BUSINESS INTELLIGENCE - DRIVER FOR BUSINESS TRANSFORMATION IN INSURANCE INDUSTRY

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Why BI?

“There are painters who transform the sun to a yellow spot, but there are others who with the help of their art and their intelligence transform a yellow spot into the sun” - Pablo Picasso

The cubist painter was right on the money when he said that with intelligence and art one could transform a pedestrian yellow spot into a stunning rendering of the sun.

This rings very true for the insurance industry where the ‘brick and mortar’ Policy and Claims Administration systems are in place for all the insurance companies. What sets the truly innovative and efficient companies apart is the way they put the underlying transaction data to use. Efficient and imaginative use of the data gives remarkable insights into the way the company conducts business and also provides foresight on how the future can be or how business should be conducted in the future.
BUSINESS CASE FOR ENTERPRISE WIDE DATA WAREHOUSING AND BUSINESS ANALYTICS PROGRAMS

In these turbulent times, where the competition is very intense, insurance companies are trying every trick in the book for garnering new business as well as for customer retention.

The following are some major challenges the insurance companies are facing today:

- Constant innovation on the product and features front – to stay in the game the insurance companies need to launch new products, introduce new features in existing products at a very fast pace
- Very little time-to-market – Ideate, Design and Deploy new products/new features to existing products within a short time span
- Broaden the sales scope – agents, call center, internet, mobile applications
- Manage risks
- Respond quickly to every changing regulatory policy

To quickly and more importantly, correctly, make decisions regarding a product/a new sales channel, historic and extrapolated data are required. This information is provided by the company’s Data Warehouse/Business Analytics group.

Leading organizations are increasingly turning to business analytics as a key means of survival. Business analytics solutions are being used by insurers to reduce the time required to react to competitive pressure, to respond efficiently to market changes, to increase effectiveness of business managers in improving financial results and driving value for the organization, to more effectively manage the many risks the enterprise faces, and to improve the precision & efficiency of operational decisions.

Business intelligence is an Information Technology platform that includes performance monitoring, performance management and performance enhancement tools and applications, as well as data warehouse technology.

According to IDC, business intelligence suite is used to “access, transform, store, analyze, model, deliver and track information to enable fact-based decision making and extend accountability by providing all decision makers with the right information, at the right time, using the right technology.”

“Data mining, data visualization, forecasting, optimization and other analytic capabilities raise the business value of the kind of questions you can answer,” says T.K. George, worldwide BI product marketing manager at SAS. “A historical report, while useful, is not as valuable as finding out, ‘What’s the best thing that can happen if I make this product-line decision?’ An executive using sophisticated forecasting technique can out-compete an executive who relies on a simple rolling average. With analytics, you begin to see lifts and changes that impact your strategy, you may recognize new niche markets, or you may start negotiating contracts with vendors ahead of time based on your forecast of peak productivity. Predictive analytics can improve your ability to compete and innovate.”
Figure 1 showcases the importance of a strong BI program.

![Figure 1: Significance of a BI Program](image)

The above chart (adapted from SAS White Paper ‘Resource Handler’) illustrates the fact that as the depth and quality of business intelligence increases so does the advantage business users get.

Let us look at some of the categories of business intelligence:

- **Scheduled Reports** - These reports are generated at regular intervals and provide the as-is information to business. These typically answer the question – ‘What happened?’
- **Ad hoc/User Query Tools** - With the help of the available BI tools, business can query the underlying data and make decisions. These typically answer the question – ‘Why did it happen?’
- **Dashboards** - These are BI solutions where analysis and reporting tools are used to provide feedback on the achievement of KPIs. They are also used to do ad hoc reporting to improve organization’s ability to make correct decisions. Dashboards can be prepared on claim reporting and settlement time, sales service support team’s response times, etc. These typically answer the question – ‘As a company, how are we performing?’
- **Trend Analysis Reports** - These business analytics solutions involve data mining to determine the historic behavior of a group, or the performance of a grouping of people, risks or transaction types. Trend analysis reports can be prepared on segment of customers by risk, types of claims by occurrence, etc.
- **Forecasting** - This BI solution allows an insurer to attempt to figure out what will happen in the future based on evaluation of current and historic data. This typically answers the question – ‘What is going to happen next?’

To put this succinctly, let us look at the survey Gartner has conducted. Gartner surveyed 1,500 CIOs and the results show that despite predicted flat IT budget growth in 2009, BI projects remain their number one technology priority.
ROAD MAP FOR A SUCCESSFUL BI PROGRAM

- Five Best Practices That Can Create an Adaptive, Agile and Robust BI Platform

**Adopt the incremental and iterative (2I) Approach for BI programs**

The common conception is that BI projects are behemoths and would always run above budget and behind schedule. And that when the program goes live the requirements of users would have long changed.

