Business Process Management and Process Mining Technologies: The progress of a discipline

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Abstract

A wide variety of approaches, strategies, and tools for designing, implementing, managing, and analyzing functional business processes have emerged from studies in business process management (BPM). It is the goal of the emerging topic of research known as "process mining" (PM) to improve the analysis of business process models by gleaning actionable insights from massive quantities of event logs. The purpose of this study is to research business process management and process mining by surveying the state-of-the-art methods and tools in each area and highlighting the most recent developments. This study concludes with a discussion of BPM and PM, in which PM acts as a bridge between BPM and data science to enhance business processes (BPs).

Keywords: Business Process; Business Process Management; Process Mining.

1. Introduction

Today, the capacity of an enterprise to execute its business processes effectively and continually provides the foundation for any changes to remain competitive, and process orientation is widely used. As businesses take a process-oriented approach to operations, the idea of process maturity is becoming increasingly essential. BPM is the practice of analyzing and enhancing an organization's processes to make them more cost-effective, high-quality, productive, and competitive [1][2]. Furthermore, there are several BPM systems available today. Specifically, they are software applications that implement and control business processes according to predefined designs [3]. BPM may be considered an extension of Workflow Management (WFM). When compared to BPM, which encompasses more than only process automation and process analysis but also operations management and work organization, WFM focuses primarily on automating business processes. BPM is an approach that works to improve existing business processes without introducing new technologies. One way managers might learn how to save costs without sacrificing service quality is through simulating and modeling business processes. On the other hand, BPM is often associated with tools that aid in the administration, regulation, and facilitation of such tasks [3]. Both WFM and BPM are meant to aid in what is known as workflow processes or workflows, respectively, during daily operations. Systems that handle and carry out such processes are known as Process-Aware Information Systems (PAIS). PAIS is an application software that uses process models to coordinate and carry out business procedures involving a wide variety of constituents, including humans, computer programs, and other data sources [4]. It encompasses conventional WFM and recent BPM systems, as well as systems that give additional flexibility or support specific processes [3]. BPM approaches are not restricted to WFM or BPM tools but may be used for any PAIS. Indeed, BPM methods like process mining may be utilized to uncover and evaluate new processes backed by systems that are not even "aware" of the processes in which they are employed [5]. However, due to the difficulty in dealing with semi-structured or unstructured processes, the applicability of WFMS or BPMS is severely constrained in many enterprises [6]. Process mining is a new field that offers extensive tool

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sets to generate evidence findings and enables process changes, in which events are being logged, offering extensive data and information on process history [7]. This growing field is based on process modeling and data mining. Process mining, on the other hand, is much more than a combination of current technologies. This article is developed over the following sections: Section 2 presents a literature review for BPM and PM. Section 3 presents the most important business process management methods. Section 4 presents the most important business process management tools. Section 5 presents challenges and research directions. Section 6 presents discussion and description of BPM and PM integration framework for business process. Section 7 presents conclusions. Section 8 presents references

2. Literature Review

BPs have been defined in a variety of ways by various writers [8]. By generating visual representations of critical business processes based on data, business process modeling makes it easy for businesses to analyze and improve workflows. Business process models are used to depict the steps involved in BPs [9]. To meet the needs of customers or other interested parties, businesses use a horizontal chain of processes known as business processes (BPs) [10]. it is very important to collect execution data that can be used for further process analysis [11]. Building BP competence to understand, analyze, and disseminate organizational information, as well as automating high-functioning BP, has been one of the primary difficulties for senior executives BPM has also been used to make quality manuals, control mechanisms, analyses, and definitions of value addition, and workflow automation [12]. As a result, BPM tools and approaches are regarded as among the most important and beneficial assets of corporate firms. BPM includes methodologies, techniques, and tools to facilitate BPs in designing, implementing, controlling, and analyzing operational processes, including those of enterprises, individuals, applications, documents, and any other information sources [13]. Various strategies are employed throughout the BP lifecycle to effectively manage BPs. BPM is a cycle strategy that investigates numerous viewpoints of BPs at different stages [14]. We begin with a summary of the BPM life cycle to fully comprehend BPM terms and functionalities. There are several perspectives on the BPM life cycle [2][15][9][14]. According to Van-Der-Aalst [2], and Weske [9], The lifecycle of a business process includes four stages, such as process design, system configuration, process enactment, and evaluation (diagnosis). Process mining [16] and business activity monitoring [17] Methods are used to examine execution logs. Both the quality of the BP models and the appropriateness of the execution environment may be evaluated with the use of these methods.

