

RG Perspective

# Infusing Business Analysis into the Product Lifecycle

The Key to More Effective Insurance Product  
Development



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Common wisdom holds that a company that's six months late with a new product stands to lose a third of its market share.

*"We spend months carefully analyzing the market and designing our new products. But often, when we make the decision to go ahead, we run into a wall – IT tells us that our existing systems can't be changed to accommodate what we need or Claims tells us that they can't have product manuals ready in time for launch."*

... Marketing Director in a mid-size insurance company

To ensure an insurance organization's growth and profitability, the ability to bring new products to market quickly and accurately must become a key core competency. In fact, it is the lifeblood of any insurance company, and the single most important facet in a vibrant process of continuous product renewal, strategic growth, and robust profitability. This means creating a product development cycle whose delivery capabilities are measured in months, not years. But for many this goal seems like a pipe dream; instead they continually deal with the costs of rework and lost opportunity.

## 1. The Cause

While there may be multiple causes for delay, some of the most significant include:

- **Lack of communication and common vision.** The development and rollout of a product impacts virtually every area of an organization – from home office to distributors. Constraints imposed by external stakeholders, such as licensing requirements or state regulations, and the need to conduct actuarial analysis complicate the product development process even further. The multiple stakeholders need to communicate effectively to build a common vision, but

time constraints and the tendency for each constituency to view the problem from only their point of view, make this task a significant challenge. It's a classic case of the elephant and the blind men.

- **The inability to predict the impact of the product across the organization.** To be successful and timely, your product development process should work to avoid the unexpected. It must account early on for changes that will need to be made to operational processes such as new business and claims, and it must also have a good estimate of the enhancements that will need to be made to supporting systems. The basic question: are those changes big or small? Will any new roles need to be created to carry out changed processes? Will current systems be adequate? Or will you need to make significant enhancements or even develop something new?
- **The inability to leverage knowledge assets.** Most organizations do not comprehensively capture knowledge related to processes, systems, roles, and products from current product development efforts in a manner that can be leveraged on future new product development projects. This results in less effective management of cost, schedule, and quality risks.

## The Solution

We believe the solution is to infuse Business Analysis competency into the product development team on a full-time basis – a Business Analyst can help bring order into the sometimes chaotic product development process and can serve as the glue that binds the team throughout the entire lifecycle from product formulation to launch.

## 2. Why is Business Analysis Key?

Business Analysis, and the role of a Business Analyst, can mean different things at different organizations. For some, a Business Analyst is focused specifically on a particular system and its requirements – a very IT-oriented role. For others, a Business Analyst means someone with particular business subject matter expertise, for example, an individual who knows all about claims processing.

For us, a Business Analyst combines many skills – spanning business-level knowledge to writing detailed system requirements – into a unique capability to capture and to communicate knowledge. Business Analysts are skilled at:

- Eliciting information from all organization levels and all stakeholders
- Facilitating information-gathering meetings across organizational groups and serving as the 'glue' among those groups
- Facilitating the communication among stakeholders to build consensus and to define the solution feasibility and scope
- Documenting, organizing and presenting multiple perspectives of complex information to enable better, more timely, decisions
- Analyzing and reconciling requirements – for process changes as well as for system changes
- Making information available and easily understood
- Tracking changes and ensuring consistency
- Creating a knowledge repository of assets, enabling re-use for updates and for subsequent projects

In recent years, the role of Business Analyst has been emerging as a uniquely-skilled individual, capable of playing many important roles. But how does this play in the product development process? This process typically consists of five major stages as shown in the figure below.

Business Analysts understand development lifecycles and follow a disciplined lifecycle approach themselves. And Business Analysts are perfectly positioned to communicate with all the stakeholders in order to build a common vision for the new product and to develop re-usable and extensible business architecture assets to support current and future product development projects. Business Analysts are increasingly recognized as providing unique value to an organization. As testament to this fact, the International Institute of Business Analysis® (IIBA), an organization founded in 2003, has developed a Business Analysis Body of Knowledge (known as the BABOK®), which is continually expanding and being improved. BAs can become certified through this organization as well.<sup>1</sup> The IIBA definition for a Business Analyst is one that we completely support, though we would add the word "products" to the end of the sentence.

