

Rationalized Scrumban Based Methodology for Improving the Slackening Pension Scheme of Employee Sectors in India

Athulya Mohan, Devisree A S, C V Prasanna Kumar

Abstract: In India, subsistence of the bulk number of government servants depend upon the pension paid to them on the basis of policies and procedures laid down by the egalitarian government. Procedure for determination and authorization of the amounts of pension and gratuity is a tedious task which is governed by the Accounts Department. Procedures and policies for sanctioning pension process, keeping track of the advancements of the case as well as the paperworks involved in this task are prodigious for both the pensioner and the departments. This prodigious task can result in unpredictable delays in initiation of pension. The intention of this research is to conduct a case study on the pension procedures for a small employee sector and propose a methodology which collaborates agile methodology known as Scrumban to facilitate and guide the accreditation of pension process. The approach can be used to increase the pace of completion of pension accreditation process. This can in turn help the vast majority of pensioners to lead a marvelous life after retirement.

Index Terms: A&G(Accounts General), Agile, CDM(Centralized Department Monitor), Scrumban

I. INTRODUCTION

In a developing country like India who struggles to establish an economic prosperity, a well formulated pension sanctioning process plays an imperative role to ensure the social security of the retired workforce. The development of a pension sanctioning system which promotes a quick and rationalized delivery is helpful for the individuals who are retiring or retired from career. In India, the strength of pensioners is more than 56lakhs. Due to this huge strength of pensioners, pension sanctioning process in India faces numerous levels o challenges such as short-staffing in the concerned departments, lack of a rationalized and sequential process where the individual cases are dynamically tracked, and lack of prioritization guidelines to conclude cases in emergency mode. The agile methodology is an extensively

accepted procedure that is based on the principle of incremental progress and recurrent targets. The vision and intent of the underlying studies conducted as part of this research is the adoption of a tailored and rationalized agile implementation method to help the pensioning process. The idea intended here will be to propose a retrofit or backfit model to portray the pension sanctioning process. As an outcome of this idea it is possible to accustom the existing procedures wherever possible to bring under the umbrella of agile methods. An adaptive system characterized by three sequential steps represent the backfit model : accumulation of user data, recognition or identification of the key areas of improvement and a conceptual or theoretical representation of the agile principles to conquer the areas of improvement. As explained in case study this research will be conducted on a specimen rather than the entire pensioning populace to target on user data accumulation with higher granularity and thereby can be leveraged to a broader sense.

II. BACKGROUND STUDY

The Indian senior citizen's security system can be classified as :

- Civil service schemes
- Employees provident fund organization schemes
- Occupational pension schemes
- Public provident fund

On October 10 2003, some other pension managerial schemes are proposed in India, that is "Pension Fund Regulatory and Development Authority (PFRDA)", which intends to evolve and modulate pension sector. PFRDA also monitor the conduct of various mediators and has a crucial role to play in safety of the interest of subscribers[10]. The National Pension System(NPS) was put in motion with an objective of providing retirement income to all Indian citizens on Jan 1 2004. The main intention of NPS is to propose the custom of saving for retirement amongst the society and also to advance the pension process. The government employees mostly use NPS. As a result , this service has been granted for all citizens of India including self-employed, home-based workers, wage workers etc[2]. Scrumban is a compromise between Scrum and Kanban methodologies for increased applicability and versatility tool for manufacturing products and support focused companies. Because of its ability to increase efficiency of project management without consuming precious project development time and decreasing project management team flexibility, this methodology became so popular today.

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This methodology is the mix of Scrum and Kanban which combines the flexibility of Kanban and the basic features of Scrum. Scrumban decreases overhead stress for the development team, increases efficiency, and improves the overall satisfaction for the customer[14].

III. CASE STUDY

This study is particularly addressed for a smaller group from the broader section of employees who are retiring from the state government employee sector. For the underlying studies operated to perceive the preparatory steps, documentation, actions and measures tangled in the life cycle of the pension sanctioning process, the employees who are retiring from aided educational institutions that comprises up to higher secondary education levels will be hence contemplated as a sample. Special consideration will be given to perceive the grievances and lags due to human factors. As the application advance through multiple government entities to attain contentment, the pension approval process can be modified due to distress and bottlenecks. Interviews will be organized with individuals from the teaching fraternity to analyze the distress and bottlenecks. Some of our government pension schemes are described below:

- Employee Provident Fund Act (EPF): Focused at securing employees retirement benefits. Three schemes operate under EPF are-EPFS, EDLI, EPS [8].
- Employee Provident Fund Scheme, 1952: To enforce certain policies, it acts as a backdrop for the government. The Ministry of Labour and Employment will handle the implementation part. EPF scheme provides benefits for medical care, industries etc[2].
- Employee Deposit Linked Insurance Scheme: Segment of both EPF and EPS. Employee commitment for EPF automatically registers for EDLI also. When the earning member dies or suffers a disability, this scheme focuses to guarantee financial support for the sustenance of dependent family members [8].
- Employees Pension Scheme 1995: This scheme offers lifelong pension scheme for employees. Equal contribution from the government is also provided to the account that is approximately 8.33% of the employee salary and the contribution made to the employee does not output any interest [8].
- National Pension System (NPS); January 1st, 2004: This mainly aims to give old age income security coverage to everyone. Defined Benefit Plan, Defined Contribution Plan are the main pension plans covered under NPS[2].
- The Pension Fund Regulatory and Development Authority established on Aug 23, 2003: By building up, generating and classifying pension funds, this aims to promote old age income security, which mainly secure the interests of subscribers of pension [11].
- Defined Benefit Plan : Here, employee focuses specified retirement benefits. With the service year of employees taking into account , age and compensation level for the benefits of each employee will be calculated. Employer carries all possibility of challenges in the pension fund performance[12].
- Defined Contribution Plan : The contribution is done by both the employee and employer on a regular basis. At the point when and how the workers evacuate the fund without penalties is managed by the plan [2].

- Superannuation Fund (SAF): Company itself created this organizational pension program for the benefits of employees. SAF is a company benefit plan that results for the removal of employees salary in hand. Since companies bring it under a non-obligate category, SAF is not an obligatory process[2].

- Atal Pension Yojana: On June 2015 regulated by PFRDA, this Pension scheme protects unorganized sector which includes individuals working in private sector or self-employed [3]

- Public Provident Fund: National Savings Institute by the Ministry Of Finance Introduces this scheme in 1968. It aims to include a savings by offering an investment with reasonable returns.

Findings of study

Based up on the inquiry organized and on the kind of pension gains honored to them after a significant policy change in the year 2003, it was diagnosed that the employee population can be broadly classified into two sections. The significant changes in the procedures are recorded below:

Retirement Gains of State Government Employees (Before 2003): After the 6th pay commission came into practice, government workers experienced a huge transformation in the pension plans.

A. Defined Benefit Pension Plan:- Out of the current revenues, monthly income paid. To a defined benefit pension plan, a state government employee is permitted in two ways:

- a. On superannuation - Monthly pension after finishing a service of not less than 10 years.
- b. Voluntary Retirement -After completing 20 years of continuous service, voluntary retiring employees are eligible [2].

The amount of pension is taken as 50% of the average basic pay that is sum up of basic pay and grade pay, peaked during the last ten months of the service. The pension amount in every six months will also be affected due to the changes in dearness allowance (cost of living adjustment allowance paid to government employees).

- Commutation of pension: - As a replacement for periodic payment, a lump sum payment is made.

- Gratuity: - As a token of successful finalization of service tenure, a permanent government employee will be entitled for reward. Either a lump sum amount is given to employee after retirement or was paid to the family if an employee die while he is in service. The different types of gratuities given are Retirement, Death, and Service gratuity [8].

- General Provident Fund :- After a continuous service of one year, all permanent or temporary government employees will be eligible to guarantee to the fund which was a defined contribution plan with a minimum 6% offering from the employee and no contribution from the government [1].

- Contributory Provident Fund: - The employee offers 10% of his basic pay with similar offerings from the government [1].

- Deposit Linked Insurance Revised Scheme: - The subscriber was paid an additional amount equal to the average balance in the account during the last 3 years subject to the ceiling of amount 60000 after the government employee dies.

- Leave Encashment:-At the time of retirement, progress of earned leave or half pay leave to the credit of the employee was admissible up to a maximum of 300 days.



Retirement Gains of State Government Employees (After 2003):
Those employees who joined on or after November 11 2005 were eligible for a Defined Contributory Pension Scheme (DCPS). According to DCPS, each employee perpetrates 10% of the basic pay +dearness pays +dearness allowance and the state government makes a similar contribution of it. The modern pension scheme architecture encompasses,

Tier 1: The state government will make an equal identical augmentation in which all government servants will have to prepare a donation of 10% of their basic pay plus dearness allowance which will be reduced from their salary bill every month.

Tier 2: Government will not make any contribution to the tier-2 account and also at the preference of the government servant; the contributions of tier-2 will be conserved in a separate account that will be accessible for withdrawal. To new government servants who joined after 2003, the existing illustrated pension gain and GPF would not be accessible.

