



# Process Mining in Global Business Services (GBS)

Driving Operational Excellence through Intelligent Processes



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# Introduction

With increasing successes over the last few decades, Global Business Services (GBS) organizations have established themselves as trusted strategic partners of global enterprises. Historically, enterprises consolidated capabilities for transactional back-office work and established Shared Services Centers (SSCs) to improve efficiencies and save costs. With the increasing maturity of these centers, they gradually evolved into the GBS model – demonstrating greater ownership across processes and products and delivering complex and higher-value services such as industry-specific operations (e.g., clinical trials support in life sciences), business analytics & consulting, and marketing services. Consequently, these centers scaled up the delivery of multi-functional capabilities, thereby providing greater value to enterprises. The focus of these centers is shifting from cost impact to business impact, which includes delivering improved service quality, enhanced customer experience, and greater resilience.

During the pandemic, a majority of GBS organizations gained increased endorsement from global enterprises for demonstrating agility, resiliency, and the ability to step up and support other parts of the enterprises. In fact, shared services setups grew and expanded exponentially, especially in 2021, with almost 250 new centers established across offshore and nearshore locations. The need to work remotely opened the doors for a more diverse and broader talent base by surpassing location constraints and adapting for flexibility. Expertise in capabilities such as automation and analytics further improved the strategic positioning of these centers.

However, many GBS organizations continue to face challenges in expanding their scope and delivering the intended value due to the lack of end-to-end process visibility. In this viewpoint, we highlight why process mining – which monitors processes, highlights inefficiencies, and helps address the root cause of those hidden inefficiencies – is becoming a key enabler for GBS organizations to deliver enhanced value for the global enterprise.

This research examines:

- The evolving priorities of GBS
- The role of process mining in GBS
- The operationalization of process mining across functions
- An enterprise case study

The study is intended for GBS and SSC leaders, process excellence leaders, and business transformation teams, as they look to transform their business operations.

## Evolving priorities of GBS

### The shift from internal provider to value-add partner

Traditionally, shared services organizations have focused on labor arbitrage, cost savings, and scaled and reliable delivery of transactional services. Over time, with increasing maturity in terms of the breadth, depth, and scope of services offered, these organizations evolved further, delivering a mix of transactional and high-skill services across traditional functions (such as finance and HR) and industry-specific functions (including retail banking, claims management, and clinical trials site management). Many GBS centers also started focusing on delivering advanced digital innovation capabilities while acting as global talent hubs.

