CHAPTER 1

Introduction

Business Analysis with Business Rules

Continuous change is a central fact of life for business these days. The techniques you use for **business analysis** must be based on the assumption that business rules *will* change, often quite rapidly. The best business solution is one that caters to such change, always doing so in the manner friendliest to business people and **business analysts**.

What other issues should techniques for business analysis address in this second decade of the 21st century? In addition to continuous change:
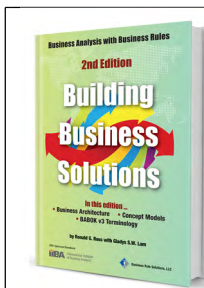
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- Capturing, managing, and retaining business **know-how**.
- Enabling more effective **business governance**.
- Making compliance *(with business rules — what else?!)* more effortless.

None of these challenges is well served by the kinds of information systems we've built in the past. This book provides the basis to engineer a new kind — **business operation systems**.

Let us warn you, this is not a book about fixing software engineering practices. It's about *changing* them fundamentally. We think it's way past time they were. Current practices probably miss as much as 90% of everything important in running the business(!).

What a Business Rule Is

A **business rule** is a criterion used to guide operational business behavior, shape operational business judgments, or make operational business decisions. Business rules are only indirectly about system design or behavior. *Your business would need its business rules even if it had no software*.

Alignment

Everyone asks: *How do you close the gap between the business and IT?* We think that's the wrong question. You want to do that, sure. But the question as posed more or less implies the solution will be organizational, whether by new styles of interaction, better **project** management, restructuring, or other means.

Instead, we think the key to an effective solution is architecture. Use the right architectural approach and the organizational issues will take care of themselves (one way or another). So we ask: *How do you align business operations with business strategy?*

To be frank, most business analysts lack the standing in their organizations to pull off enterprise-level solutions. In any case, experience suggests that taking smaller steps is wise. (We didn't say *small* steps, just *smaller*). So we right-size the question to the more achievable, smaller-scale equivalent: *How do you align business capabilities with strategies for solving business problems?*

You will find success at that level of alignment fruitful (and challenging) enough. Read more about it in the next Chapter.

What a Business Capability Is

A **business capability** is not an application system, database, set of use cases, enterprise architecture, or any other IT artifact. Its design and implementation might depend on some or all of those things, but that's a different matter.

Instead, a business capability is created as a *business* solution addressing an operational *business* problem or opportunity. That solution and the problem or opportunity it addresses have a scope (definite boundaries) that can be identified in terms of what business items make it up. The **business solution** is initially developed and expressed as a **business strategy** (**Policy Charter**).

The **business architecture** you create in business analysis for the business capability is a structural representation of a business solution as it relates to creating business value and achieving business goals. It provides a blueprint enabling business people and business analysts to engage in a business discussion about what needs to be created, managed, operated, changed, and discontinued. Developing a business solution using a business architecture does not necessarily imply software development, but if software development does ensue (and it usually does), the business architecture provides a solid grounding.

The **BABusinessSpeak** definition of *business capability* comes down to this: What the business must know and be able to do to execute business strategy.

You'll notice we keep repeating **business** as a modifier (*business* solution, *business* capability, *business* architecture, *business* strategy, *business* rules, and so on). We do so throughout the book. And we do it in practice too. It's a reminder that our focus is *always* on business things, not system or IT things. When we say *business*, we mean *business*.

Basic Principles for Business Analysis

You can see already we're very careful about how (and when) to ask questions. You'll find that's true throughout the book. You'll see it in developing a strategy for the business solution (**Policy Charter**), **pattern questions** for harvesting business rules from a business architecture, **decision analysis**, and other techniques in **BABusinessSpeak**. *How* you ask questions makes all the difference in the world. *Question the questions!*

> **Basic Principle for Business Analysis:** Always seek to ask the right question in the right way of the right people at the right time.

In creating a business architecture we also take great care never to use *ITspeak* in talking with business people. IT terminology provides

an easy and understandable reason for business people to drop out of business discussions. A business architecture is always about *real-world things*, represented using terms that business people would naturally use.

> **Basic Principle for Business Analysis:** Use no term in talking with business people about the business they wouldn't use naturally.

Avoiding all *ITspeak* is hard. Many familiar terms *assume* development of software systems. Two examples: *use case* and *data model.* Both terms originated from IT and imply a system. In developing business architecture you don't need those terms(!).

Here's a related point. 'Users' exist only if you're thinking about building an IT system. We avoid the term. In the business context, business people are not 'users', they are the central actors in the day-to-day drama of business activity. Anyway, everybody is a 'user' of *some* system these days, so 'user' doesn't much discriminate anything.

> **Basic Principle for Business Analysis:** *Never say 'user'.*

Now we confess that last one is hard. It takes practice. We still slip up once in a while ourselves. Watch closely to see if you catch any misuse in this book.

Change Deployment Hell

A business manager at a very large health care organization recently confided to us that making a change to business rules of even moderate complexity took their organization 400 person-days over a 4-month period. That's staggering. How could it be sustainable? Their organization, like many today, is living in *change deployment hell.*

The manager went on to observe that a subtle stagnation had crept into the staff's very way of thinking about the business. He noted that they often don't even consider business innovations they know from experience to be difficult for the existing systems to handle. He wondered out loud whether they could even think through any real business innovation effectively any more. The bottom line: They needed a new approach, *not* more of the same.

By the way, the people at this organization were hard-working and very engaged in their activities — they did want to deliver good quality. That wasn't the problem. Indeed, we find most people in our field to be very professional and to have the best of motivations.

We can do better than that, smarter than that — we can and we should. Ask yourself this fundamental question: Do you really want to continue embedding the business rules you need to run the business in application programs?!

This book assumes you don't. It explains pragmatic, proven approaches for identifying and externalizing business rules from all other artifacts produced in business or system analysis. In short, we treat business rules as a *first-class citizen*. We think everybody should.

Can you really engineer business rules separately from requirements for application software? *Absolutely.* It's a proven fact.

Business Rules vs. Requirements

Let's be very clear that business rules and requirements are not the same thing. When you set out to create a software system, business rules can *imply* requirements — but that's a different matter.

Here's a major difference: Requirements evolve *before* deployment of a system; business rules continue to evolve *after* deployment of a system. That affects *everything*.

To bring the distinction into perspective, consider *data* for a moment. Would you consider actual business data — not the data definitions but the actual data itself — to be part of requirements? *No!*

The life cycle of data and the life cycle of requirements are simply not the same. The life cycle of requirements, no matter what methodology you use, more or less ends with official software release. For data, in contrast, that's just the *beginning* of life. The data persists. More importantly it changes and grows over time. That's the very essence of doing business. It's so obvious we take it for granted.

Real Life Begins at Deployment

The very same is true for business rules. Official software release is not the end of life, it's a new beginning. They persist. More importantly they change, sometimes rapidly, because a business constantly needs to adjust its business parameters.

> **Basic Principle for Business Analysis:** *Always remember the business rules live on.*

The distinction between the software development life cycle and the life cycle of business rules is sometimes hard for those in IT to grasp. Indeed, if you're looking through the lens of software development methods, you're almost certain to be confused. When you look at business rules from the *business* point of view, however, seeing the distinction is far easier.

Eventually all companies will appreciate the distinction. Then the need for managing rulebooks as a separate resource (just like databases) will be obvious. We call that activity **rulebook management**. Leading companies are already doing it.

Order-of-Magnitude Improvement in Business Agility

Today's information systems aren't agile — even when agile software methods are used to develop them. Companies need **business agility** and in most cases, IT simply isn't delivering it.

We believe you should aim for nothing less than *order-of-magnitude* improvement in business agility. Is that possible? *Absolutely!* Here's a brief case study.

Order-of-Magnitude Improvement: Case Study

A medium-sized financial services company we visited specializes in detection of credit card fraud. Suspicious transactions are kicked out to fraud specialists for manual inspection. These fraud specialists are an expensive and largely non-scalable resource.

Suppose the bad guys pick up and move shop from Idaho to Manhattan. Transactions deemed suspicious only by *zip code* suddenly yield a 10x increase in volume. To keep the volume of kick-outs relatively constant, additional selection criteria (e.g., *location of store, type of store, frequency of use, size of transaction,* etc.) must be introduced.

Before using business rules, the elapsed time to deploy revised selection criteria was 30-60 days. By then *smart* bad guys are already operating somewhere else. Using business rules, the company decreased the elapsed time to 3-6 days. Would you say their business had become more agile? *You bet!* That's an order-of-magnitude improvement.

Summary

Our world is fast-changing, highly-regulated, and knowledge-intensive. Business operations are highly complex and becoming more so by the day. Business analysts didn't invent the complexity — they are simply the ones who must come to grips with it.

Success requires special thinking tools to structure the analysis of business complexity. Business analysts must be able to bring those tools to the table. This book shows you what the tools are and how to apply them with business people.

> **Basic Principle for Business Analysis:** *Be the master of thinking tools to address business complexity.*

Is there any other way? We don't see any. One thing for sure — doing more of the same, just faster, is *not* going to work. Existing IT techniques have simply maxed out. *We need to take it to the next level*.

We concede the problem is big one. It's all around us everywhere we look. It's like what an ant crawling up an elephant's leg can't see. The elephant is just too big. We *don't* concede, however, there's no solution. We've proven there is. But first you must **see the elephant**!
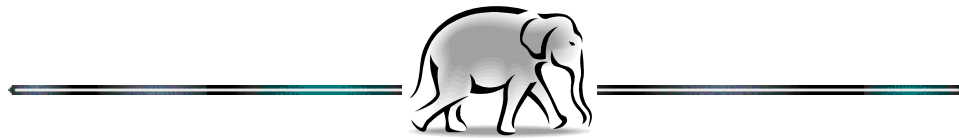
About the Authors ...

Ronald G. Ross is recognized internationally as the 'father of business rules.' He is Co-founder and Principal of Business Rule Solutions, LLC, where he is active in consulting services, publications, the *Proteus®* methodology, and *RuleSpeak®*. Mr. Ross serves as Executive Editor of BRCommunity.com and as Chair of the Business Rules Forum Conference. He is the author of eight professional books, most recently *Business Rule Concepts* (2009). Mr. Ross speaks and gives popular public seminars across the globe. His blog: http://www.ronross.info/blog/

Gladys S.W. Lam is a world-renowned authority on business analysis and applied business rule techniques. She is Co-founder and Principal of Business Rule Solutions, LLC, the most recognized company world-wide for business rule methodology, consulting services, and training. Ms. Lam serves as Publisher of BRCommunity.com and as Executive Director of the Building Business Capabilities Conference. She is a recognized expert on project management and is highly active in consulting, mentoring, and training.

About...

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Business Rule Solutions, LLC (BRS): Formed in 1996, BRS is recognized as the world leader in business rules and decisions and their use in business analysis. Co-Founders Ronald G. Ross and Gladys S.W. Lam are internationally acclaimed as the foremost experts and practitioners of related techniques. BRS emphasizes building business solutions and creating business requirements based on business architecture. Visit **BRSolutions.com**. BRS professional services include:

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