Will GenAI Make or Break Your Process? - Structuring the Influence of GenAI on Business Process Resilience

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Abstract— **The swift adoption of Generative Artificial Intelligence (GenAI) in organizations prompts questions about its effects on Business Process Resilience (BPR). While GenAI is often linked to increased productivity, its influence on the robustness and stability of existing processes remains poorly understood. This research explores how GenAI integrates into established business processes, viewing it as a disruptor that challenges, rather than strengthens, process resilience. A combination of qualitative analysis and process simulation indicates that traditional performance metrics are insufficient for evaluating GenAI's impacts. Instead, explicitly assessing process and output quality, as well as human involvement, is necessary to understand new trade-offs. The paper points to human–organizational challenges, such as increased workload, technostress, and evolving roles for human process actors, which will require a focus on evaluation, oversight, and validation. The qualitative and the simulation-based approaches to assessing the impact of GenAI on BPR provide a diverse assessment of its impacts. These insights suggest that the introduction of GenAI into a business process should be managed as a socio-technical intervention.**

Keywords-Generative AI; business process resilience; business process performance; simulation; systemic view.

I. INTRODUCTION

Organizations operate in dynamic, ever-changing environments, where disruptions such as surges in case arrivals, equipment breakdowns, or workforce absences are common [1]. These incidents can damage personnel or equipment and interrupt operations. The first crucial step for organizations aiming to reduce the negative impact of these disruptions is to evaluate the resilience of their processes [2]. Resilience helps prepare for and manage adverse events by focusing on the resources needed to sustain processes, thereby helping control their impacts. Understanding these dynamics helps manage disruptive events and their negative effects on enterprise operations and resources. This concept also offers a systemic approach to addressing these challenges, encompassing the capacity to prepare for, prevent, protect against, respond to, and recover from setbacks [3]. It encompasses attributes such as robustness [4], adaptability [5], and redundancy [6].

Software tools based on Generative Artificial Intelligence (GenAI) are often integrated into live processes top-down without additional employee training [7], risking cybersecurity risks, skill gaps, and stakeholder issues [8]. For business process actors, this introduction occurs as an immediate and potentially job-threatening event. The immediate introduction has the disadvantage that specific GenAI tasks are not defined within the existing process flow, their applications are not managed, and the role of their outputs is not discussed. Hence, the introduction of GenAI into a current, non-redesigned business process is considered an adversarial event in this research and a challenge for Business Process Resilience (BPR).

Using BPR characteristics from [1] such as absorption, adaptability, agility, redundancy, robustness, recovery, resourcefulness, and rapidity, this research addresses the research question: What is the potential impact of GenAI introduction on BPR? A structured analysis maps existing findings onto BPR characteristics. A simulation of a workflow before and after GenAI highlights its effects, especially challenging aspects like absorption, adaptability, and flexibility. The combined qualitative and simulation approach offers a multidimensional assessment of technology's impact on processes, resources, and control flow—helping researchers study BPR effects and guiding managers to avoid compromising resilience and utilize GenAI effectively.

The paper is organized as follows: Section 2 discusses business process resilience and dimensions; Section 3 evaluates GenAI's impact; an exemplary process is analyzed through qualitative assessment and simulation; and finally, the paper concludes with discussions and future outlook.

II. BUSINESS PROCESS RESILIENCE (BPR)

The concept of resilience is present in different disciplines. An overarching understanding is provided by Haimes [9]. The author describes resilience as a system's ability to withstand disruption with acceptable degradation and to recover within a suitable time and at reasonable cost. Furthermore, the resilience literature distinguishes between a system's bouncing back and bouncing forward after a disruption, and frames bouncing forward as a sign of a new competitive advantage [10]. Duchek [11] provides a widely accepted definition, adopted here, that captures both reactive and proactive views, defining resilience as the ability to anticipate threats, cope with unexpected events, and learn from them.

