

# Using Mobile Technology to Support Government Service Delivery: A Case Study on the Pension System in South Africa

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## **Abstract**

*The flow of information between a government administrator and a citizen is critical for the administrator to make a just, fair and reasonable decision. South Africa recognizes that it struggles with non-compliance in this decision making process primarily because of a lack of skilled human resources (Republic of South Africa, 2007). In this paper, we investigated in the interpretive paradigm the use of mobile technology designed as a group support system (GSS) tool to support the decision making process required by the Promotion of the Administrative Justice Act of South Africa (PAJA) within the context of pension applications. Group Support Systems (GSS), the technological focus of this research, is a suite of software tools which can focus team efforts to converge on a set of key issues. The findings from the research resulted in a government service delivery model based on the pension application cycle with mobile technology serving as a GSS tool. The paper argues that the resultant service delivery model can better deal with the typical government service delivery problems such as citizen frustration, citizen threats, administrative abuse of power and the non-compliance problem of the PAJA. The model also revealed that mobile technology designed as GSS can help to anticipate and preclude the stated problems. The paper makes a contribution to research and practice by proposing a framework for government service delivery using mobile phone technology designed as a GSS tool.*

## **Keywords**

Mobile Technology, Group Support Systems, Administrative Law, the Promotion of Administrative Justice Act, Public Service Delivery.

## **Introduction**

### **Administrative Law & the Promotion of Administrative Justice of South Africa**

In South Africa, administrative decision-making is promulgated through the Promotion of the Administrative Justice Act 3 of 2000 (PAJA) as part of general administrative law. PAJA sets out the general rules that govern how administrators must make decisions; reasonably, justly and procedurally fairly (Republic of South Africa, 2000). Reasonableness means that administrators should be able to comprehend the context before making a decision. Justifiableness refers to administrators having the power to make the decision. Procedural fairness means that an administrator must ensure that a potentially affected individual is given adequate notice of the nature and purpose of the proposed negative decision, a reasonable opportunity to make representations, a clear statement of the administrative action, adequate notice of any right of review or internal appeal where applicable and adequate notice of the right to request reasons (Republic of South Africa, 2000).

The effectiveness of the PAJA can be measured through the lens of decision-making theory because of its focus on the process of decision-making by government administrators. Classical decision-making theory suggests that for a decision to be arrived at adequately, the people involved must have 1) adequate information to make the decision and 2) a commitment to make the decision (Vroom and Yetton, 1973). With regards the PAJA, adequate information can therefore only be achieved if there is a free flow of information between the administrator and the individual/collective.

## **Problem Statement & Research Aim**

In this paper, attention is drawn to the flow of information between the administrator and the individual and / or group collective towards improving service delivery. South Africa recognizes that the implementation of many of its policies is problematic and that service delivery is far from being adequate (Republic of South Africa, 2007). This paper identified that ICT particularly communication technology such as GSS has evolved to encompass improved forms of interaction and collaboration between categories of people such as government and citizens, where information can be exchanged at different times and from various places.

The aim of the research was therefore to investigate how GSS can support policy implementation and improve service delivery. The case study used to empirically conduct the research was the government administrative agency responsible for executing social security services, the South Africa Social Security Agency (SASSA) with the unit of analysis as the Old Pensions Grant (OPG).

The rest of the paper is structured as follows; the next section reviews the literature on GSS. The following section illustrates how mobile technology can be adopted as a GSS tool. This is followed by the model derived from the GSS literature and the PAJA. The interpretive research approach to empirically test the model is then described followed by the research setting of the case study, the SASSA. The next section analyses the data from the research guided by the model. The final section makes the conclusions and contributions to research and practice from the research.

