e-Services, including e-Government

Introduction

e-Service commonly referred to the provision of services via the internet. e-Service therefore includes both e-commerce and e-government, amongst others. The OECD defines e-commerce as a sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. e-Government refers to the provision of public services over the internet by the government.

The rendering of government services and information to the public using electronic means, allows government to deliver services to citizens when they need them. It can also improve the quality of such services. In South Africa, e-government has gained significant ground and great strides have been made to use e-government to simplify government procedures, improve access to information by citizens, and improve service delivery, as well as strengthening accountability and transparency.

e-Commerce on the other hand, refers to conducting business online. The phrase is used to describe business that is conducted over the internet using any of the applications that rely on the internet. These applications include email, instant messaging, web services etc.

e-Commerce has grown rapidly since users began to search for services and goods sold over the internet. The introduction of e-commerce has changed the scope of the commercial landscape, affecting all aspects of the value chain from supplier to consumer.

e-Government

Regulatory Environment for e-Government in South Africa

The Department of Public Service and Administration (DPSA)) is responsible for the development and coordination of government's overall e-government strategy. Key legislation for e-government is the Public Service Act of 1994 and its subsequent amendments. This Act provides for, amongst others, the establishment of norms and standards relating to e-government and information management in the public service.

The White Papers on Transforming Public Service Delivery (WPTPSD), Promotion of Access to Information Act, Electronic Communication and Transaction Act, Electronic Government Policy Framework, Minimum Information Security Standards (MISS), Minimum Interoperability Standards (MIOS) and Policy on Free and Open Source Software (FOSS) discussed the concept of e-government. Collectively, these frameworks promote transparency, accountability, good governance, information security, and freedom in the acquisition and use of IT.

The South African government has established statutory bodies to co-ordinate implementation of e-Government projects. Amongst these are the State Information Technology Agency (SITA) and Government Information Technology Officers Council (GITO Council). SITA is responsible for the acquisition, installation, implementation, and maintenance of IT in the public sector. The GITO Council, which consists of national and provincial IT officers, is responsible for consolidating and coordinating IT initiatives in government, including e-Government, to facilitate service delivery.
Overview of Services

The DPSA is currently working on a revised strategy to tackle e-government issues across all departments and sectors. The strategy intends to overcome the prevalence of uncoordinated and isolated project approaches and is meant to establish itself as a one-stop solution for e-government solutions. It is also intended to improve service delivery in all areas of e-government.

There are various levels of maturity for the provision of e-government services, as indicated in Chapter 3 of this report.

For the South African government, the focus is on G2G (government-to-government), G2BC (Government to Business & Citizen) and G2C (government-to-citizen) activities. Improved service delivery is facilitated by building e-Government awareness, being a model user in e-Government centres of excellence, working towards one government information and communication channel (one portal, one call centre, etc.) and above all providing expertise on e-services. The diagram below shows some of the e-Government initiatives:

Prior to the attempt by DPSA to co-ordinate e-Government in South Africa, there have been numerous national, provincial, and local government e-Government initiatives that have been implemented. The Western Cape provincial initiative is regarded as one of the flagship e-Government initiatives. The province is home to numerous government-sanctioned projects at varying degrees of completion.

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Amongst the ICT initiatives are: Cape Gateway Project, Cape Information Technology Initiative (CITI), Telecentres in rural areas in South Africa, SchoolNet South Africa Project, Mindset Network Organisation and the Khanya Project. Other examples include the e-Natis online vehicle and transport management system, the e-Justice programme to improve judicial processes, the e-Hanis programme to streamline and integrate personal identification data across government departments through the use of unique identifiers, and the National Automated Archival Information Retrieval System (NAAIRS) to facilitate access to public archived records.

**e-Filing Initiatives**

Major initiatives are currently underway in the area of e-Filing. e-Filing is of particular interest, because it corresponds with the transactional level of e-government stage thus indicating a new maturity level e-government.

A successful example of this sort of transactional e-Government service is the electronic filing of tax returns, which the South African Revenue Service (SARS) has implemented with a clear success record. SARS introduced its electronic filing initiative in 2001, in accordance with the government's broader e-Government strategy in the public service. e-Filing of tax is a coordinated effort between SARS and private business. The main aim of an e-Filing system is to facilitate the electronic submission of tax returns and payments by taxpayers and tax practitioners. Income taxpayers may however still submit their returns in the traditional way. Some of the tax services available electronically include Pay-As-You-Earn (EMP201 return) and Value Added Tax (VAT201).

A recent e-Filing initiative is the Companies and Intellectual Property Commission (CIPC) IP Online project by the Department of Trade and Industry (the dti). CIPC provides online facilities to access information and documents concerning South African Intellectual Property files. The patent files contain patent applications open for public inspection. The trademark files contain pending & granted trade mark applications. In addition, the CIPC IP Online Services website will be offering the service for filing new applications for patents and trademarks.