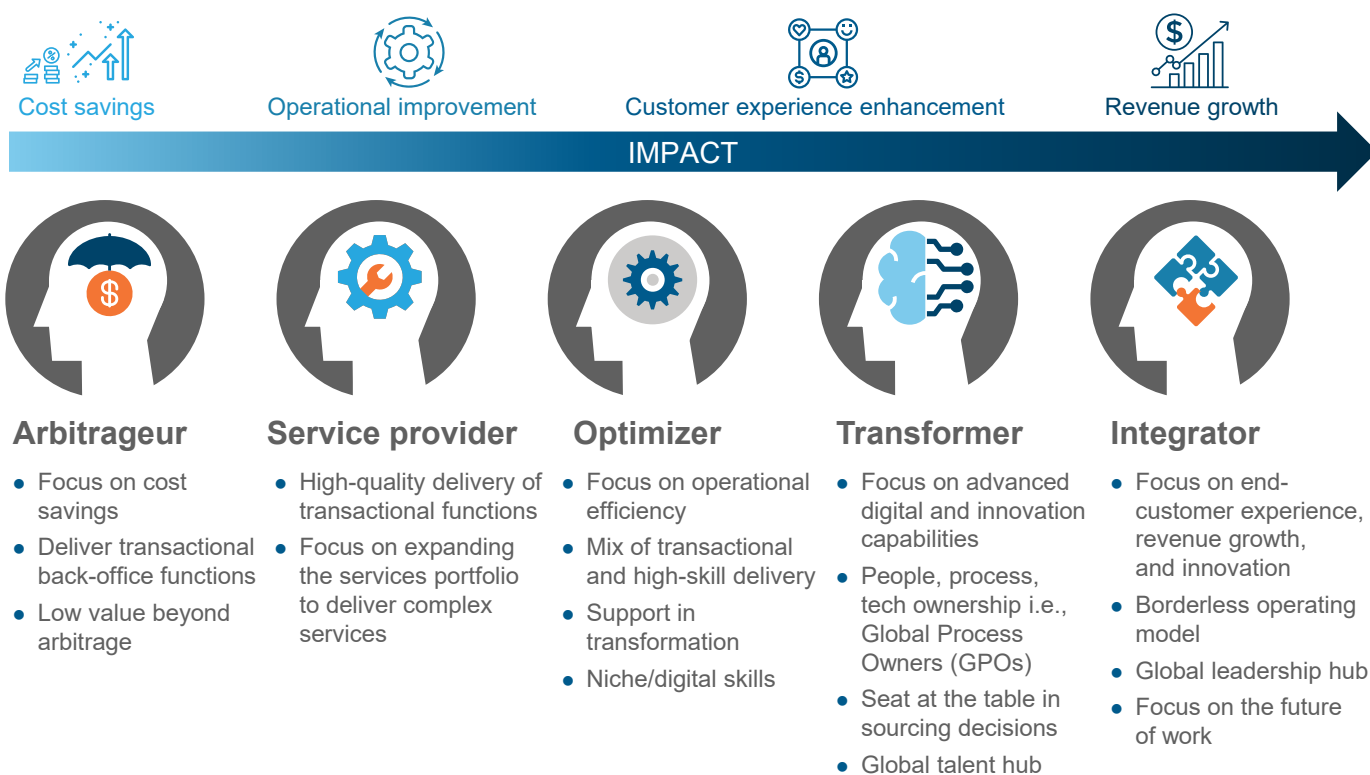
Today, mature GBS organizations have truly become an extension of the global enterprise, playing an active role in several strategic initiatives (such as enterprise sourcing decisions and vendor management initiatives), including aspects that have a direct end-customer impact. There is a clear shift from a cost-based to a business impact- or value-based mindset, aimed at helping enterprises improve end-customer experience and drive revenue growth.

Everest Group captures distinct phases of the GBS evolution journey in the exhibit below. The first two phases, arbitrageur and service provider, typically correspond more to an SSC environment, while the other three phases reflect a more mature/evolved GBS model.

#### EXHIBIT 1

##### The GBS evolution journey

Source: Everest Group (2022)



The COVID-19 pandemic has re-emphasized and furthered the value proposition of GBS organizations: to enhance the value delivered and drive higher business impact for global enterprises. Many enterprises leverage their GBS networks across geographies to acquire high-quality talent, save costs, and better support their business needs and priorities. While some regard this as an opportunity to expand their services portfolios, others have developed expertise to deliver higher-value capabilities, such as data analytics and consulting. Between 2020 and 2021, more than 60% of GBS organizations grew their services portfolios and penetration, and more than 50% of new GBS centers built global digital Centers of Excellence (CoEs).

## Innovation and digital at the core

Technology adoption has been key to GBS organizations' growth and evolution in recent times. Established offshore GBS locations, such as India, have been able to take advantage of talent availability to drive several technology-led initiatives. Existing centers have scaled up their automation/digital capabilities to support the broader digital transformation efforts of the global enterprise. These centers are also integrating automation with other digital solutions, such as analytics and Internet of Things (IoT). Further, new setups are increasing their focus on digital capabilities.

