



Fact-based Process Improvement

Methodology Whitepaper

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1 Executive Summary

This document outlines the “Fact-based Process Improvement” methodology of Operational Improvement in organizations. This methodology is based on the research undertaken by the students of the University of Cambridge, and has been proven in consulting engagements with organizations of a variety of sizes and industries. Its main goal is to outline improvement of process efficiency through reduced lead-time, efforts and related costs. The methodology does not require IT expertise or business analysis skills and its implementation can be implemented by companies of any size.

2 Concept

2.1 Problems Targeted

The “Fact-based Process Improvement” methodology focuses on the recurring [mostly] human-driven processes in organizations, such as financial, administrative, HR-related and service fulfillment processes. It addresses the following problems, all related to process efficiency:

- Unclear Status & Progress

In order to determine the process status and progress one needs to communicate a number of people and search through emails and documents. Every external request, be it from another department or from a client, such requests take time or resources.

- Poor In-process Communication

Communications are handled in multiple disparate tools, such as emails, spreadsheets and paperwork. Such communication means are not easily traceable and introduce delays when a process is passed from hands to hands.

- Lack of information on efficiency

Lack of information on processes, its bottlenecks and necessary statistics prevents managers from making competent improvement decisions. Even if process maps exist, the actual execution statistics that can help switching from “guestimate” mode to fact-based decision making.

- Extra time and effort spent

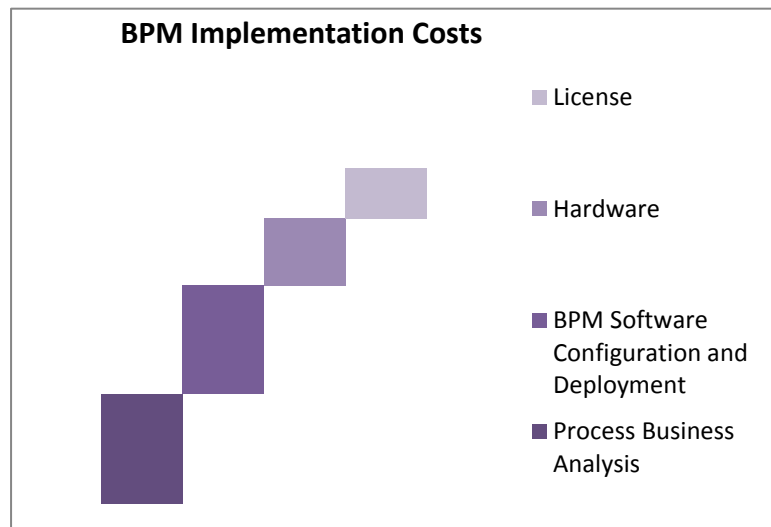
Inefficient process causes extra time and unneeded effort that frustrate the team and introduce delays. Such key efficiency problems as waiting, lack of communication and unclear visibility for managers are key points of improvement.

2.2 Why Traditional BPM Methodology Delivers Poor Results

The current BPM Methodology has been there for over two decades. Although it delivers solid results if delivered correctly, it has a few major drawbacks.

To start off, its top goal of automation is often accentuated. The BPM IT system is seen as a remedy and automation is the essence of this medicine. Hence, the discovery and definition of a business process are started immediately and often have one central target – implement a BPM IT system. This leads to skipping the necessary change management phase, and cementing the as-is definition of the process without the required changes in the BPM system design.

Secondly, this methodology is very costly. It often requires business analysts to discover and define the process, resulting in detailed flow charts and process definition documents. It is followed by the implementation of IT stack, which have its own license, implementation and ownership costs. The cost of such project easily exceeds \$100,000 in total costs, which is prohibitively expensive for a majority of small and medium-sized businesses. Only the top few percentile of larger businesses can afford such implementations.



2.3 Introducing Fact-based Process Improvement Methodology

The “Fact-based Process Improvement” methodology offers a new, significantly less expensive path for companies to improve their operations. It focuses on human-driven processes, such as Financial, HR, Legal, High-value manufacturing and other recurring processes. It has proven its efficiency by the authors of the concept who have gone through a number of consulting engagements helping companies of a variety of sizes and industries significantly reduce their operation costs.

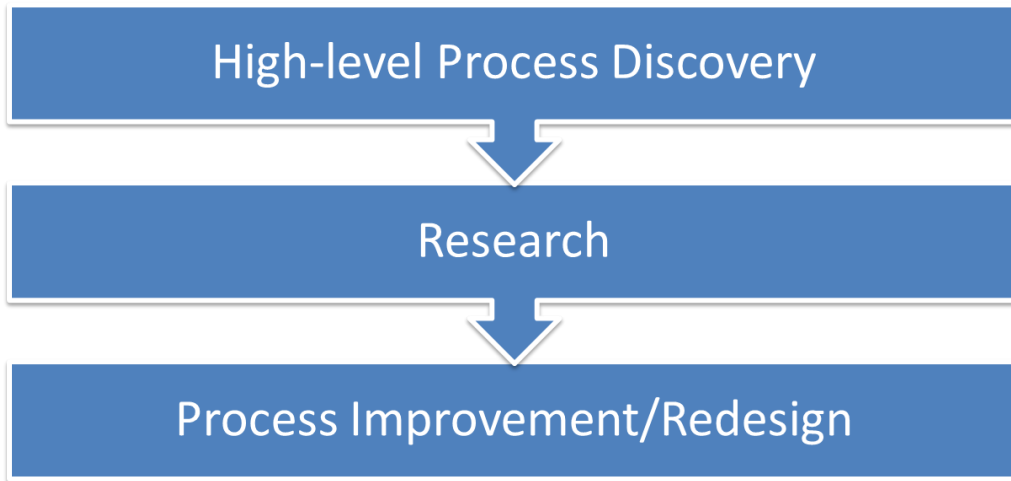
It’s also much faster to deliver, as it’s a focused approach, which contrasts with “automate-all” standard BPMS implementation.