**e-Health**

The National Department of Health, the Medical Research Council (MRC) and the National Health Information Systems Committee on South Africa (NHIS/SA) has developed the e-Health Strategy for South Africa. This strategy is aligned with the World Health Organisation’s (WHO) definitions and targets for e-health, which seek to use ICTs to treat patients, pursue research, educate students, track diseases and monitor public health. The e-Health Strategy covers the following:

- electronic health records;
- electronic health management information;
- computerised registrations of death or births; electronic access to health knowledge by patients and professionals,
- telemedicine;
- virtual health care; and
- health research.

The National e-Health Strategy Toolkit published in 2012 by the World Health Organisation (WHO) and the International Telecommunication Union (ITU) provides a practical guide for governments for the development of an e-Health action plan. The toolkit provides guidelines for an enabling environment within which e-Health can be effectively put into place in countries, with recognition of the varying priorities and circumstances that prevail in each country. Within the South African context, the general
consensus is that the various inter-ministerial forums, international consultations and national ICT bodies have not been effective in guiding the implementation of the National e-Health Strategy Policy document. To date, there has been minimal progress in providing an enabling environment similar to what is being proposed by the e-Health Strategy Toolkit, particularly in the establishment of an e-Health governance structure.

Stronger coordination and leadership is required to leverage this local knowledge base to provide clear recommendations that can be implemented with specific roles and responsibilities. There is no guidance on which organisation/ body or secretariat should take the initial role of formalising this coordination work.

**e-Education**

As early as 1996, the Telecommunications Act, Number 103 of 1996 contemplated an education network (EduNet) to link all schools. The 2001 Telecommunications Amendment Act, Number 64 of 2001 introduced a discounted e-rate to facilitate Internet connections for education institutions.

The eSchool Cyberlab programme launched by the Department of Communications in 2000 provided computer and Internet services to under-serviced areas through the creation of computer centres in public schools. The Universal Service Access Agency (USAASA) was given the responsibility of rolling out this programme27.

The 2004 White Paper on e-Education confirmed the availability of USF subsidies to achieve the discounted e-rate. In January 2005, the Minister of Communications confirmed a 50% discount on Internet connectivity costs for schools. This 2004 document stresses the need for the integration of ICT into learning and teaching, and called for the creation of a Ministerial e-Education Advisory Council28.

The ECA repealed the Telecommunications Act and its amendments but largely mirrored the provisions of that Act in relation to the e-rate.

In 2010, USAASA transferred responsibility for the Cyberlab program to the Department of Education.

The e-Education policy goal is that every South African manager, teacher and learner in education will be ICT capable by 201329.

In October 2011, the Department of Basic Education published an Action Plan for 2014, named Schooling 202530. The plan details 27 national output goals, of which four relate to e-education.

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29 Defined as “use ICTs confidently and creatively to help develop the skills and knowledge they need as lifelong learners to achieve personal goals and to be full participants in the global community.” Ibid.
e-Commerce in South Africa

In e-commerce there are invariably three key players, namely, the buyer, who wishes to purchase goods or services, the seller, who offers the goods and service, and the manufacturer who produces the product or service.

These three players interact with each other in various e-commerce models. These include the following: business-to-business (B2B) which involves the provisioning of products and services between two businesses; business-to-consumer (B2C) which involves the provisioning of products and services between a business and an end customer; business-to-government (B2G), which involves the provisioning of services and products between companies and government departments or its entities; and finally consumer-to-consumer (C2C) which involves the provisioning of products and services between two individuals or consumers, with the transaction usually completed by a third-party platform and payment system.

All these models refer to e-commerce, which is the transfer of goods and services via the internet. However, more recently there is a separate term, called m-commerce which is being used to denote commercial transactions that are completed using a mobile device.

Regulatory environment for e-Commerce

In South Africa, e-commerce policy started in 2000, when government published the Green Paper on e-commerce. The Green Paper was aimed at building trust and confidence in the security and privacy of transactions performed electronically. In addition, the Green Paper sought to enhance the information infrastructure for electronic commerce; establish rules that would govern electronic commerce and finally, bring the opportunities of e-commerce to ordinary South Africans. At that time, government focused on heightening awareness about the need for faster adoption of e-commerce by individuals, enterprises and governments. It outlined the legal foundation for e-commerce; identified key issues regarding the validity, recognition and enforcement of electronic contracts and highlighted issues of intellectual property protection requirements, for instance, raising awareness regarding the implementation of copyright, trademark and patent protection in an electronic environment.

The promulgation of the Electronic Communications and Transactions Act (ECTA) two years after the publication of the Green Paper on e-commerce, laid the legal framework for consumers, businesses and government to conduct and use electronic transactions in a safe, secure and effective environment. The ECTA further provided for the development of a national e-strategy, and promoted universal access to electronic communications and transactions and the use of electronic transactions by SMMEs.

Overview of e-Commerce Services

Notwithstanding the absence of a clear policy framework, the e-commerce sector has not only grown, but it has undergone some fundamental changes since the promulgation of the Electronic Communications and Transactions Act (ECTA) in 2002. The changes highlighted below underline the degree of development. Although some changes were a result of the Act, some were market (demand) driven.
<table>
<thead>
<tr>
<th>Sector</th>
<th>Category</th>
<th>Services in 2013</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Public Sector</td>
<td>Government-to-Citizen (G2C)</td>
<td>Examples of services include: e-Filing of tax returns introduced by SARS</td>
<td>The Department of Home Affairs has embarked on the migration of offline National ID documents to online using a smart card identification system. Online payment systems to facilitate payment of traffic fines adopted by all metropolitan municipalities. The e-Natis online vehicle and transport management system introduced by the Department of Transport</td>
</tr>
<tr>
<td>Private sector</td>
<td>Business to Citizens (B2C)</td>
<td>Mobile commerce (including Mobile banking)</td>
<td>Often referred to as “mobile money”; is widely seen as an effective way to provide access to finance to millions of people. Mobile payments and mobile banking help with transfer of remittances and transfers of money, which can improve lower income worker’s ability to contract micro-loans, enabling them to withstand financial shocks. The current status of mobile banking is still in its initial stage of development, as cash transactions still prevail amongst most South Africans. Users are not yet comfortable with it, as illustrated by the relatively low 12% (unchanged from 2012) of respondents in the MasterCard Survey who used their mobile devices to make purchase.</td>
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<td></td>
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<td>e-Payment Use of intermediary service provider between the bank and the actual customer</td>
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<td></td>
<td>South African Postal Service The mail business, which includes the collection, processing and delivering of all mail items and parcels, continues to be the key revenue generator for the SA Post Office, contributing 70% of revenue. This part of the business is also especially vital for research online, purchase offline (ROPO) e-commerce as the completion of the e-commerce value chain and delivery of final product falls on the shoulders of SAPO. SAPO has a dedicated e-business unit that focuses on the electronic fulfillment of communications and transactions through multiple channels such as hybrid mail, mobile platforms, the internet, Trust Centre, and self-service kiosks.</td>
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Policy Reform & Trends

South Africa’s e-commerce sector faces some challenges, which require a concerted effort by all role-players to ensure that it does not stagnate. Some of the issues that require policy attention include the following:

- **Consumer protection and confidence.** Consumers are often vulnerable to liabilities since information pertaining to their rights is not provided in a transparent manner. Fraudulent and misleading commercial practices, which are commonly associated with online or mobile payments, may hinder the consumer’s confidence to transact online. Privacy issues are of concern to consumers as personal data is easy to collect and pass on to third parties without knowledge or consent. Within the e-commerce environment, dispute resolution and redress mechanisms are currently inadequate. For instance, when buying an application, it is unclear on whom the consumer can rely for service support - the application platform or the application company itself. Given the multitude of parties involved in the e-commerce value chain it can be difficult to identify which party should be held responsible.

- **Legal framework.** There is no single locus of responsibility when it comes to e-commerce and there is no single framework that addresses issues that may arise in e-commerce. Additionally, current laws, although they touch some aspects of e-commerce, such as anti-spam initiatives, privacy and copyright, may be overlapping or unclear. Other laws concerning taxation or trade may need to be reviewed as they may negatively impact on the development of e-commerce. Cross-country legal differences can hinder e-commerce due to the additional costs of compliance with other country’s laws.

- **Infrastructure and universal access.** Faster and cheaper broadband connection is essential for the development of the e-commerce sector. With low penetration levels of broadband in the country, e-commerce business may not reach the required volume of sales they need to be profitable, thus deterring businesses from going online. Although mobile penetration rates are significantly higher than fixed line broadband access, slow internet can frustrate a customer as the mobile speed is not sufficient to run the mobile application.

- **Delivery.** This is a critical component of the e-commerce value chain but often it is here that the supplier of goods faces the challenge of the “last mile”. Several factors may affect the delivery of the products to the customer, including unclear addresses or remote locations.

- **Geography.** Due to the geographical remoteness of South Africa from some of its biggest trading partners outside of Africa, the domestic market may be constrained.

- **The rise of extraterritoriality.** The internet as a platform for e-commerce transaction is a borderless business activity. This poses a major challenge on domestic laws relating to taxation.

- **Appreciation.** It is imperative that both the suppliers and customers understand and embrace the benefits of e-commerce. Lack of appreciation of e-commerce, coupled with inadequate knowledge to develop online business, prevents e-commerce from fully flourishing. It is also necessary to address security concerns. The fact that big retailers are beginning to embrace e-commerce will help to increase awareness of the online channel.