There has been limited research assessing resilience at the process level. Kraus et al. [1] present a reactive view of

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process resilience as "an organization's ability to restore a process to its acceptable performance level after a disruption." Here, the definition focuses on process characteristics and is extended by Duchek's [11] general view. Process resilience is defined here as the ability of the process to anticipate threats, cope with unexpected events, and restore its performance to an acceptable level after disruption.

The topic of measuring or monitoring process resilience has not yet attracted notable interest in the information systems community. Zahoransky et al. [12] present a framework for detecting process resilience properties through log file analysis. Bhuiyan et al. [13] consider process actors to be critical and vulnerable in the context of process resilience. This approach focuses on enabling managers and analysts to manage human resources in ways that maintain process resilience, i.e., by delegating dependencies among actors, choosing alternatives, decomposing tasks, maintaining consistency between organizational and process models, or handling exceptions. The approach by Lee et al. [14] combines the two views. It uses process mining and social network analysis to define a metric called the "degree of substitution," which measures the extent to which the work experiences of human resources overlap, considering two perspectives: task execution and work transfer. It uses event logs for these analyses. Hence, human resources are treated as interchangeable elements in the resilience process.
Here, business process actors are considered integral to the process and, thus, to process resilience. Hence, in addition to the process performance metrics and process logic captured in the process model, business process resilience is considered here in the context of business process actors.

Kraus et al. [1] identify the following characteristics of business process resilience: absorption, adaptability, agility, flexibility, redundancy, robustness, recovery, resourcefulness, and rapidity. *Absorption* is described by [1] as the ability to dampen the impact of disruptive events. Kule [15] introduces, in this context, the additional characteristic of a system's absorptive capacity. It is defined as an organization's ability to acquire, assimilate, transform, and exploit knowledge, a capability that has emerged as a critical enabler of resilience. The ability to recognize the value of new knowledge is a critical yet subjective component of absorptive capacity [15]. *Adaptability* refers to the ability to respond to and adjust to a changing environment. Duchek [11] extends the term with system's adaptive capacity. It indicates an organization's ability to handle disruptions and bounce back, highlighting flexibility and the reorganization of resources [11]. *Agility* refers to the ability to quickly respond to shifting conditions. It involves sensing and adapting to changes in the business environment that could affect production processes, thereby enabling faster responses [16]. The process includes monitoring indicators and taking action to implement necessary changes.

Flexibility refers to the system's ability to change and adapt to new or complex situations. It also includes the ability to incorporate alternative execution paths during design time, affecting either the process instance or the overall business process model [17]. *Redundancy* involves duplicate processes, resource allocation, and the additional capacity to withstand potentially severe disruptions. *Robustness* refers to the capability to endure a certain level of stress without significant loss of function. It often involves maintaining critical operations by mobilizing resources, activating contingency plans, and making quick decisions, sometimes including temporary downsizing [10]. *Recovery* is the ability to quickly restart operations and reach a targeted performance level. *Resourcefulness*: process monitoring and controlling; The ability to diagnose problems and to initiate solutions. *Rapidity*: The ability to react fast to changes in its environment.

In this research, these characteristics are used to analyse and structure the impact of GenAI introduction into a business process on the process resilience.

III. Impact of GenAI introduction on BPR

Generative AI (GenAI) tools, defined as any "end user tool [...] whose technical implementation includes a generative model based on deep learning" [18], are the latest in a long line of process automation and support technologies. While enterprises that introduce the tool into their operations expect productivity and efficiency gains [19], reports on early adopters temper these expectations and highlight potential or actual risks associated with the technology's implementation [19].