Process mining's goal is to offer a rapid assessment of organizational reality that may be used to verify process models and perhaps be used in a process redesign effort or PAIS implementation. The whole BPM life cycle can be backed by modern process mining techniques. It's not only during the planning and diagnosis/requirements phases that process mining comes in handy, but also throughout the execution, monitoring, and fine-tuning stages. Event logs may be utilized for three kinds of process mining and the subject of auxiliary areas as shown in **Figure 1**. By analyzing past events, a discovery method may create a model with little to no input from experts. As an example, consider the α-algorithm [18]. Through the use of an event log, this technique may produce a Petri net that describes the actions that occurred. Without any input from the user, the -algorithm may generate the Petri net automatically. Resource-related models, such as social networks illustrating how people cooperate inside an organization, may be identified if the event log contains information about resources. By doing a conformance check, you can see whether the log accurately represents reality and if the model accurately represents what occurred. Differences may be uncovered, accounted for, and measured in severity with the use of conformance testing [19].

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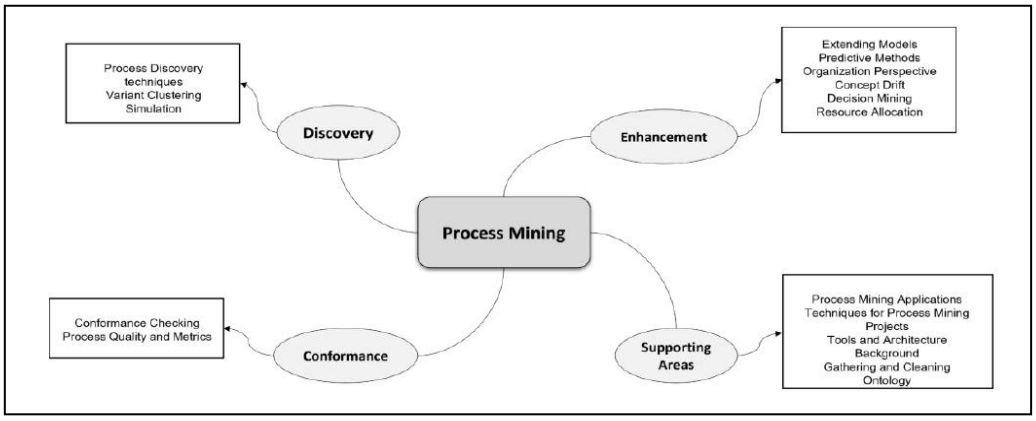

Figure 1: Process Mining Types

Extending the process model by connecting it with the log is another kind of improvement that adds new insight to the original design. De Weerdt et al. [16] show how process mining may be used in enterprises and what factors should be considered for success. When it comes to risk management, Caron et al. [20] zero in on optimizing process mining techniques for this specific application. By combining process mining with other forms of data analysis, the authors show how standard risk measures may be computed. Examples of work that is inspired by the process mining approach and the analysis of process behavior are introduced by Ferreira and Vasilyev [21] and Delias et al. [22].

3. BPM Methods

The goal of business process management is to standardize and automate how routine tasks and interactions with other people are handled. Minimizing inefficiencies and boosting productivity, helps the business save money. There are three categories of BPM are as follows:

I. System-Centric BPM (Integration-Centric BPM)

This kind of BPM system oversees operations that rely heavily on preexisting business systems (such as HRMS, CRM, and ERP) but do not need extensive human intervention. System-centric BPM software allows for many integrations and API access, allowing for the creation of efficient and timely BPs. The integration-centric BPM Suite is the name given to the integrated phase. It makes any company process more efficient and straightforward. The BPM suite's service-oriented design facilitates interaction between multiple program computing units. It considerably minimizes administration overhead and allows for the recycling of various application components. This improves the efficiency with which an application evolves [23].

