# University Process Innovation Framework for Process Analysis

University Process Innovation Updated September 2016



# **Executive Summary**

Processes are the means by which work gets done and how value is delivered. They are the fundamental entities that drive progress and are critical to the success of an organization. However, often times, these processes are not formally defined, documented, or built in a systematic manner. Instead, people work collaboratively to achieve goals and objectives. In doing so, over time, individuals implicitly define their own processes which is not ideal in meeting organizational objectives. These practices—along with policies, procedures, and regulations— contribute to informally establishing the organization's processes.

Business processes must be understood and properly managed in order to be effectively executed. In other words, business process analysis and improvement are key components to an efficient and proactive organization. In order to establish an alignment, existing processes must be documented from an end-to-end perspective. Similarly, when change is needed, a strategic approach must be taken to facilitate favorable outcomes. A process analysis should act as a predecessor to any kind of change (technical or organizational) to ensure a holistic understanding of the impact that change will have on related processes, systems, people, and products.

## The Need for Process Analysis

Organizations are often asked—and expected—to move fast; changes takes place and the workforce adapts. However, documenting these changes can be cumbersome, inconvenient and tedious, and the documentation itself can be ambiguous, ill-defined, incomplete, or non-existent. A lack of complete documentation and an unclear understanding of one's processes can lead to ongoing challenges. It is common that organizations face trouble when existing processes, that have performed well in the past, no longer function effectively in their new environment. In fact, old practices may hamper organizational effectiveness or even threaten survival.

Cross-functional processes, which involve people and technology from multiple organizations, add an additional level of complication. The knowledge of these cross-functional processes are spread throughout disparate business owners, and it becomes difficult to learn about these processes and have a clear perspective and when there is not a single person, or place, one can turn to. Yet, when it comes to organizational success, cross-functional processes are often the most critical.

The success factors of an organization are: a clear understanding, successful execution, and the management of its key business processes. Thus, process analysis is needed to provide an easily understood, strategic view of all business processes.

# **Process Analysis Approach**

There are five phases in a typical process analysis, but additional phases may be needed for specific efforts. The approach described here allows us to define, understand, analyze, and

document existing processes before any future recommendations are made. This, in turn, creates the "as-is" and idealized "to-be" states for the given process.

## Phase 1: Process Scope & Definition

The process scope and definition phase frames, and bounds, the process of interest into a clearly, defined space. When many high level processes exist, a Process Landscape can be used to show the highest-level processes and their inter-relationships. The processes identified as part of a landscape will have many sub-processes, but these do not need to be identified during this phase of the project. It can be expected that these are high-level items, representing major functions, within an enterprise. When creating a landscape, highlight the process where your focus will be (as shown in the example below).

Example of a Process Landscape:



During the scoping phase, it is crucial to frame the process by defining the parameters that will be assessed. This is extremely important because, typically, an end-to-end process is more complex than originally thought. The triggering event(s) that start the process can be identified as the first boundary, and the outcomes of the process will help to set the other boundary. The actions that take place to get from the trigger to the outcome will frame your area of focus, otherwise known as your "project scope." Identifying scenarios that can potentially fall within that frame, as well as some outliers, will help you define your scope.

In addition to getting an agreement on the process beginning and end points, you will also be required to define the goals of the process and understand the reason the process assessment has been requested or suggested. These goals should be clear and objectively defined. At this point, the project sponsor should also articulate success measures for the process analysis. You will also need to identify stakeholders that can provide input into the process; this can be done through interviews. These people, or organizations, will act as the starting point for the next phase of your project.

A quick way to summarize the Process Scope and Definition Phase is to create a Process Summary. It will illustrate the overall "what" and "how" of a process within the agreed upon parameters in a high-level chart. In some cases, you may start adding the actors into the process, which are the identified stakeholders. But since it is still early in the stage, you may only be able to add a few. The primary components of a process summary are:

- 1. Triggers and process results
- 2. Major activities or sub-processes
- 3. Process objectives for primary stakeholder or customer
- 4. Actors, or stakeholders, of the process

Example of a generic Process Summary:







Phase 2: Discover

The second phase involves gathering data to discover and identify the individual processes that take place across the organization; this provides detailed information that drives identification of, and means to enable, improvement opportunities. Data is gathered through: direct research, peer assessment, and interviews with everyone who is part of the process—the actors. Identification of all the actors will be an ongoing effort throughout this phase.

During this process, additional stakeholders, systems, data points, policies, and regulations are often uncovered then later, documented and reviewed as the processes are further decomposed and refined. Different process scenarios may also be found and each discovery may lead to a discrete business case. These business cases should be documented, especially when they show significant process variations.

As the process steps are identified, process themes and pain points will start to emerge and point to potential areas for improvement. When the processes and people are discovered, you can also add the "who"—the actors—into the process. In this phase, you may experience intense data discovery that will allow you to document the process details, the tools used, and primary data points.