According to our estimates<sup>1</sup>:

- More than 50% of GBS setups expanded their digital capabilities to meet evolving business expectations and priorities in 2020-21
- Three in every five GBS centers set up since 2020 with digital as part of their portfolios offer automation among their services offerings

Enterprises' expectations are also shifting drastically, with a greater focus on GBS centers taking end-to-end ownership of complete process transformation rather than automating stand-alone use cases. Strong adjacencies with the global enterprise, a focus on organizational excellence, deep domain expertise, cross-functional collaboration, and multi-functional capabilities (across ITS and BPS) are enabling GBS firms to scale automation and deliver greater value add. Consequently, they are evolving as the nerve centers for innovation, rapidly becoming business partners for digital investments.

## Challenges that GBS organizations face in delivering greater value

GBS organizations today are better positioned than before to play a strategic role for the global enterprise. However, the path to scaling up and delivering the intended value has its own set of challenges, including:

- Access to niche talent due to increasing competition in the talent market
- Need for pivoting to newer levers of employee value proposition, with a focus on building a distinguished GBS brand
- Competing budgets and sustained pressure to deliver cost savings
- Scaling up capabilities across regions and functions
- Inability to achieve baseline efficiencies
- Managing less standardized processes across regions and functions
- Difficulties in predicting the RoI and, consequently, building the business case for digital investments

<sup>1</sup> Based on [GBS of the Future: Toward an Integrated and Borderless GBS Model \(parts 1 of 2\)](#), Everest Group (2022)

Many of the above challenges related to standardization and scaling up can be attributed to limited process visibility and operational transparency. Organizations typically rely on manual approaches to business process discovery and mapping that provide an incomplete picture and offer directional views and opinions versus verifiable process flows. The reliance on manual approaches also limits GBS organizations' ability to monitor processes on a continuous basis to guide decision-making and improve efficiencies. To overcome these challenges, GBS organizations should leverage process mining, which provides a data-driven view into business processes.

## The role of process mining in GBS

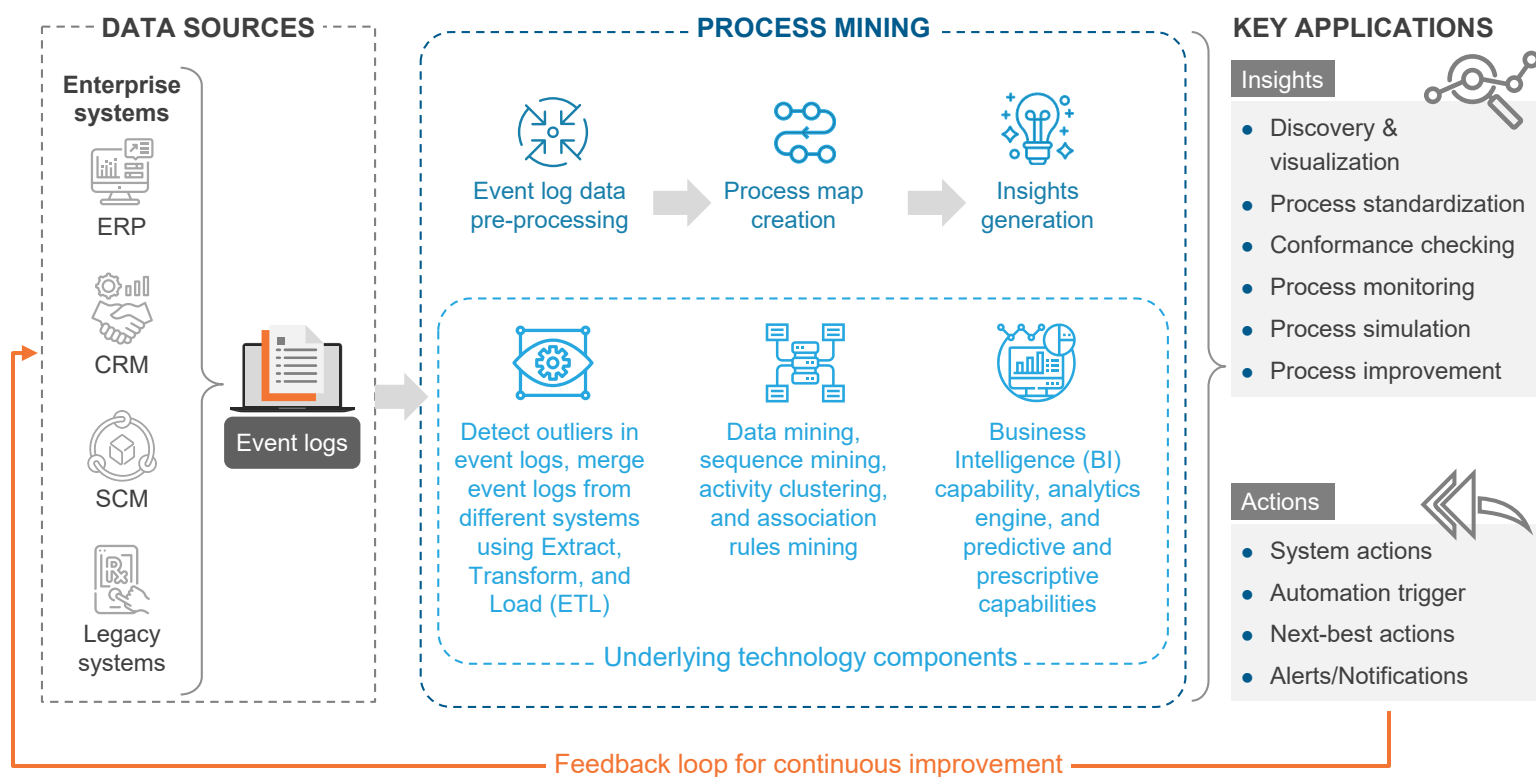
### Defining process mining and how it fits into the GBS model