The Current Pension Process

- To the Head Office, the Government servant is required to maintain certain information (e.g. joint photo with spouse, family details etc.) before eight months to the retirement date.
- Account General receives the pensioners gains based on certifying service and forward the admittance reports to the department along with the service book, and also empowers pensioner gains in pension payment order, gratuity order and commutation order in two copies on receipt of the appliance and authentication of the scheme. First copy is forward to the treasury and second to the pensioner.

Pension payment order -Two Pension Payment Order books are created and forward to Treasury Officer. Three copies of forwarding letter are sent for Pension Payment Order, one each to pensioner, Department and treasury for information. On the choice of the pensioner, pension will be payable at the treasury. Gratuity Payment Order and Commuted Value of Pension -Two copies of Gratuity Payment Order and Commuted Value of Pension authorizations are generated, and then sent one each to the Treasury Officer and to the Pensioner.

- The Head Office has to forward to the Pay & Accounts Officer, Form 5, Form 7, Form 8 beside with service book of the Government employee duly finished and any other certificates relied upon for the authentication of service after concluding the fundamentals as mentioned in CCS Pension Rules, not later than six months before the retirement date of the Government employee.

- The Pay & Accounts Officer, examines the essentials, evaluate the amount of pension and issue the Pension Payment Order when the pension papers are surrendered from Head Office, before one month in advance of the retirement date of Government employee with forwarding authority letter, duly signed and stamped, to Central Pension Accounting Office (CPAO).

- CPAO will then construct a Special Seal Authority. At that point, expert letter of the Pay and Accounts Officer, elements given in the Pension Payment Order, the two parts of Pension installment arrange will be forward with Special Seal Authority to the Central Pension Processing Center (CPPC) of the concerned approved Bank.

- The matter may be taken up to the Head Office in case if the pension is not stabled correctly. If necessary, the concerned Pay & Accounts Officer, will issue an amendment authority

letter to CPA Of or onward transmission to CPPC to carry out obligatory amendments in both halves of PPO.

- For payment of PPO, Death Cum Retirement Gratuity (DCRG) and Commuted Value Pension (CVP) by construction of the intimation collected from the Accountant General, the Pensioner should approach the Treasury Officer.

Pain Points in Current Pension System

It was perceived that there exist multiple issues that caused lag in the final sanctioning and issuance of the pension, after examining the ongoing pension process. By bringing a changeover of responsibilities and accountabilities between the departments that are involved in the process, the inadequacies can be handled by adopting a streamlined, standardized approach. In order of precedence, the most important disadvantages in the current system that needs to be addressed are listed below:

- Inefficiency of management and administration in request processing: Great attempts need to betaken by the employees to correlate and interpret the structure properly since the current chain of request processing methods lack proper structure and management. Employees work in a run-downway thus causing confusion, mismatch and delay in request process so as to conclude their work in time. Poor management carry extensive side effects which include lack of trust on government sector.

- Poor time frame management/delay in time frame follows up: A strict time frame is pursued to complete each task, in the case of private sector, since the target attainment has a direct impact and influence on the evaluation process. A more broad-based process is followed and laxity in management and coordination results in unaccomplished tasks even though there are directives for each job completion.,

- Lack of work/employee correlation: Correlation is a group of different elements of an action so as top ermit them to work together successfully. Lack of correlation results to a smooth less and non harmonious work which ends to the delay of the result. Lack of correlation turns out to mismatch and causes delay in end results in the case of pension process. Subsequently the work is to be done in a shackled manner so that the output of one department act as an input of another department (Delay inany departments work affect the entire chain to desist).

- Poor holistic view: To agree to a pension request, bulk of procedures and certificates are obligatory. Before six months from the retirement date, the pensioner should submit the required papers and documents to the department head office he/she works. The confirmation process includes the cooperation of multiple employees in different departments. Inadequate comprehensive view leads to confusion, misplacement of documents, lack of coordination, slackness in work, progress of knowledge etc.

- Less Autonomy: According to the guidelines when political interests are involved, the documents submitted by the pensioners are not given due contemplation. In such cases, first come first serve policy is not followed and the system is subjected untoward impacts leading to an unfair operation of preference.

- Negligence in document collection: In the initial phase of the process, departments should precisely collect or control the required pension documents.



Approvals out-turn output overdue and negligence in document collection causes delay in confirmation process.

IV. PROPOSED MODEL

To conquer the issues in the pension process of the ongoing pension system, we are passing this system through an approach of Software Engineering. To resolve these issues, we are proposing a model under Agile Methodology. The model that we propose here is the Scrumban model.

