

A call for ‘Holistic’ Business Process Management

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Abstract. Despite the proliferation of business process management (BPM) practice and the maturity of BPM research, many organizations lack a comprehensive overview on their end-to-end value chains, deploy ad-hoc BPM approaches, and work within BPM silos. Such fragmented practices cripples BPM’s ability to support organizations, especially in times of dynamic change. We claim that BPM should shift to a ‘holistic’ BPM approach, where organizational processes are well integrated, all BPM efforts are effectively coordinated, and BPM is well linked with other management practices. We open the debate to build and test tools and methods for holistic BPM to be a norm in everyday BPM practice and enterprise-design.

Keywords: Holistic BPM; Integrated Architecture; Process Architecture; Resilient Business Processes, Linked Value Chains; Capabilities.

1 Problem Description & Relevance

Rapidly evolving social, economic and technology trends are demanding resilient organizations. The need for organizations that can explore and adapt in response to new opportunities was demonstrated during the COVID-19 pandemic [13]. In addition to the pandemic, emerging technologies are drastically affecting how organizations work [12]. Everything is eventually related to an underlying process, which encompasses events and activities, but also actors (e.g., humans and digital agents), information systems, and objects [4]. A business process, thus, presents itself as a valued asset that is integrated with other organizational elements. We have progressed with the debate that modern organizations require a process-centric view for all enterprise-design efforts and “it has become an obligation for organizations to focus on BPM to help deal with the complexities and adapt with new environments” [1, p.3]. While enterprises have

invested resources for BPM initiatives (including for tools and capability building), organizations are often left with business processes incapable to respond efficiently and effectively to external changes.

COVID-19 illustrates that organizations have to rapidly evolve (if they are ready or not). It also showed that current BPM practices have not sufficiently equipped organizations with processes that are resilient enough to swiftly respond to dynamic changes without breaking or slowing down [16]. During the past year, several COVID-19 events caused weakened retail supply chains and capacity issues in patient-care provisioning. These examples of ‘process-centric’ problems highlight that organizations lack the capability to adapt, despite their well-established BPM practice [10]. This is true for many organizations in other dynamic contexts, such as a technology disruption, natural disaster, pandemic, political aftermath, or terrorist attack. Typical BPM practices are focused on repetitive transactional process performance, as opposed to rapid transformational change [9].

The problem is **that state-of-the-art BPM practices are heavily scoped and focused on individual processes remaining piece-meal and myopic without a holistic view**. Current dominant BPM methodological guidelines (e.g., process lifecycle management, Lean Six Sigma, process mining mechanisms) are heavily focused on individual processes as the unit of analysis, enabling BPM to only improve performance of one process at a time. This paper argues for the need to uplift current BPM practices and shift towards a holistic approach.

2 Current Body of Knowledge

Prior work has identified the value and need to build organizational capabilities at an enterprise level and has positioned **BPM as an essential enterprise capability** [3, 4], highlighting the value of a process view [8]. It has discussed the lack of an overarching BPM approach as a major barrier to BPM success [4], and identified success factors around strategically aligned BPM, BPM governance, people, culture, tools and methods. A range of BPM maturity models have emerged to assess the current state of diverse BPM capabilities and to assist progression plans [11], but without providing actionable mechanisms for effective BPM progress at the whole-of-enterprise level.

The literature harnesses the belief that **processes should be managed as a ‘whole’**, acknowledging that a holistic awareness is essential for transformations to realize the corporate strategy in a way that is supported by IT infrastructure and human resources [4, 8]. The **theory of holism** has been long standing and practiced in diverse contexts such as holistic medicine, holistic engineering, and management holism [5], but has not yet reached BPM. This theory highlights the important role of parts in contributing to the whole, continuous evolution and emergence of the ‘whole’ and its parts, and the need for a central regulation to ensure viability of the whole [5].

In response, **process portfolio management (PPM)** is an emerging BPM topic, and a viable base to a potential forming solution. PPM is defined as "identifying, documenting and managing a coherent, comprehensive set of interrelated, interdependent business processes simultaneously" [3, p.20]. It is known to bring benefits to an organization by providing foundational structures and insights to manage processes, while

considering the complex array of systems, data, people, and policies that pertain to each process [15]. A '**process architecture**' (PA) is a core artefact within a PPM approach. A PA is a conceptual representation of all processes in the organization, explicitly showing the horizontal and vertical process boundaries and their relationships [4]. PPM (via PAs) provides foundational structures and insights to manage processes. They enhance understanding of processes and equip an organization to make informed decisions with feasibility, where resource constraints, cost-effectiveness, and risk management can be appropriately accounted for. PPM can also assist to leverage process automation, robotics and digital transformation.