II. Human-Centric BPM

Individuals are given top priority in human-centric BPM, which makes use of a wide range of automation features. Such tasks are often performed by humans and cannot be easily automated away. Human-centric processes include those related to assisting customers, hiring new employees, managing complaints, conducting online sales, and submitting expenses [24]. Human efforts are standardized into repeatable bundles that may be plugged into any number of BPs. Human-centric BPM is readily integrated with other systems since it is flexible, adaptive, and nimble in reaction to varied situations and events. The main advantages are risk reduction and better managerial assistance and customer interaction [25].

III. Document-centric BPM

It is concerned with vital business paperwork. During the execution of document-related activities, the system allows routing, formatting, having the document signed, and checking the entire task [26]. This BPM strategy focuses on papers that are critical to the operation of enterprises. It aids in the organization of the overall document, making it easier to deal with. It enables corporate organizations to process critical papers without incident, hence streamlining the entire process.

There are several Methods for Promising Process Management:

A. Business Process Reengineering (BPR)

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BPR is a well-known approach to BPM. BPR is quite radical in its attempt to change a company's functional structure into a process-oriented one. By focusing on critical BPs BRP ensures that both the company's priorities and the needs of its customers are met [27]. The rollout process then consists of four phases: In the Renewing phase, employees are fully included in the process and given the necessary training. A process analysis is performed in the second phase, Revitalizing, to ascertain the current state and to define the ideal one. Then, during the Reframing phase, you modify your mindset to match your workers' mental patterns. The Restructuring phase completes the BPR process by ensuring that the revised procedures are implemented.

B. Total Quality Management (TQM)

It's based on a company philosophy that stresses the need to always improve certain aspects of the business. The goal is to achieve the greatest possible quality in all business sectors so that the firm may impact numerous parameters such as customer happiness [28]. TQM goes much beyond traditional quality control in that quality is handled both reactively and proactively through numerous requirements.

C. Balanced Scorecard (BSC)

The Balanced Scorecard is an easy-to-use method for assessing strategic business objectives from four distinct vantage points. The first perspective is financial, which places focus on revenue and profit margins. The consumer viewpoint, on the other hand, contains metrics such as client satisfaction, return rate, and complaint incidence [29]. The third viewpoint is the process viewpoint. Process-related characteristics, such as throughput times or warehousing and logistics expenses, are gathered with an eye on cost, quality, and time. The employee viewpoint completes the four views and addresses topics such as employee happiness. It also gives information about the company's planned future advancements.

D. Six Sigma

Six Sigma is an approach to process improvement that is rooted in data analysis and statistical methods. The goal of Six Sigma is to be able to quantify the success of a process [30]. When the standard deviation of a process is too high (representing a great deal of dispersion), Six Sigma may be used to pinpoint and eliminate the causes of the problem. This method employs the Define–Measure–Analyze–Improve–and–Control (DMAIC) cycle to provide continuous analysis and enhancement of the process.

E. Process Mining

In today's highly digitized world, process mining is often regarded as one of the most effective methods for managing business processes. By creating a real-time process map from large datasets, process mining allows you to get a better understanding of how your business operates [6]. This paves the way for in-depth analysis of certain procedures. While doing the study, the PM software looks at the process from several different angles. By adjusting the filter parameters in a simulation, you may define the process and evaluate the results.

F. Change Management

businesses need to be nimble enough to quickly adjust to new circumstances. However, change management is essential to make changes in a planned and controlled manner. The first step in implementing a process change is submitting a change request [31]. The request is looked at very extensively, and the possible effects on the procedures are weighed. This analysis determines whether the proposed modification is implemented or refused. At this time, it is critical to remember: To maintain traceability, document all processes in as much detail as feasible.