We have pursued to calibrate the model so that the ongoing pension system could gain a much better outcome to make it inclusive to entertain the functioning methods of a government institution. Agile Scrumban methodology is a hybrid of both scrum and kanban. Scrumban methodology is used when teams appoint scrum as their way of working and kanban as a lens to view, understand and how to improve themselves. In scrumban, the whole teamwork is organized in short iterations. They are monitored with the help of a visual board. To direct the pension sanctioning process, the proposed model will be outlined adapting the Scrumban model to instrument agile framework. All the necessary features of the Scrumban process will be inherited to build a model that will formulate the structure of roles, meetings, rules, artifacts and the transitioning of tasks to incremental stages. Scrumban uses fixed length iterations, which are called Sprints that are no longer 2-3weeks. It will be fluctuating based up on the dynamic requirements which are broadened and subjected to changes as the sprint advances and also on the nature, target and effort required in a software development task., the model to streamline a mostly static process will be defined on the grounds of the study of the mostregularly recognized steps. Six tasks were recognized as happening in a regular incident in the pension allotment process as part of thestudy administered on the segment of retiring employees from the education sector. This is defined as the basisof identifying each pension request of an individual as a user story and its connected tasks handled by multipledepartments. Each individual case will be examined as a user story in the scrum model and allocated a unique tracking ID called as the Task ID (e.g : Task 1,Task 2 etc.).

Task ID	Task	Owner
Task 1	Case Submission	Pensioner
Task 2	Verification	Head Office
Task3	Order Creation	Accounts General
Task4	Create Special Seal Authority	CPAO
Task5	Authorization of Payment	CPPO
Task6	Issue of Payment	Treasury

This will be a proactive model that can handle multiple cases such that a prospective case is identified and a Case ID is created 6 months before the retirement date of the employee. This approach will safeguard accountability from each entity involved right from the pensioner itself as it was identified from the studies that there were instances and cases that got delayed due to lack of prompt action from the submitting pensioner. Without losing its intention, we are aliasing the keywords to another term.

● Process Supervisor (PS) (Product Owner renames to PS) – The Process Supervisor will play a requisite role in defining the targets for individual departments and also for the

assessments of performance. This position will be identified among the senior employees in the related departments involved in the pension process who would have acquired substantial knowledge of the overall process and have displayed a longing for leadership skills.

●Meeting Supervisor (Scrum Master renames to Meeting Supervisor) – Based on experience in people management, risk handling, issue resolutions and conflict management, this position will be identified from the involved departments. To conquer with the principles of agile model while keeping in mind the challenges involved in implementing a government process, the Scrumban model for pension process will be proposed below in an analogical approach .Based on the order of occurrence in the control flow, the elements are listed below:

● Centralized Department Monitor (CDM)

To categorize the status of a case on a department wise basis, this model will conduct a monitoring and tracking system. On a day to day basis, the Centralized Department Monitor (hereafter called CDM) will label this need and give a viewpoint of individual cases at a significant granularity level. CDM will be renovated by the owning department at which the case is lagging currently.

● Department Wise Backlog

CDM is the central source to generate the department wise backlogs. The Process Supervisor will classify the CDM repository and then assemble individual department notices. The “Pending” cases will be identified and explanation will be requested from the owner department. This will be taken as input to compose the Request backlog.

● Sprint Planning and Prioritization

The Sprint Planning will be confirmed iteratively for an interval of 3 weeks . The beginning of each Sprint Planning is struck by a meeting presided by the process supervisor inviting representatives from each department to discuss and identify the cases that can be picked from the department backlogs and added to theRequest backlog(Sprint Backlog in agile scrum renames to Request Backlog).

While considering the inputs and observations that were learnt from the previous sprints, the representatives are consulted by the PS to gauge how much work to pull in a sprint. As it is an overhead, Sprint planning is not advisable to be on precise calculations and it should be more towards the experience of the individuals participation in the planning. On the basis of following parameters, the department backlog is prioritized:

- Case formation date
- Ongoing status
- Long term pending cases

Based upon the above guidelines, the department backlog is skimmed multiple times and the final Sprint backlog is finalized. The maximum time for sprint planning will be fixed to 8 hours for a 3-week sprint.

● Sprint Execution and Meeting

To inspect the progress of the user stories and any blockers faced, Meeting Supervisor will conduct a daily meeting, once the sprint kicks off and the individual cases are handled. To ensure that the execution of the sprint happens in a collective manner and also handle the impediments that are caused by issues beyond the individual department’s control, a daily meeting is conducted.