## **LITERATURE REVIEW**

### **GSS Research**

There are different definitions of GSS but all with a similar underlying concept of a suite of software that can be used to focus and structure the deliberations of a group. For example, Briggs et al. (2003) define GSS as a socio-technical system consisting of software, hardware, meeting procedures, facilitation support, and a group of meeting participants engaged in intellectual, collaborative work. Nunamaker et al. (1997) define GSS as a special type of groupware

designed to improve the efficiency and effectiveness of meetings by offering a variety of tools to assist the group in the structuring of activities, generation of ideas and improvement of group communication. Zigurs & Buckland (1998) define GSS as a communication support system that supports, enhances and defines the capability of group members to communicate with each other. This paper adopts a definition of GSS as a set of communication, structuring, and information-processing tools that are designed to work together to support the accomplishment of both group and individual tasks. GSS can as such be considered as a tool in the hands of people, with the tool being the software and hardware to make a collaborative effort towards a goal.

The processing structuring is any element of GSS that supports, enhances or defines the process by which groups interact, and the information processing is the capability to gather, share, aggregate, structure or evaluate information. These unique viewpoints justify the reason for using the GSS tool in this context to enhance the flow of communication, coordination and interaction.

This paper posits that a mobile phone can similarly be used as the hardware and/or software artifact of a GSS if it can fulfill the basic notions of communication support, process structuring and information-processing.

The main advantages of GSS are in their features of anonymity, parallel communication and in group memory (Briggs et al., 2001). Anonymity allows users to raise and explore new and perhaps risky ideas that a member might otherwise be reluctant to voice. Parallel communication allows group members to input ideas simultaneously while group memory ensures that all inputs are captured. These features of GSS increase the productivity of groups and reduce the time required for projects. They also effectively encourage the involvement of large groups in meeting processes, thus enabling stakeholders at all levels to be involved (Nunamaker et al., 1991). GSS tools are designed to influence the patterns of group interaction in varieties of useful ways, to reduce the mental cost of information access and the minimisation of distractions among the team working towards a goal (Briggs et al., 2003).

Hence, the purpose of this paper is to adopt mobile phones as GSS tools to support the creation of sustained predictable, repeatable and useful patterns of collaboration among people working together towards a goal (Kolfshoten et al., 2006).

Typically, GSS software runs on a network of computers with separate workstations or tools for each team member. Participants using portals of the GSS software have their own cursors and can simultaneously contribute to the shared objects, so that the contributions of any one user is immediately visible on the screen of other users.

There has been a decline in GSS research primarily because of the excessive focus on the technology itself without taking into consideration the context (Nunamaker Jr et al., 1997). Gopal & Prasad (2000) called for a shift of focus from technology to interaction, by studying the technological context of GSS use. Gopal & Prasad (2000) recommend that GSS should rather be viewed as a socio-centric tool in the hands of people, and the effectiveness of its use dependent on the context. It is important to find a fit between the task such as procedural fairness in administrative action and the technology such as GSS to enhance service delivery (Zigurs et al., 1999, Zigurs and Buckland, 1998).

As such there is a need for a GSS tool that enables administrators and potential grant beneficiaries to collaborate within a short period of time especially when the administrators need to make decisions that adversely affects the potential grant beneficiary.

The GSS tool that was adopted in the research was the mobile phone because of its massive proliferation in all communities in the world as well as the mobile phone capabilities of flexibility, convenience and versatility (Palen et al., 2001). Mobile phone communication similarly exhibits GSS features such as distributing, sharing, acquiring information, and supporting teamwork development and coordination.

In the next section, the paper turns to the context of the GSS use, the case study.

## THE CASE STUDY

### Old Pension Grant

In South Africa grant beneficiaries represented 22% of the South African population by December 2005 (De Koker et al., 2006). In South Africa, all grants are administered by the South Africa Social Security Agency (SASSA). The main motive for applying for the OPG is financial sustainability as the elderly population take on the responsibility of looking after younger children, especially orphans and grandchildren (De Koker et al., 2006). This situation has increased the pressure on pension applications all across the country (Table 1).

