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# **Preface**

This book examines my favorite area: customer intelligence and analytics. I am no stranger to this field; I have been doing this for years, in the beginning passively delivering what I should, but over time growing more and more confident. In the beginning I was delivering ad hoc reports; in the end I was producing the information strategies that fueled successful company turnarounds.

At the start of my career in customer intelligence and analytics, I used phrases like these: "Information is a strategic asset," "The technical part of business intelligence is the easy part," "competing on analytics," "It is not about IT, it is about decision support." Because these terms all seemed like useful buzzwords to me, I used them. I still use these phrases today, but now I understand them. They are more than hot air—they mean something, and they are confirmed facts. I hope that by reading this book and using it actively, you will come to the same conclusion.

I was once a national training manager for an analytical company and the courses developed by my predecessor were in ANOVA, regression, neural networks, and different types of software. We had salespeople who would call customers and ask them whether they would like to buy a course in how to do regression or something else. This was a challenging assignment. If the prospective customers were already knowledgeable about the subject, they would not buy; if they did not know the topic, the salesperson could not explain what it could do for them. So we changed the way we offered the courses by

providing stats for salespeople, stats for marketing people, web statistics, stats for healthcare, and so on. Suddenly prospective customers would know what they could use it for even though they still would be trained in regression, ANOVA, and neural networks.

The purpose of this book is the same. We start with what you are trying to achieve, which typically has to do with what your company or functional strategy tell you to do. Then we look into whatever means you have available. Based on this, we discuss what data to use, which analytical methods to consider, and how to implement the technical solution in a way that improves your business processes—how to create value. This book does not focus on algorithms and how they are derived; we leave that to the analysts and their software. Our focus is on business processes and how you can improve them.

If, like me, you are a pragmatic person, you should read Chapter 9, which is a case study on how to use customer analytics. This case study will show you what customer analytics can do; it is not about technology and hardware but about creativity and sound business understanding.

### STRUCTURE OF THE BOOK

This book is written to be both a menu and a cookbook with a series of recipes. The menu presents the different business opportunities that can be enabled through customer analytics. You can read this menu or use it as a basis for recommendations to decision makers, who then, at a strategic or functional level, can point out which activities should be included as future projects. The menu can therefore also give you an overview of strategic opportunities that can be enabled by customer analytics.

Recipes are also included in this book. These recipes provide a more detailed description of what you should consider at an operational and project level. You can hand the relevant recipes over to the project manager or team members in charge of realizing the selected activities. In this way these people will have a first draft of the

different activities that must be executed from a project perspective, including hints for the data analysts, who are the creators of decision support for customer analytics activities. Since probably no two organizations have the same business requirements, the menus included serve only as general guidelines to the final project plan. It is, however, important that you establish a clear link between the strategic situation of your organization and the opportunities offered by your information systems. These information systems provide the customer analytics options that can support and enable your organizational strategy.

The alternative to this systematic approach to selecting the right projects is a long series of interesting studies that never are going to make a change on an operational or strategic level. This is the result of too many customer analytics programs. Therefore, it is important to establish a clear link between the organizational or functional strategy and some clearly defined objectives or targets that must be met.

The following graphic illustrates the menu concept in more detail and where you can find the different elements in this book.

Themes			Char	oters		
Before you start	Presenting things you need to know before you start: the concepts of this book	Introduction to the book Chapter 1				
Strategy mapping process	Identifying focus areas based on your role, functional objective, or competitive position	Identify what you want to achieve			Chapter 2	Menu card: Strategic level
Before activities	Identifying the right activities based on your organization's maturity and how to prepare them	How to prioritize customers	How to get new customers	How to grow customers	How to keep customers	
		Chapter 3	Chapter 4	Chapter 5	Chapter 6	
During activities	How to maintain agility and make corrective actions during campaigns	How to monitor-success optimizing performance			Chapter 7	Menu card: Operational level and cookbook
After activities	How to make organizational learning and improve	How to take customer analytics to the next level			01	J
Example	How others have used customer enalytics successfully	Cas	e study of custome	Chapter 8  Chapter 9		

Structure of This Book

Chapter 1 provides a general introduction to the book, including a definition of customer analytics. Since customer analytics to a large extent is the same as information management within the marketing function, some of the most basic principles of information management are also presented. These basic principles will give insight into what an information system and information strategy is. We also define the terms "lead information," "lag information," and "learning information," which are used throughout this book. At the end of the chapter, we discuss segmentation and the pros and cons of basing it on data warehouse information.

In Chapter 2 you will learn how, based on your overall strategy, strategic position, functional position, or objectives, you can identify which customer relationship management (CRM) activities to focus on. Also you will be introduced to basic principles of CRM: the whale and value-based segmentation, which indicates why different customer groups should be treated differently, depending on their value to your organization. This information will allow you to reflect on your overall competitive situation and provide some overall guidance on whether you should focus on reducing customer costs, acquiring new customers, cross- and up-selling activities, or retaining your existing customer base. Typically a company should be involved with all these commercial activities. However, you might find that your strategic focus needs some recalibration.

Chapter 3 describes how to make and implement a value-based segmentation, which is a shared organizational view on which customer to focus on. This chapter discusses the basic concepts of project and change management, since a value-based segmentation will affect all functions and processes in an organization. Later chapters refer to some of these principles.

Chapter 4 explains how customer analytics improve your customer acquisition processes through the use of data warehouse data, questionnaire data, and interviews with subject matter experts individually and in combination. This chapter also presents another essential marketing and process improvement concept: needs-based segmentation.

Chapter 5 presents various ways you can improve your sales processes to existing customers, which ranges from replacement sales,

and increased share of wallet, to cross-selling efforts. As in Chapters 4 and 6, we take into account different information and organizational maturity levels. This chapter also shows you how to make a shared data foundation for sales processes to existing customers and to increase the customer lifetime as presented in Chapter 6.

Chapter 6 presents various ways of increasing the customer lifetime, known as churn prediction, customer retention, or win-back. The methods of customer retention will vary depending on whether you take a marketing, customer service, or process excellence perspective.

Chapter 7 describes how to create and use lag information. The focus of Chapters 3 through 6 was on how to create information that will enable significant process improvements, also known as lead information. Lag information is used for monitoring and controlling existing processes. (You might already know this concept as performance management.) This chapter also contains a more detailed discussion than the one in Chapter 1 about the difference between lead and lag information.

Chapter 8 takes a deeper look at the third information concept presented in this book—learning information—which has to do with knowledge management, that is, how to make organization-wide use of the insights gained in your customer analytics or marketing department. These insights can be fed to other commercial units and used as a feedback to the strategic planning function. Knowledge sharing to other commercial organizational units typically deals with knowledge management systems. Feedback to the strategy planning unit moreover involves aligning the customer analytics processes with the strategic expectations; therefore, the chapter presents more information on process maturity, which serves as a benchmark for whether your customer analytics are up to the required level and presents ways to identify which elements seem to be lagging.

Chapter 9 provides a case study of how a company turnaround driven by customer analytics got a leading Danish telecom provider back in the black. This case study is included to give you a practical feel for how customer analytics can be used. Read this chapter if you feel that you do not have a clear understanding of what customer analytics is.

# **Acknowledgments**

I would like to express my gratitude to my wife and children—Mahak, Victoria, and Lucas—and my in-laws—Maryam and Muhammad—who stepped in and took over my responsibilities, allowing me to sit in the Royal Library of Copenhagen while writing this book.

# **Contents**

## Preface vii

## Acknowledgments xiii

Chapter 1: Introduction	1
Chapter 2: Identify What You Want to Achieve: The Menu on a Strategic Level	19
Chapter 3: Lead Information for Identifying Valuable  Customers: The Recipe	41
Chapter 4: Lead Information: What You Need to Know before Launching New Acquisition Activities	67
Chapter 5: Lead Information: What You Need to Know before Launching New Sales Activities	107
Chapter 6: Lead Information for Customer Retention	143
Chapter 7: Working with Lag Information	179
Chapter 8: Working with Learning Information: The Recipe .	199
Chapter 9: Case Study of a Retention Strategy	215
About the Author 235	
Indox 224	

# CHAPTER 1 Introduction

his first chapter provides guidance about the opportunities of customer analytics, given the strategic objectives and the maturity of the information systems in your organization. It also introduces the basic terms used in the rest of this book, including the term "customer analytics," and how it deviates from terms such as "business intelligence" (BI) and "customer intelligence." Like business intelligence and business analytics (BA), however, customer analytics is part of the same discipline called information management, a term that also is investigated further.

This chapter also discusses different types of information, which are grouped from a process perspective. There is also a section introducing process management. Finally, the chapter discusses what segmentation is, including the strengths and weaknesses of segmentation based on input from data warehouse (DW), questionnaire, and subject matter experts.

## **DEFINITION OF CENTRAL CONCEPTS USED IN THIS BOOK**

In my previous book, Business Analytics for Managers: Taking Business Intelligence beyond Reporting, <sup>1</sup> I defined "business analytics" as:

Delivering the right decision support to the right people at the right time.

This definition points out some key points to those working with BI (decision support based on simple reports) or BA (decision support based on complex analytical skills) for the first time:

- The purpose of all the data, technical expressions, servers, architectural strategies, master data management, and so on is to create decision support—that is all. The value from a DW is enabled via increased organization-wide ability to make better decisions.
- The creation of decision support based on electronically stored data involves various technical departments, analysts, and end users spread around the organization. Some clear processes must be in place for the organization to reap the full benefits of its BI investment.

