Insurance Analytics part 2: The business case for Data Analytics
A Deloitte point of view on Data Analytics within the Dutch Insurance industry
“Insurers have invested in Data Analytics (DA) but see a limited return in business value”. This is one of the outcomes of a research amongst Insurers in EMEA.¹ This second blog on Data Analytics within the Insurance Industry focuses on the business case for Data Analytics. It describes an approach for setting up the business case, types of required investments, expected benefits and provides guidelines.

Introduction

Insurers want to become more insight driven, but face a couple of challenges that we covered in our previous blog:

1. There is no organization-wide vision and strategy for Data Analytics that supports the strategic goals and therefore direction and drive for initiatives is missing
2. Data Analytics experts are scattered across the organization; each unit or function has their own expertise and activities are not optimally coordinated
3. The value of Data Analytics solutions is not defined or not measured structurally, therefore it is unclear if the investment is justified
4. There is a gap between Data Analytics expertise and business sense, resulting in solutions not fit for usage or lack of confidence in solutions at the business
5. Data Analytics solutions are not implemented into business processes, therefore using the solution is too cumbersome and people stop using it
6. New technology developments like Big Data and AI give even more potential of using Data Analytics. Insurers feel that they have to jump in to not get behind of competition or behind of InsurTech startups, but forget that in order to profit from these technologies they will need a solid Data Analytics capability and Data foundation first

In our previous blog different operating models for a Data Analytics capability were described, including their respective pros and cons. It was explained that there is no one size that fits all. Furthermore, an approach was given to design and implement an operating model. This second blog will address the challenge that it is often unclear if the investment and for a Data Analytics capability is justified. The importance of defining and monitoring value has already been explained in the first blog, this second blog will focus on the following topics:

- What are the type of investments required?
- What are the benefits of setting up a Data Analytics capability and how can these be measured?
- Who could or should be the main stakeholders in the process?
- Guidelines for creating a business case

Setting up a business case for Data Analytics

Setting up or structuring a Data Analytics organization requires a substantial investment. Before starting, it should be very clear why it is necessary and how it will deliver value. A business case is a typical tool for this. When developing a strong business case for an Analytics Organization, it can later on be used as a starting or reference point for the business case of individual Data Analytics solutions.

¹ Insurers and data analytics: a little less conversation, a lot more action; EMEA insurance data analytics study; Deloitte; https://www2.deloitte.com/nl/nl/pages/financial-services/articles/emea-insurance-data-analytics-study.html
The process for setting up a business case does not differ substantially from business cases of ‘normal’ projects. However, since Data Analytics like other IT projects also requires technical investments, there can be a wide range of cost types. For example, costs for business consultancy and data scientist hours are required, but also costs for Data Analytics tools, hardware and perhaps even external data. In next paragraph we will elaborate more on the different costs.

The first step in setting up the business case is to describe as factually as possible why something needs to change. What does the current business environment look like? What are the problems and pain points? What would be the expected impact or effect of data analytics solutions? What would the analytical solution/architecture look like? And most importantly how can data analytics drive value for the business.

Secondly, describe on a high level the pros and cons of different options including a ‘do nothing’ scenario. From these scenarios it should at least be clear that doing nothing is a bad option. Since Analytics is a core competency of the Insurance Industry the opportunity for improving it is huge. Also, more and more pressure from Insurtech startups is being built up, with Data Analytics in most cases as the primary differentiator. The pros and cons of the scenarios will give a nice starting point for the business case.

### Required investments to start up an effective Insurance Analytics asset

A business case for an Insurance analytics asset differs from more typical business cases in the sense that one needs to think not only about finishing one product or project, but setting up an entire environment for the long term. This means that typically investments need to be made in five areas:

- **Designing & preparing the organization in line with the analytics strategy.** Examples of deliverables are a Data Analytics vision, Value Definition and a high level operating model. Especially the operating model is important, since with typical Insurers Data Scientists as well as the data itself are scattered over the organization. Please visit our previous blog on this topic.

- **Developing your people.** This entails more than just recruiting some data scientists, it might include training the rest of the organization to become more ‘insight driven’. Examples of deliverables are the organization design, learning curriculum and knowledge exchange, culture change of senior leadership.

- **Designing & running processes that enable smooth execution.** These include ideation, prioritization processes, Agile development, and maintenance and support processes.

- **Acquiring and running the systems and technologies that support the activities.** Think of licensing costs, but also development costs that support the organization in becoming insight driven.

- **Optimizing your current data sets and obtaining new valuable data.** For example by buying sets from a data vendor or connecting data from various source systems.

One mistake often made is that companies start with building a Proof of Concept or already with a complete solution, without thinking of how it will be ‘productionized’. Productionizing solutions encompasses a couple of topics. First it requires reengineering the business processes to incorporate the use of insights. For example, an acceptance process supported with a rich customer profile from internal and external data sources,
would require that that customer profile is readily available to the underwriter in his workflow management system and that the underwriter has specific rules for dealing with the different individual customers. Secondly, the insight should be understandable for the business. In case of the acceptance process based on a customer profile, it is even required that the results on which the acceptance will be based, are explainable and traceable. Furthermore, the solution needs to be maintained and supported by Data Analytics experts. The business needs to adapt to the changing culture, becoming insight driven. Finally the solutions requires continuous improvement, meaning that complaints or improvement suggestions from the business need to be incorporated as well as the latest technology or data developments\(^2\). When not thinking about these aspects, the chance is that the Data Analytics solution will end as a fancy tool that is too difficult to understand, too expensive to maintain, to buggy to trust on or too cumbersome to use the insight on a frequent basis.