G. Robotic Process Automation (RPA)

Save time by automating operations so you can focus on other things. RPA, or robotic process automation, accomplishes exactly that: it automates structured, repeatable business processes. A software robot acts as if it were a human user of your system by manipulating the UI [32]. As a result, no changes

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to the procedures are required. RPA is best suited for rule-based workflows. The software robot anticipates process needs and, depending on the kind of operation reacts with AI to learn human interactions in the most effective way possible. RPA solutions are classified as somewhat or completely automated. Because it operates totally without human interaction, fully automated RPA is frequently used in the backend.

H. Lean Management

The goal of "lean management" is to maximize efficiency by minimizing resource waste at every stage of production. Lean management's key focus is on saving money without sacrificing quality or service to customers. This process management approach evaluates and removes potential sources of waste, such as waiting periods, rejections, and other forms of overhead, as part of process optimization. The PDCA cycle is the backbone of lean management and is also utilized extensively in other areas of process improvement. The steps of PDCA (Plan, Do, Check, and Act) are repeated until the desired results are achieved [33].

4. BPM Tools

BPM tool is software that is only intended to optimize and maximize a business process to minimize errors, inefficiencies, and miscommunication in the workplace [35]. Common BPM tools are discussed in Table 1. It aids in the modeling, optimization, measurement, and automation of business processes to maximize return on investment [36].

Table 1: Common Business Process Management Tools

BPM TOOL	Deployment
beSlick	Cloud-based
Creatio	Cloud-based and On-Premises
Quixy	Cloud-based
Process Sreet	Cloud-based
Wrike	Cloud-hosted and Open API
Appian	Cloud-hosted
Kissflow	Cloud-hosted and Open API
PNMSoft	Cloud-hosted and On-premises
Pipefy	Cloud-hosted and Open API
Bizagi	Cloud-hosted and On-premises
ClickUp	Cloud-hosted and On-premises
Smart Sheet	Cloud-hosted
ActivTrak	Cloud-hosted
Teamwork	Cloud-based
Process maker	Cloud-hosted and On-premises
Nintex	Cloud-hosted and On-premises
Camunda	Cloud-hosted and On-premises
BonitaSoft	Cloud-hosted and On-premises
Webcon	Cloud-hosted and On-premises
Nanonets	Cloud-hosted and On-premises
Hive	Cloud-based
Zoho Creator	Cloud-based and On-premises
Signavio	Cloud-hosted and On-premises

Table 2 shows how they stack up in terms of various characteristics.

Table 2: Common Features of Business Process Management Tools

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BPM Tool	Intuitive UI	Low Pricing	No Code	Templates	Custom Models	OCR API	Easy Integration	Hidden Costs	Workflows	On chat support
Nanonets	✓	✓	✓	✓	✓	✓	✓	X	✓	✓
Hive	✓	✓	✓	X	✓	✓	X	✓	✓	✓
Appian	✓	X	✓	✓	✓	✓	✓	✓	✓	X
Kissflow	✓	X	✓	✓	✓	X	✓	✓	✓	✓
Zoho Creator	X	X	✓	✓	✓	✓	✓	X	✓	X
Monday	✓	✓	✓	✓	X	X	X	✓	✓	X
Pipefy	X	✓	✓	✓	✓	X	X	✓	✓	✓
Signavio	✓	✓	✓	✓	X	X	✓	✓	X	✓
Process Street	X	✓	X	✓	✓	X	✓	✓	✓	✓
IBM	X	X	✓	✓	✓	✓	✓	X	✓	X
Camunda	✓	X	X	✓	✓	✓	✓	X	✓	X
Bonitasoft	✓	✓	✓	✓	✓	X	✓	X	✓	X
Processmaker	✓	X	X	✓	✓	✓	✓	X	✓	✓
Webcon	✓	X	✓	✓	✓	✓	✓	X	✓	X

BPM tools are significant because they help firms to simplify their processes, increase transparency, save costs, improve the quality of their decision-making, and increase efficiency [37]. The growth of semi-structured processes, together with advances in computer performance and data transfer rates, has increased the demand for mining algorithms to handle new difficulties. Process mining could perhaps reveal, combine, and clean event data; manage variations in a process that happen while it is being extracted; as well as give technical assistants to process clients automatically; furthermore, discover process models from logs and investigate the conformance level of a process involved to its modeled counterpart. To improve upon an existing process model, it is necessary to include data gleaned from an event log detailing the actual process. Discovery occurs when a model of a process accurately reproduces the observed behaviors of the target process. In Table 3 we see a number of the best common important discovery techniques. Also, Table 4 presents other process discovery techniques with their related studies.

