Overview

Being an industry, which works on the principle of Law of Large numbers, Insurance industry today has to grapple with Big data to arrive at meaningful information. With the rapid changes facing the industry, a good business intelligence tool can provide a deeper, incisive insight into the multiple facets of the insurance business. A good BI tool can help the management in improving performance of key business levers like channel productivity, customer retention and claims management. It can help insurers by providing crucial information to help them identify the trends and device appropriate business strategies.

Introduction

The operations and products of insurance companies are quite complex in nature. The products of insurance companies can be broadly grouped into Life insurance and Property & Casualty insurance. Life insurance, Health and Pension forms the further break up of life insurance products while Marine, Fire, Automobile, etc forms the product line for Property & casualty.

In Post 2008 scenario, wherein we observed the fast paced changes in regulatory framework, volatility in market place and changed preferences of customers lead to simultaneous multiple challenges to be encountered by the insurance companies. The key to success in these turbulent times is to align and device products and processes to effectively meet up with the unique requirements of the customer. It is important for insurance companies to rely on quality BI tools, which will effectively leverage on the huge volume of data in the repository of the insurance companies.

Insurance Industry overview

In the post 2007-08 era, globally insurance industry is undergoing a major transition. With the slowing down of economic growth rate in US and European economies, industrial establishments are not keen on expansion and fresh investments in production capacities. This limits the opportunity for organic growth for P & C insurers. Low interest rates prevailing in these economies make life insurance products unattractive. With the aging population, the demand for annuities is more than life insurance products.

On the contrary, the developing economies provide an opportunity for organic growth. For example, India is an attractive destination for overseas insurers seeking growth due to burgeoning middle class, rise in disposable income and younger demographic profile and so is the case with China and Brazil. The opportunity for Insurance is very high in India as total insurance as a % GDP is lower than global average. Insurance Penetration, which is a measure of insurance premium represented as a % of GDP is at 4.10% for India whereas the world average is 6.60%. The local regulations that govern the insurance industry are evolving and have few restrictive clauses limiting foreign investment. The Indian Insurance landscape has been summarized in Annexure 1.
Emerging Trends

In post 2007-08 scenario, the regulators across the globe are more active and are seen rolling out new guidelines, regulations often. These frequent changes are putting a limitation on the plans of the insurers as they need to change their plan in line with a new regulation, sometimes even affecting their newly launched product and its profitability.

We see a similar trend with IRDA in India rolling out a slew of regulations governing the industry and in the interest of policyholders’ interest. Some of the emerging trends in India are presented in Figure 1 below.

Figure 1: Emerging trends in India

Role of BI in Insurance

BI can play a crucial role in almost every aspect of the Insurance business. It can help identify the ways and means of improving sales force performance and operational efficiency. BI also provides with critical information on claims management leading to better underwriting practices and product pricing.

Few of the analytics arising out of Insurance business are presented below.

Sales and Channel Management

Although Tied Agency has been the main stay for distribution of life insurance products, we have observed the emergence of newer channels like Bancassurance, Broker and Direct sales team is leading to deeper penetration of the market in the last few years. New age channels like Telemarketing, Online /Internet marketing are being used for marketing of products to specific target group.
It has been observed that customers intend to do more research using the internet, even if they ultimately rely on face to face interaction with the intermediaries for purchase. BI tools can help insurers in deeper understanding of these distribution channels and help in devising suitable channel management strategies.

**Channel Strategy Optimization**

BI tools can help in analyzing the performance of different channels across multiple geographies, product lines and also provide drill down facility to the level of a producer. An appropriate channel strategy in terms of business expectation, product mapping and payout structure can be structured based on the BI analytics.

**Sales Reporting**

A comparison of business achieved as against the target, Geography wise, channel wise, product wise new business can help in identifying the trends across channels and can help in initiating mid-course corrective measures to achieve the planned profitability.

**Channel Management**

An analysis of NB across product/geography/channel/Term/Mode using BI tools can help in understanding the sales behavior of agents, sales person and channel partners leading to designing of rewards program, relationship maintenance matrix and key partner retention strategy.

**Channel Analysis**

Using BI tools, insurers can compare the performance of various distribution channels and can drill down to the level of individual agents and products. The performance should be tracked closely and compared over a period of time so as to assess the effectiveness of developmental actions initiated.

**Channel Profitability**

Assessment of channel profitability can be done through a comprehensive analysis of new business, commission, persistency and claims by each of the channel and this can lead to redesigning the compensation structure, revisiting of products, revising of underwriting processes.

**Operations Management**

Premium received by the insurance companies is the source of revenue and it is important that all the monies or deposits received are converted into premium income with least leakage. It is important to convert the proposal into a policy as early as possible as income accrues to the life insurance companies only on conversion of the proposal into policy.
New Business processing

A ‘Cause analysis’ can help in understanding the delay in processing across channels, geographies and product lines and help in quick follow up and auctioning leading to least proposal withdrawals.

