



Article :A Study on Straight Through Processing In Medical Insurance Operations with special focus on Claims Processing and Settlements

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1. Introduction to the study

The insurance services industry is currently under pressure from a number of directions. Regulation and other government initiatives; product commoditisation; increased competition; and a rapidly changing distribution landscape are all eroding profit margins. At the same time, consumerism and the media; more powerful distributors; and today's retail experience have all combined to raise customer expectations. Success - or even survival - will require companies to significantly reduce their cost base, while delivering higher standards of service to both customers and distributors. The new business model must thus radically streamline operations, through techniques like Straight through Processing (STP) and intelligent automation, which provide immediate responses while reducing the cost per transaction. The winners will do this in a 'customer friendly' way that delivers a consistent customer experience at all touch points, building improved service into the fabric of the organisation - but with much lower operating costs. Flexible and designed to scale with your business, STP-i can deliver the required operational efficiencies, whilst providing a platform to support industry leading service levels. This combination has a proven record of enhanced customer satisfaction and a significantly lower cost base - the twin pillars of future success. It's called straight-through processing (STP): the ability to streamline operations by automating the processing of transactions, using the Internet as the means of exchanging data. The idea is to move data through the value chain, from beginning to end, without rekeying the data at each stage in the process. STP got its start in the financial services industry for applications such as brokerage investment and settlement.

STP is now making its way into the insurance community as an approach to streamlining operations such as application processing and claims. Mergers and acquisitions, increasing transaction volumes, and increased demand for real-time access to information all underscore the need for the efficiencies that STP can deliver.

From a technology standpoint, the cornerstone of STP is systems interoperability. As such, the critical technologies behind this streamlined, end-to-end processing approach are those that enable automated flow of information between systems—both your organization's systems and those of its partners. The key elements of an infrastructure to support STP are Extensible Markup Language (XML), integration technology and Web services.

If STP is achieved then the insurance company will experience tremendous benefits including.

- Process automation with automated workflow management
- Reduced settlement risk
- Lower operating cost
- Integrated illustration toolkit with up to date rule and rate information
- Rules based underwriting to automatically approve or deny claims
- Electronic application information gathering with reflexive questionnaires
- Intelligent document creation for the automatic assembly and distribution
- Web-based self service for policy and claims for potential customer and producers.

This study focus on the contribution of STP towards the insurance industry, and it describes the factors which affecting the company to enable STP in it. Further the study delivers an in depth analysis of the insurance operations, process and procedures of the insurance company. Then it explains about the STP usefulness in insurance operations like underwriting, policy management, claims follow management and electronic payment system in the insurance company.

2. Need for the study

To sustain profitability and competitiveness in today's marketplace, financial services organisations must seek robust, scalable solutions that will dramatically reduce their pre rating costs. At the same time, customer expectations of better service and their willingness to shop around are driving a radical shift to truly customer centric products and processes. Tomorrow's winners will need to address

both of these conflicting pressures by finding solutions that can deliver against a number of objectives they have to focus on their business intelligence which will allow them to bring new products to the market and enable them to reach the customer quickly. Customers' and agents demand is growing to meet their need insurance company need to consolidate customer information, improve reporting and data visualization and enhance the online customer experience.

3 Objective of the study

Primary objective

To define straight through processing and its application in Medical Insurance operations and to find the factors that will enable straight through processing in medical insurance.

Secondary objective

- To identify transactions that could benefit from STP in claims processing.
- To find the importance of data interchange and automation of approval.
- To find the STP work flow in medical insurance.

4. Literature review:

Article is written by Wayne Huang a, Yining Chen b, Jarrad Hee in the title STP: an overview. This article explains about characteristics of STP like transforming and transporting information completely, accurately, systematically, and in a timely fashion, to its initial execution/processing location. And the two types of factor which motivate the company go for STP namely internal factor and external factor, the external factors are reducing cycle time from week to days and reducing operational cost and operational risk in the claims processing. And the internal factors which motivate the companies to implement STP are 1. Increase flexibility of current systems to meet future demands of business volume, process change, and market fluctuations. 2. Reduce staff cost by eliminating manual

intervention in transaction processing. 3. Reducing errors and labor cost; attain cross-marketing at the right time, at the right place.