Table 3: Comparative Study of Process Discovery Techniques

PM Technique	Ref	Description	pros	cons
Alpha Miner	[38] [39] [40]	The first technique to close the gap between event logs or observable data and process model discovery is to identify the relationships and causalities between process stages.	• well-suited for discovering processes. • Build (Workflow) Petri Net without additional knowledge. • foundation for several process discovery algorithms.	• Sensitive to noise. • Incapable of handling loops of length one or two. • Invisible and repeated jobs are not discoverable.
Heuristic Miner	[41] [42] [43] [44] [45]	an upgrade of the Alpha Miner that operates on the "Directly-Follows Graph" and gives a method for dealing with noise and locating common constructs.	• Considers the events' frequency. • Filtering is used to minimize noise. • The outcome is a Heuristics and casual Net.	• Duplicate activity cannot be detected. • Does not ensure that the identified model is sound. • Cannot identify non-local, non-

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			• Identifies shorter loops and skipped events.	free choices since it does not examine non-local dependencies in an event log.
Fuzzy Miner	[46] [47] [48] [49]	Uses more complex approaches than the alpha and heuristic miners, such as activity filtering and clustering. To offer a more complete view of an organization's processes, a fuzzy miner is frequently used in conjunction with other process mining algorithms like heuristic heuristics miner and alpha miner.	• eliminating unnecessary edges., grouping strongly associated nodes into a single node, and deleting solitary node clusters. • beneficial for mining less structured processes with a large amount of unstructured data. • handle less-structured event data. • allows you to examine the process at various abstraction levels. • It is possible to simplify the model interactively.	cannot be transformed into other process modeling languages like BPMN / BPEL.
Genetic Miner	[50] [51]	Genetic algorithms are a type of search engine that simulates the natural process of evolution in biological systems. These algorithms attempt to locate a solution in the search space by either testing existing points or by mutating or combining existing points using a genetic algorithm.	• The genetic miner can discover non-local patterns in the event log and is said to be fairly noise resistant. • The purpose of genetic mining is to create the fittest heuristic net feasible. • It aids in the handling of noise and incompleteness in process models.	• not predictable and rely on randomness to generate new options. • Time consumption.
Inductive Miner	[52] [53] [54]	An upgrade of the Alpha and Heuristics Miner. The main distinction is that it ensures a robust process model with strong fitness values, which identifies a noticeable split in the event log using a divide-and-conquer technique. Following the discovery of the split, the method iterates through the sub-logs discovered by the split until a base case is located. The Inductive Miner operates on process trees rather than Petri nets.	• can handle noisy data and build high-quality, easy-to-understand process models. • Because of its flexibility, formal guarantees, and scalability, it is regarded as one of the top process discovery techniques. • guarantees soundness. • Considers event frequencies.	ignores low-frequency events and isolated events/event loops.

5. Challenges and Research Directions

Businesses implement business process management initiatives to gain insight into and enhance their operations in areas such as workflow simplification, productivity increases, risk mitigation, waste reduction, cost cutting, improved customer service, and scalability. BPM implementation may take

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various forms, from an in-depth examination of operations to the formal mapping of business processes to the deployment of a full suite of tools and capabilities. Depending on their roles, responsibilities, and income, as well as key business indicators, stakeholders may place varying importance on the same process improvement. It's crucial to think about how incentives are coordinated throughout teams and with partners and consumers. Several BPM obstacles, such as business culture, management style, testing capacity, technology and market developments, and communication, must be addressed to optimize the advantages of a BPM. BPM is a discipline that aims to improve organizational performance by managing and optimizing business processes. BPM has numerous challenges to overcome.