Process mining offers a fact-based approach to discovering processes and facilitates operational transparency. It leverages event log data generated by enterprise systems such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), and Supply Chain Management (SCM), to discover and analyze as-is processes, generate process maps, and extract relevant business insights, as depicted in Exhibit 2. It helps with the in-depth visualization of processes and allows enterprises to detect anomalies that hinder process efficiencies. Enterprises can monitor and optimize the processes in near real-time by assessing the impact on different KPIs and custom metrics.

#### EXHIBIT 2

##### Process mining architecture

Source: Everest Group (2022)



Many GBS organizations have built process management and digital transformation expertise and show significant potential to become in-house process-improvement advisors and executors. The use of process mining in GBS organizations can deliver significant value and provide a deeper understanding of underlying processes. These benefits can be maximized due to a strong IT-operations collaboration and adjacencies that GBS organizations enjoy with global enterprises. Process mining can help provide data-backed insights to identify process bottlenecks, recommend levers for improvement, and drive best practices through process standardization.

Furthermore, as GBS organizations integrate operations across regions, business units, service lines, and functions, the advantages that process mining can offer – comparing, benchmarking, and standardizing processes at scale – are mission-critical. For example, GBS organizations can monitor the end-to-end Order-to-Cash (O2C) value chain from order management to billing and Accounts Receivable (AR), spanning across locations. The solution ties together process insights from each of these functions to improve overall process performance, thereby enabling greater collaboration and better change management.

### Leveraging process mining to enable intelligent and efficient processes in GBS

Process mining has a wide range of applications, as illustrated in Exhibit 3. In addition to providing visibility into as-is processes, it helps identify bottlenecks impacting process performance and recommends interventions to improve these processes. For example, it helps determine if certain process steps require to be re-engineered or automated to improve overall process efficiency. Organizations can also leverage it to monitor and standardize processes, perform compliance checks, and automatically trigger corrective actions – and thus, help add intelligence to processes.

