

You cannot change something unless you understand it. What can be done to make the reality of the business visible and intuitively easy to understand?

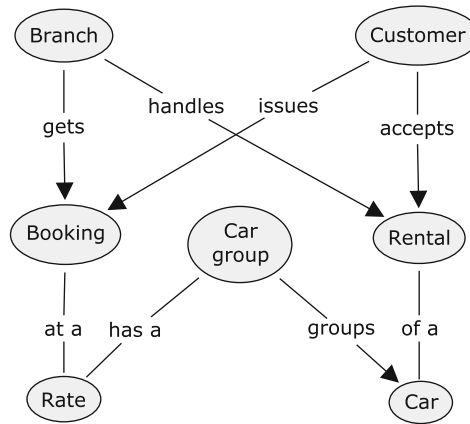
Business starts with ideas. From (some of) the idea(s) a business model is created. The business model is then implemented across and among all the necessary places, things and actors such as people, products, capital, fixed assets, customer segments and so forth. As soon as you are open for business, you start monitoring and you analyze what is going on. Right from the beginning of the business model, you are betting the business on a certain, specified, set of concepts and relationships between them. This is the core of what “the business means”. What the business really means is an extremely important issue. Uncertainty – and misunderstandings – on this level can lead to grave problems. The business has a responsibility to be very clear about what it means when it talks about the essential concepts, which are of importance to the business model – and the implementation of it in the daily life of everybody supporting the business.

For some years now many (IT-trained) people have been led to believe that “Use Cases” or similar stories is a good place to start. But how do you write a good case, if you do not know the terminology used by the business? For example: Are we talking about Cars or Vehicles? (And what is the difference between those two concepts?).

The key terms to think about here are: Concepts (what are we talking about), relationships (between concepts; customers place orders and so forth) and “things” (Product XYZ, Customer Thomas etc.). This is the realm of the business, not of IT. This is – essentially – what large parts of this book is about. There is no other way of achieving business governance on the conceptual level than to spend some time understanding the business of which you are a part.

## 2.1 Understanding the Business Using Concept Maps

Let us look at a very simple example, The EU-Rent Car Rental<sup>1</sup>. We will be following EU-rent throughout this book. To begin with here are some of the most basic concepts of a car rental business:



**Fig. 2.1** High-level concept map of a car rental business (“EU-Rent”)

Digression: The diagram is a “concept map”,<sup>2</sup> which we will look at in detail in Chap. 6 below. The diagram really speaks for itself, which is the whole idea. Notice that you can read little sentences like “Customer issues Booking” and “Car Group has a Rate” and so forth. The sentences are visual – they are the connecting lines between the concepts. Concept maps can be drawn easily in brainstorming style workshops and they are easy to maintain, also for non-technical people.

Experiences from client projects (mainly in business intelligence contexts) since 2005 have been extremely rewarding. We are able to work with – on the business side – the concepts, their definitions and their relationships in intuitively understandable manners. Add speed, expressiveness and ease of use to the equation, and you understand why this is successful. Describing the business is a task for the business – use the right approach, keep things simple and control the business definitions together with the business people!

<sup>1</sup> Based on the accompanying example to the OMG SBVR standard ([www.omg.org/spec/SBVR/1.0/](http://www.omg.org/spec/SBVR/1.0/)). SBVR stands for “Semantics of Business Vocabulary and Business Rules”. ACKNOWLEDGEMENTS: The EU-Rent case study was developed by Model Systems, Ltd., along with several other organizations, and has been used by many organizations.

<sup>2</sup> The technique of concept mapping was developed by Joseph D. Novak and his research team at Cornell University in the 1970s. See Chap. 6 for further details.

In essence, what you are working with is a set of structured terms (concepts) and their associated business rules (more on business rules later). Some things may change (e.g. sales channels) but the core of the business model remains conceptually much the same.

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## 2.2 Information, Data and Business Rules

Many people are confused about the differences between information, data and business rules. This is a big subject. What is important here is the business perspective.

So what is the data to the business? Not a whole lot really. If we define data as those data, which make up your databases beneath your day-to-day operational systems, data is – at best – one of your sources of information. Mostly the databases contain detailed information about low-level stuff like item number, invoice date, quantity, price and discount. All are very appropriate, but not terribly exciting. First of all – you need more information than that to run a business. You also own so-called “unstructured data” – all your documents, emails, websites etc. And there are also external sources of data, which you need. Application data is just one source out of many.

Why is it that the low-level data is poor on information content, you may ask? Information is basically the answer to a question. That is why the invoice lines by themselves must be processed (“interrogated” is probably a more meaningful term) to provide answers to the key questions:

- Who, What, Where and When?
- And How Much?

This is called “Business Intelligence” (BI) – and most often you have to build a data warehouse in order to get all the information together in formats, which allow you to combine the data to give you the information, you need. In fact your ultimate goal is to answer the Why-question. That is where knowledge enters the picture.

The “interrogation” perspective is one way of describing the difference between data and information. Another way – perspective, if you will – is the issue of “meaning”. According to information theory, data is just symbols, representing observations of (“pointers to”) events happening in the world we live in. And the actors and things involved, of course. Information, on the other hand, is a message, which, if you share the context (common ground, if you will), will provide you with meaningful – well, here we are – *information*.

Compiling meaningful information (from data you have access to) is the basic process, which gives you knowledge.

The defining term here is really “meaning”. Meaning is what enables you to gain information. If you think about this, it is a bit like a Black Swan<sup>3</sup> challenge. You should know what you know. You should also know what you want to know, but don’t know already. And so on. How do you express “what I want to know”? *Meaning = concepts and structure.*

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## 2.3 Going into Details: Business Rules

So much for “Information” versus “Data”. Let us turn to business rules. Obviously, the simple “EU-Rent Car Rental” concept map diagram introduced earlier in this chapter is very high-level indeed. In real life you end up having multiple diagrams. But you also end up having a collection of other things – business rules. Here are some examples of business rules (from the car rental business context):

1. Each rental has exactly one requested car group.
2. The duration of each rental is at most 90 days.
3. Each driver of a rental must be a qualified driver.
4. If the drop-off location of a rental is not the EU-Rent site of the return branch of the rental then the rental incurs a location penalty charge.

If you think about this, some business rules could also be drawn up as concept maps. (In fact most can). However, some of the rules are quite detailed, and some also include “live data” (e.g. “90 days”, or “SUV” etc.). You should use concept maps to get the overview and the structure in place. And then you supplement with the most important (and lasting) business rules (in plain text), which relate back to the concepts described in the maps. We use Excel or Word or similar office tools to record the business rules. See Chap. 6 for an example.

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## 2.4 Good Definitions are Important

Describing business rules necessitates clear and precise definitions. Business concepts and strict definitions go hand in hand. In many cases you can do well with a pragmatic approach to this. However, there may be reasons (complexity and reliability for instance), which necessitate a strict and systematic approach to this.

Definitions of core business concepts last a long time and reach many people. This means that they should not only be precise and to the point. They should also communicate well and be easy to remember. In many respects production of good definitions is a skill that requires you to be conscious about, what you are doing. Fortunately this skill is something that can be refined and rehearsed. There is no better place to look for expertise about good definitions than this excellent book: “Definitions in Information Management” (Chisholm 2010).

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<sup>3</sup> Nassim Taleb, “The Black Swan: The Impact of the Highly Improbable”, Random House, 2007.

When we do concept mapping – as described in Chap. 6 – we do not care too much about detailed logic in the diagram. Concept maps are not about logic, they describe concepts and their relationships. In business rules, on the other hand, you typically have a lot of logic. Logic is very necessary when you specify *something you want to include in an IT-system* of some kind. However, on the business level, the world is often a bit fuzzier and we really do not need that extra precision, which logic adds to the picture. Simple business rules formulated in clear language is more than enough in most cases. From a business perspective what is stable is concepts and relationships. They survive most things, including change of ERP-systems, for example.

And people are not 100 % rational. A good example is the (systematic) errors most people make when reasoning with probabilities. Add intuition, gut feelings and so forth; this complex set of capabilities is what we are and this is what we should support.

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## 2.5 What Do Concepts Actually Look Like?

Let us focus on concepts and their relationships.

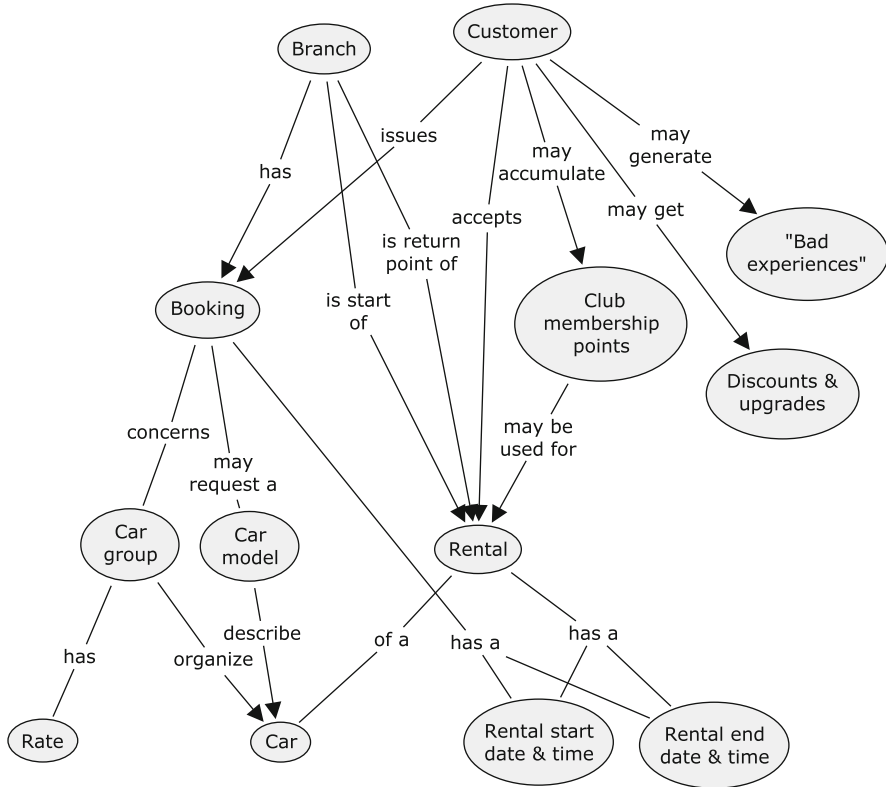
The EU-Rent Car Rental fictitious business, which was mentioned earlier, is described by in the OMG standards documentation as follows:

EU-Rent rents cars to its customers. Customers may be individuals or companies. Different models of car are offered, organized into groups. All cars in a group are charged at the same rate. A car may be rented by a booking made in advance or by a ‘walk-in’ customer on the day of rental. A rental booking specifies the car group required, the start and end dates/times of the rental and the EU-Rent branch from which the rental is to start. Optionally, the reservation may specify a one-way rental (in which the car is returned to a branch different from the pick-up branch) and may request a specific car model within the required group.

EU-Rent has a loyalty club. Customers who join accumulate points that they can use to pay for rentals. EU-Rent from time to time offers discounts and free upgrades, subject to conditions.

EU-Rent records ‘bad experiences’ with customers (such as unauthorized late return from rental, or damage to car during rental) and may refuse subsequent rental reservations from such customers.

The text above is pretty clear and well written. However, experience has shown that concept maps are indeed much more intuitive to read and understand. The diagram below represents almost all of the information in the text above:



**Fig. 2.2** Overview of the EU-Rent car rental business

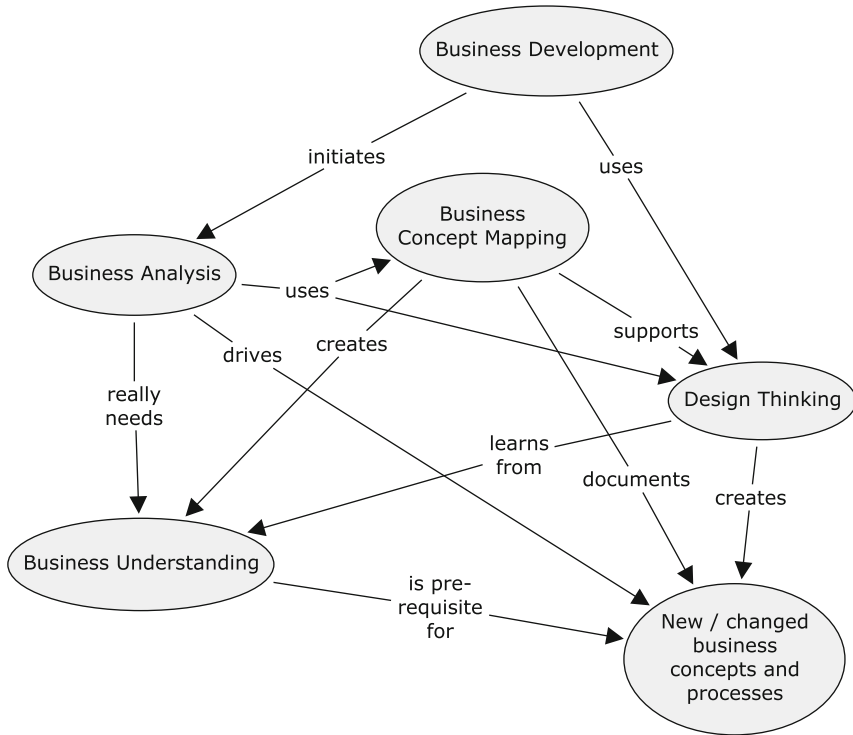
In addition to the concept maps, we need two “documents”:

1. The verbal definitions of the concepts (cf. Chap. 6 for details), and
2. The necessary – longer term – business rules (written in clear language).

Verbal descriptions could be along these lines: “Concept: Car Movement. Definition: Planned movement of a rental car of a specified car group from a sending branch to a receiving branch”.

This is no big deal. Many organizations handle this quite well in Microsoft Word or Excel.

This concludes the introduction to understanding what the business means. In the diagram (concept map) below, you can see an overview of the role of business understanding in the whole business development initiative:



**Fig. 2.3** High-level concept map of the major proposals of this book

Business understanding is created via concept mapping, which we come back to in subsequent chapters. From the business analysis point of view the reason to create concept maps is that design thinking people learn from and are inspired by the business understanding – expressed as concept maps. In that way concept mapping is a prerequisite for the creation of new/changed business concepts (and processes). Concept maps trigger the “A-Ha!” moments, which design thinking people get excited from. Since the most important issue is to get that design thinking going, we need to understand in more detail what the design thinking paradigm is about.



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