Impact of Age 54+ project on claim processing in Social Security and National Insurance Trust (SSNIT) in Ghana

Ebenezer Adaku  
Graduate School of Business  
Ghana Institute of Management and Public Administration  
Accra, Ghana  
edaku@gimpa.edu.gh

Emmanuel Seth Nii Anang Lomotey  
Graduate School of Business  
Ghana Institute of Management and Public Administration  
Accra, Ghana

Kwasi Amoako-Gyampah  
Department of Information Systems and Supply Chain Management  
Bryan School of Business and Economics  
University of North Carolina at Greensboro  
Greensboro, NC, 27402

Samuel Famiyeh  
Graduate School of Business  
Ghana Institute of Management and Public Administration  
Accra, Ghana

Abstract

The claim processing system at SSNIT in Ghana has been resulting in delays in claim processing. Hence, a new system – Age 54+ project – was developed to address the problems related to claims processing. The study seeks to report on the efficiency gains from the new claim processing system implemented at SSNIT in Ghana. The new system – Age 54+ – improved on the old system by 20%.

Keywords: Claim processing time, Social Security, Ghana
Introduction

Globally the importance of social security schemes cannot be overemphasized. Richardson (1960) stressed the importance of social security schemes. Social security schemes provide important sources of finance for both the public and private sectors in most countries. SSNIT makes available to the government of Ghana long term loans for the financing of current and capital expenditures for national development. Furthermore, Whitaker (1998) posits that it would be ideal, if every member of a community could be protected by social security as that fosters solidarity.

Dorfman and Palacios (2012) opine that pensions and social insurance programs aim to prevent a substantial loss in consumption power as a result of old age, disability or death and hence form an integral part of any social protection system. Besides, Rofman and Oliveri (2012) argue that social security schemes are programs instituted by the state to transfer the responsibility of social risks (disabilities, old age, victim of natural disasters, among others) to the state where the informal or traditional systems of social protection are insufficient or not properly working.

Given, the benefit of social security schemes, the issue of delays in processing benefits of claimants or beneficiaries still remains a problem, especially in most developing countries. Undue delays in benefits processing – to a large extent – undermine the objective of social security schemes as the claimants or beneficiaries get worse off socially and economically by such delays. SSNIT, in Ghana, over a long time had a problem of bad image due to delays in claim processing. Hence, a project – Age 54+ project – was implemented by the Trust to address the problem of delays. Consequently, this study seeks to compare the claim processing times under two scenarios – the old claim processing system and the Age 54+ project. Besides, the study attempts to investigate any impacts of the Age 54+ project on the Trust’s claim processing time.

The study begins by giving an introduction about social security schemes. Secondly, the social security scheme in Ghana is addressed. Thirdly, the general claim processing structure at SSNIT is shown while also indicating the structure of the Age 54+ project processing system. Fourthly, the method and results of the study are discussed. The study then ends with conclusions and some suggestions for further improving on the claim processing at SSNIT.

Social security scheme in Ghana

Social security schemes are available in most countries – both developing and developed countries though the extent of coverage varies in both developing and developed countries. The social security legislation in Ghana was enacted in 1965 (Asibuo, 1976). On the emergence of a social security scheme in Ghana, Asibuo (1976) indicates that the change in the socio-economic structure in Ghana – reflected in establishment of industries, urbanization, rural-urban migration, rapid population growth and the spread of formal education – necessitated a social security scheme in Ghana. Boon (2007) acknowledges that before the institution of a formal social security system in Ghana, the indigenous Ghanaian society had a traditional form of social protection. Traditionally, societies in Ghana are much concerned with societal risks in the form of disability, sickness, loss of a key bread winner of a household, old age and victims of natural
disasters. The traditional form of social security, in Ghana, has always been provided by the extended family system as well as one’s children. However, with the advent of globalization, Boon (2007) further opines that the Ghanaian society is getting westernized which is gradually and systematically disintegrating the extended family structure which provides some traditional social security. The disintegration of the extended family structure – which provides social security – is also occasioned by the harsh economic situation in Ghana.

Generally, the levels of pension benefits, in Ghana, are not connected to the prevailing economic conditions, hence creating socio-economic problems for pensioners. From a demographic standpoint, the pension scheme in Ghana should not be in distress and must provide better benefits to pensioners as the ratio of contributors to beneficiaries stands at 40:1 (Atabugum, 1997). However, poor investment decisions which are underpinned by political interferences coupled with the volatile economic situation in Ghana explain the disconnect between the levels of pension benefits and the prevailing economic conditions.