A. Potentially positive aspects of GenAI support on business processes resilience

There are not yet a lot of research findings on the quantitative effects of GenAI on BPR, nevertheless, some reports from business users hint towards positive potentials [20]. Potentially positive impacts of introducing GenAI on BPR include increased and improved output for novices, faster creation, idea generation, and iteration—enhancing *speed* [20] [21]. It potentially boosts *resourcefulness* by providing more variants, alternative patterns, and ideas. Additionally, it offers *flexibility* through alternative generation and aids recovery with templates. *Absorption and rapidity* can be supported by the fast generation of walkaround solutions; the speed of suggestions can also be useful for generating alternative workflows or scenarios in response to a decision, supporting *adaptability* [22] and again resourcefulness. While it can suggest alternatives or leverage scalable processing capacity, GenAI does not add physical or organizational backup capacity, providing limited support for process *redundancy*. Given the indicator definitions, GenAI can provide a focused analysis and, hence, support process *robustness* [23]. Furthermore, updated thresholds and decisions, together with human approval and regular health checks, need to be integrated into the contingency planning. The fast generation speed can support business impact analysis, and recovery planning to support process *recovery*.

The positive impact of GenAI is, hence, concentrated on content generation to prevent process collapse or restore the process structure based on the original process.

B. Qualitative analysis: Threats to BPR

The introduction of GenAI increases demand for *absorption* within business processes. Employees must handle additional workload from prompt engineering, validation and troubleshooting. Also known as "prompt sprawl" [24] in addition to hallucinations and biased or incorrect outputs. This can lead to technostress [25], AI fatigue [26], and cognitive overload [27], also referred to as "brain fry" [28] [29], thereby reducing individual well-being and, in turn, lowering productivity. Workslop, AI-generated content that lacks substance [30], also endangers productivity and adds to resource consumption. Instead of stabilizing disturbances, processes become strained by the added coordination and control effort [21] [25].

Adaptability may decline when processes struggle to adjust to persistent output inconsistencies due to model drift, i.e., incorrect outputs due to the discrepancy between training data and real-world data [31], and misalignment between model outputs and real-world requirements. Continuous adjustments in workflows, skills, and governance are required, contributing to the productivity J-curve effect, i.e., initial productivity decline during technology adoption as defined by [32]. Fatigue and uncertainty further reduce the system's capacity to adapt effectively. GenAI can enhance process *agility* by enabling rapid output generation for ongoing process steps. This may improve *responsiveness* and short-term *flexibility*, especially in knowledge-intensive or creative tasks. However, *agility* gains are contingent on effective governance of knowledge, including the management of prompts and their interpretation, the curation of input sources, and the quality control of output. Otherwise, faster integration of low-quality outputs can amplify downstream inefficiencies and rework, offsetting productivity gains. *Redundancy* tends to decrease as GenAI replaces or consolidates human tasks, potentially leading to workforce reductions. While this may appear efficient, it reduces fallback options and increases dependency on a single system or vendor (tooling concentration) [33]. Lower redundancy can weaken resilience and create productivity risks if systems fail or outputs degrade. The *recovery* capacity of a process after GenAI introduction can improve if core process structures remain intact and GenAI is layered onto existing routines. In such cases, organizations can revert to established workflows when disruptions occur. However, recovery depends on governance mechanisms such as quality thresholds or fallback procedures. Without them, recovery is slower and more resource-intensive, negatively affecting productivity.

The *resourcefulness* of a business process varies based on the AI literacy of process actors to leverage the added value of the tool and organizational capabilities [34]. High levels of skill, data governance, and decision frameworks support the effectiveness of GenAI, which can further lead to productivity gains. Hence, skill gaps and unclear responsibilities may increase reliance on trial-and-error heuristics, raising coordination costs and reducing efficiency. *Rapidity*, as one of the process resilience characteristics, generally increases with the ad hoc integration of GenAI into workflows, thereby accelerating task execution and content generation response times [35]. However, faster output generation may shift effort toward validating and correcting the provided content [33]. As a result, end-to-end productivity may decline if quality assurance is not properly embedded. Similarly, *robustness* of a business process that integrates GenAI can be threatened by model drift, hallucinations, biased outputs, and vendor dependence. Without clear governance, quality thresholds, and their monitoring, process reliability can decline. This may lead to inconsistent or erroneous outputs and increased troubleshooting, diverting resources away from value creation and reducing overall productivity.