It focuses on improving the following major operational aspects:

- Process lead time, the end-to-end time to solve or deliver a single process, such as a legal case, financial loan, or another product or service delivered to clients
- Workload, and through reduced workload – increased throughput
- Visibility/control, improved through a number of easy-to-use tools, which gives management a tool to make evidence-based decisions

2.4 Step-by-Step Guide to Methodology

The “Fact-based Process Improvement” methodology combines a research-based approach with organizational changes. Its steps are as follows:

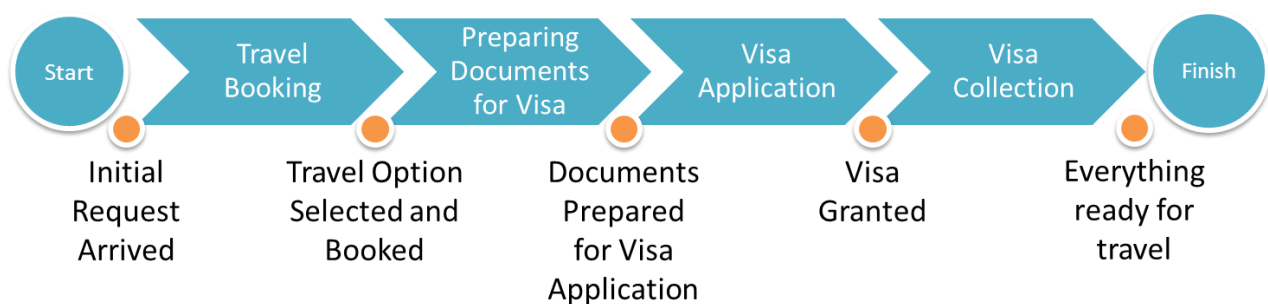


Key Steps in Fact-based Process Improvement Methodology

1. High-level Process Discovery

Firstly, the improvement team should **define clear boundaries of the process**. The important questions are: Where does the process start? Where does it end? What variations are part of the process and what variations can be defined as a separate process altogether. In addition, continuous supplementary flows that run in parallel (for example, long procurement sub-process) can be also regarded as a separate sub-process.

Secondly, define the clear phases and milestones in the process. There is no need to create a complex map of the process. Simply draw a linear process as per an example below:



Exemplary Process: Corporate Overseas Travel

The outline should not be a product of data collection or consulting advice. Instead it should be readily available and a manager running the process should be able to produce such map instantaneously without consulting to documentation.

2. Research

In the Research phase, the following questions need to be answered:

- Process Lead-time

Average end-to-end time for a process.

- Average time for each phase

Average time between milestones.

- Exceptions and delays

How many exceptions happen and average time delays they introduce into the process (per each exception type).

Breakdown of Process by Phases and their time periods

Employee	Agent	Date of Request	Origin	Destination	Travel Booking	Preparing Documents for Visa	Visa Application	Visa Collection
John Simmons	Sarah James	Jun-2, 2013	Denver, CO	Pune, India	6h 52m	58h 5m	290h 25m	12h 31m
Diana Gani	Sarah James	Jun-4, 2013	Austin, TX	Hyderabad, India	8h 7m	86h 17m	416h 34m	18h 01m
Chris Johnson	Dave Cox	Jun-4, 2013	London, UK	Doha, Qatar	2h 9m	78h 51m	182h 22m	45h 43m

Unprocessed Process Data Reporting each Process Instance (run)



Exception	Times Occurred	Average Delay
Expired Passport	2	213h 47m
Employee unable to visit the consulate in person	1	71h 28m

Critical Exceptions Affecting the Process



Process Phase	Average Time
Travel Booking	4h 17m
Preparing Documents for Visa	71h 28m
Visa Application	287h 13m
Visa Collection	24h 3m

Average time of phases
(aggregated from the table above)

It often requires interrogation of existing IT systems, such as ERP, CRM or legacy BPM that can be handy, but the only tool that'll be required to master the collected data is a simple spreadsheet. Another helpful tool that does not require special skills and can be configured in minutes is ProcessMate (<http://processmate.net>, disclosure – authors of this article are founders of the company developing it).

3. Process Improvement/Redesign

As the initial facts are collected, the evidence-based process improvement plan needs to be outlined. This plan can follow the problem-solution pattern, as follows in the example:

1. Preparation of Document for Visa takes too much time

Frequency: **High**, Impact: **Medium**

- Identify particular documents that take longer than others

2. Expired Passports introduce unnecessary delays and cancellations

Frequency: **Low**, Impact: **High**

- Collect information on expiring passports and issue reminders to travelling employees to get them reissued

3. Processing Visa Applications by consulates takes much time

Frequency: **High**, Impact: **Medium**

- Identify opportunities to apply for multiple entrance visas
- Investigate an opportunity for expedited applications with the consulates

Based on the study made, the process should be adjusted through the changes in the flow, as well as pre-emptive actions. Such changes and actions may be an introduction of new IT system, policies, trainings, in-process notifications, etc.

3 What's Next

- The authors of this article are developing a Process Management tool of new generation called ProcessMate (<http://processmate.net>) , that can be helpful for implementation of this methodology in companies of any size. Please visit our web-site, review our presentation material and sign up for a trial usage period
- We are looking for feedback. Please come back to us with your doubts, stories of implementation, corrections or any other thoughts.