1. Ambiguity around business's end-goal
2. Poorly tested infrastructures
3. lack of clarity regarding the appropriate tool to use for a given task –
4. Hidden processes vulnerable to breakdowns -
5. Poor process visibility and traceability
6. Inflexible third-party contracts and incentives
7. Individuals having a wide range of experience and expertise
8. IT and business strategies that aren't aligned
9. Security
10. Business environment and BPs changes rapidly

Some possible avenues for addressing these issues and guiding future BPM research are:

- Artificial intelligence and automation: These tools can streamline labor-intensive procedures with little human input.
- The distributed ledger technology known as "blockchain" has the potential to increase confidence and clarity in intricate supply chain operations by facilitating the development of trustworthy, decentralized process networks.
- Process mining is the practice of mining data for insights into how processes are really carried out inside an organization. This might be useful for spotting bottlenecks and other areas for improvement.
- Organizations should adopt a culture of continual improvement rather than seeing BPM as a one-and-done initiative. In order to maintain their efficacy and efficiency, processes need to be reviewed and tweaked on a regular basis.
- Overall, BPM's prospects and threats are always shifting, and it requires ongoing improvement via research and development to keep up with the demands of the modern corporate world.

The foundation of process mining is the combination of descriptive or normative process models with events recorded in information systems (such as transaction logs, audit trails, databases, and message logs) . Information systems are increasingly keeping so-called event logs, which include details about business operations. There are often extensive libraries of process models inside major corporations. Many different purposes, including but not limited to process improvement, simulation, and certification, corporate governance, and workflow automation, motivate the modeling of processes. New process mining methods are needed to solve these issues. However, there are challenges that must be cleared away before its application in business as intended can produce results.

- Identifying, and cleaning event data
- Managing Diverse and Complicated Event Logs
- Developing Representative Benchmarks
- Dealing with Concept Drift
- Enhancing Process Discovery by Reducing Representational Bias
- Quality Criteria Balancing
- Cross-Organizational Mining
- Offering Assistance with Operations
- Analysis Methods Outside of Process Mining
- Enhancing the Experience for Novice Users
- Facilitating Non-Expert Comprehend ability
- Privacy and security

6. Discussion and Description of BPM and PM Integration Framework for Business Process

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BPM is focused on the development and management of operational processes, whereas process mining is concerned with assessing, optimizing, and redesigning organizational operations using data that is already present throughout any IT system. BPM is a set of abilities that top management must have to effectively organize and automate operational processes. Business owners may use process management to convert procedures into graphical flows and flow into automatons. Process mining is a cutting-edge element of BPM that focuses on collecting enterprise data (known as event logs) from corporate IT systems for subsequent analysis. Process mining software pulls available data about what occurred in a process and when from event logs. The following framework represents a holistic view of BPM and PM Integration for business process.

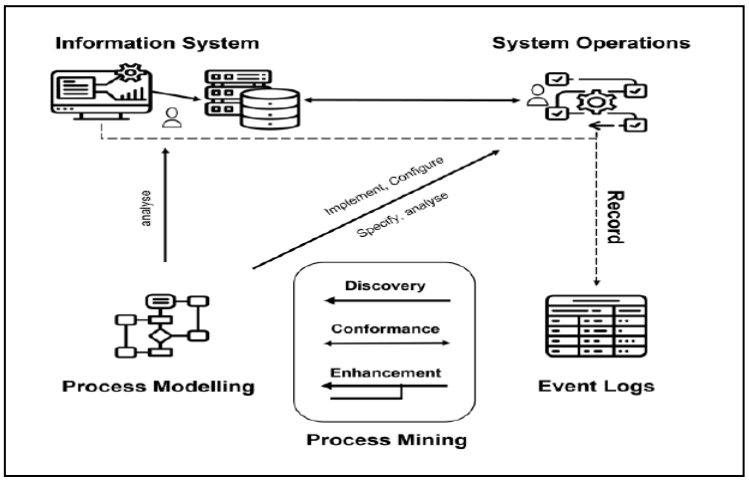

Figure 2: BPM and PM Integration for business process

The software techniques then transform the data into a complete language and visualize the logs. The power of PM to see through the noise is what makes it valuable. Consider your organization to be a human body. A firm, such as the human body, is a complex system of parts that must work together to stay well. Process mining is similar to an x-ray for your business [6]. There is a need to prioritize work toward efficiency, define automation prospects, and establish fact-based judgments for future business growth with the aid of PM, which is a mixture of data mining and process analysis. Process mining is an interesting tool for tracking what your firm does well and what may be improved. Process mining provides you with the version after humans get their hands on it and shows out the highs and lows of the process, whereas BPM provides perfect world outline. BPM offers a blueprint of a company's ideal process, whereas Process Mining delivers the company's actual, real-time process at any point as they strive to automate and improve. PM and PBM are both critical to achieving comprehensive process automation. Table 4 differentiates between BPM and PM.