#### EXHIBIT 3

##### Process mining applications in GBS

Source: Everest Group (2022)



##### Process discovery

Provides end-to-end visibility into as-is processes, including workflows executed outside the GBS model

##### Process standardization

Helps compare and standardize business processes across teams, departments, business units, and geographies

##### Process conformance

Performs compliance checks and benchmarking analysis to provide insights into deviations/violations in as-is processes

##### Process monitoring

Enables continuous monitoring of process performance against key KPIs/metrics and offers workforce-related insights

##### Process simulation

Helps perform what-if analysis / scenario testing by defining certain attributes, using process filters to compare steps, and examining the impact on relevant KPIs such as throughput time and rework

##### Process improvement

Helps identify bottlenecks and potential opportunities to improve (optimize and/or automate) processes

##### Action triggers

Automatically triggers alerts, system actions, or automations, to take corrective measures for improving business processes

## Operationalizing process mining across common GBS functions

GBS organizations are strong candidates for leveraging process mining solutions, especially in functions such as finance & accounting and procurement. Finance and procurement services are delivered by more than 45% of offshore/nearshore GBS organizations. There are multiple instances of GBS organizations building scaled teams for delivery, especially for finance, with a high degree of ownership and accountability.

In this section, we take a closer look at how process mining helps improve business outcomes in four common process areas across finance and procurement functions.

### Accounts Payable (AP)

For GBS organizations across industries, AP is one of the most delivered services and includes accounting support to enterprises that not only impacts cash outflow and operating margins, but also influences supplier relationships. However, high processing costs and cycle times continue to be major barriers to optimizing payables, freeing up working capital, and ensuring high supplier satisfaction. Manual invoice processing, lack of as-is process visibility, and the absence of standardization across business units make it difficult to identify areas directly impacting costs and processing times.

Several leading organizations leverage process mining to gain near real-time visibility into invoice processing. Process mining captures data from the underlying source systems (such as ERP solutions) to monitor as-is processes and associated KPIs (such as Days Payable Outstanding or DPO, invoice processing time, rate of invoices paid on time, and cost to process each invoice). It consolidates data collected from multiple source systems to determine process performance against defined KPIs. As Exhibit 4 below illustrates, process mining analyzes the collected process data to identify the root cause of delays or inefficiencies and recommends actions to improve these processes. For example, it can help identify invoices in which discounts are missed and invoices that can be paid later to maximize free cash flow.

Additionally, process mining triggers alerts and notifications in case of any potential SLA breach to ensure timely action. It can recommend the next-best actions by highlighting high-priority invoices to a manager. It also allows business users to set up rules to directly trigger automation workflows for invoice processing.

Process mining can help streamline and standardize processes across business units and geographies, improve process efficiencies, and deliver superior value and higher quality services within faster turnaround times.



**EXHIBIT 4****Process mining in AP**

Source: Everest Group (2022)

**Insights**

- Helps monitor process performance and KPIs (such as invoices processed within stipulated timeframes, invoices processed without errors, and total urgent payments processed as a proportion of the total number of requests made) by consolidating data across systems
- Highlights the causes of delays at reception, approval, and payment stages – e.g., delays in allocating work, duplicate payments, redundant steps, and invoice loss
- Identifies duplicate invoices to prevent accidental payouts and duplicate invoice payments
- Highlights inefficiencies such as invoices where discounts are missed

**Actions**

- Automatically triggers alerts about likely SLA breaches (e.g., invoices that may soon become overdue)
- Triggers automation workflows for transactional activities such as invoice data extraction
- Recommends high-priority invoices to the manager for approval

**Business outcomes**

- On-time payment
- Higher SLA adherence
- Higher cash discounts
- Optimized working capital
- Cost savings due to automation

**Accounts Receivable (AR)**

Cash flow management is a key enterprise activity. Consequently, GBS organizations continue to focus on streamlining and improving AR processes, such as collection prioritization, cash acceleration, dispute and deduction management, and cash risk mitigation to boost cash inflow and increase the available working capital. However, a large amount of the working capital remains trapped due to inefficient, repetitive, and manual processes. The lack of process visibility and the inability to roll up data from disparate information systems for timely decision-making are major roadblocks to improving these processes. Thus, organizations continue to face challenges in securing overdue invoices, resolving disputed invoices, and recovering underpayments.