New Business leakages

Leakages in NB are a major concern. It is about a customer who has signed up and paid the proposal deposit but subsequently not completing the conversion processes. It is not only a loss of NB but also represent non recoverable cost and a dissatisfied customer and insurance companies would like to minimize the NB leakages as much as possible. An analysis of the leakages in New Business like Cheque Bounces, Proposal Withdrawals, NTU across geography, channel help in early identifying of wrong practices, misplaced commitments.

Customer Retention/Persistency

Persistency levels are lower in India compared to other countries. IRDA, Indian Regulatory authority is also seized off the magnitude of the lapsation and has brought in regulation governing minimum persistency level to be maintained by both individual agents and corporate agents as IRDA is of the considered view that the insurance intermediaries have an effective role to play in minimizing lapsation. A close monitoring of the trends in lapsation in terms of products, Premium mode channels and geographies can help in devising suitable policy revival strategies. Moreover very close monitoring High Value premium lapsations can help in connect with customers directly and also pave way up selling and cross selling. A lapsation cause analysis can help in improving customer retention by helping insurer in addressing the underlying causes of lapsation.

Attrition Analysis

Buying an insurance product is a long-term decision for a customer and the customer needs to pay the premium on a regular basis through the term of the policy. In the event a customer decides to switch the insurer or lapses the policy, the insurer suffers not only monetary loss but also a customer. A detailed analysis of customer attrition including his profile, reasons for termination, and his touch points in the organization can give valuable input on the expectation of the customer and improve the performance of the customer touch points.

Claims Management

While it is important to settle a legitimate claim at the earliest possible time, it is equally important to have good selection and filtering mechanism to avoid fraudulent claims. It has been observed during a recent study that a high level of customer dissatisfaction arises on account of delay in claim settlement and under payment. Claims analysis is one of the most common BI applications in the insurance industry. It involves analysis of the claims data coupled with other data sources like underwriting and policies. It is primarily used to gauge claims processing efficiency, which has a direct bearing on customer satisfaction.
Claims Payment Management

A good tracking and reporting system on registered claims and their progress in terms of settlement will help in avoiding unnecessary delays in claim payment leading to higher customer satisfaction.

Claims analysis

A good BI tool will help in understanding the trends in claims in terms of product, channels and geographies and provide insight into to product profitability and pricing. Analyzing trends in claims and loss patterns across channels, products, geographies can help in spotting fraud and also to optimize reserve requirement. In respect of health insurance, any abuse by any medical practitioners can be easily identified through analysis of patterns of payouts.

Marketing Management

Customer acquisition, engagement and retention strategies are very critical to insurance business. Customer behavior is changing rapidly. Technology, and in particular the growth of online and social media, is driving a fundamental shift in customer expectations in terms of how products are marketed, sold and serviced, and how companies are perceived. Pure internet businesses like online sale of term policies in India have set new standards for customer-centricity. In today’s competitive and knowledge driven environment, it is a challenge to really understand the key drivers of customer behavior across geographies and distribution channels.

Customer Segmentation

Segmentation is used to segregate customers acquired through different channels but who exhibit common attributes. For example an analysis of product wise customers’ demographics can throw light on the customer segment of the product line and help in devising strategies in furtherance of the business. Similarly customer segmentation can be used for devising target segment specific, the most appropriate customer engagement activities like communication, performance updation to ensure retention and upsale to the customers.

Product Management

It is important to retain existing customers, while finding ways and means to cross sell new products/solutions to them. Building detailed customer knowledge through quality analytics can help in identifying the right customer group for up selling.

Campaign analysis

Insurance companies periodically launch campaign and contest to accelerate sales or for improving persistency. A good BI tool can help in analyzing the effects of particular campaign and help in understanding cannibalization of products, incremental business against incremental cost and the learning can be used for launch of similar schemes in future.
**Profitability Management**

Profitability of insurance business depends on the actualization of the assumptions relating to expenses, income and mortality. A very close constant monitoring of each of these factors is an absolute essentiality.

**Premium Analysis**

Premium income both new business and renewal is the primary source of revenue for an insurance company. Premium analysis allows the tracking of premium performance by a product or product line, by geography, by distribution channel. This will assist in assessing the productivity, profitability of each product, geography and distribution channel.

**Financial Analysis**

A periodical analysis of key ratios like Retention Ratio, Conservation ratio and expenses ratio can throw light on the profitability of the business and helps in avoiding cost and underwriting over runs and these key ratios can be presented in a dashboard form.

**Product Profitability Analysis**

An analysis of the profitability of each product can be tracked across geography, channel and customer segment and this analysis will include claims, lapsations etc. The result of such comprehensive analysis can help in product redesigning and in identifying profitable customer segment.