Further it explains the benefits of STP in the insurance company; the benefits are 1. Efficient and faster response time to the customer service. 2. Cost reduction in operation and management process. 3. Risk minimization in the claim settlement and approval. 4. Increased customer satisfaction. 5. Improved data quality. And the study defines a conceptual framework for STP where STP is differentiated into three layers Intra-STP, extra-STP and Global-STP. Intra-STP refers to STP implementation inside the organization and among all of its branches. Extra-STP refers to STP between firms which allows direct access into other companies' internal processes and facilitates an industry-wide integrated straight through process. Global-STP refers to a set of interconnected extra-STPs that covers worldwide boundaries. It represents the level of integration of core processes, systems, and information interchanged within firms, between firms, and between industries. It is the largest and most complicated integration of STP. Moreover it describes the building blocks of STP where STP building blocks represent the stages of STP progression from intra-STP to global-STP. As a result of this progression, a typical firm would experience a reduction in the transaction cost associated with STP.

An article written by NEEDHAM, MA, in the insurance Canada website says that in recent years, straight-through processing (STP) has generated increasing discussion and marketing momentum throughout the securities industry. Today, this catch-all acronym for post-trade technology, integration and automation has become so pervasive that it seems to have taken on a life all its own. However, new research from Tower Group says it may be time to deliver a eulogy for the usefulness of this acronym, particularly when it comes to one key audience: the asset manager. The reticence of the buy-side to buy in to STP hype validates Tower Group's claim that STP evangelists too often put the cart before the horse extolling the virtues of integration, rather than the business objectives that integration can help to achieve. Descriptions of its benefits have become too boilerplate to help financial institutions distinguish between products. The incentive for each industry segment to automate the exchange of information is too often lost within generic value propositions

This paper is written by Dr. Philip M. Hallam-Baker which presents a framework for discussion of electronic payment schemes. A comprehensive index of such

schemes and a brief overview of their relationship to the framework is provided. The framework consists of two axes, the levels of abstraction at which the protocol is analyzed and the payment model considered. Further it explains the three layer model which is used to compare the payment model. The three layers are policy, data flow and mechanism. And then describes the payment protocol models where cash, cheque and card are compared.

This article named Understanding Straight through processing- A technical overview written by Jim Liddle. In this article importance of STP in the financial industry is explained and the strategies to implement straight through processing is also explained. And the software and hardware required to enable STP in a company is also discussed, then different model of STP implementation and the possible way to implement with the legacy system with a parallel processing.

5. Research Methodology

Descriptive study

The study conducted is descriptive. This study will describe the effectiveness of STP in medical insurance operations, claims management beginning from claims approval to settlement. The research was carried out using secondary data collected from various research articles published in websites and journals.

Limitations of the study

- The study was done to get the overall picture about STP in medical insurance company only.
- This study was more focused on STP in claim processing and claim settlement.

6. Medical Insurance operations

Prospectus:

Prospectus is a document which gives details regarding set up of the Life Insurance Company, plans or features of the life insurance products and other terms and conditions. Though the prospectus provides a lot of information to the client to decide about the product/policy people will like to take advice from the agent to select the policy which is suitable for him/her.

Proposal form

The next stage of the insurance contract after selecting the insurance product is begins with the proposal. In the life insurance the proposer through a standard printed proposal form of the insurer makes the proposal. Before the life insurer considers it for acceptance, the insurer obtains several forms duly completed. These forms provide relevant data for the purpose of assessment of the risk. The proposal language in life insurance will be simple and its will be in two language is Standard English and the other is their own region language so that the client can easily understand the language without any scope for ambiguity.

Where the life to be insured has to be medically examined, the questions in the proposal form have to be carefully framed. The questions which can be answered by the medical examiner after professional examination should not be included in the proposal form. It is best to include in the proposal form only questions of fact, which are in the knowledge of the proposer. The criteria for selection of questions for inclusion in the proposal and medical examination form should aim at avoidance of any duplication, questions of fact should be included in the proposal form and details arising out of medical examination should be left to the medical examiner.

The statements made and the answers given in the proposal form are the basis of the contract of assurance in terms of the declaration made at the foot of the proposal form. For this reason it is essential that the proposer should give complete information about the identity, occupation, family history, personal history, health and habits of the life to be insured.

Policy documents

After scrutiny of the proposal form, if it is found in order then the policy document is issued. The policy document is a very important document. This document is to be kept in safe custody, and should be handed over in a neat manner. It should not be left unattended, should not be misplaced or soiled otherwise there will be a lot of inconvenience at the time of Taking loan against it , Passing any endorsement , Giving it as collateral security , Taking claim .