Process mining provides a consolidated view of client portfolios on all systems of record as well as of the time taken for collections. It benchmarks KPIs such as Daily Sales Outstanding (DSO), Days Past Due (DPD), Days Deduction Outstanding (DDO), and Accounts Receivable Turnover (ART) ratio across geographies, business units, buyers, and systems of record to determine the root cause of problems in the AR process.

Additionally, process mining uses past data to predict payment likelihood, improve and prioritize collection efforts, and recommend optimal credit limits to mitigate non-payment risks. The exhibit below illustrates the various insights and action triggers that process mining offers to improve AR processes.

Process mining provides a consolidated view of client portfolios on all systems of record as well as of the time taken for collections.

**EXHIBIT 5****Process mining in AR**

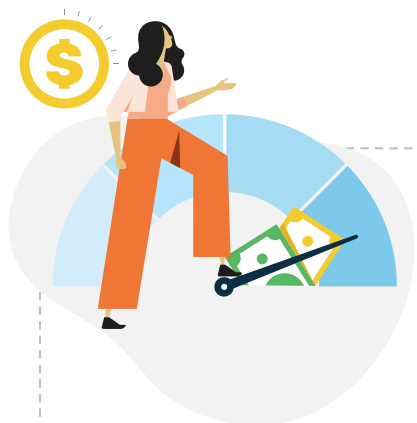
Source: Everest Group (2022)

**Insights**

- Provides a consolidated view of AR sub-processes performed on different ERP systems
- Benchmarks KPIs across Business Units (BUs), regions, buyers, etc.
- Highlights deviations from the Statement of Purpose (SoP), e.g., late payment, faulty invoice, and underpayment and their impact on KPIs
- Helps identify the root cause for delay, e.g., errors in payment terms, address, etc., due to faulty master data, errors due to manual invoice creation, and delay in goods delivery
- Helps identify underlying issues for dispute claims

**Actions**

- Recommends optimal credit limits
- Predicts payment likelihood based on creditors' past behavior
- Automatically triggers alerts to the collections team for follow-ups, based on days outstanding

**Business outcomes**

- Reduced past-dues receivable
- Lower late payment rates
- Freed-up working capital

**Procurement**

GBS organizations have been transforming themselves to support enterprises' ever-growing procurement functions through services such as spend analytics and insights, requisition-to-PO, and master data management. However, these processes are fraught with several challenges. A large supplier base can make data management cumbersome and repetitive. Maverick buying and data in disparate systems further limit spend visibility and result in poor decision-making, lower efficiency, and higher spend. Moreover, unlike other functions that GBS organizations own, procurement collaborates with several business units to identify the right suppliers and negotiate contracts – which can be time consuming and cause inordinate delays.

Process mining continuously tracks procurement processes using log data collected from procurement and ERP systems and acts as a single source of truth. It offers a consolidated view of spend activities and supplier performance, enabling easier review and equipping resources with the right data for negotiation. It helps identify deviations and the factors responsible for inferior performance (such as maverick buying, manual price changes, and non-compliance to internal processes) and their impact on the overall spend. It also highlights the manual steps causing delays and areas in which automation can improve efficiency and deliver cost savings.

Furthermore, process mining helps reduce catalog leakage and subsequent Purchase Requisition (PR) processing time by recommending items from the existing catalog to purchasers during PR creation. It can also notify the procurement team of any systemic issue concerning late deliveries to improve planning and inbound on-time delivery rates. The exhibit below outlines the insights, actions, and business outcomes that GBS organizations can achieve by deploying process mining in procurement.