Business intelligence has the potential to provide decision support to all of the functions in an organization. Using BI, the human resources department can learn which individuals in an organization are high performers and then hire, train, and reward other employees to become similar high performers. BI enables inventory managers to minimize the amount of capital in stored goods while being able to deliver what is needed. Production can minimize its costs by setting up activity-based costing programs, and so on.

The purpose for all the functions mentioned is: to optimize performance within the area for which they are responsible. The same is the case with customer analytics; it is decision support with the overall purpose of optimizing the lifetime of your customer base. Hence we define customer analytics as:

Delivering customer-centric decision support to the right people at the right time.

Typically, three types of decision makers in an organization are involved in customer analytics, developing a company strategy, a marketing strategy, and an operational-level strategy:

1. **Strategic decision makers.** These are the individuals who make the overall company strategy. To do so, they need

customer-centric information to make the best possible plan for how to run the company in the future. They also need information about whether the overall strategy is being executed successfully or whether corrective action needs to be taken.

- 2. Sales and marketing decision makers. These are the individuals who make the sales and the customer relationship management (CRM) strategy. The sales strategy deals with getting new customers, and the CRM strategy deals with handling the existing customer base. Just like the strategic decision makers, they need information to create business activities and to monitor their execution. The difference is the level of details: The sales and marketing department wants the information on a short-term, campaign/market activity level; the strategy team typically requires information on an overall level, to spot trends and long-term business opportunities.
- 3. Operation decision makers. These are the people who implement the campaigns and market activities, typically in sales and call centers. The decision support they require is in terms of whom to call, when and what to offer, or what to say in order to retain dissatisfied customers. These decision makers are the users of operational information, which could include call lists and pop-ups when customers call in, along with performance management reports.

There is, however, one very important distinction between the BA/BI and customer analytics/customer intelligence that has to do with the process value chain. The BI/BA process is fed, more or less exclusively, by DW data. My earlier book on BA showed the various kinds of decision support that is enabled via a DW and how this process should be managed. This book has less to do with where the data are coming from and more to do with how you can make the right customer-centric decisions. Therefore, the focus is not on whether the data are sourced from a DW, questionnaire data, or the insights gained from subject matter experts, as long as the decision support is customercentric and some analytics are used in the process. The various data and knowledge sources should not be seen as competing sources but rather as supplementary elements that generate significant synergies.

As you learn in this book, the synergies vary, depending on the maturity of your processes, the degree of existing customer understanding in your organization, and the quality of the various data sources.

#### MORE THAN JUST TECHNICAL SOLUTIONS

As mentioned earlier, if you only see customer analytics and BI as technical solutions, you will fail, since they are about helping people make better decisions. Once I was part of an implementation of a customer scorecard (a tool that lists what the company had delivered to customers, including whether it was meeting service-level agreements). We learned that even though it is obvious that the sales staff should use such a tool in order to conduct fact-based negotiations with their counterparts, only one-third of them used it. Some did not know about this new tool; others preferred to do it the old way, even though the new method provided a wide-range of process improvements to customers. Of the one-third who used the scorecard, we estimated that they got only one-third of the potential value out of it because they did not apply that information in an optimal way. In other words, if you see customer analytics or any other information system as only a technical discipline, you will realize only a fraction of its potential value—just the tip of the iceberg.

The obvious shortcoming was that the makers of the scorecard had implemented only a technical solution, since they did not consider business processes and the users. The change management element was missing.

We mentioned earlier that there are three types of decision makers. Since the one-third of the one-third rule does not apply to them all, we will go through them one by one.

Strategic decision makers. As mentioned earlier, they basically do two things: They make strategies and follow up on them. When you make strategy, you focus on two things: levering short-term issues and seeking to gain long-term competitive advantages. Research has shown that most organizations do not understand the full potential of information, including customer analytics, during the strategy-making process. One reason

for this could be that most chief information officers do not have an analytical and strategic background.

- **Sales and marketing decision makers.** If the person responsible for making the sales and CRM strategy is not aware of the potential of customer analytics, how can they be expected to opt for it? This is also why we have made this book a menu that shows the relationship between some universal key performance indicators and individual methodologies. At the same time, the analyst has to be able to deliver. That is what we call the recipe, which contains input about what information and knowledge should be delivered before a new business activity is started and how to monitor it.
- **Operation decision makers.** As mentioned, you cannot just make some pop-up window in a call center and expect to realize the full effect of whatever intentions were behind it. If you want the full effect of an information system, you must go through three steps during the implementation phase:
  - 1. Make process maps that clearly define how you wish people to work. For example, when a customer calls in, what do you want staff to say in order to clarify the customer requirements? If you do not already have a clear idea about how to identify what the customer wants, then go out and find some best practices. The use of best practices also means that you already have identified a process improvement at this early step.
  - 2. Design a technical system that supports this best practice. For example, when people call in, a pop-up with relevant customer details is shown, so that the agent does not have to ask the customer about what you as a company already know. If the customer issue is resolved positively, a pop-up informing the call center agent about potential crossselling opportunities could occur. A bonus system rewarding call center agents for their selling efforts (and ability to solve issues) also could be established.
  - 3. Train the call center agents to follow the new procedures that you wish to implement, including the

technical solution and the bonus system. The process and training elements are also known as change management elements; they are ways to lead people into following new ways of working and keeping them doing so after you have left the building.

### WHAT IS AN INFORMATION STRATEGY?

In this section we take a closer look at what an information strategy is in order to make the link between the company strategy and what decision support has to be produced. We also introduce different kinds of information, based on which kind of decision support this information is made to support. Finally, this section also gives insights on why so many customer analytics projects that are driven by the DW fail. Since customer analytics often sources its data from one or more DWs, this section is explicitly from a BI perspective. As you will learn, BI based on DW data is a very complex process, and there are important lessons to be learned.

First of all, we take a closer look at what an information strategy is. In the simplest form, an information strategy can be described as a list of all the knowledge and information that is required in order for a business strategy to be successful, including a plan of how to create this decision support or operational data. Adding a little complexity to this definition, an information strategy consists of three domains that have to be managed and aligned in order to use DW information successfully:

- 1. **Business requirements.** Without clear business requirements on the overall objectives of your company strategy or marketing plan, over time your business activities will end up as a patchwork based on what you used to do with no clear strategic direction. After all, there is no point in making a plan that has no purpose, so the first requirement is clear objectives.
- 2. **Analytical competencies.** Without knowing which analytical competencies are available and needed at certain times, you will end up continuously reusing the same analytical skills you have always used, which is the same as degenerating your

decision support. As they say, if you have a hammer in the hand, everything looks like a nail. Therefore, you need a full analytical tool box and the knowledge of how to use it. This is business critical in the information age where "survival of the smartest" is the winning and constantly changing formula.

3. Data foundation. Customer analytics, like all other types of BI, is based on making the most out of data stored in different data repositories. If for various reasons you cannot get access to data or understand, trust, and manipulate the data you are receiving, your analytical efforts all stop here. In other words, you should work together with the DW team and the technical side of the organization, but in case of conflicts, you have to make it clear to them that the technical side of the organization is there to support the commercial. It can never be the other way around.

If this is all there is to it, then why do 50% to 70% of all customer analytics projects fail or end up being challenged because they do not deliver the expected returns? Why is it that if you start a new customer analytics activity with an average customer analytics team, you should expect to fail? Many reasons for this primarily have to do with the fact that these are cross-functional activities that require top specialist skills from everyone in the process. Therefore, even if only one individual, step, or function in the process fails, the whole process will fail. In my previous book, Business Analytics for Managers (www.basm-support.com), I explained this process in great detail. In this section, I just present the overall model, the information wheel (see Exhibit 1.1).

The information wheel shows that information management starts with a business strategy: Strategy is king. Based on the overall business strategy, each of the functions (human resources, sales, finance, etc.) will make its own functional strategies in alignment with each other to deliver the functional specific objectives (e.g., to reduce employee turnover to 5% per year, increase sales by 20%, or minimize outstanding to 14 days in average). Because this book is about customer analytics, we focus only on the sales and marketing strategies. In general, their objectives can be described as optimizing customer

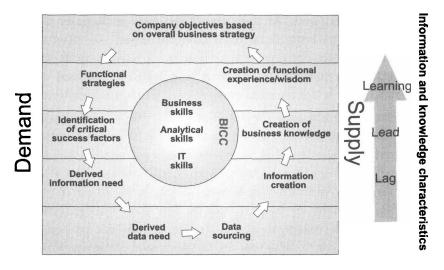


Exhibit 1.1 Information Wheel from an Organizational Perspective

acquisitions processes, cross-selling and up-selling processes, and retention processes. In other words, their aim is to get, to increase, and to keep customers.

Sales and marketing processes are very often referred to as CRM processes because, overall, this is what they are about: managing how we treat our customers. In many organizations, the sales process is separated out into a sales department for various reasons. From a process perspective, however, the sales and the CRM department are closely linked. This is because if the sales department acquires disloyal and low-spending customers, the CRM department will be set up for failure, with its members spending their time trying to cultivate customers with a low preference for the company, brand, service, or product, or low spending.

For both the sales and the CRM strategy or all major activities, strategy creators identify the critical success factors (usually about four to six factors). All of these factors must go correctly in order for the strategy to be successful as a whole. For example, imagine a marketing department strategic objective that states that the customer base should be increased by 5% at the end of the year. The marketing department now has the option of acquiring more customers or