Hence, across all dimensions of business process resilience, integrating GenAI in a non-re-designed business process can introduce a tension between potential efficiency gains and short-term productivity losses: *Productivity* may decrease due to low trust in outputs, increased validation effort, and declining well-being. "Workslop" and inconsistent quality create rework and coordination overhead. *Transition costs* (skills, governance, process redesign) reinforce the productivity J-curve. Without systemic implementation of data governance, quality assurance roles, and decision frameworks, GenAI shifts employees' effort from value creation to error correction.

In this case, GenAI functions less as a simple productivity enhancer and more as a stress test of business process resilience, because productivity gains depend on whether organizations can stabilize and govern the disruption it introduces. The qualitative analysis across BPR characteristics emphasizes the process's ability to absorb and adapt to the disruption caused by the introduction of GenAI tools. Rather than treating GenAI as a purely technological upgrade, it frames the change as a stress test of process resilience, revealing whether the process can remain stable as it adjusts to new forms of work.

To illustrate the impact of incorporating GenAI into a business process in relation to business performance indicators, a hypothetical scenario is described and simulated in the following section. Focusing on process times, costs, and resources enables an assessment of the technology's impact on process performance and structure.

IV. EXAMPLE ASSESSMENT OF A BUSINESS PROCESS FROM MARKETING DOMAIN

In the following, a hypothetical scenario in the context of a medium-sized enterprise, involving the introduction of GenAI for typical business tasks, is described. The impact of the tool's introduction on business process resilience (BPR) is analyzed in light of the BPR characteristics described above. For a better overview, the process is modeled in BPMN before (Figure 1) and after (Figure 2) the GenAI integration. Subsequently, a simulation is run for both variants, and performance indicators are compared.

A. Qualitative Analysis of Business Process Resilience

A medium-sized enterprise that designs sports shoe wear is introducing a GenAI tool to support the marketing department in designing and monitoring a launch campaign for a new product. GenAI is to be used here to generate text and images for the campaign, as well as to support its planning by suggesting the rollout process and performance indicators. The rationale for introducing the technology is to help compose text and image content more quickly and to support project management by structuring the project and its indicators. GenAI, being a new tool, needs to be integrated into the current process. Hence, to create the envisioned output with at least the same quality as before, the process needs to *absorb* the tool into its tasks. It will take time for employees to master the new software tool and the interaction, as well as to *adapt* its output to the original process.

Current reports on industrial use cases describe the use of GenAI for brainstorming ideas and generating marketing content, with improved content *quality* and *time* saving [35] [36]. On the other hand, they also outline a rising workload created by unsatisfactory GenAI output, also referred to as workslop [30] as well as reduced worker wellbeing [21] and increased fatigue [26]. These circumstances can exacerbate their negative effects on *productivity* [32] and workers' *trust* [37]. Alternatively, having potentially an additional resource that can generate required output according to even short-term requirement changes allows the enterprise to rapidly respond to the changes, if the tool and its output are adequately integrated into the process, i.e., quality is assured, and guardrails against false or incorrect content are established. The tool might also enable the implementation of different process variants in response to, e.g., changes in budget and target group, while partial resource *redundancy* may necessitate layoffs in the marketing department. Using GenAI for campaign planning may enable broader risk consideration and thus facilitate problem diagnosis in advance. *Rapidity* in response can be supported by faster content generation or adjustments to planning steps within the campaign rollout. From a data-processing perspective, to avoid data and *model drift* after introducing guardrails against wrong, off-brand, or non-compliant outputs, content creation should be supported by curated data and knowledge sources, with regular audits or quality assurance checks in place. It implies involving human expertise to review and compare the output against the expected thresholds.

On the level of human resources and quality, management and maintenance of created knowledge, such as created prompts, approved metadata, and domain- and problem-specific documents, needs to be established to maintain the quality level required for the created content. Automated checks and crisis prompts can help maintain core *quality* under pressure. Model drift, outrages, and policy shifts need to be managed through contingency planning. Maintaining the data sources and prompt libraries requires resources and effort that drain on the *redundancy*, *resourcefulness*, and *flexibility*.