**EXHIBIT 6****Process mining in procurement**

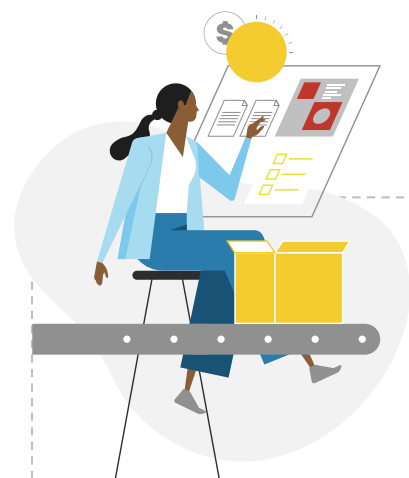
Source: Everest Group (2022)

**Insights**

- Helps continuously monitor procurement KPIs, such as purchase order cycle time and supplier lead time
- Provides a consolidated view of spend activities
- Helps detect the source of late deliveries and their impact on process efficiency
- Highlights deviations and areas with a high degree of manual rework that drive down efficiencies and provides root causes
- Helps identify automation opportunities and highlights potential time and cost savings that can be achieved through automation

**Actions**

- Recommends items from the existing catalog to create purchase orders instead of free-text PR
- Notifies the procurement managers of requisitioners circumventing internal procurement process and enables them to block access or reject maverick purchases
- Alerts the planning team in case of any systemic issue

**Business outcomes**

- Increased touchless purchase orders
- Lower processing time
- Cost savings

**Order management**

Order management has gained strategic value in recent times due to its direct impact on customer satisfaction. Consequently, mature GBS organizations are focusing on timely order fulfillment to deliver a superior customer experience. However, they face challenges in ensuring on-time delivery and reducing processing time and costs due to the lack of operational visibility owing to fragmented operations across multiple channels, such as emails, calls, and messages. Additionally, manual processes and multiple handoffs between teams (to incorporate customer-specific instructions) increase errors in orders, invoice queries, and disputes.

Process mining provides an integrated view of the order management process by consolidating data from all transactional systems across channels. In addition to providing near real-time KPI monitoring, it also provides data-backed insights on customer behavior patterns, which can help teams to prioritize orders and better handle unforeseen spikes in orders. Furthermore, it prevents errors due to manual processing by detecting repetitive manual steps, such as sales order entry, which can be automated. It also helps detect and resolve order errors and blocks, such as price or quantity changes, for timely processing.

As Exhibit 7 below depicts, process mining can predict and update delivery dates based on ongoing supply chain issues and alert relevant teams to pass on the information to customers. It can also predict the likelihood of on-time delivery for each order and drive automated, just-in-time actions to prioritize orders and fulfillment.

**EXHIBIT 7****Process mining in order management**

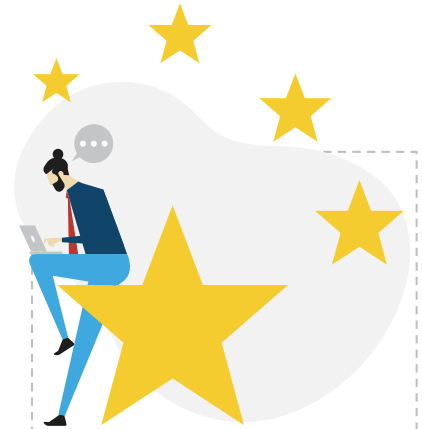
Source: Everest Group (2022)

**Insights**

- Provides a unified view of the order management process across channels (emails, calls, and messages) and customers
- Offers near real-time KPIs reporting of order fulfillment, delays, and customer queries
- Provides analytics on customer behavior, e.g., customers frequently rejecting orders, to assist planning
- Helps identify the root cause for delays, e.g., order entry errors and credit blocks, and order rejections
- Highlights automation opportunities to improve the accuracy of sales order entry

**Actions**

- Automatically alerts the team as credit lines approach expiry to prevent credit holds and subsequent delays in order delivery
- Automatically predicts and updates delivery dates based on process updates and alerts relevant teams to inform customers
- Intelligently splits orders based on the likelihood of on-time delivery

**Business outcomes**

- Improved customer satisfaction
- Higher order fulfillment rate
- Increased on-time delivery

## Case study: Deutsche Telekom Services Europe

**Context**

Deutsche Telekom Services Europe (DTSE) is part of Deutsche Telekom's SSC that provides finance, procurement, and HR services to the entire Deutsche Telekom group. DTSE was established in 2016 with the objective of driving cost savings, delivering superior quality services, and driving digitalization to improve internal business processes. It aims to make processes seamless at the best possible cost while reducing process risks and ensuring compliance.