Policy conditions

The following conditions are part of the life assurance contracts. If the conditions are not fulfilled the benefits are either not payable or payable subject to some restrictions. In order to get full benefits one should be aware of these conditions.

1. Forfeiture in certain events
2. Proof of age
3. Travel, residence or occupation
4. Suicide
5. Installment premium
6. Privileges of the assured (days of grace)
7. Revival of lapsed policies
 - a. Ordinary revival scheme
8. Claim concession
9. Non – forfeiture regulations

Endorsement

Endorsement may be alteration, assignment or pledging etc., Endorsement refers to all amendments to master policy documents. It is a document attached to the policy. It is through this document the original terms are modified in the original policy document. Endorsement remedies the more general provisions in the policy itself Endorsement is a memorandum added to a policy indicating the alterations to the terms of policy. In case the where nomination is not effected in policy in the beginning it can be made by making endorsement on the policy. Policyholder can cancel the earlier or previous nominations. In case the space is not available it is done on separate piece of attestation on same be insurance company officials

Renewal notice

Normally the policies in non-life insurance are for a period of 12 months but in case of life insurance the yearly premiums are paid based on term of the policy, i.e., for number of years. Though there is no binding on insurance company to send intimation for renewal to the policyholder, but if due to some reason the policy holder forgets to deposit premium it is not only loss to the insured but also to the insurer who has incurred expenses on maintenance of policy and the relevant documentation. Thus the life insurance company has evolved the system of sending renewal notice to the policyholder. This is done in advance so that policyholder deposits the premium, which is as per agreed terms and conditions. Thus renewal notice is beneficial to company as well as policy holder.

Bonus notice

Bonus notice is the intimation about bonus earned by the policy. This is a source of information to the policy holder by which he comes to know regarding how much premium he has deposited and what the amount of bonus is his policy has accumulated. This helps him to have an idea about the status of his policy and he can keep in mind the health status of his policy.

STP and its characteristics

STP is a strategic operating principle focusing on optimizing process design and technology to improve customer service and reduce operational costs. It involves moving electronically through a trading process from initiation through post-execution and final settlement without manual intervention. The series of uninterrupted electronic processes has the following characteristics:

- Securing an initial transaction as an electronic message (a transaction encompasses any activity, not just orders, and associated with trading currency and/or securities).
- Transforming and transporting it completely, accurately, systematically, and in a timely fashion, to its initial execution/processing location.
- Passing it through the processing cycle of core processes with minimum, if any, human intervention; where these core processes can include:
 - Order processing from indication of interest to order routing, order execution, and order confirmation;
 - The internal link between traditional front, middle, and back office;
 - External links to clearing and settlement, custody and safekeeping; and to all customers and suppliers at every stage of the processing cycle.
 - Flowing transaction information seamlessly and securely through automated systems from front-end to back-end, regardless of the parties involved or their geographic locations.

There are two factors which determines, encourages the STP in any company.

External factors for STP

- The first factor which motivates the STP in the company is the movement of same day settlement cycle and real time processing and collateral management.
- The second factor is to reduce the cost of operations and processing cost and error and complexity in the business

Internal factors for STP

Financial institutions are internally motivated to implement STP to:

- Increase flexibility of current systems to meet future demands of business volume, process change, and market fluctuations;
- Reduce staff cost by eliminating manual intervention in transaction processing

- Reducing errors and labor cost;
- Attain cross-marketing at the right time, at the right place.

Insurance business process and technology in STP environment

Insurance business process	Pain points	Technology objective	Insurance benefit from STP
New business application	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Lack of automation <input type="checkbox"/> <input type="checkbox"/> Break downs across multiple parties <input type="checkbox"/> <input type="checkbox"/> Use of standard /electronic forms <input type="checkbox"/> <input type="checkbox"/> Slow inaccurate rate information 	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Digital data capture <input type="checkbox"/> <input type="checkbox"/> Fewer paper based process <input type="checkbox"/> <input type="checkbox"/> Automated information request 	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Reduced application to policy cycle time <input type="checkbox"/> <input type="checkbox"/> Higher customer satisfaction <input type="checkbox"/> <input type="checkbox"/> More accurate producer tracking
Underwriting	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Single data entry <input type="checkbox"/> <input type="checkbox"/> Break downs across multiple parties 	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Single view for tracking and maintaining policies/ application <input type="checkbox"/> <input type="checkbox"/> Multichannel integration 	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Higher percent of new product premiums <input type="checkbox"/> <input type="checkbox"/> Reduced application to policy cycle time
Claims processing	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> High degrees of leakage and fraud <input type="checkbox"/> <input type="checkbox"/> Facilitate multi user access <input type="checkbox"/> <input type="checkbox"/> Managing and 	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Increased handling efficiency <input type="checkbox"/> <input type="checkbox"/> Improved business process <input type="checkbox"/> <input type="checkbox"/> Improved 	<ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Shorter claims completion time <input type="checkbox"/> <input type="checkbox"/> Lower claims cost