To complement the BPR analysis, a scenario involving the marketing process of marketing campaign design and launch is presented in the following section. Exploring the scenario in terms of process performance metrics and business process resilience can inform managerial decisions about introducing GenAI into a working process.

B. Process simulation

The marketing campaign planning process was modeled both without (Figure 1) and with (Figure 2) GenAI integration. Figure 2 reveals an elevated number of decisions, rework loops, and lane changes in the GenAI-supported process. The model was enriched with process times to enable the process simulation and calculation of performance indicators such as time, costs, and resource utilization.

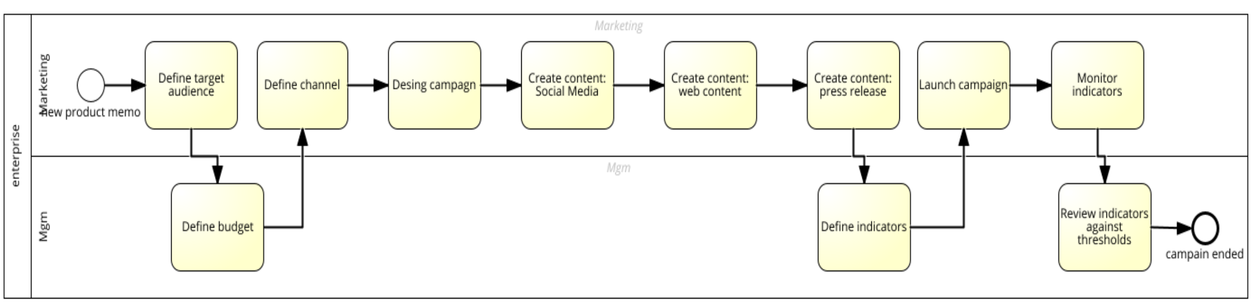

Figure 1. BPMN model of the original process.

The simulation was run using Signavio, a business process modeling tool that also provides process simulation functions. In the process model without GenAI-supported content generation, the duration of tasks for human actors was set to 2 hours, and the duration of decision tasks was set to 1 hour. In the process model with GenAI support, the duration of the generation tasks performed by the GenAI tool was set to 10 minutes, based on the assumption that multiple prompts were needed to produce a feasible output and reported time-saving rates [36]. For rework loops, the GenAI-created content was set to a 60% rework probability to allow for quality assessment and prompt adjustment. In both scenarios, the marketing employee's rate was set at 50€ per hour, and the manager's at 90€ per hour. No costs were considered for the GenAI tool, as the amount of tokens used for the campaign was considered as negligible.

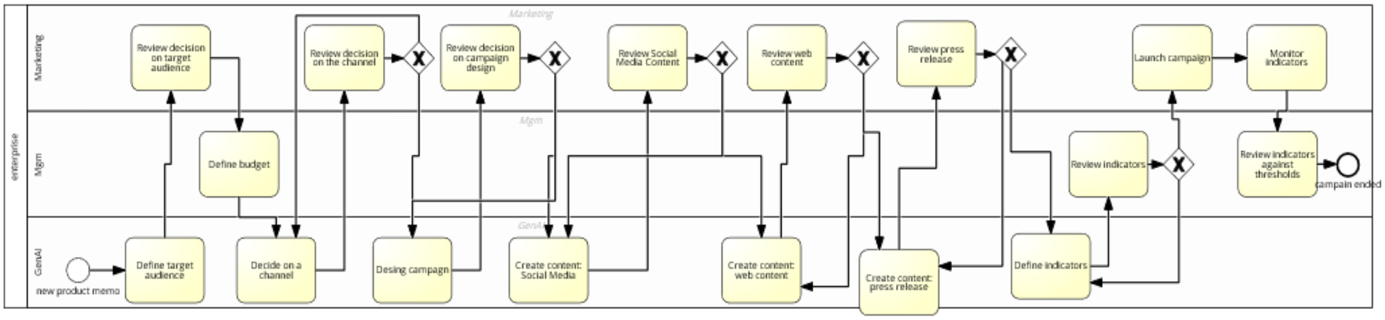

Figure 2. BPMN model of the GenAI-supported process.