It will be a daily practice meeting conducted at 2levels:

To collect and record the progress of each department, Internal Scrum meeting will be conducted within a department. The head of the department or his representative will be conducting the call and the Meeting Supervisor will be a silent participant monitoring and aggregating information about the sprint progress. The duration of this meeting will be 5 minutes and the head of the department will individually reach out to any case handlers if additional information is required after the standup call.

External Scrum meeting will be conducted among the multiple departments and the Meeting Supervisor will preside over the call to track the progress of the sprint on an overall basis. Suitable handshake transactions between the departments are also facilitated here. The duration of this meeting will be 10 minutes with a review of the department wise stand points. When comparing to the average sprint velocity of the past six sprints, at the end of each sprint the Meeting Supervisor will be required to call up on their view meeting to measure the success of the sprint and also that the sprint velocity is maintained. Illustrating the progress made in the sprint and against the backlogs a sprint report will be prepared, that will be sent to the treasury department and the finance ministry as being considered the stakeholders here. To identify any resourcing issues and recommendations will be proposed as inputs while planning the next sprint, individual performance of the departments will be also inspected. The Process Supervisor reviews the “Completed” and the “Pending” cases and re-verifies basic checks to ascertain that the final objectives are met. The Meeting Supervisor identifies new prioritization parameters from the feedback of the PS and departments for the next sprint planning. In the retrospection phase, the Meeting Supervisor will identify the “lessons learned” and it is an opportunity for the departments to reexamine its own process and procedures and adopt reforms as a result of any lessons learned. These reforms are carried on to the future sprints after consultation with the process supervisor. The lingering issues that impeded the advantageous outcome of the sprint is discussed in an orderly manner and it is the duty of the Meeting Supervisor to certify proper conduct without blaming and hostility among the departments. The purification of “Completed” cases with the treasury department from the CDM is done at this stage as it marks the completion of the pension sanctioning process. Adequate focus is provided to identify the departments that have the biggest share of cases in its backlog. Retrospection is made to pinpoint the causes for piling up of the cases and consultation with the concerned department representatives are made to understand any bandwidth issues and raise a staffing concern with the head of the department.

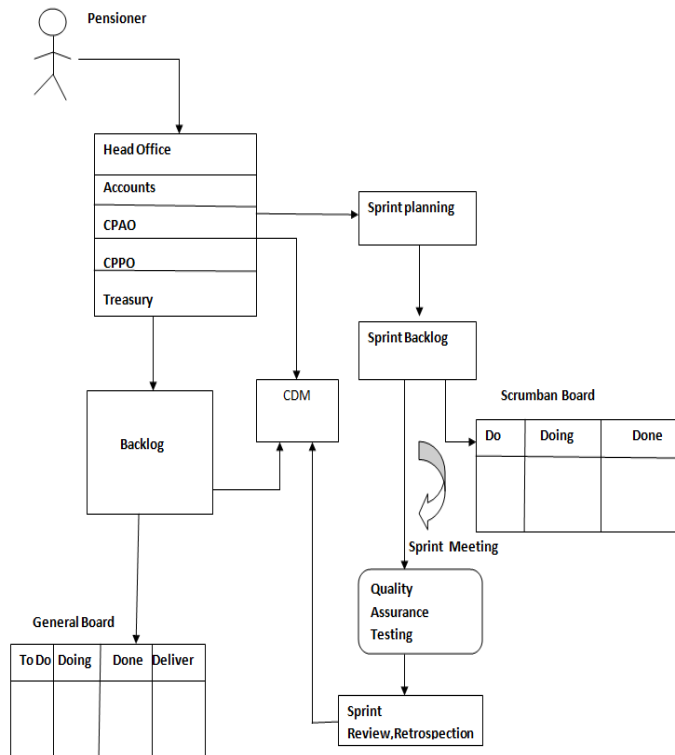


Fig 1. Scrumban Model

V. CONCLUSION

In the pension sanctioning procedure for a small government employee sector affecting multiple institutions, the proposal of a new strategically approach is an innovation. So the benefits proposed by the model will be an asset to both the expending department and also the recipients. The study was actually conducted by analyzing any scope for improvement in the real pension sanctioning process. The findings or discovery was largely based on practical experiences and examples to identify the risks and challenges that the senior citizens of our country are facing today. This is a prototype model which is proposed here for a small employee sector and can be converted to a fully working model that can enclose a large section of the pensioner population. Hence, for this a large scale study is required to analyze and recognize more frameworks from different types of pensioner population such as armed forces, semi government sectors to evolve more to a near common model.

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