![Image of a pie chart showing the use of BI in supporting improved business performance.](image)

How useful is your organization’s use of BI in supporting improved business performance?
Source – Intelligence Enterprise Survey 2008

The above survey results point to the fact that more than half of the BI projects did not meet the aspirations of the business.

The 2I approach to BI projects can be summarized as follows:

- Get together with business and prioritize user requirements
- Divide the development of requirements into small development cycles of 1 to 4 weeks and showcase the end results to business and get their buy-in
- Iteratively increment the scope of the BI platform
- Do not put much effort in upfront detailed architecture, modeling and requirement capture
Figure 3 shows how the 2I approach works.

**Valid KPI as the framework for BI strategy**

Key Performance Indicators (KPIs) are defined as the measures which indicate the health of the business. For an insurance company, the following could be considered as KPIs:

- Customer retention
- Process improvement
- Garnering new business
- Time to market new products
- Risk management

KPIs and their definition need to be specific to every company and its corresponding business needs. It is imperative that the right performance indicators be defined and measured.

KPIs play a major role in highlighting the inter connectivity between business activities, performance and financial growth. An organization would require anywhere between 2 to 6 KPIs.
Figure 4: Establishing Robust KPIs

The apt or most suitable KPIs for the entire organization can be identified in the following manner:

- Understand the KPIs at various levels – business unit, business departments and organization wide
- A lower level KPI must feed or roll into the KPIs of a level above it
- Each level of KPIs must merge into the organizational KPI

KPIs are the most critical part of the BI strategy. KPIs help an organization to use BI for better business performance.

**Data governance**

- **Data must be governed as to source, quality, and speed of availability**

Data governance encapsulates the data quality, data management, business process management and risk management surrounding the handling of data in an organization.

The following are the key features of data governance:

- Key data assets are managed throughout the organization
- Ensures that data and the information based on the data can be trusted to make strategic decisions
- Appointing suitable people to fix and prevent issues with data
- Avoiding regulatory issues because of low quality data or for reporting inconsistent data
• Improving data quality

*Note - Data Quality in Business Intelligence: Survey Results – Sourced from Dataqualitypro.com*

This survey was completed by 203 respondents from the 3rd of April 2009 to the 12th of April 2009. Here ‘DQ’ stands for Data Quality.

**Figure 5: Data Quality in Business Intelligence: Survey Results**

This survey was completed by 203 respondents so the results need to be assessed in this context.
The following are trends that emerge from the above survey (These trends have also been sourced from dataqualitypro.com):

**Intelligence first, Quality later** - Of the 31% who have no data quality process in their business intelligence capability, only 9% had plans to implement one within 3 months. This would appear counter-intuitive - why launch a decision-making capability first and then ensure the quality of the decisions afterwards?

**Major Issues Reported, Irrespective of Data Quality Management** - 50% of respondents cited the fact that their organizations have major data quality issues in their business intelligence solution. This is worrying as it implies that although 69% of organizations are creating a data quality capability within their business intelligence service, major issues are still getting through.

Where organizations have a data quality capability it was found that 44% of respondents were still witnessing major issues caused by data quality defects. Clearly, these organizations are struggling to eliminate problems further upstream in the information chains, and if they are causing issues in the business intelligence layer one can be doubly sure that they are causing issues elsewhere.

**ROI and ownership are key challenges** - Looking through the comments received, it is apparent there are some common themes. Creating a business case to obtain funds appears several times as does finding the right sponsor and stewards to eliminate political struggles.

**Flexible, adaptive BI Architecture**

The following are some of the key features of a flexible and highly adaptive BI architecture:

- High quality data – Data presented to the business should be consistent and holistic. Users from various groups should not end up arguing regarding whose data/numbers are correct. Right from the analyst to the CEO – everyone should get the same numbers when querying a metric.
- Data which is presented to business should be correct, complete and current.
- Data sources should be accurately identified. Business and IT should work hand in hand to arrive at the most suitable data sources.
- Data storage and maintenance – IT group should establish processes, checks and balances for data storage and maintenance.
- Selection of suitable ETL (Extract – Transform – Load) Tools – Depending on the organization’s requirement ETL tools should be chosen.

**Busting the ‘If we build it, they will come’ myth**

Of all the IT projects, BI is the most business sponsorship dependant. BI projects should very keenly understand user requirements. IT and business should delve into the business case for why they want BI and align the business problems with BI. Very often, entire BI systems are built for the upper management. But this defeats the purpose of BI as a whole. BI should be made appealing to almost all the users.
“To be successful with BI, you need to be thinking about deploying it to 100% of your employees as well as beyond organizational boundaries to customers and suppliers” — Cindi Howson (Source - Successful Business Intelligence)

On closing this paper, we would like to reiterate that BI projects should be about gaining insight into the organization and not about providing data. Once this goal is achieved, the BI platform will surely be on the high road to success.
APPENDIX

References

- Successful Business Intelligence by Cindi Howson
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