

## Future of Property and Casualty Insurance

N. Kannan and N. Thangavel

Department of Management Studies, Sathyabama University, Chennai-600 119, India

**Abstract:** Insurance Industry is unique, in the sense that this is an industry where a buyer spends significant money to buy a service which he hopes he will never have to use. However, when that person is forced to use the service, it is an experience that usually leaves a lasting impression. The service that is being referred here is an Insurance Claim. Market downturn and increased competition is forcing major changes in the Insurance Industry and in the way Insurance Companies operate. Competition is permanently altering the expectations in the minds of Insurance Costumers on what they should expect of claims processing. To cope with this change in expectations, the industry, as a whole, is evolving with respect to what it offers to customers. This impacts and will continue to impact Architecture and Technology decisions as well as Business Processes. This study is structured into two modular sections. The introductory section discusses background perspectives related to today's scenario in P and C Claim's arena. The second section covers the ongoing and expected developments in P and C Claim's solutions and Business Processes.

**Key words:** Insurance, P and C claims, data mart, data warehouse, fraud management

### INTRODUCTION

Insurance Industry is unique, in the sense that this is an industry where a buyer spends significant money to buy a service which he hopes he will never have to use! However, when that person is forced to use the service, it is an experience that usually leaves a lasting impression. The service that is being referred here is an Insurance Claim. A typical P and C Claims Business Process is given in Fig. 1.

The blocks in blue depict the core tasks and the gray blocks indicate support areas. Market downturn and increased competition is forcing major changes in the Insurance Industry and in the way Insurance Companies operate. Competition is permanently altering the expectations in the minds of Insurance Costumers on what they should expect of claims processing. To cope with this change in expectations, the industry, as a whole, is evolving with respect to what it offers to customers. This impacts and will continue to impact Architecture and Technology decisions as well as Business Processes.

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The last 2 decades brought unprecedented innovation and change in many industries. Even

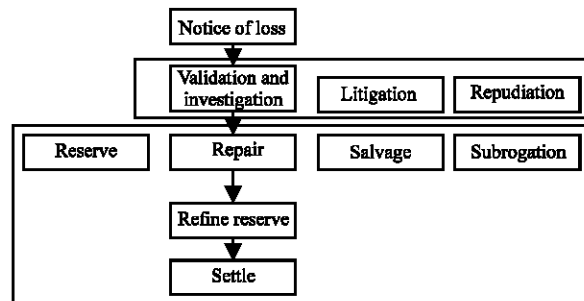


Fig. 1: P and C claims business process

conservative industries, like the Insurance, evolved tremendously over this period. This study explores where the P and C Insurance Claims Administration business function and technology finds itself today.

The life insurance industry is growing at 15-20% and that there is enough space for all players to thrive-because there is no such thing as too much insurance (Ian, 2003). Today, insurance companies are exploring values in the banking and investment products and vice versa. It is no more a bank competing with another bank and insurance company competing with another insurance company, but an insurance company competing with banks and what not. The most precious word today is the“convergence” of the opportunity zones in financial markets from concept to culmination (Bajpai, 2003). One of the world's largest insurers warned today of the economic costs of global warming (Robert, 2005). The

Indian customer, like his global counterpart, buys policies for tax benefits and to ensure secure savings for the future. Although, he is price sensitive, he still deserves value and sound services for his money. This has not been available to him. To fill this void, many private players have initiated education campaigns explaining the benefits and need for insurance (Ian, 2003).

The buyer of the insurance products also looks at them as the investment products. This is an issue of conditioning over the period of time and therefore, the customers of the insurance products are both the customers of the risk protection and the investment products. That leads to the insurance sector competing with the other avenues of the investment including banks, financial institutions and investment companies.

The structure of the players in different opportunity zones is also changing on continuous basis culmination (Bajpai, 2003).

The first Indian Insurance Company to cover Indian lives at normal rates was Bombay Mutual Life Assurance Society which was established in the year 1870. By the dawn of the 20th century, new insurance companies started mushrooming up. In order to regulate the insurance business in India and to certify the premium rate tables and periodic valuations of the insurance companies, the Life Insurance Companies Act and the Provident Fund Act were passed to regulate the Insurance Business in India in 1912. Such statistical estimates made by actuaries revealed the disparity that existed between Indian and foreign companies.