In some developed countries such as Britain and New Zealand, the pension schemes cover almost every citizen and apply to most risks. However in Ghana, even though under the Provisional National Defence Council (PNDC) law 247, workers in both the formal and informal sectors are permitted to be part of the scheme, the scheme is largely subscribed by workers in the formal sector and covers only such contingencies as old age, invalidity and death and survivors benefits. Again, Ghana has two pension schemes running concurrently – the SSNIT scheme and the Government scheme (CAP 30). The CAP 30 scheme is usually funded by the consolidated funds of the government of Ghana and for mostly officers and men in the force work of Ghana (Kumado and Gockel, 2003). Under the SSNIT scheme, employee and employer contributions are 5% and 13.5% respectively. The annual indexation method is the main approach for adjusting the levels of pensions paid in Ghana and the Trust operates with a retirement age of 60 years.

**General claim processing at SSNIT**

The claim or benefit processing at SSNIT begins with the submission of an application letter by the claimant to the claimant’s SSNIT branch. Upon the receipt of the application, an application form (SS4) is filled at the SSNIT branch and the necessary due diligence or clearance carried out before the final payment of benefit to the claimant as seen in Figure 1. The phase of the clearance or due diligence before the final payment of the benefit was the bottleneck in the claim processing procedure at the Trust and hence the justification for the Age 54+ project. As seen from Figure 1, the Age 54+ project seeks to address the problem of lengthy processing time between claim application and claim payment. Applicants who are not previously captured under the Age 54+ project are routed through the old system of clearance (1.0) before the final payment procedure begins (2.0) as indicated in Figure 1. The old clearance procedure (1.0) is as shown in Figure 3. The final payment procedure (2.0) is as shown in Figure 2. One important aspect of the final payment procedure is the issue about the student loan guarantee clearance (See Figure 2). Applicants or claimants who have previously guaranteed students’ loan need to get clearance from the students’ loan department of payment of the student loan otherwise the amount owed in debt is deducted from the claimants’ final payment.
**Figure 1 - General claim procedure at SSNIT**

1. **Member brings retirement letter**
2. **Complete application form (SS4) for member**
3. **Is member cleared under Age 54+ project?**
   - **No** 
     - **Dispatch to records for Clearance (Clearance Procedure)**
     - **Branch**
   - **Yes**
     - **2.0**
     - **Dispatched to Pension House for Payment (Payment Procedure)**

**Legend:**
SS4: Application for Old-Age Retirement and Invalidity Benefit Form

**Figure 2 - Final payment procedure**

1. **Receive claim file from Branch**
2. **Capture file to the system**
3. **Send file to student loans for clearance**
4. **Check for Bio and financial data**
5. **Send file to Computation Department**

- **Financial data is extracted, Checklist prepared and approved**
- **A payment activity is generated**
- **Computation is verified to check for accuracy**
- **The Payroll system is run for the month to include new pensioners based on bank details**

**Treasure and Accounts department are informed to send payments to the banks for the individual accounts to be credited.**
Claim processing under Age 54\textsuperscript{+} project

Under the Age 54\textsuperscript{+} project, acquisition of a blue card indicates an evidence of being part or captured under the Age 54\textsuperscript{+} project. The procedure for the acquisition of the blue card is as shown in Figure 4. In order to expedite the overall claim processing time, the Trust’s system
flags all members who turn 54 years at a particular time and subsequently written to by the Trust to initiate the blue card acquisition process. This prior clearance (both bio and financial data) through the blue card acquisition is essential to ensure that by age 60 when the claimant applies for the benefits, the time required for the final payment to be made is considerably reduced.

Figure 4 - Blue card acquisition procedure

Data and Method

The data for this study was obtained from the benefits system of SSNIT, Ghana from 2009 to 2013. Even though the Age 54+ project commenced in 2003, data was available from 2009 to
2013. The data consists a series of benefits processing time for two (2) groups of fifty six thousand (56,000) claimants - those cleared and not cleared under the Age 54+ project. Descriptive statistics involving the mean benefits processing time, the minimum and maximum processing times and standard deviations were computed and compared for the two groups of benefits processing times. To visually ascertain the increasing or decreasing pattern of claim processing times under the two different scenarios, trend graphs were employed. Again, box plots were constructed to visually ascertain the normality or skewness of the distribution of the processing times of claimants under the Age 54+ project and those not cleared under the project.