*"A business analyst works as a liaison among stakeholders in order to elicit, analyze, communicate, and validate requirements for changes to business processes, policies, and information systems."*

### Finding Opportunities for Improvement

In our work with improving the product development process, here are a few of the specific challenges we've found:

- The Product Specification document is not always clear.

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<sup>1</sup> See [www.theiiba.org](http://www.theiiba.org)

- Priorities are unclear; this becomes especially problematic if the field and the home office have conflicting priorities.
- Input from the field is often anecdotal.
- Operational process managers (for example, Claims Processing or the Call Center) are often caught unaware of the changes they need to put in place to support the product.
- IT realizes too late that system changes will be major. To invest time and effort in product analysis and development, only to be stymied by systems that won't support the need, is frustrating, to say the least.

All can be grouped into a series of risks and then traced back to the root causes we identified at the beginning of this article. We believe that using a Business Analyst professional armed with best practice techniques can serve to mitigate these risks.

### **3. One Company's Story**

An insurance company with expertise in individual products sold through employers, decided to investigate offering a new line of products in the group arena. They felt they had a good understanding of their market and solid expectations that their existing employer groups would be good candidates for the new products. They ran a number of focus groups to evaluate the appeal of the new product. Their next step was to formulate the product structure and rules, and then to develop a strategy for it. They had found in the past, however, that their ability to predict the magnitude of changes required to support the product – both in systems and business processes – was often far off the mark, which resulted in being late to market.

#### **Product Formulation Phase**

The team worked on two streams in parallel during the product formulation phase.

##### **One: Building Product Understanding**

Every product has certain characteristics that must be understood. In the past the company had outlined the product rules and riders and benefits in spreadsheets or paper files. Once implemented the information was often buried in lines of code across multiple systems.

This time they decided to take a more systematic approach with a view to building a consolidated knowledge repository of product information that would grow over time. They determined that they needed to know:

- The product's components. In most cases, a product is built from a set of components that can also be used by other products. So the product under study might be made up of other products or of riders. In turn, the new product might one day become a component of a larger product.
- The product's rules. There are typically many rules for a product and it can be useful to put them into compartments, such as underwriting rules or eligibility rules or state exception rules. Because of the component structure, rules can apply at the lower level or at the top level and it is important to ensure that the rules are internally consistent.
- The product's roles. In other words, who can participate in the product – Owners? Insured? Payees?
- The product's events. What happens that might affect the product? Do you need to be able to cancel the plan? Do you need to be able to add a new employer group? Identifying the events that will touch the

product can help you focus on what business processes might need to change as well as on what systems should be examined to ensure that they will support the required processing.

The figure on the next page illustrates relatively simple product model architecture for Personal Auto with components, sub-components and rules. Behind the symbols on the diagram, the Business Analyst captured complete documentation of all important product information – eligibility, underwriting rules, forms management, pricing, etc. Together, these were stored in a repository that would become the single source of truth of product data for different functions across the organization – from marketing to claims to IT development. The diagram made it easier for the product manager and other stakeholders to assess the product's structure and ensure it contained what was required.

## Two: Building Process Understanding

Hand-in-hand with building product understanding, the team realized that they needed to understand what processes came into play during the life cycle of a product. So they built a high-level map that showed all the groups involved and what they did. The following groups were identified:

- Product Development – assess market requirements and formulate the product
- Marketing – create collateral and implement a marketing strategy
- Product Services and Sales Support – support the agents and brokers
- Sales – identify prospects and sell product
- New Business Administration – process applications
- Underwriting – underwrite applications

- Reinsurance – set reinsurance limits and pay premiums
- Call Center – provide support to the policy holder (for example, change the address on the policy)
- Claims – process claims
- Financial – handle reserves; handle billing; handle compensation
- At the bottom of the diagram, they showed the systems that were involved. That way, they knew immediately what systems would be impacted should a process need to change. As one product manager put it:

*"Particularly in the case of products that represent new lines of business, but equally useful for traditional products, how well current workflows meet the requirements of a new business or product are key to the successful introduction and support of those products."*

What were the benefits of using these product architecture modeling and process analysis techniques over how the company had previously attacked product development?

- (1) Thinking about the product in a systematic way – its rules, its events, its roles, its calculations – made the process more focused. The team used a Business Analysis facilitator both to elicit the required information and then to document it. The facilitator was also responsible for building the diagram representing the product architecture. Everyone agreed that having the diagram made the product's construction visible and, therefore, easier to discuss and change. It also provided a means for communication and collaboration among the team members.