**Challenges**

As DTSE started scaling up its capabilities, it faced challenges in understanding processes and delivering greater value. These challenges included:

- Limited visibility into process-specific details, which led to the basing of business decisions on subjective experiences instead of facts
- Inability to identify gaps and inefficiencies in processes and the underlying root causes, resulting in sub-optimal delivery
- Lack of clarity on the division of responsibilities and activities carried out by the SSC organization and the global enterprise

**Approach**

To address these challenges, DTSE partnered with Celonis to deploy process mining solutions in 2018. DTSE initiated the solution with the P2P function. It established a process mining CoE to act as an interface between IT, data scientists, data analysts, business analysts, and other executives for smooth implementation.

The process mining solution connected several source systems, such as SAP and Salesforce, to provide visibility into process flows, monitor process performance (e.g., time taken to execute), and identify execution gaps.

Over the past four years, the solution's use has expanded, and 800+ active users currently leverage it to perform process analytics, monitor KPIs, and improve daily operations. More than 50 process experts are involved in process analysis, helping identify inefficiencies and recommending appropriate corrective measures for process improvement.

### **Business outcomes**

The process mining solution helped streamline processes across functions and improved KPIs such as throughput time, rework rate, and automation rate. Within the P2P function, process mining enabled near real-time analysis to identify duplicate payments and associated root causes, which helped uncover several digitalization and automation opportunities.

DTSE leveraged digital solutions to streamline processes, improve efficiencies, and enhance its value proposition. The solutions also streamlined the process by providing visibility and enabling transparency.

After the solution's success in the P2P function, its use was expanded to functions such as HR and customer finance to deliver superior services. DTSE is looking to further expand it to functions such as supply chain management. Process mining also helped DTSE expand the scope beyond transactional functions and deliver value-adding services such as process analytics to other entities within the global enterprise.

### **Key learnings**

The key learnings and best practices as DTSE scaled up the adoption of the process mining solution were:

- Involving process owners and Subject Matter Experts (SMEs) in discussions with business stakeholders helps overcome resistance from employees and highlights the solution's value proposition
- On-boarding IT early on helps overcome security concerns and accelerates the delivery speed
- Guiding process experts from the very beginning on how to utilize process mining insights facilitates more effective and data-driven business decisions
- Evangelizing the technology by sharing success stories is vital to creating awareness about the benefits of process mining



Process mining not only helped identify ways to improve the processes that DTSE managed, but also played a key role in providing value-add services, such as process analytics, to other entities of the global enterprise for analyzing and enhancing their internal processes.

– Michael Gudel, Project Manager, DTSE

## Conclusion

GBS organizations are constantly evolving to expand their focus beyond cost arbitrage providers and are truly emerging as strategic value-add partners to their global enterprises. In fact, today these organizations are serving as transformation engines for their enterprises, owning outcome responsibilities, building close adjacencies with core enterprise objectives, driving adoption of innovative digital technologies, and building solutions that directly impact end customers. Process mining can arm traditional shared services organizations with a data-based approach to streamline and optimize processes across business functions.

GBS organizations are strong candidates to leverage process mining solutions. For some of the most prominent services that GBS organizations deliver, such as AP and AR, process mining can enable superior business outcomes such as on-time payments, higher SLA compliance, optimized working capital, and lower late payment dues. The technology can help create a deeper understanding of processes and accelerate transformation. As GBS organizations expand the scope of their operations, process mining can be an important tool in their automation technologies toolbox to provide strategic benefits to the global enterprise.

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