BUSINESS PROCESS INTELLIGENCE (BPI) FOR ACCELERATED TRANSFORMATION

Abstract

It is critical for businesses to transform their legacy systems leveraging the latest technology and digital innovations to stay relevant and meet the demands of an increasingly dynamic marketplace. However, many organizations take the leap into digital transformation without adequate due diligence before, commencing their transformation journey. As a result, they end up shifting their legacy systems ‘as is’ into the new digital system without first correcting and enhancing their core business processes. This often leads to a lower yield of benefits due to digitisation.

Business Process Intelligence is the analysis of business processes based on transactional data that provides insights to identify process bottlenecks and suggest remedies to initiate corrective measures which can ensure business continuity and also save time and effort.

Infosys is a leader in transformation space, having implemented over 400 transformation projects across geographies and in multiple industry segment. Owing to this vast experience Infosys is able to offer end to end BPI services, starting with assessing critical business processes to restructuring inefficient business processes and enhancing them using ML and IoT. In this paper, we discuss why BPI is relevant for transformation, at what stages can it be incorporated, and how Infosys can leverage its expertise, and partnerships with SAP and Signavio, to implement the most efficient BPI solution for your organization.
Introduction

Digital transformation involves reimagining systems, business processes, and data, and restructuring these to fit changing business requirements. Business process intelligence (BPI) is at the center of digital transformation. With the central focus on business processes, it accelerates transformation by conducting in-depth process analysis during the project. It enables organizations to benchmark themselves against industry peers in order to identify potential areas for process improvement. Once the transformation reaches the sustenance phase, BPI helps improve process governance by providing better visibility into operations and identifying instances of process deviations so that corrective actions can be initiated in a timely manner.

Business process intelligence is therefore a door opener for digital transformation and significantly improves the success rate of transformation projects.

- Process Management helps in mapping the existing process flows being used within an organization.
- This forms the basis of finalizing the TO BE design during a transformation project.
- Ensures processes are documented and organizational SOPs and guidelines are set accordingly.
- Process Mining helps to analyze present process data from the transaction processing system and deduce intelligent conclusions on effectiveness of the process.
- Inefficient processes are easily identified since the process details are extracted from activity logs.
- Lays the foundation for Automation.

- Processes needing high manual intervention can be automated using RPA and bots.
- Machine Learning algorithms can be used where an intelligent decision making needs to be automated, based on past data.
- Predictive analysis and Cognitive Decision making can be enabled.

- Benchmarks can be fixed for every business process based on industry best practices and benchmarks.
- Variances from benchmarks can be identified and process enhancement initiated for such inefficient processes.
- Standard Operating Procedures can be enforced and any deviations captured through process surveillance.
Business process intelligence, a critical component of the transformation engine, was relevant even before S/4HANA was available as a vehicle for transformation. Unfortunately, it has been largely ignored as part of the transformation journey. However, organizations today are becoming aware of the benefits of BPI and its ability to make digital transformation successful.

Many large S/4HANA implementation projects run the risk of not optimizing their business processes adequately before embarking on their transformation journeys. The repercussions of the lack of focus on this vital area are often visible late in the project or well after the project has been delivered. This results in project cost overruns in case of the former and reduced benefits of transformation in case of the latter. It is therefore crucial to incorporate BPI either prior to commencing the project or early on during the execution of the project.

Take the case of an organization implementing S/4HANA without first identifying and correcting the inefficiencies in its legacy business processes. In this event, existing inefficient processes get mapped in the new system and inhibit the organization from fully experiencing the benefits of their transformation.

**Process Modelling vs Process Intelligence**

Business process mapping involves graphically depicting business processes within an organization using appropriate flow diagrams. This also involves capturing variants of a business process, persons responsible for executing the process, and the expected time and cost involved in every process. In many cases, business users want to modify an existing process and need to visualize the proposed process before going ahead with implementation. Business process modelling helps to reimagine business processes and even simulates ‘TO BE’ processes so that business users can confirm their acceptance of the process change. Process mapping and modelling form the basis of process governance.

On the other hand, BPI is about using existing transaction data to discover business processes using event logs and case attribute logs. BPI knits together the entire process flow of an organization based on records posted in the transaction processing system. Data analyzed through process intelligence can yield insightful reports on process deviation, process inefficiencies, as well as key operational metrics which can then be compared with industry benchmarks. Process intelligence indicates potential areas of improvement and is the basis for process automation and implementation of machine learning (ML) based solutions.