While the performance metrics in the simulation are estimates, considering their relations provides insights that warrant further research. The *processing time* was calculated as the average across five campaigns because the tool's five-day workweek setting was used. Process management and marketing employees were identified as *bottlenecks* in the original process through simulation. The average processing time of the original process was calculated as 2 days, 14 hours, and 45 minutes. Here, the average *resource utilization* was 97% for marketing employees and 59% for management employees (see Table 1).

In the Gen-AI-supported scenario, only the marketing employee is identified as the *bottleneck*, and the processing time is calculated to be 3 days, 3 hours, and 40 minutes. *Resource utilization* is at 96% for the marketing employee, 63% for the management employee, and 34% for the GenAI tool.

TABLE I. SIMULATION RESULTS

Performance indictor	***Original process***	***GenAI-supported process***
Processing time	2d:14h:45minutes	3d:3h:40 minutes
Bottleneck	Marketing, Management	Marketing
Costs	4.088	4.125€
Resource utilization		
Marketing	97%	96%
Management	59%	63%
GenAI	NaN	34%

The simulation of the hypothetical business process pre- and post-introduction of the GenAI tool indicates that more resources are utilized, without a reduction in the resource utilization rate for human actors, when GenAI tools are involved. The simulation revealed a slight rise in the utilization rate for the management employee. Workslop and the increase in the resource utilization rate can be attributed to the reworking loops, indicating the impact on *absorption* and *flexibility* characteristics of BPR. The increased processing time after GenAI integration, while not representative, raises the question of GenAI's added value with respect to the characteristic of *rapidity*. The addition of the tool has positive implications for *redundancy*, but the resource utilization rate indicates that both human involvement and tool support are needed to deliver process results, thereby requiring more resources.

Performing the process simulations has indicated a potential discordance: Introducing GenAI into the existing process without changing knowledge management, data governance, or process logic structure affects BPR. It also has a potentially negative effect on the human resources involved in the process, undermining the positive effects of BPR and business performance in terms of time, costs, and resource utilization.

V. DISCUSSION

This research examines how integrating GenAI into existing business processes affects Business Process Resilience (BPR). It views this as a challenge that tests BPR's robustness rather than its productivity enhancement. GenAI is seen as a disruptive intrusion, and its benefits depend on an organization’s ability to adapt through good governance, clear usage policies, clear task definition, and strong knowledge management. The preliminary process analysis suggests that traditional process performance metrics, such as time, costs, and resources, are insufficient for evaluating post-GenAI process performance; measuring process and output quality, as well as monitoring human involvement to balance the negative effects on process quality, is necessary to identify trade-offs. While GenAI seems to boost ideation and support, it offers limited redundancy and might cause rework, increasing resource use, especially with weak governance. Furthermore, process simulation shows no clear cost or time improvements and may increase process dependency and quality risks, such as bias and wrong content. Further factors that can diminish productivity include increased workload and technostress, with human roles shifting from creation to oversight, requiring adaptation of their skills, tasks, and responsibilities.

VI. CONCLUSION AND FUTURE WORK

In this paper, the question of the potential impact of GenAI introduction on BPR in a non-re-designed process was examined using a qualitative approach of content mapping and process simulation. While the described results and insights stem from a qualitative analysis of current industry reports on GenAI effects on productivity and workforce, and the process simulation is based on rough quantitative estimates from the industry, the approach nevertheless illustrates how combining quantitative and qualitative insights can guide the assessment of technology implementation into the existing process. It became visible that business process resilience in the analyzed context depends on safeguards such as quality assurance, curated knowledge, process re-design, and re-skilling. Overall, the findings suggest that GenAI impacts BPR by shifting process resources towards governance, quality assurance, and oversight rather than mere automation. Hence, future work will aim to operationalize BPR characteristics and gather empirical data on GenAI's impact on process performance and resilience.