This additional data can be depicted in an Augmented Process Summary (see example below), which includes everything from the Process Summary with the addition of all the actors across the top, a bulleted list of the important details of each of the process steps below the summary, and the key tools and data elements that were identified. If distinct business cases were identified, it may be necessary to create the Augmented Process Summary for each case.

Example of an Augmented Process Summary:



## Phase 3: Model and Assess

Once the process has been defined, the data from the discovery will be used to build an assessment of the overall process. The Assessment Summary provides an executive-level overview of the process. It also identifies key challengers and enablers that may offer improvements to the process, and it is used as the basis for the "to-be" process and recommendations.

The key areas of analysis are grouped into six business process enablers. These provide a framework for exploration of improvement opportunities.

- Workflow Design: How work gets done in terms of the flow of activities.
- Information Systems/IT: Including automation of data transfer, recording of data, and system usability.
- Motivation & Measurement: Existence and operationalization of performance standards and how those standards impact incentives for actors in the process.
- Human Resources & Organization: How groups are organized and existence (or lack of) key skills.
- Policies & Rules: Existence of formal polices, in addition to: assumed, interpreted, and/or anecdotal polices.

• Facilities & Physical Environment: How employees and facilities are distributed geographically, workplace layout.



#### Example of Assessment Summary

Along with the assessment summary, detailed workflow models and other artifacts are **also** developed to show the actors and activities, **which** compromise the end-to-end process. **T**raditionally, this is done by developing a swimlane diagram to identify the flow of work throughout the process—outlining a set of actions from start to finish. The purpose of the swimlane is to: identify the role of every person (or system); find out where the handoffs are happening; and pinpoint dependencies in order to create a timeline. An initial swimlane diagram is kept at a high-level and focuses on the 'who' and 'when,' not the 'what,' allowing the entire process to be documented without getting bogged down in detail. It is guided by three simple questions (in this order):

- 1. Who gets the work next?
- 2. How does it get there?
- 3. Who really gets the work next?

After the initial swimlane is completed, details can be added to show what is actually being achieved at each step and to highlight how the work is done. The recommended approach is to start simple and understand the entire scope of the process before adding detail.

The visualization of the swimlane diagram highlights problem areas and recommendations for the "to-be" process will naturally emerge. Validation of current findings with various stakeholders takes place as part of the modeling process and recommendations may also be discussed at that point.



Example of a partial swimlane diagram:

## Phase 4: Validate

During the modeling and assessing phase, more questions were most likely uncovered and some details may need further clarification. If time permits, this phase of the project may involve a few follow-up meetings or emails, a check in with the sponsor, and a workshop to validate all of your findings.

A facilitated workshop with some or all participants is a very effective to validate findings and begin to formulate recommendations, but it is also a way to begin to educate a large number of stakeholders about the end-to-end process. This approach is also useful in developing consensus and buy-in from the stakeholders. It creates a sense of ownership for the process work that has been done and encourages the stakeholders to give input to help shape the recommendations. Often, the workshop is one of the most valuable parts of the project if it is well planned and facilitated.

The "to-be" process design develops through synthesizing the existing "as-is' process swimlane; this is done with the identified problem areas and enablers. From there, specific improvements in

the workflow are identified and appropriate enablers are selected to develop improvements in cost, time, and/or quality. These changes should support the specific goals and objectives identified in the initial scoping of the process.

## Phase 5: Close Out

Based on the work done, specific and actionable recommendations are offered in a briefing to the project sponsor and key stakeholders. These recommendations can range from tactical to strategic in their scope and could include efficiency-focused improvements as well as innovative changes to business models. The recommendations do not go into the specifics of how exactly the changes should be implemented (e.g. how to reorganize the group or specific IT products), but we can facilitate such conversations when requested.

# **Benefits**

Every process analysis effort will bring different benefits to the parties involved, and it will foster a strategic direction for process change. When doing process work, it is important to identify success measures early on. Additionally, as the recommendations are implemented, it is also beneficial to track the benefits of the project against those measures. In addition to measured improvements, business process analysis will typically yield the following benefits:

- Explicit linkage of the organization's strategies (which are typically implicit and intangible) to explicit and well-defined business processes that can be measured and better managed
- Putting business owners in charge of their processes, which are defined and documented
- A basis for training and knowledge transfer
- Modeling of cross-functional processes involving various organizations
- An optimized and streamlined business processes, which improves the overall mission of an organization.

# Conclusion

Often, it is difficult to carve out the time and resources to take a step back and examine business processes in a holistic way. Without a specific framework, most efforts end up being unfocused with too small of a context and deliver questionable results. It may seem like a tedious or daunting task to document and identify issues, inconsistencies or opportunities for improvement, but the investment is well worth it. The best way to ensure that you are making the right process modifications before implementing the change is to understand the process from beginning to end.

Studies have shown that even if organizations do not act on all recommendations, business process analysis will still help organizations understand their processes and provide a common process repository for future collaboration and training.



University Procss Innovation, University of Maryland