*Table 1: National population and OPG (De Koker et al., 2006)*

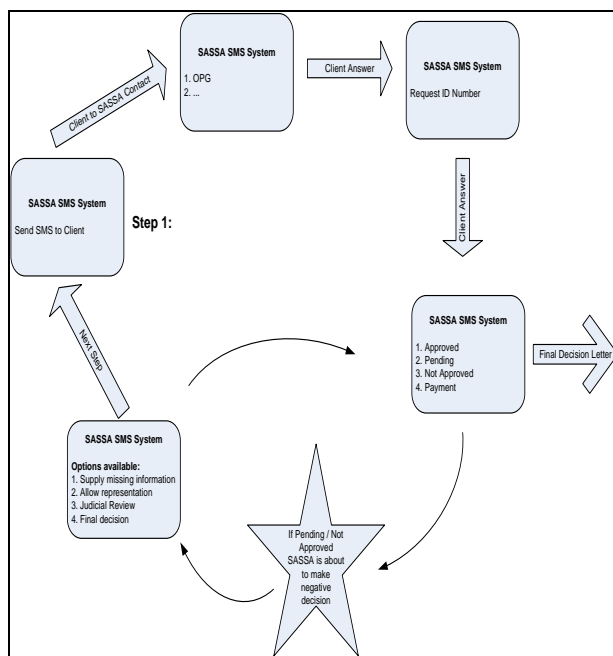
The process for applying for pensions that all

Province name	Percentage of beneficiaries per province	Number of beneficiaries per province	Total population per province 2007	Percentage of beneficiary per total population per province
Kwazulu-Natal	20.4	447,983	10,014,393	6.5
Eastern Cape	19.5	427,808	6,906,373	14.4
Limpopo	15.9	349,723	5,403,190	3.6
Gauteng	12.3	269,605	9,688,189	2.7
North West	8.9	195,089	3,394,376	3.6
Western Cape	7.7	170,110	4,839,766	4.8
Mpumalanga	7.1	155,877	3,536,211	14.1
Free state	6.0	132,536	2,965,679	3.9
Northern Cape	2.1	46,287	1,101,883	1.0
<b>Total</b>	<b>100</b>	<b>2,195,018</b>	<b>47,850,060</b>	

applicants must pass a means test which assesses eligibility based on age, income and existing assets. A

response is then given to the applicant as to whether the application for the OPG has been successful.

Since 44% of old people receiving grants in South Africa have a cellphone and 12% have a land line (De Koker et al., 2006) the cellphone is an appropriate technology for use in the decision-making process of the pension application cycle. Hence, this paper proposes a model (Figure 1) which takes into account the decision-making requirements of the PAJA as well as the decision-making requirements of the pension application cycle.



*Figure 1: Towards a framework for Mobile Technology as a GSS tool to support the PAJA decision-making process and the pension application cycle.*

The model assists to better understand the PAJA requirements and its implementation to support the pension application process. The model proposes citizen interaction with a government administrator in SASSA to inquire about their pension application and/or file-in for grant application. The administrator should contact the individual when about to make decisions that affects them negatively. This can be done using the SASSA SMS SYSTEM. The citizen can reply the administrator by SMS using a number to

indicate the type of grant applied for; 1 (OPG) 2... (for other grants). The SASSA SMS system then requests for the ID number for identification purposes which is also replied to by SMS. The SASSA SMS system will then give a response depending on the status of the application; these could be APPROVED, PENDING, NOT APPROVED, ALREADY PAID. If the status is pending or not approved, the SASSA system will then send an SMS to the potential beneficiary allowing the person to make representation before the negative decision is taken by requesting for further information as required. If the further information is supplied and this changes the decision to an approval then an SMS and letter is sent out to that effect. If not approved, the SASSA system will send an SMS indicating the next process for recourse that the rejected applicant can follow.