**Underwriting Loss Analysis**

In respect of few products, like mediclaim in health insurance business, the premium revenue might be less than the claim payouts and is termed as underwriting loss. This may be due to inaccurate initial risk estimate. Insurers need to constantly monitor the loss data to determine the cost of getting new customers and renewing old ones for those products or product lines. This can help in improving profitability through revisiting the underwriting programs and help insurers salvage their book of business.

**CXO Reporting**

The MIS department is typically responsible for providing reports to the top management and help in filing the statutory reports to the concerned authorities. A business intelligence environment that leverages data collected across the value chain is possibly the only effective solution for MIS.
Dashboard / CXO Reporting

Key Performance measures like Channel productivity, Claim Processing TAT, Conversion rate, Product category, Mode of premium analysis can be presented in dashboard reports to the top management to facilitate decision-making process. Also alerts can be triggered if any performance measure reaches a pre-defined threshold level.

Statutory Reporting

Insurers have to submit several periodical reports to the regulator, insurance council and other government agencies. These reports can be easily generated from the business intelligence environment. Timely reporting with accuracy of data is the key in regulatory reporting and it is also important to maintain consistency across multiple reports filed with the regulator. BI tool will provide with timely report along with the appropriate data backup for any future reference and validation.

Risk Management

Risk is more an integral part of business for life insurance industry than it is in perhaps any other industry. Strategic success is possible only when the companies understand which risks are being assumed and can appropriately price them in the product for those particular risks, wherever possible. In a business like life insurance, where the value creation to the multiple stakeholders depends on the actualization of several assumptions over a longer period of time, a sound risk management practice is a compulsive prerequisite.

Reinsurance

A reinsurance company, normally shares a part of the insurers' risk in return for a share of the premium. In the eventuality of a claim, the reinsurance company will pay the corresponding claim amount and this protects the insurance companies from few adverse large claim payouts. Actuaries need to decide the right amount of reinsurance in order to maximize the returns for the risk acceptable to the insurance company. BI tools can help to arrive at the acceptable reinsurance level based on the historical claims data and help save on premiums ceded.

Underwriting

Underwriter in an insurance company decides whether the risk undertaken by insuring a client is acceptable or not and also determines the appropriate premium to be charged for accepting the risk. If it is acceptable, she determines the right amount of premium to be charged. BI can help in ascertaining early claims trend, pattern of claims to understand the robustness of the underwriting process. This analysis can also help in redrafting the underwriting policy for the select products.
Conclusion

companies are at cross roads as they feel the need to migrate to an advanced technology platform from the current multiple proprietary systems. With the change in customers’ preferences in insurance products, the way customer access information in buying insurance coupled with the regulatory compliances makes it an ideal case for a quality BI tool in the enhancement of the business value of the insurance companies.

Figure 2- BI for Insurance

Ramco Analytics – making the difference

- The Ramco Analytics is a comprehensive BI that supports all the different phases in the entire business cycle of insurance operations from sales to settling maturity claims.

- Ramco Analytics provides a detailed analysis, reports and triggers on all key events affecting the profitability of the insurance business

- It helps in assessing different risks and help in devising risk mitigating strategies like increase in pricing of policies, revisiting of underwriting guidelines etc.
Figure 3: Ramco Analytics – Our Comprehensive view
## INSURANCE LANDSCAPE IN INDIA

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<td>Nationalisation &amp; Government Monopoly</td>
<td>Post liberalization – High Growth Phase</td>
<td>High regulatory intervention, Moderate growth &amp; gyrating to Maturity Phase</td>
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**Yr 1999:**
IRDA act was passed and IRDA becomes the statutory regulatory body for insurance business. Started issuing licenses for private insurance companies

**Yr 2000:**
- IRDA passed several regulations governing insurance business
- Licensing of agents,
- Preparation of financial statements
- Investment regulations
- Insurance Advertisements

**Yr 2002:**
- Licensing of corporate agents

**Yr 2005:**
- Micro Insurance regulation

**Yr 2010:**
- Regulation of ULIP products
- Regulation on surrender value and charges

**Yr 2011:**
- Regulation of Persistency, Pension and Outsourcing of activities
- Guidelines on periodic public disclosures

**Yr 2012:**
- Compliance with Corporate governance guidelines

**Yr 2013:**
- New Health Insurance guidelines
- Standard proposal form for life insurance.

### Life Insurance
- 24 LI companies.
- New business premium of Rs.113,939 crores in 2011-12 (Rs.1,26,381 crores for the year 2010-11)

### Non Life Insurance & Health Insurance
- 23 Non life insurance & 4 Health insurance companies.
- Premium of Rs.52,876 in 2011-12 (Rs.42,576 crores in 2010-11) of which 23.35% is health insurance premium for the year 2010-11