Although the need for PPM and its value for strategic alignment has been largely discussed [3, 6] and related challenges outlined [15], only limited guidelines exist [9]. Existing PPM guidelines are fragmented and narrowly scoped, only covering aspects of how to enumerate business processes, of process prioritization considerations, or of some mechanisms about PA building and maintenance. They lack design guidelines to make informed decisions with feasibility, where resource constraints, cost-effectiveness, and risk management can be appropriately accounted for [9], and none of the studies acknowledge contextual nuances. Learnings from existing practices are starting to emerge [8] but still lack theoretical underpinning and evidence.

3 Problem Root Causes

Three challenges form the root cause to the piece-meal and myopic BPM practices:

Challenge 1 Lack of an end-to-end process view: Though a process can cut across business units, products and customer experiences, organizations commonly see isolated process designs [4, 8]. The end-to-end value chain is often ill captured, 'too narrowly' defined, and interrelationships from one process to another overlooked. Process improvements in this limited scoping do not result in enhanced customer experiences nor generate added value [8]. It results in scattered, isolated improvements, incapable of effective enterprise-designs. Despite developments in sister disciplines such as customer journey mapping, these are often not integrated in BPM practice.

Challenge 2 Lack of organization-wide coordination of BPM activities: Many BPM initiatives have an isolated focus, being limited to a few departments (instead of including all related areas of the process value chain) or are narrowly focused on selected aspects (i.e., process modelling) [14]. Often BPM efforts occur sporadically to solve ad-hoc issues, with little coordination, resulting in duplicated efforts and resources, lost economies of scale, and confused stakeholders [2]. The biggest issue is that BPM efforts are not prioritized according to strategic value, thus resulting in perceived lack of value of BPM efforts.

Challenge 3 A siloed BPM profession: There is little interdisciplinarity across domain experts. Enterprise architects, business architects, process analysts, change/project/ risk managers, customer engagement officers, workflow engineers, experience designers etc. often work in silos with their own discipline's lexicons, tools and techniques. While localized self-governed workings have flexibilities and empowerment, they need to integrate to form a healthy 'whole'. Current BPM practices rarely identify

and manage the interrelationships with other organizational assets. Organizations should “*stop looking at their processes individually*” and focus on designing integrated process architectures “*balancing flexibility/agility and other objectives, such as cost and efficiency*” [7, p.1]. Minimalistic guidelines exist on how to integrate BPM with other management practices (e.g., risk/ human resources/ customer relationship management); what is available is limited to the realms of consulting firms- not empirically validated, nor readily accessible.

4 The Proposed Path Towards Holistic BPM

We identify three core areas to enable holistic BPM:

- Area i: design and manage integrated processes [to tackle Challenge 1],
- Area ii: have better prioritised, coordinated and integrated BPM efforts [to tackle Challenge 2],
- Area iii: integrate BPM with other management approaches [to tackle Challenge 3].

We call for comprehensive methodological frameworks that guides the management of accurately integrated organizational architectures, together with relevant capability building. We propose that augmented process portfolio management (PPM) practices could form a sound foundation towards holistic BPM practices, and argue for the following actions to enable things:

1. [Area i] Build on current PA knowhow to better equip organizations with a comprehensive and well-integrated perspective of all processes, with a special focus on maintaining an end-to-end process view. Future PA enhancements should better equip organizations to make evidence-supported decisions on managing processes with real-time process insights. PAs should become a standard norm with all BPM practice. Tools and methods should be developed to make this a feasible, viable and value-adding option for all organizations.
2. [Areas i-iii] Develop applicable and evidence-based mechanisms to integrate existing architectures (e.g., PA, Business, Enterprise, Service-Oriented, Marketplace, Ecosystems Architecture) and learning across different architectural fields to form an integrated architectural view of the enterprise. We propose to derive design principles for each architectural framework to compare and consolidate. This should be complemented with agile theories and theories of holism to enable effective enterprise (re-)designs during business-as-usual and dynamic times of change.
3. [Areas i-ii] Offer tool vendors and consultants ideas for ‘holistic’ BPM products and services that are capable to manage a suite of processes simultaneously (instead of just one at a time – including a single process’s multiple variants), which can apply diverse BPM methods that suit different process contexts. This will require researchers to offer solution-artefacts and actionable design principles that are adaptable to diverse process and organizational contexts. PA tools should have the

capability to compare, relate and merge multiple types of architectures from different disciplines, to better connect processes to enable less-isolated BPM efforts.

4. [Areas ii-iii] Update BPM training curricula to build essential capabilities for holistic BPM practices. Trainings should be enhanced with normative guidelines on the above mentioned three areas, where interdisciplinarity, integration and coordination will need to be core. Where possible, these trainings should be co-facilitated with experts from related disciplines to show how related disciplines (e.g. agile, design thinking, Enterprise Leadership, customer experience design etc.) relates to BPM.

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