## RESEARCH APPROACH

### Interpretive Research

In order to empirically investigate and analyse how GSS can support policy implementation and improve service delivery this research adopted a qualitative approach in the interpretive paradigm on a case study. This is because the interpretive paradigm is guided by principles which combine ontological, epistemological and methodological beliefs that shape how the researcher sees the world and acts on it while quantitative research assumes a purposive and objective researcher (Denzin and Lincoln, 2005). Interpretivism takes into account the bias of the researcher in treating reality as a subjective construct (Walsham, 1995). The use of a case study was because of the need to investigate a contemporary phenomenon (the pension application system) within its real life context (Yin, 2003).

### Data Collection Techniques

The primary empirical data was collected using face-to-face semi-structured interviews with SASSA officials involved in the pension application process. Secondary data was acquired from published research reports, journals, speeches delivered by government in line with the research problem, online articles, as well as the Department of Justice & Constitutional Development, South Africa, and the SASSA website.

Due to space limitations required by a conference paper, the data is not included in this paper but is available on request.

## **INTERPRETIVE ANALYSIS & DISCUSSION OF FINDINGS**

The paper adopted the interpretive method of analysis using Klein & Myers (1999) set of principles for evaluating interpretive case studies to reveal three primary themes; compliance with the PAJA, frustration and threats, and GSS technological intervention.

### **Compliance with the PAJA**

The pension application process fulfills the requirements of the PAJA to some extent in giving feedback about the application within 21 days. However, as at the time of this study, SASSA is looking into delivery of their service within 48 hours, and is currently working on a one-day turnaround time strategy, whereby people can actually wait and be informed of the outcome of their applications. This appears like a brilliant idea although it would actually breach the PAJA requirement to allow individuals reasonable opportunity to make representation before a negative decision is reached. The framework serves to ensure compliance with the requirements of the PAJA.

### **Frustration and threats**

Frustration sets in, especially when people whose rights have been negatively affected are handed their rejection letters by administrators. The administration of the South African grant system may be described as somewhat cumbersome for both the beneficiary and the administrator. The process of giving rejection letters could result in applicants feeling frustrated with the process, leading to anger, frustration and abuse. It must be noted that a large number of beneficiaries are only semi-literate, some even illiterate, and these beneficiaries are intimidated by the technology enhanced process.

### **Technological intervention**

In eluding all the problems discussed above, the findings also implied the perception of people that technology could help in interaction with administrators, as people would incur less travelling

costs, and they would be able to interact with administrators at any time of day, thus allowing them to obtain feedback from administrators more quickly.

## **CONCLUSIONS**

South Africa is a country with a unique cultural context whose OPG is a source of livelihood for a majority of people affiliated with the elderly. South Africa needs to focus on service delivery improvement, increasing information access, and transparency.

The proposed model in this paper proposes GSS in collaborative transactions and processes, in order to support effective and economical functions, thus improving the quality of life of citizens. This kind of model will:

- Improve public access to government information and services;
- Improve the quality and cost-effectiveness of government services in providing services to old people;
- Enable communication with citizens
- Improve opportunities to participate democratically in decision-making
- Increase value-added services where government agencies can offer citizens the convenience of receiving information about grants using a one access point for relevant information and resources
- Improve post-application services to clients through the use of mobile phone as interactive interfaces for communication outside the scope of the application process.

This confirms that mobile technology used as a GSS tool can help to support the pension application process without circumventing the decision-making requirements of the PAJA, thus bringing a new dawn to millions of old people and dependents on OPG and other types of grants in order to improve their lives. By improving the delivery of the OPG, they can have better lives and there will be a united effort in the fight against poverty.

The proposed model enables mobile phone access to SASSA resources, and therefore elevates the communication quality among all stakeholders during the pension application process. The SMS-based query submission to SASSA, and vice versa is an appropriate means to ensure that the decision making processes of the pension application cycle are fulfilled in accordance with the requirements of the PAJA.

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