Furthermore, a statistical test of difference in samples to ascertain whether or not there is a significant different between the benefits processing time of claimants cleared under the Age 54+ project and those not cleared under the Age 54+ project was performed. The hypotheses of the study are indicated as follows:

\[ H_0: \text{There is no significant difference in the benefits processing time of claimants cleared under the Age 54+ project.} \]

\[ H_1: \text{There is significant difference in the benefits processing time of claimants cleared under the Age 54+ project.} \]

**Results**

The Age 54+ project seeks to reduce the processing time between claim lodgement date and claim payment date by fixing all data (bio and financial) issues of contributors earlier from Age 54 through to 59 years. The observed data suggests a positive result of the project as claimants cleared under the Age 54+ project relatively have shorter claim processing time.

**Descriptive analyses**

The claims processed for claimants cleared under the Age 54+ project were forty-one thousand and six hundred (41,600) whereas those processed without Age 54+ clearance were fourteen thousand and four hundred (14,400) for the five year period from 2009 to 2013. Table 1 presents some descriptive statistics of the processing time of claims for claimants cleared under the Age 54+ project and those not cleared under the project.

<table>
<thead>
<tr>
<th>Claimant Category</th>
<th>Min</th>
<th>Mean</th>
<th>STDev</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleared for Age 54+</td>
<td>3 days</td>
<td>73 days</td>
<td>57 days</td>
<td>854 days</td>
</tr>
<tr>
<td>Not Cleared for Age 54+</td>
<td>7 days</td>
<td>91 days</td>
<td>73 days</td>
<td>1,482 days</td>
</tr>
</tbody>
</table>

As seen from Table 1, the Age 54+ project appears to have relatively reduced the amount of variations in the claim processing time (57 days) as compared to the processing time under the old system (73 days). Besides, the maximum possible time for a claim can be processed under the Age 54+ project is 854 days, which is an improvement of about 40% over the old system of processing claims. Furthermore, as seen from Figure 5, the box plots of the processing times of claimants cleared under the Age 54+ project and those without the project indicate right-skewed
distribution for claimants under both scenarios. This suggests that in both cases, there are still some extremely high processing times. This then raises some concerns for the Trust as it seeks to largely reduce the claims processing times by using the Age 54+ project.

![Box plot of processing times of the two scenarios](image1.png)

**Figure 5- Box plot of processing times of the two scenarios**

**Trend analyses**

The implementation of the Age 54+ project has largely seen the reduction of the average processing times for claimants cleared under the project relative those not cleared under the project. However, from 2009 to 2012, there appears to be a consistent rise in the average processing times for both claimants cleared under the Age 54+ project and those not cleared under the project.

![Trend of average processing times under the two scenarios](image2.png)

**Figure 6- Trend of average processing times under the two scenarios.**

The consistent rise in the average processing times from 2009 to 2012 for both scenarios can be explained by the poor integration or synchronization of the new system (Age 54+ project) with the old claim processing system. After 2012, a problem analysis was done at the Trust and the problem of lack of resources (staff and equipment) was identified. The trust then decided to engage more resources and that saw a drop in the average processing times in 2013 for both claimants cleared under the Age 54+ project and those not cleared under the project.

**Statistical test of difference in means of claim processing time**
The test of difference between the average processing times between claimants cleared under the Age 54+ project and those not cleared under the project is significant at 5% significance level as shown in Table 2.

The hypotheses for the test in difference in means are indicated as follows:

\[ H_0: \mu_1 = \mu_2 \]

\[ H_1: \mu_1 \neq \mu_2 \]

Where, \( \mu_1 \): mean claim processing time for claimants cleared under the Age 54+ project

\( \mu_2 \): mean claim processing time for claimants not cleared under the Age 54+ project.

