing Act" of 2000) (Camerer, 2001; www.pcaw.co.uk). The former Act aims to provide unhindered, equal access to government information to all the citizens while the later aims to promote whistle blowing on corrupt activities. Toll free lines are used to report serious crime in government and other sectors. Although, these mechanisms do not measure trust directly, they act as indicators for its monitoring. Examples of civil society organizations that advocate for public interest disclosure include Freedom of Expression Institute, Institute for Democracy in South Africa, Human Rights Commission, Black Sash and Office for Serious Economic Offenses.

3. TRUST AND E-VALUE CREATION IN E-GOVERNMENT SERVICE DELIVERY: LITERATURE REVIEW

Governments across the world confront the problem of eroding trust from their citizens (Evans and Yen, 2006; Parent et. al., 2005). The advent of e-government has fundamentally transformed relationships between government and citizens. A recent study revealed that citizens who regularly transact online with their governments reported significant positive changes in trust levels for the government (Parent, et al, 2005). Such findings provide a rationale for most e-government programs to become "citizen-centered" or "citizen-centric" in their e-service delivery approaches (Richter, 2004).

Nonetheless, the problems of technical implementation (i.e. system design), weak user participation (implementation), and lack of cooperation between different government departments still hinder numerous e-government programs (Stahl, 2005), and that calibrates the entry point for the need to cultivate trust. The effective integration of trust into e-government development demands public policies that reflect the thinking that e-service delivery is more than modern technology or systems design, but it is about putting people first (Richter, 2004).

Like any other technological activity, e-government development entails risks and uncertainties which require systematic assessment (Evangelidis, 2004). Trust influences the successful up-take of e-government information and services. A number of e-commerce adoption studies have identified the "trust element" as a significant factor in the uptake of e-services by citizens (Tassabehji, and Ellimann, 2006). Without a willing citizenship, e-government implementation can be problematic

(Evans and Yen, 200). Trust is viewed as dynamic in nature and is not a static phenomenon. This argument suggests that trust can be cumulative, implying that it could rise or fall to new levels (i.e. just like investor confidence) depending on the presence/absence of trust-building or trust dissolving factors.

In an effort to preserve trust in e-government service delivery, questions are being raised about what is an acceptable moral behavior in electronic environments (Mullen and Horner, 2004). The authors argue that failure to establish coordinates about ethical behavior in cyberspace could undermine trust in e-government services. Others argue that in debating ethical problem in e-government, it is illogical to perceive citizens as customers as that assertion is more appropriate for commercial or e-commerce applications (Stahl, 2005).

The government's desire to forge close connections with civil society and its citizens, understand their unique preferences, and ultimately secure their trust provides a basis for customer relationship management (CRM) in the public sector arena (Pan et. al, 2006). The authors argue that CRM approach assumes that a customer relationship already exists, yet the creation of that customer relationship is as important as its management. Therefore, building e-government trust requires bridging the digital divide through e-literacy programs and raising ICT awareness. This of course recognizes the fundamental issue that many governments now confront and that is that the provision of access in and of itself is simply not enough. The technology needs to be socially appropriated in ways that not only understands civil society needs but provides a communication channel for structuration (Giddens, 1984) of service delivery systems to better meet civil society needs and elected government desires for participative governance that values social cohesion (Mbeki, 2006). Embedded in efforts to establish robust trust alliances between government and citizens in e-service delivery is the need to uncover the ethical problems of such technology deployment (Palm and Hansson, 2005). Attempts to ignore the ethical implications of technology (e.g. disability, ethnic minorities, gender issues, etc.) will undoubtedly introduce adverse consequences that will lead to a depletion of citizen trust across civil society, and will slow down the pace of e-government adoption in society.

4. CONCLUSION

South Africa has already embarked on the journey to transform its public service delivery to make it citizen-centered (DPSA, 2006). The deployment of e-government services has changed the nature of the relationship between GSA and its citizens (Detolly, et al, 2006, Alexander et. al, 2006). Civil society and citizens, like private sector customers, are keen to make informed decisions about e-government services. As concerns that government service delivery and capacity to manage the so called 'wicked issues' are getting worse emerge, the GSA needs to strategically integrate "trust-building" mechanisms in its e-government service delivery to the citizens. Trust in the new ICT enabled world i.e. the information society is the glue that holds government e-service channels and citizen customers together.

The adoption of the *Batho Pele* principles and the notion of *Ubuntu* by South Africa in 1997 triggered the first attempt to infuse trust traits in society through its "people first" approaches in service delivery. These issues have been strongly reinforced by government programs such as the Accelerated Shared Growth Initiative (ASGISA), the Strategic Plans of many Government Departments, ANC policy demands and the pronouncements of President Mbeki (2006). This paper attempted to provide a holistic view of the concept of e-government trust. To achieve that, we presented a framework that maps out key factors that contribute towards e-government "trust-building," "trust-dissolving," and "trust sustainability". We recommend the need for the GSA to regularly audit and strategically integrate citizen trust in e-government development, in order to meet the rising

"e-value expectations" from citizens who are utilizing e-services. Armed with such a tool, GSA will have an "early warning system" that will help send key signals to policy makers to make necessary and timely adjustments to advance e-government service delivery.

Although the paper does not advocate that e-government trust is a panacea for the implied deterioration in citizen trust, that it will play an increasingly important role is unquestionable. Therefore, trust can no longer afford to take a back seat in e-government development policy in South Africa. If awareness about need to curb government and private sector graft is raised, trust for GSA is bound to increase as more cases of corruption and unlawful activities will be exposed. Trust-based e-government has the potential to improve communication, enhance citizen participation, lower transaction costs and increase social cohesion (Taylor, et. al., 2006). Most importantly, it will promote a positive trust dividend (i.e. net-worth analogy) between civil society, citizens and their governments which is a crucial aspect for the emerging participatory democracy in South Africa. Finally, as this matter is of prime importance in the policy and delivery frameworks in South Africa, there is a critical need to develop a coherent research and evaluation agenda to bring out the relationship between civil society and citizen trust, building social cohesion and e-government service development and deployment in South Africa.

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Boundedness and Other Theories for Complex Systems

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