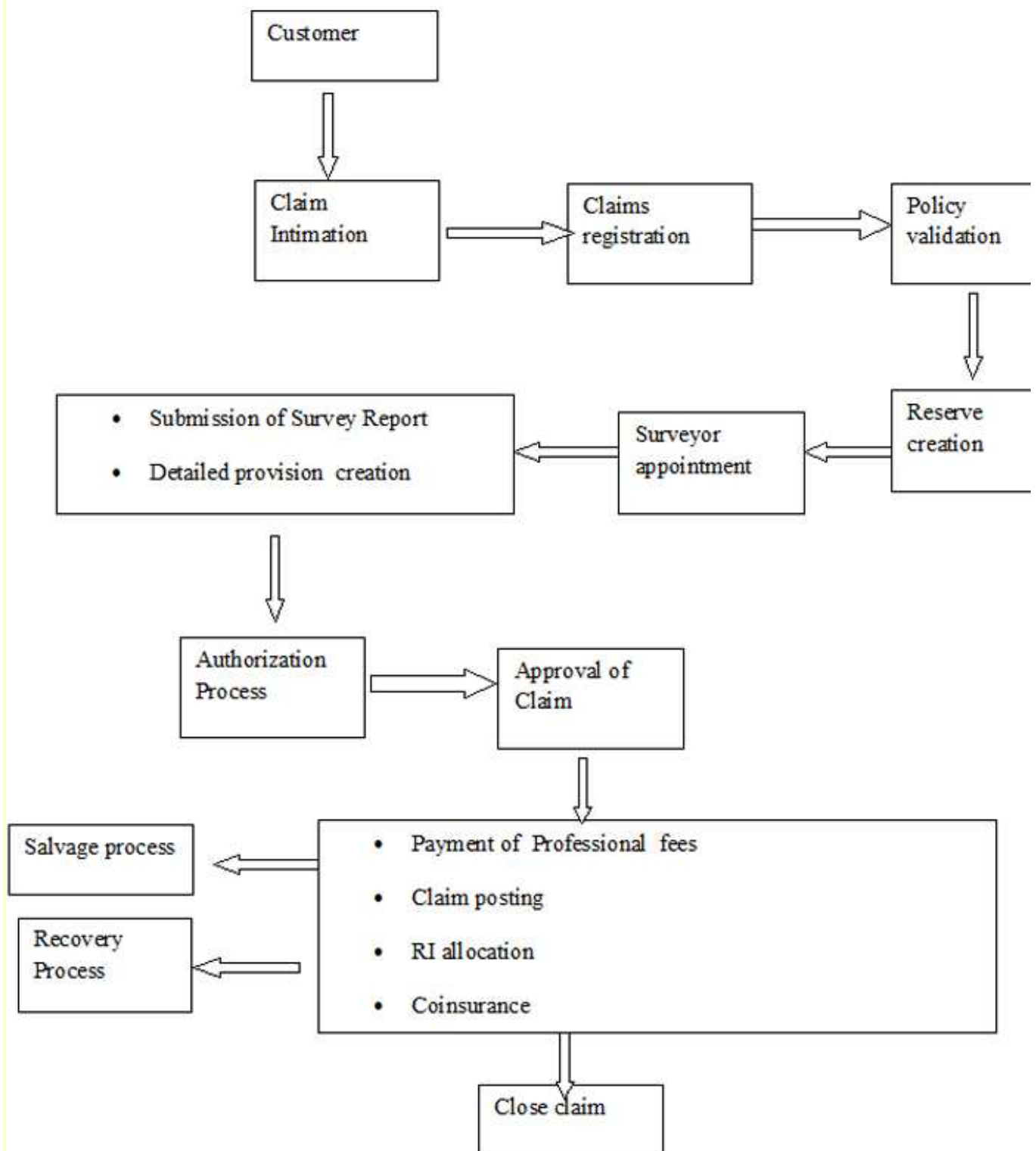
	validating multiple third party relationships	customer satisfaction <input type="checkbox"/> <input type="checkbox"/> Multiple document with third parties	<input type="checkbox"/> <input type="checkbox"/> Lower expense ratio <input type="checkbox"/> <input type="checkbox"/> Higher renewal rate
Policy administration	<input type="checkbox"/> <input type="checkbox"/> Lack of consolidated, historical policy information s <input type="checkbox"/> <input type="checkbox"/> Making policy changes across legacy system <input type="checkbox"/> <input type="checkbox"/> Coordinating policy changes with multiple parties	<input type="checkbox"/> <input type="checkbox"/> Increased handling efficiency <input type="checkbox"/> <input type="checkbox"/> Reduced administration cost <input type="checkbox"/> <input type="checkbox"/> Enabling single customer view	<input type="checkbox"/> <input type="checkbox"/> Maintain legacy investments <input type="checkbox"/> <input type="checkbox"/> Higher customer retention