**Benefits of Business Process Intelligence**

- Business processes can be improved and optimized before beginning any transformation project
- Variants of processes which are in use are discovered and accounted for during the process discovery phase. Business process blueprinting is accurately completed without any omission
- Any process deviations from either group policies or industry best practices are identified and rectified. Process simulation is possible
- Manual or cumbersome business processes are automated using bots or enhanced using machine learning algorithms
- Overall process efficiency is improved, and cost of operations is minimized by reducing inefficiencies and dependency on specific individuals
Business Process Intelligence as a Service: Infosys’ PIVOT Offerings

Infosys offers business process intelligence as a service through its PIVOT (Process Intelligence-based Value-added and Optimized Transformation) offerings. Recently SAP named Infosys as one of its 3 chosen partners in the BPI space. Infosys leverages its partnership with SAP (Signavio) and offers a host of services to its transformation clients. The services fall into three major categories:

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Transformation preparation during impact assessment

BPI can be used to accurately identify impact on existing business processes due to migration to S/4HANA. Many clients want to understand the level of impact on their legacy processes before they migrate to S/4HANA. For such requirements, the discovery of existing processes plays an important role in evaluating the degree of impact and paves the way to create an S/4HANA roadmap, as well as a business case for moving to S/4HANA.

**Services include:**
- Identification of critical business processes and the impact on them due to migration to S/4HANA
- S/4HANA roadmap creation based on TO BE business requirements
- Creation of business case for transformation using BPI

Transformation preparation as a part of pre-projects

Business process simplification and standardization is an important pre-requisite for transformation. In many cases, months and even years are spent in harmonizing and re-engineering business processes. This need becomes more accentuated if there are major changes in business requirements or acquisitions of disparate business operations. In both these cases, BPI can assist in re-structuring old business processes and aligning them with changing business scenarios.

**Services include:**
- Business process simplification and standardization – identification of inefficient processes
- Business process harmonization or re-engineering
- Analysis of ‘as-is’ business processes in the legacy system and comparison with industry benchmarks

Transformation execution to jumpstart transformation

Transformation projects involve setting up of a sandbox for the creation of a proof of concept (PoC). Discovering existing business processes becomes important not only to create the PoC but also to showcase ‘as-is’ processes to IT and business users during blueprinting.

BPI tools can also be used to design and demonstrate “To BE” processes using process simulation techniques. Process modelling tools can be effectively used to map industry specific BPMLs to user requirements and thereby accelerate business process blueprinting. Process mining can be used to track digital footprints in the form of event logs. This data helps generate intelligent reports to highlight process inefficiencies and initiate corrective action.

**Services include:**
- Process discovery for sandbox-based PoC creation
- Process discovery to showcase processes to IT and business users and aid blueprinting
- Aligning industry specific BPMLs for accelerating process blueprinting
Transformation execution during S/4HANA implementation

Most transformation projects fail because user requirements are not correctly understood and existing business processes are not accurately mapped in the new system. Business process blueprinting plays an important role in discovering all business processes used by an organization, including variants and localizations. Accurate process mapping ensures the success of the transformation program. BPI tools like Signavio can help automatically discover all processes based on transactional event logs and map processes where data does not exist through the Collaboration Hub. In addition to this, BPI helps identify risk-prone business processes. It aids the formulation of an appropriate testing strategy and creation of relevant test cases during the build phase of transformation by adopting risk-based testing.

During business process blueprinting, if any processes are found to be inefficient, they can be remedied as part of the transformation project through automation or by using machine learning algorithms.

**Services include:**

- Identifying critical business processes and formulating the test strategy for risk-based testing
- Implementing ML use cases for predictive analysis and cognitive decision-making during process enhancement

Transformation sustenance post S/4HANA implementation stabilization

Processes need to be dynamic and scalable to meet constantly changing business requirements. BPI initially helps discover process variants during the transformation phase, so that the “TO-BE” processes can be accurately designed, and standard operating procedures (SOPs) can be put in place once this design is implemented. However, once the transformation project has been delivered, it is equally important to monitor business processes and ensure that there is no deviation from the standards set.

BPI helps in process surveillance so that deviant processes can be corrected promptly, and inefficient and effort-intensive processes can be automated using bots. Besides this, cognitive decision-making can be embedded in processes using machine learning algorithms so that manual decision-making is replaced by automated decision-making based on historical data. Existing processes can also be compared with best practices and industry benchmarks for further improvements. Most importantly, BPI can enable process discipline and process governance after the digital transformation has been delivered. In the transformation sustenance phase, BPI helps to institutionalize process surveillance and enables timely correction of process deviations and inefficiencies.