### **CHANGE DRIVERS**

The major developments in the insurance industry, during this period were:

- Increased competition from established organizations in other industry verticals like banking and manufacturing. During this period, many banks started leveraging their client base to sell packages of various financial products, including insurance. This is being further fueled by legislation like the Gramm-Leach and Act (Judy, 2001)
- Use of technology to allow better customer and employee access to services and up to date information (customer, policy and claim information). One of the factors that facilitated this growth was the rise in general acceptance of the Internet.
- Competition from new and agile insurance carriers and service providers that jolted the more traditional ones out of a cozy slumber. Even with comparatively minor business shares like that of the web based carriers, they got extensive publicity and customer mind-share.

- Increased customer awareness, due to the all pervasive competition. This creates an expectation for quick, cost-effective and consistently good service. Growing awareness of the inefficiencies of the insurance processes, especially the less automated and highly skill oriented Claims process.
- Major market downturns that exposed the vulnerability of investment income. Major market downturns that exposed the vulnerability of investment income.

Apart from all these, there were the unprecedented and extensive cash outflow caused by increase in jury awards against insurers, natural and manmade disasters like hurricanes and wanton destructions like that which occurred on the 11th of September, 2001. This changed how insurers, the general public and governments perceived personal and commercial insurance. All these factors have been exerting heavy financial pressure on the industry. Claims being the most significant cash outflow in an insurance organization (consuming around 80% of an insurer's annual revenue); even a one point improvement in its efficiencies will contribute significantly to the bottom line of the organization. Furthermore, it has been established through industry studies that, on an average, the longer a claim takes for settlement, the more is the money spent on the claim.

Considering all these, many insurance carriers have already initiated ambitious Claims Business Process Improvement and Claims Application Replacement programs. This study further explores what the future holds for P and C Claims

### **TODAY'S WORLD**

**State of insurance applications today:** Traditionally, insurance companies have developed proprietary policy and claims administration applications. These systems are typically inflexible in supporting new product lines or expanding business into new locations and are incapable of handling an increase in policy volumes. "META Group believes insurance companies must replace or overhaul their current legacy P and C administration systems by 2003/04, or they will be unable to compete in a rapidly converging marketplace. The insurance industry is experiencing extreme pressure to modify and streamline the insurance value chain, forcing insurers to re-examine core business processes and technologies that impact their ability to deliver and service products quickly, accurately and cost effectively".

The approach of writing proprietary applications and piecemeal technology purchases has resulted in disparate systems which have become restrictive “enterprise data silos”.

**State of P and C claims business processes today:** Here is a snapshot of today’s P and C Insurance world....

Insurers paid out \$91.8 Billion in losses from weather-related natural disasters in the 1990s. This is close to four times the weather-related claims disbursed out during the entire decade of the 1980s. Even though it is a fact that the world witnessed many major natural and manmade disasters during this period, this also indicates a disturbing trend in increase of Claim Payout amounts.

Industry surveys show that insurers spend \$75 per month as administrative cost on every claim that is maintained on its books.

An average P and C Auto Claim takes about 3 weeks to settle.

An industry study of over 6000 closed P and C claims, across multiple companies concluded that over 40% of the time spent in Claims Handling process is associated with routine overhead functions that have limited impact on the outcome of the claim.

A Forrester Research survey of the Insurance Industry in Jan 2001 came up with the following findings regarding P and C Claims Administration.

The Top Seven areas which offer the greatest potential to reduce cost are:

- Implementation of technology - 46%
  - Executing best practices - 28%
  - Cycle time - 26%
  - Personnel - 20%
  - Litigation expenses - 18%
  - Corporate expenses - 18%
  - Outsourcing - 16%
- (Multiple responses were accepted)

Most Insurers go through 3-6 manual handoffs while handling each claim. Many large P and C Carriers still have inflexible and modestly automated business processes for Claims Administration. Most of them have old, user-‘un’-friendly legacy systems supporting those processes. These systems do not integrate well with vendor systems that support functions like liability estimation, bodily injury evaluation, fraud detection, litigation support etc. Medium and small sized carriers are looking more towards Claims Administration vendor products. Realizing the opportunity in the extent of customer and other party interactions within the Claims Process, Customer Relationship Management (CRM) solutions vendors,

like Siebel, are making entry into the Claims Administration Market.