7. Claims flow in insurance operations

Claims are essentially requests to the insurance company for losses incurred that fall within the terms covered by an insurance contract. Handling claims involves the following processes: Claim Registration , Policy Validation , Claim Processing , Appointing Surveyor

Submission and Scrutiny of Requisite Documents , Approval/Rejection of Claim , Settlement / Cancellation of Claim – Facility to do Partial or Full settlement

The overall process flow of a claims processing:



Rules involves in the movement of claim to the next stage:

Claim intimation and Registration:

Claims Registration Process flow

Claims Operations

Claim Intimation and Registration

The process flow is illustrated as follows:

Step 1: Once a loss occurs, the customer intimates the claim to the insurance company. The following details need to be captured on intimation for the claim to be registered:

- Date and Nature of Diseases
- Policy details including policy period
- Cause of Diseases
- Discovery Date
- Amount Claimed

Claim Estimate

Step 2: Once the initial information has been collected the Claim is to be registered and a Claim Estimate provision created.

When a loss occurs, the claim needs to be registered with the medical insurance company.

Claims Processing

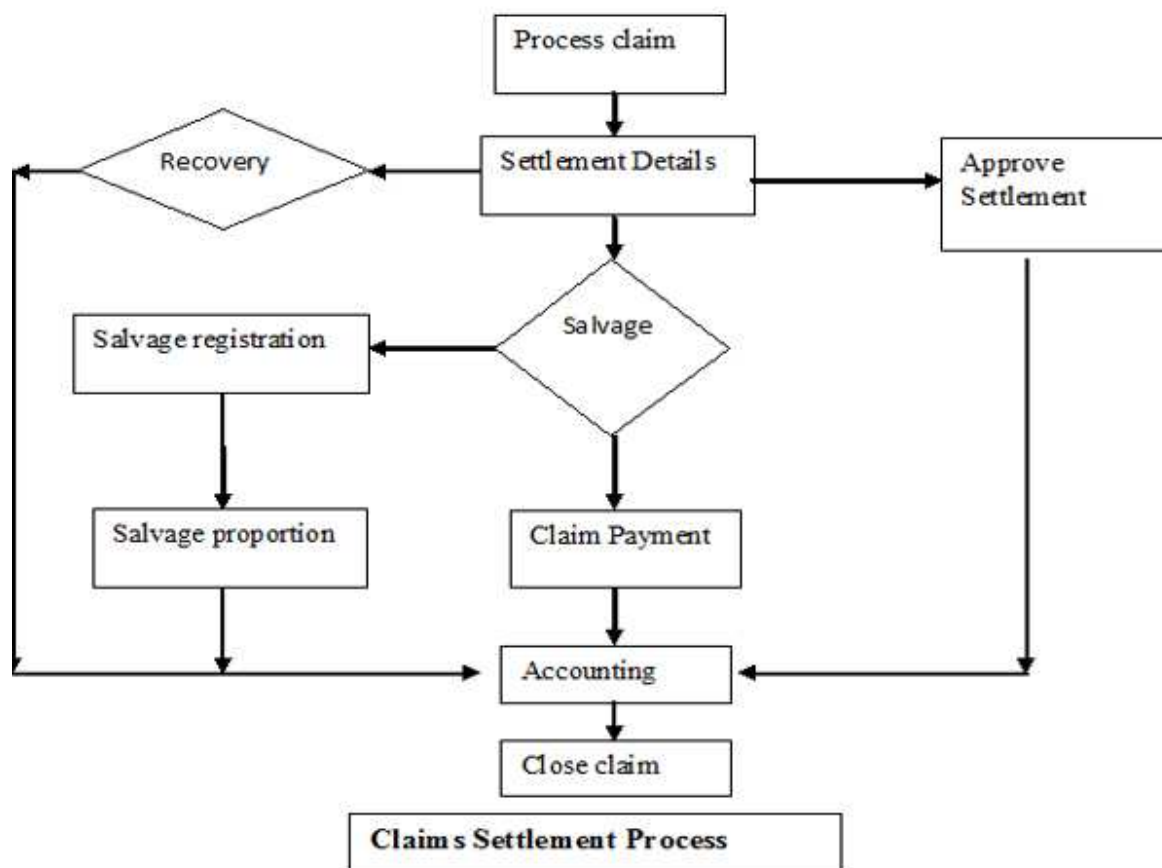
Once registration is complete, you can capture the required details including:

- Provision details
- Details for appointment of surveyor for verifying the claim (if applicable)

- Define the checklists and set the mandatory documents for submission
- Enter a claim note record if required

Claims Settlement

Once registration and processing are complete the claim is ready for settlement, which is done in two stages, that is, settlement entry and approval. Step 1: Approve the verified loss provisions created during claims registration through this settlement screen. You can choose to make a partial payment or complete payment during settlement.



4.6 STP in medical insurance

- Product specific validations and data elements can be defined, and proper integration to underwriting facilitating validation of claims against policy data

- Define Nature of Loss up to the Cover level
- Auto generation of accounting entries in the books of the CPO and PIO of the respective offices in Inter-office claims
- Claim Note module to record the agreement of authorized signatories
- Ease of capturing suit details, if applicable
- Automatic Provision creation at Registration
- Provision of Assessment Sheet to arrive at the settlement amount
Settlement Type and Settlement Basis captured for authorization

Outcomes and benefits

Typical results that have been achieved by a STP program include:

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- A new product and service proposition delivered to market within 3 months, based on a new extendible architecture.
- Fully automated services supporting a B2C site for quotation, application and fulfilment.
- A second phase e-Marketing campaign executed to generate demand for the new product, including tracking and reporting of the campaign sales and data verifying the new cost base.
- A full set of product application, service and enquiry facilities to support multiple B2B channels, delivered from a single platform.
- The first iteration of a new multi-tier architecture, built around STP, but exploiting multiple legacy systems, delivered in 4 months.
- Later phases delivering additional products on the same architecture in 3 month 'bites'.

- Re-useable components including business objects that have then been applied to service other products, channels and distributors, thus reducing time to market.
- Re-use of automated facilities for internal staff, producing additional savings.
- Re-use of customer oriented front-end facilities by internal staff, giving a common understanding and customer experience, as well as reduced training costs.
- A rapid change environment and an ROI based culture of can-do business change.
- A new learning organisation, based on a partnership approach, combining skills and ideas from elsewhere in the market with internal in-depth knowledge and experience of your customers and products.
- A rapid RUP based development environment built on existing hardware and platforms.
- Reuse of new and old IT assets, lowering the cost of projects and increasing ROI.
- The ability to deliver a rapid series of product and campaign launches, gaining competitive advantage.

8. Findings

1. After the customer got benefits from clinic the details about the benefits is stored in the customer's EBT (electronic benefits transfer) card and in the center data base of the company. A detail of medical items issued to the client is stored in the issuance table of the database.
2. If the customer has the benefits available with his EBT card at the time of the claim he can make purchases at an authorized vendor.
3. The authorized vendor can connect with the FTP (file transfer protocol) server, where details about the individual vendor and the issuance are dropped.
4. After entering the card details the settlement system checks the claim file for validity, the system will monitor the vendor's directory for new files every minute.
5. The system will check the validity of the claim files, invalid files are returned to the vendors with an error report via the individual vendor's directory.

6. And valid claims files are decompressed and checked for structural integrity, the files which fail in structural integrity testing are returned to vendor's directory with an error report by describing the problem. The files which are clearing the structural integrity test will be forwarded for the settlement process.

9. Future prospects and suggestions

This study was conducted with secondary data available in the World Wide Web, and it explains overall view of STP in the medical insurance industry and it was focused on the managerial aspects of the company. But it doesn't cover the technical area which is required for straight through processing. In future research can be done in a way to answer both technical and managerial requirements. It is suggested to be done through step by step process analysis of the medical insurance company, For the comparison the researcher can go for primary data collection by considering the customers, employees and all other stake holders as respondents. Cost effectiveness of the process and return on investment of STP can also be analyzed.

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