Table 4: BPM and PM difference

Business Process Management	Process Mining
Business process management (BPM) is the discipline of improving organizational performance by analyzing, designing, monitoring, and controlling business processes.	Process mining is a technique that uses event logs to extract knowledge from business processes.
BPM aims to optimize the efficiency and effectiveness of a company's operations, increase its agility, and ensure that it complies with regulatory requirements.	Process mining, on the other hand, is focused on gaining insights into how a business process is actually performed in practice, identifying inefficiencies, bottlenecks, and other areas for improvement.
BPM typically involves a top-down approach, in which business process analysts define and model processes, while process owners implement them.	Process mining, on the other hand, is a bottom-up approach that starts with existing event logs and uses algorithms to uncover patterns and identify opportunities for optimization.

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BPM can be implemented using various methodologies, such as Six Sigma, Lean, and Agile.	Process mining can be used in conjunction with BPM methodologies to provide data-driven insights that support process improvement initiatives.
BPM requires a structured approach to process design and implementation, with clear roles and responsibilities, governance frameworks, and metrics for success.	Process mining requires access to event logs that capture the activities performed within a business process, as well as the timestamps associated with each activity.
BPM can be supported by various tools, such as process modeling software, workflow engines, and process analytics platforms.	Process mining can be supported by specialized software that applies algorithms to event logs to uncover insights and visualize process flows.
BPM has been widely adopted in various industries, including manufacturing, healthcare, finance, and retail.	Process mining has also gained traction in many industries, and has been used to improve a range of processes, from customer service to supply chain management.

Integrating process mining with BPM might result in a more all-encompassing strategy for process improvement. When BPM and process mining are used together, businesses may better understand their processes, pinpoint problem areas, and make necessary adjustments to increase efficiency and effectiveness. The following table details a few examples of how business process management (BPM) and process mining (PM) might work together as shown in table.

Table 5: Integration of Business Process Management and Process Mining

Integration Point	Description	Benefits
Process Discovery	Use process mining to discover and document existing processes, which can then be modeled and optimized using BPM techniques.	Provides a more accurate view of current processes than relying solely on interviews or other manual methods. Helps ensure that BPM efforts are based on actual process performance, rather than assumptions.
Process Analysis	Use process mining to analyze process performance and identify areas for improvement, then use BPM techniques to model and optimize the revised process.	Provides a data-driven approach to process improvement, based on real performance data. Ensures that BPM efforts focus on areas with the greatest potential for improvement.
Process Monitoring	Use process mining to monitor process performance in real time, and use BPM techniques to implement corrective actions when necessary.	Enables organizations to quickly identify and respond to process inefficiencies or deviations. Helps ensure that BPM efforts remain focused on ongoing process improvement.
Process Automation	Use BPM techniques to automate process steps or decision-making, and use process mining to monitor and refine automated processes over time.	Enables organizations to achieve greater efficiency and consistency in process execution. Ensures that automated processes continue to meet performance and quality targets over time.

7. Conclusion

BPM has gained popularity during the last decade. Experts have been modeling, enhancing, and enacting business processes with the use of BPM technology. A wide variety of BPM platforms and solutions are now at your disposal. New methods and frameworks have been developed in the academic world to facilitate more sophisticated BPM. Current developments in business process management are outlined in this survey. Numerous frameworks have been proposed for the BPM field, and recent advances have been situated in their historical context. This study summarizes and contrasts the most significant studies conducted on business process mining methods and tools. There is a brief overview of process mining in this article. In addition, this study addresses the relationship between business process management and process mining

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