Enterprise Resource Planning (ERP) solutions vendors, like SAP, are also striving to enter the Insurance Applications market. Major IT services and consulting companies are selling frameworks (Accenture Claims framework, Bearingpoint-CTF Claims) rather than COTS solutions or pure-development solutions. There is a surge in insurance fraud instances, especially in Auto insurance claims. For instance, a study by the Insurance Research Council (IRC) found that one in four auto PIP claim in New York City in 2001 involved some form of fraud or buildup. National Insurance Crime Bureau (NICB) states that in the recent past, losses from all types of insurance fraud add up to almost \$100 Billion every year. NICB and Society of Certified Property and Casualty Underwriters (CPCU) estimate that every American household pay \$300 extra in insurance premiums each year to offset the cost of fraud in personal lines of insurance.

In the US, Auto Insurance contributes to 65% of the P and C industry. Auto Insurance is also the most commoditized ‘line of business’ in insurance that is further characterized by large volumes of relatively small premiums, intense competition, volatile regulation and political interference. Many of the observations and conclusions in this treatise are based on observations on the Auto Insurance industry.

#### **THE FUTURE FOR P AND C CLAIMS**

**More innovation:** Industry surveys show that P and C Insurance carriers expect about 25% of their revenue in 2005 to come from new products. This and the trend in adaptation of new channels for doing business, globalization, as well as mergers and acquisitions will result in a need for more flexible and adaptable claims systems. This will in turn force many carries to replace their legacy claims systems or to out source claims handling.

Insurers will make sure that the new systems provide straight through processing in claims handling to:

- Reduce manual intervention
- Reduce the claim handling time and

Identify fraudulent claims, early on.

#### **COST MANAGEMENT**

Studies have shown that with a right mix of process improvement, outsourcing and technology utilization claims cost can be reduced by up to 15%. Insurers will strive to do this through.

**Process improvements:** Investment income has dwindled and this continues to focus the Insurance Companies on process improvements for cost containment. As part of this, Business Processes will be modified to reduce the number of manual interventions and handoffs. ABM, 6-Sigma and 'Lean Manufacturing techniques' based process improvement will be used for this (Judy, 2001).

**Flexible workflow management:** Systems that support Claims Business Processing have to be flexible in their workflow management. There will be a shift towards usage of 'Workflow Components' that are driven by externalized business rules.

**ABC and ABM:** Activity Based Costing and Activity Based Management will become more widely used in Insurance Processes. Usage of Activity Based Management to identify the activities that consume a major share of the cost will become more prevalent. This will be difficult to implement in cases where there are applications, especially legacy applications, which are not amenable for change. In such cases, this will be one of the considerations that will drive the replacement of such applications.

#### **USAGE OF MOBILE TECHNOLOGY FOR HANDLING CLAIMS**

**Telematics and GPS:** Telematics and Global Positioning Satellite (GPS) technologies will become more popular. Services like GM's On Star will become more popular on economy cars. This will reduce accident response time and thereby improve the Claims Quality of Experience and also reduce Claims Expenses. Similarly, GPS technologies like LoJack will be used more extensively in tracking stolen vehicles. These technologies will be integrated with insurance applications.

**Outsourcing:** Large Insurance carriers will focus more on their core competencies and will outsourcing various 'non-core' areas related to claims processing. This will include areas like call-centers, claims adjustments and bills verification (Judy, 2001). This is in spite of the challenges posed by the Sarbanes-Oxley Act, (with respect to the assertions that are to be made by an Insurance Carrier's management).

**Effective utilization of GIS:** There will be better usage of Geographical Information Systems (GIS) to alert customers that could be impacted by oncoming Catastrophes and to provide guidance and advice on how

losses can be minimized and to make necessary administrative plans.

#### **DATA MARTS AND DATA WAREHOUSES**

More and more organizations will try to tap into the information that is hidden in reams of data that they have been accumulating in their databases and application files, regarding all kinds of interactions with customers, suppliers and other external parties. In the insurance industry the move towards effective utilization of data through creation of Data marts and Data warehouses will strengthen further. Claims data will be a major area that will be stored in such.