- (2) The product – its architecture and the rules it would use – was documented in a repository. If additional riders, benefits or components needed to be added in the future, there would now be a single source for that information.
- (3) Focusing on the product life cycle and building the life cycle map clearly showed what business processes would need to be examined and what supporting systems might need to be enhanced. This set the stage for the implementation phase of the project.
- (4) Performing business process analysis on all the operational processes built a base of process flow maps. These could be saved in a repository and, for any new product development effort, could be analyzed to identify areas of change.

### **Completion of the Product Formulation Phase**

The decision of whether to go ahead with a new product was made by a strategic-level group. Many considerations of course come into play to make such a decision – commission structures, financial risk, and so on. But, in addition, this time the team could answer questions such as:

- What kind of an impact will this product make on our current business processes?
- Will we need to hire internal staff with different skills to support it?
- Can we use the same agents as we currently have?
- What changes will need to be made to our systems?
- How much time and money will these changes cost us?

Having this information available and trusting the information's accuracy meant that a better decision could be made. This was the most important benefit of the new process.

### **Product Implementation Phase**

Once the decision is made to go forward with the new product, the next phase involves actually developing the product and implementing the support it needs – enhancing systems, creating marketing materials, hiring agents, changing the process, and so forth.

The work that had been done during product formulation positioned the company in the following ways:

- The People-Process-Technology maps could be re-drawn to show exactly where changes would affect the process and, by extension, whether new or different roles would be required to support the process. For example, up to this point, all insurance applications had been submitted directly from an Agent to the New Business Administration area in the company. However, with the new product, there would be a need to establish a "Case Level Team" that would be responsible within the company for handling any issues with the group.
- The product architecture models contained all the rules that would need to be implemented in the supporting systems. This meant that much of the work of specifying what would need to be developed in the supporting systems could be re-used.
- The business requirements and system enhancements that were identified provided the foundation for detailed requirements for technology initiatives.

These more detailed requirements consisted of:

- System use cases and use case flows
- User interfaces
  - Data requirements
  - System interfaces
  - Business rules

With detailed requirements in hand, system enhancements and the acquisition of new software to support the product needs could begin. Once the systems were developed, marketing materials were in place, new hires had been made and the processes redesigned, the product could be rolled out.

Importantly, the Business Analyst was still an integral team member and could carry the knowledge gained during product formulation forward to the implementation phase. Team members who joined at this point in the project used the Business Analyst as a trusted information source. The Business Analyst served not only to develop detailed requirements, but also to be the go-to individual when the design and build teams had questions or needed more information.

### **Launch Phase**

All the work that had come before could be re-used now. For example, the to-be People-Process-Technology maps provided the basis for training materials and for online “coaches” that would help guide staff in the new processes. And the product models, including all the rules, roles, calculations, and components, were used to generate the skeleton for product manuals. This made the completion of these manuals much quicker and more accurate.

As before, the Business Analyst played a key role during this phase by providing input on business

processes, on the product specifications and on the intended use of supporting technology.

### **The Results**

Perhaps the most important result of the enhancements to the product development process was the company’s ability to make a better go/no-go decision on whether to bring the product to market. In addition to the market research they had always done, they now had information on the kinds of changes they would need to make to support the product and could factor those costs into their decision.

Equally important, the requirements generated for the future state formed the basis of the product specifications that became the delivery vehicle for IT’s product and systems specifications. Here the company saw how the requirements could serve multiple purposes and compress product introduction timeframes.

But another benefit – perhaps not quite so easy to quantify, but just as recognizable – was the fact that the assets from the project now existed in a repository. The requirements, workflows and overall process models were documented in an on-going living data and requirements repository, available for use for the next product development effort. In a way, these requirements became the reusable code of the business and product development process and, as such, the product architecture models, the process models and the requirements were tangible company assets, ready to jump-start future process improvement undertakings. Such models laid the foundation for a library and formed a solid basis for product development optimization through a solid understanding of requirements and business process models.

All agreed that without the full-time commitment of a strong, professional Business Analyst, none of

these benefits would have been realized. It was the Business Analyst who, through elicitation, facilitation, documentation and communication skills, was able to bring all the stakeholders together to build a common vision for the product and to move forward with confidence that needed changes to processes, systems and roles were well-understood.