Investing in all five areas described above is essential to deliver the expected benefits from a Data Analytics solutions.

**Data Analytics value definition for Insurance**

As with all projects and especially with technology implementations, the investment is made before benefits will flow back from Data Analytics solutions. Setting up an organization to develop, implement and operate solutions will in most cases deliver no direct and tangible value to the organization. Each implemented solution however will. In our previous blog we explained therefore that the approach for setting up such an organization should always go in parallel with developing one or more use cases.

To define the value of Data Analytics solutions, the best way is to start with the strategy of the organization. Is the main target to win new customers, or to decrease cost, or perhaps both? From the organization strategy downwards, concrete Key Performance Indicators can be taken from the strategic statement, or derived from it, to make the impact on the strategic target measurable. An example of a KPI can be “€ cost reduction in back office”.

In some cases it can be difficult to relate the benefits directly to the implementation of the Data Analytics solution. The objective should be to isolate the effects of the solution as much as possible. An example is a data analytics solution that aims to increase the number of new clients by offering a faster acceptance process (e.g. see this article for a solution that achieves this by using a selfie to automate the acceptance process\(^3\)). The effect of the data analytics solution might not be directly clear, since other factors might be in place, like seasonal patterns or a marketing campaign. Isolating these events is important to get an accurate business case. In some cases, it might not even be possible to isolate the effects. In that case, the business case should contain other KPIs where the results of the solution can be isolated.

Another challenge is that some benefits might not be measurable in a reliable way. Take as an example a data analytics solution aiming to improve customer satisfaction by offering a chatbot interface for 24 hour/day support. How can an increase in customer satisfaction in this case be measured? Net promoter score does not seem the best fitting measure in this case. The measure should have more focus on the effect of the chatbot interface. A survey amongst users of the chatbot asking for their satisfaction with

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\(^2\) [https://www2.deloitte.com/nl/nl/pages/data-analytics/articles/six-key-components-important-to-productionise-analytics.html](https://www2.deloitte.com/nl/nl/pages/data-analytics/articles/six-key-components-important-to-productionise-analytics.html)

the customer service before and after using the chatbot could be a solution, but can be quite cumbersome. Making and agreeing on a clear plan on the expected effects and how to measure these beforehand prevents dissatisfaction with the intangibility of the results afterwards.

Within Deloitte a much used framework for defining business value is the Enterprise Value Map™ (EVM). The EVM links tangible business results back to high level shareholder value and is developed based on KPI frameworks of thousands of companies all over the world. A specific EVM is available for each industry. Based on our experience in setting up Data Analytics organizations and building solutions, we have made a specific EVM for Insurance Analytics. Below is a snapshot of this framework.

Basically, business value should flow from an increased revenue, lower operating costs and increased capital efficiency. An increase in revenue can be reached for example by an insight-driven pricing and retention management strategy. A concrete solution for this is our “Dynamic Pricing Engine®. An analytical solution for reducing costs can for example be found in an interactive claims dashboard were managers or analysts can easily analyze claims and find opportunities for reducing losses. Our next blog will elaborate on this specific Data Analytics solution for claims management.

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The value that is most important depends on the insurer and typically its product and distribution channel mix.

**Who could or should be the main stakeholders in the process?**

A vital step in setting up the business case for Data Analytics is involving business stakeholders. All value should be obtained by business improvements and therefore a large dependency exists on these stakeholders wanting to implement Data Analytics solutions. Defining targets for business value also helps in making business a partner in the implementation process since they will need that value improvement for their own balance sheet.

Multiple roles can be responsible for setting up the Data Analytics organization. Examples that are found is that the CFO leads the program, but also the COO, CDO, CIO, or a specifically appointed Analytics officer (Chief Analytics Officer). At least it is important to have C-suite sponsorship since the organization and its solutions should run organization wide and input from a large number of departments will be necessary.

We will end this blog with some summarizing guidelines:

- Align with business stakeholders to sign off on KPI targets. This also gives them an incentive to implement Data Analytics solutions
- Include investments for implementing Data Analytics solutions in a business environment
- As mentioned in this article: think about how to measure and how to isolate the effects of the data analytics solution
- Define a clear timeline in which the effects are to be expected. Make sure that the business is aware of this timeline to prevent premature closing of the solution
- Create a plan for monitoring the costs and benefits of Data Analytics solutions, a centralized Data Analytics capability should be responsible for this
- Not all Data Analytics solutions will deliver the expected results; define go/no-go moments to evaluate the success and close unsuccessful solutions

**Conclusion and follow up**

This article is the second in a series of blogs on Data Analytics in the Dutch Insurance market. In this article the process for setting up a business case for a Data Analytics organization was explained and examples of impact and required investments were given. The next blog will give a concrete example of how value was delivered by an Insurance Data Analytics organization.

**Other sources:**

- https://www2.deloitte.com/nl/nl/pages/data-analytics/articles/six-key-components-important-to-productionise-analytics.html

Insurers have invested in Data Analytics (DA) but see a limited return in business value. To gain long-term value from Data Analytics solutions, insurers should align initiatives throughout the organization and set up a capability that supports in industrializing Data Analytics solutions. The design of such a capability should contain a balanced mix of centralized and decentralized assets. Defining and monitoring the value of Data Analytics solutions is one of the key components for a successful Data Analytics capability.
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