In the foreseeable future, these will be on Relational Databases, like UDB, Oracle and SQL Server. Since this data tends to get voluminous it will also become necessary to provide data summary extraction facilities.

#### **BETTER DATA MANAGEMENT**

Organizations will become more skilled with extracting information (Data Mining) out of the reams of data that gets accumulated in the operational databases and in Data Warehouses. Liability estimation and loss reserving (including appropriate reserving for IBNR) will become more and more effective because it will be sensitive to information that is available on similar situations. This will be enabled by better ways of deriving information out of the data that gets accumulated in the P and C Administration systems.

Insurers will also create a co-operative environment to share the claims data across organizations. Credit rating service providers like Equifax, Experian, TransUnion etc. will become more and more popular in the Insurance arena. They will facilitate better risk management and underwriting capabilities that help insurers in controlling costs and also in reducing the perpetration of fraud, using data analytics. Ability to apply Injury Science analysis to descriptions of a car's damage increases Personal Injury as well as Physical Damage claims handling productivity and allows for more accurate claims settlements. Organizations will become more adept at using accumulated information for actuarial analysis.

#### **INSURANCE FRAUD MANAGEMENT**

In the US, insurance fraud is the second most pervasive form of crime next only to income tax evasion. Apart from the extensive use of Fraud detection training, manual red flags etc, many insurers (80%) have started using external claims database searches for detection of

potential frauds. Going forward, insurers will use more fuzzy-logic based and analytical approaches along with geographic data mapping to automatically flag more and more potential fraud cases.

Most Insurance Companies will not have sufficient data on their own databases to pre-empt the need for the usage of external databases, like ISO Claim Search®, for identifying fraud scenarios. These external databases will also add more mathematical and analytical features that will help their customers in making more ad hoc queries into the database. As mentioned earlier, credit rating companies like Equifax, Experian, TransUnion etc., will play a role in helping insurers in detecting fraud early on to avoid excess payments by Insurers.

### **CREATION OF A CLAIMS HUB**

When a claim is being processed there are various stakeholders and support personnel who need direct access to accurate and timely information on that claim. In many cases, an open information sharing mechanism like a Claims Hub on the Internet or Intranet, that is available to various third parties and suppliers facilitate the fostering of a quick and most appropriate settlement. However, it has to be noted that many independent Claims Hubs and portals did not survive in this competitive market, in the past. A Forrester Research study of P and C Insurance Industry concluded that Claims Hubs will save up to \$10 Billion per year, in the future. It has also been shown that a Claims Hub could reduce an average Claim Processing time by a week. 'Dedicated Insurance/Financial Services Hub' is an area where many large insurers will invest money, despite the failure of earlier initiatives.

### **USE OF APPROPRIATE TECHNOLOGY**

To quote the old cliché, "change is inevitable". Any new technology that is used has to lend itself to quick change. This will be achieved through Component Based Development, Business Rules Externalization, Extensive Parameterizations in systems and through the utilization of standard interfacing technologies like XML, which is becoming a de facto industry standard. This is a trend that will strengthen in the next few years.

Emerging technology vision for the future, "The emergence of the web services architecture will free companies from the straitjacket of existing enterprise-centric IT architectures; companies won't have to acquire new assets to grow (a slow and often treacherous process); they will be able to rent them, as web based services, from third parties. The capital-intensive model of owning resources will be supplanted by the much more efficient model of orchestrating resources. A new kind of business organization-a re-bundler, focusing on the assembly and co-ordination of business processes that stretch across industry and markets- will likely emerge and gain enormous power."

### **OUTSOURCING**

Insurers will find out means and ways to transfer the risk by using outsourcing as a vehicle in Claims area. Whilst Companies like CCCIS will continue to play in traditional outsourcing areas, innovators like Visibility will make use of new technologies in various areas like litigation management, claims profiling etc. to reduce the overheads for the insurers.

### **CONCLUSION**

With the vanishing investment income and a more competitive market situation, Insurance Carriers will focus more and more on Business Process Improvements and technology utilization for cost containment. With nearly 80% of the earnings being consumed through Claims, this focus will be squarely on the Claims area.

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