**Services include:**

- Identifying process deviations from implemented best practices and initiating remedial action
- Identifying cumbersome processes needing manual effort and initiating automation
- Comparing process KPIs with industry benchmarks and initiating corrective action

Repercussions of not Leveraging BPI

- Processes may deviate from prescribed procedures and such deviation might go unnoticed
- Inefficient and manual business processes may evolve, which are aligned neither with business requirements nor with industry best practices
- Increased cost of operations due to inefficient processes needing more time, effort, and resources
- Dependencies on specific individuals to carry out critical business operations may lead to process bottlenecks
- Rigidity in business processes may emerge without any options to scale up or add new processes
- During transformation, absence of BPI may result in incorrect mapping of business processes thereby leading to a faulty design

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Infosys for Business Process Intelligence

Skilled resources

Infosys has a large number of S/4HANA consultants representing different business areas and industry segments. Many of these consultants are SAP certified and have a deep knowledge of different industry segments. They can effectively leverage this expertise to deliver effective transformation projects. Besides this, there is large pool of resources with product knowledge of S/4HANA as well as rich experience in implementing transformation projects. This team is therefore ideally suited to provide BPI services.

Key partnerships

Infosys has a strategic Platinum partnership with SAP and works closely with SAP on the “Rise with SAP” offering. We are one of three chosen partners for BPI using Signavio (a leading BPI tool). This strategic partnership along with specially trained personnel significantly enhances Infosys’ ability to successfully deliver transformation projects using BPI.

Infrastructure

Infosys has 90 delivery centers across the globe and 10 innovation hubs spread across North America, Europe, and Asia Pacific. We have industry-specific centers of excellence (CoE) that provide domain expertise for ongoing transformation projects. There are also Transformation and ValuePlus CoEs that provide essential product expertise as well as guidance on implementation and support methodologies.

Tools and methodology

Infosys has a plethora of tools and accelerators created by its CoEs. It has 15 industry-specific catalyst systems with pre-configured processes on S/4HANA. These systems include over 200 processes that represent industry best practices, specific nuances of industry segments as well as country-specific localizations. It also includes a large repository of templates and reusable artifacts that accelerate transformation projects. Besides this tools like S/4Assist and Business Profiler help in initial process impact assessments and creation of technology roadmaps and business cases for S/4HANA transformation.

Transformation experience

Infosys has wide experience in implementing business transformation projects. This includes S/4HANA assessments, greenfield implementations, S/4HANA conversions, central finance implementations as well as hybrid implementations. Infosys has delivered more than 400 transformation projects so far in different geographies and for various industry segments. In almost every transformation project, the Infosys team has created blueprints of the clients’ “as-is” and “to-be” processes with rich experience in this field.
Infosys has a team of domain experts who have been specifically trained and certified on BPI tools and is geared to deliver process assessments as part of transformation. They are supported by various CoEs that bring product expertise, industry-specific nuances, and knowledge of country localizations to cover end-to-end business requirements. In addition to the internal CoEs, Infosys works closely with Signavio’s Innovation Board to develop client-specific solutions on BPI. Signavio’s product team is available to address any product-specific issues encountered during a BPI assessment. They also provide information on updates and new features that may be relevant and useful for any ongoing BPI assignment.

Engage the right BPI and Transformation Partner

In today’s digital age, it is imperative for businesses to adopt new technologies to stay relevant in the market. One of the critical decisions towards digital transformation is who you partner with for this journey. Your transformation partner should be able to not just modernize or upgrade your systems, but also ensure that your existing and new processes work as expected without business disruption and are optimized for maximum efficiency.

A business process assessment typically takes between 4 to 5 weeks to complete and needs a team of 5 to 6 process and technical consultants to analyze the legacy processes and recommend improvements. That is just the start of the project. BPI is a key requirement at each stage to assess the current status and the impact of proposed changes to the processes and the business.

With over 400 successful transformation projects across industry segments and geographies, the Infosys core BPI team is equipped with the right experience, tools, and partnerships with SAP and Signavio to lead clients through a smooth and well-architected process transformation.

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About the author

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Sameer Joshi is an Industry Principal and heads the Transformation Center of Excellence at Infosys. He is a Certified Management Accountant with a Master’s degree in Economics and has over 23 years of work experience including 9 years in the Finance domain and over 14 years in the SAP practice. Sameer has wide experience delivering financial re-structuring projects and SAP S/4HANA transformation programs.