**Table 2: Test statistics of difference in means of processing times for the two scenarios**

<table>
<thead>
<tr>
<th>Period</th>
<th>Cleared Under Age 54+</th>
<th>Not Cleared Under Age 54+</th>
<th>( \mu_2 - \mu_1 )</th>
<th>t-statistic</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>( \mu_1 ) 70 days</td>
<td>( \mu_2 ) 83 days</td>
<td>13 days</td>
<td>5.947</td>
<td>11,480</td>
<td>1.41X10^{-09}</td>
</tr>
<tr>
<td>2010</td>
<td>( \mu_2 ) 70 days</td>
<td>( \mu_1 ) 90 days</td>
<td>20 days</td>
<td>11.288</td>
<td>12,574</td>
<td>2.20X10^{-16}</td>
</tr>
<tr>
<td>2011</td>
<td>( \mu_1 ) 78 days</td>
<td>( \mu_2 ) 103 days</td>
<td>25 days</td>
<td>12.22</td>
<td>9,572</td>
<td>2.20X10^{-16}</td>
</tr>
<tr>
<td>2012</td>
<td>( \mu_2 ) 88 days</td>
<td>( \mu_1 ) 108 days</td>
<td>20 days</td>
<td>14.764</td>
<td>14,764</td>
<td>2.20X10^{-16}</td>
</tr>
<tr>
<td>2013</td>
<td>( \mu_1 ) 59 days</td>
<td>( \mu_2 ) 73 days</td>
<td>14 days</td>
<td>20.018</td>
<td>10,884</td>
<td>2.20X10^{-16}</td>
</tr>
<tr>
<td>Overall (2009 – 2013)</td>
<td>( \mu_2 ) 73 days</td>
<td>( \mu_1 ) 91 days</td>
<td>18 days</td>
<td>26.656</td>
<td>56,017</td>
<td>2.20X10^{-16}</td>
</tr>
</tbody>
</table>

**Impact of Age 54+ project on claim processing time**

The delays in the claim processing at the Trust, over a long time, gave a bad impression and image about the Trust from the standpoint of claimants. Socially and economically, claimants who have their benefits payment delayed as a result of the lengthy claim processing period become worse off. Such claimants, basically, have to rely on their little personal savings before retirement or fall on family members (including children) for upkeep before the payment of benefits by the Trust. However, with the introduction of the Age 54+ project, the claim processing time at the Trust has been reduced for the same time period of 2009 to 2013. Generally, from 2009 to 2013, the average claim processing time under the Age 54+ project stands at 73 days relative to 91 days under the old claim processing system. This indicates a 20% time savings under the Age 54+ project as compared to the old claim processing system. Besides, before the introduction of the Age 54+ project, the estimated average claim processing time at the trust was 120 days. Hence, the Age 54+ project appears to have contributed in improving on the performance of the old claim processing system by reducing the processing time from 120 days to 73 days as of 2013. This improvement in the processing time under the old claim processing system – as apparently occasioned by the Age 54+ project – can be explained by the absorption of pressure on the old claim processing system by the Age 54+ project. Furthermore, the efficiency of the Age 54+ project relative to the old claim processing system is reflected in the higher number of claims (41,600) cleared under it as compared to the claim (14,400) cleared under the old claim processing system for the same time period 2009 to 2003.
Conclusions

The Age 54+ project involved, mainly, personnel recruitment and acquisition of ICT equipment for the recruited personnel. The project has a single objective of having the data (bio and financial) of all contributors to the Trust – with age 54 years and above – cleansed before the retirement age of 60 years so as to reduce the overall claim processing time from the date of lodgement of claim to the payment date. The evidence of having completed the Age 54+ project process is a possession of a “Blue Card” which is required to be submitted to a benefit officer at the time of application for retirement benefits. The Age 54+ project is a simple but effective way of responding to the excessive delays in benefits processing at the Trust. The project did not involve any significant change in the operation of the Trust with respect to claim processing. The philosophy which underpins the project is basically a “Let’s Start in Time” idea. This has fairly – on the average – reduced the claim processing time at the Trust by 20% relative to the old claim processing system as of 2013.

The savings of 20% in the claim processing time by the Age 54+ project is fairly good. However, there exists more potential to consolidate the gains and to further ensure savings in the claim processing time. What could potentially help in further ensuring savings is an establishment of an online platform which mediates the interactions between claimants and the Trust on a co-processing principle. Obviously, the problem of illiterates and semi-literate contributors of the Trust poses a challenge. However, such as system has with it an advantage of demand management improvement by having the literate contributors as co-processors while the illiterate and semi-literate contributors are handled by the existing physical interaction system. Besides, a collaboration between the Trust and human resource departments and managers of organisations who have members contributing to the Trust could further ensure more efficiencies with the claim processing time. Such a collaboration could manifest in the form of education on benefits processing by personnel of the Trust for human resource staffs as well as data and information sharing between the Trust and human resource departments.

References:


