

Business Process Expert Part 2 – How Can the Business Process Expert Solve the Problem?

Summary

This is the second part of a series of articles about business process experts. This article will discuss what can be done to bridge the gap between IT professionals and business professionals. The definitions and elaborations are the consolidated result of multiple articles, books and the discussions in the SAP® Developer Network site and Business Process Expert Community forums.

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Author Bio



Mario Herger started with SAP as a developer in 1998. He worked for three years on the business information warehouse content team. From 2002 to 2004, he was a developer and product manager focused on the SAP xApps family of composite applications and SAP Composite Application Framework (SAPCAF) tool. From 2005 to 2006, he was a development manager for the analytics team in Palo Alto, California. Since October 2006, Herger has been part of the Business Process Expert Community team at SAP.

In addition, he operates the world's largest folk-dance Web site (www.dancilla.com) and a couple of other cultural Web sites that are based on a framework built by himself. He also is the author of books about SAP Composite Application Framework and the SAP NetWeaver Visual Composer tool.

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Introduction

The gaps between IT and business professionals are not easily bridged. As the first article of this series has shown, there are differences in language, work styles, and attitudes that lead to clichés and stereotyping. Although it definitely helps both parties to reach out to each other by understanding and accepting the differences and peculiarities of each group and role, effective communication and problem solving might still be difficult to achieve. The role of a mediator, translator, or marriage counselor (as mentioned by Denis Browne in *SAP Emerging Solution*) is needed. That is what SAP calls a business process expert.

While the former two roles have clearly specified profiles and job descriptions, the latter one seems rather blurry, fuzzy, and undefined. This article aims to define the business process expert and the types, the skills needed, and the career path to it.

Definition

Business process experts are internal and external individuals, or groups of people, in an organization who bridge the gap between information technology and business professionals. Business process experts on the one hand are tech savvy and have sufficient knowledge on implications of the business process requirements based on factors like performance, data volume, network traffic, existing landscape, and the criteria for selecting adequate technologies including user interface, programming language, application platform, and security.

On the other hand, business process experts understand the business process, the organization's strategy, and legacy; drive innovation within the organization; and use best practices that go beyond the scope of single departments and the organization. In addition, business process experts are aware of the history, politics, and corporate culture of the organization. For this, business process experts need soft and hard skills, must be fluent in both technology terminology and business terminology, and have a deep knowledge in modeling. This way, business process experts are able to map business scenarios to information technologies, realize these scenarios, nurture innovative topics, and think strategically.

Multiple other names are currently used for business process experts, most of them addressing a subset of the community's tasks and skills. Other common names are business analyst, business consultant, functional consultant, technical consultant, or go-between [2].

The definition of business process experts needs to be discussed in detail. The following chapters will dive into each of the requirements.

Skill Set

The basic task of business process experts is to understand both business process requirements and technologies sufficiently enough to map, model, and implement business processes within a reasonable budget, time frame, quality, usability, performance, and functionality. At the same time, these experts need to consider the existing, and if possible the upcoming, technologies, system landscapes, and strategies, while keeping these applications viable for a foreseeable future. To achieve this, business process experts need internal and/or external experience, good communication skills, and modeling knowledge.

Experience

Many IT professionals start their career coming right out of college or university. As junior developers or junior consultants, they can gather experience and deepen the understanding of how technology is used in diverse organizations. The same applies for business professionals. Straight after their bachelor degree or MBA degree, they start in the business departments and use their knowledge to gain practical experience.

In contrast, business process experts typically start either as IT or business professionals and slowly grow into the role of a Business Process Expert Community member by participating in multiple projects involving members from the business and IT sides. The following skills are fundamental for members to get things done and to gain the respect and trust of the parties involved.

Communication Skills

Business process experts have to be able to translate information into the terminology that each group is familiar with, without compromising the facts for decision making and implementation. Business process experts need the ability of a diplomat to move on the slippery floor of communication and politics.

The skills needed include fluency in technological and business terminology and the ability to reduce complex facts to simple, yet accurate definitions by use of appropriate translations, metaphors, and comparisons.

At the same time, business process experts must not have the attitude of being smarter than the other parties. Though business process experts are experienced and have extensive knowledge of both sides, they must not forget that the experts for the business processes are the business professionals and the experts for IT are the technology professionals.

Internal and External Experience

Internal business process experts are often very familiar with the internal structures, the history, the evolution, the business and the long-term strategy. They know who needs to get involved and from what side they need to get support.

But, they might be blinded by routine, and due to internal politics, might not get support from the necessary people.

External business process experts bring outside industry experience, but not necessarily from the same industry. They also can bring in a fresh view, where they are allowed and expected to mention the obvious.

But, it is said that they have a lack of empathy or long-term interest for the organization that hired them on a project basis.

Modeling Knowledge

Certain basic principals and theoretical concepts need to be mastered and understood by IT and business professionals. For IT professionals, these fundamentals include object-oriented programming, entity-relationship diagrams, markup languages, and network protocols. For business professionals, elementary knowledge include market mechanisms such as demand and offer, inventory management principles, such as FIFO and LIFO, or key performance indicator models. All those concepts and principals are independent of actual business processes, industries, or software.

The same is true for business process experts. Not only do business process experts need to have an idea of some of these aforementioned concepts, but they also need to know modeling. Now, what is modeling exactly?

Modeling is the art of describing objects, rules and roles and relating them to processes with a descriptive language from a particular viewpoint.

Example: When inventory for a material falls below a certain level, the inventory manager is alerted by the system to restock, but not more than a certain quantity. “Material” is the business object, the “inventory manager” and the “system” are the business role, and “below a certain level and not more than a certain quantity” are business rules. All of them are tied together in a business process. The machine alerts the inventory manager based on the rule that there must always be a certain quantity of this specific material in stock and sets the status for sufficient inventory to red. The inventory manager then either does or does not make an order.

Note: When I say “art,” I mean art. As the writing of code for a developer is a creative process and influencing customers in buying a product requires highly creative techniques for a sales person, the same is true for modeling.

When talking about modeling, multiple elements have to be considered in the modeling process. These are:

- Business objects
- Business roles
- Business rules
- Business processes
- Enterprise data
- Standards and methodologies
- Metadata

Let's define these elements from a business perspective.

Business Objects

Business objects are the basic building blocks, and they describe entities as persistency. An entity can be a customer, a product, a status, or a telephone number. To describe an entity, a modeling language needs to be able to describe name, description, attributes as well as relationships with the attributes, information about time-dependencies and text-dependencies, and hierarchies. Those entities are normally long lived and need to be persisted.

Depending on the industry, business area, or requirement for your business process, the same business object can look different. The entity “material” might serve as good example. While for a retailer, the name of it might be “article” and expiration date and nutrition facts are important, the very same object might be called “product” for an oil company and needs attributes like sulfur content and BTU.

Business process experts need to understand the requirement of the industry in which they are working, to model business objects generically or to the right granularity.

Business Role

A business role can be a person or a machine. One person can be a member of multiple business roles (for example, sales manager and employee), and multiple persons can be members of the same business role.

The business role is the one person that launches a process, makes decisions on which of the available paths in the process to take, and finishes the process.

Business Process

A business process describes relationships and interactions between multiple business objects and business roles constrained and directed through business rules. The relationships can be static or flexible, as can be the interactions.

A business process normally is long running (for hours, days, weeks, or months), is in a persisted state, and is most of the time inactive and waits [5].

Business Rules

The business rules group, a non-commercial peer group of IT professionals, defines business rules as follows [6]:

- A business rule is a statement that defines or constrains some aspect of the business. It is intended to assert business structure or to control or influence the behavior of the business [..].
- From the information system [..] perspective, it pertains to the facts that are recorded as data and constraints on changes to the values of those facts. That is, the concern is what data may, or may not, be recorded in the information system.

Enterprise Data

Enterprise data is the information on which that your organization generates and operates from a business perspective. The main categorization of enterprise data is in transactional, master data, and unstructured data. Master data itself, like material or customer, needs to be available in many systems of the system landscape. For this, a central master data repository is important.

Standards and Methodologies

From a more technical side, modeling is based on standards and methodologies. Multiple standards partly based on or extensions of each other are competing. To name just a few, there are:

- Business Process Execution Language (BPEL),
- Business Process Modeling Notation (BPMN)
- Workflow XML (WfXML)
- Workflow Reference Model (WfMC)
- Web Services Choreography Interface (WSCI)

Metadata

Business objects, business roles, business processes, and business rules are described by metadata. Their definition through metadata — while adhering to standards — makes them independent from the underlying platform.

Tool Knowledge

A member is not just “another guy” writing requirement documents and praying that IT folks will deliver something that comes as close as possible to what was specified; a member’s role is much more involved in actually building the business processes. Contrary to the situation in the past, more and more model-driven tools — that go beyond the classical diagram-drawing type of tool, but actually generate persistency, code, and user interfaces out of such a diagram are hitting the market.

Some of these tools are, for example, SAP® Composite Application Framework tool, the SAP NetWeaver® Visual Composer tool, the ARIS for SAP NetWeaver joint application, the SAP NetWeaver Business Intelligence component, the SAP Business Explorer tool, SAP NetWeaver Exchange Infrastructure component, SAP NetWeaver Master Data Management component, SAP® Guided Procedures, and many non-SAP tools.

What is required of the community to really have impact is to describe the level of granularity or modularity of models in a model with such a tool, scaling from high level to deep detail, displaying the model, and implementing it within the same tool environment. I will elaborate on that more in the next article of this series.

Other Tasks

Here are some other tasks that might be expected from business process experts and have been mentioned in the forums for Business Process Expert Community:

- Create guidelines and introduce methodology for creating business processes within the organization.
- Be the devil’s advocate and question the status quo.
- Do not compromise user experience, ease of use, compatibility with other systems and processes, or the familiarity of the technology professionals.
- Understand organizations’ strategy, cascade it into key performance indicators for strategic objective owners, re-engineer business scenarios, and define and redefine processes.

Member Types

When organizations look for developers, they specify what type of skills this person should have. This might be a certified Java or advanced business application programming (ABAP) developer, a database administrator, a data warehouse specialist, or a network specialist. The same is true for business professionals. You look for a key account manager or a senior vice president for marketing, for example.

There is also not only one single type of member, but multiple types. A member might be leaning more towards the technology side with specific knowledge in tools, such as modelers or architects; or more from the business side, such as a business analyst. Their focus may even be more on reporting by implementing complex scorecards; or they may specialize in certain industry processes; or they may serve as a devil's advocate, questioning the status quo, and falling into the category of zero-gravity thinkers [7]. Business process experts will have to have a combination of skills and experiences from each area:

- Industry
- Technology
- Tool
- Modeling methodology

Whatever type of member, that person should be more or less hands-on to define, model, streamline, analyze and pro-actively improve business processes. In the next set of articles, I will try to better describe member types.

Parting Thoughts

Similar concepts of go-betweens are pursued in innovative organizations, where you include people from different areas (such as technology and business experts) and add a zero-gravity thinker [7] (or a person who can make associations and lift from the floor without worrying at this point about feasibility) to evaluate and work on new ideas and innovations. Make that talent a part of business process experts to evaluate and work on new processes.

A member can only have as much impact as the support received from the organization with which that person works. Do you have support from the following stakeholders:

- Board
- Process owners
- Technology owners

Besides, ask yourself whether the projects are broken down into manageable sizes and whether there are key performance indicators to measure success. This sounds trivial. But as with most things in life, it is the under estimated things that are the “flapping wings of butterflies in England, which create a hurricane in China” or can kill your project.

Next Articles

The next set of articles will talk more about the tools and skills that business process experts need to learn and what is crucial for them in today's business environment.

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