REFERENCES

[1] A. Kraus, J.-R. Rehse, and H. van der Aa, “Data-driven assessment of business process resilience,” Process Sci, vol. 1, no. 1, p. 4, Oct. 2024, doi: 10.1007/s44311-024-00004-2.

[2] G. Müller, T. G. Koslowski, and R. Accorsi, “Resilience - A New Research Field in Business Information Systems?,” in *Business Information Systems Workshops*, W. Abramowicz, Ed., Berlin, Heidelberg: Springer, 2013, pp. 3–14. doi: 10.1007/978-3-642-41687-3_2.

[3] K. Thoma, B. Scharte, D. Hiller, and T. Leismann, “Resilience Engineering as Part of Security Research: Definitions, Concepts and Science Approaches,” Eur J Secur Res, vol. 1, no. 1, pp. 3–19, Apr. 2016, doi: 10.1007/s41125-016-0002-4.

[4] K. Furuta, “Resilience Engineering,” in Reflections on the Fukushima Daiichi Nuclear Accident: Toward Social-Scientific Literacy and Engineering Resilience, J. Ahn, C. Carson, M. Jensen, K. Juraku, S. Nagasaki, and S. Tanaka, Eds., Cham: Springer International Publishing, 2015, pp. 435–454. doi: 10.1007/978-3-319-12090-4_24.

[5] M. K. Linnenluecke, “Resilience in Business and Management Research: A Review of Influential Publications and a Research Agenda,” International Journal of Management Reviews, vol. 19, no. 1, pp. 4–30, 2017, doi: 10.1111/ijmr.12076.

[6] Y. Sheffi and J. Rice, “A Supply Chain View of the Resilient Enterprise,” MIT SMR, Oct. 2005, Accessed: May 08, 2026. [Online]. Available: https://sloanreview.mit.edu/article/a-supply-chain-view-of-the-resilient-enterprise/

[7] A. Challapally, C. Pease, R. Raskar, and P. Chari, “State of AI in Business 2025”, MIT NANDA, July 2025.

[8] L. Y. Koh, S. E. Toh, and K. F. Yuen, “The influence of digital drivers on organisational digital resilience: An organisational information processing theory perspective,” Technology in Society, vol. 86, p. 103283, Jun. 2026, doi: 10.1016/j.techsoc.2026.103283.

[9] Y. Y. Haimes, “On the Definition of Resilience in Systems,” Risk Analysis, vol. 29, no. 4, pp. 498–501, 2009, doi: 10.1111/j.1539-6924.2009.01216.x.

[10] J. Bughin, “Robustness and Renewal as key dynamic capabilities for corporate resilience,” European Research on Management and Business Economics, vol. 32, no. 2, p. 100308, May 2026, doi: 10.1016/j.iedeen.2026.100308.

[11] S. Duchek, “Organizational resilience: a capability-based conceptualization,” Bus Res, vol. 13, no. 1, pp. 215–246, Apr. 2020, doi: 10.1007/s40685-019-0085-7.

[12] R. M. Zahoransky, C. Brenig, and T. Koslowski, “Towards a Process-Centered Resilience Framework,” in 2015 10th International Conference on Availability, Reliability and Security, Aug. 2015, pp. 266–273. doi: 10.1109/ARES.2015.68.

[13] M. Bhuiyan, M. M. Z. Islam, G. Koliadis, A. Krishna, and A. Ghose, “Managing Business Process Risk Using Rich Organizational Models,” in 31st Annual International Computer Software and Applications Conference - Vol. 2 - (COMPSAC 2007), Beijing, China: IEEE, Jul. 2007, pp. 509–520. doi: 10.1109/COMPSAC.2007.138.

[14] J. Lee, S. Lee, J. Kim, and I. Choi, “Dynamic human resource selection for business process exceptions,” Knowl Process Manag, vol. 26, no. 1, pp. 23–31, Jan. 2019, doi: 10.1002/kpm.1591.

[15] J. W. Kule, “Absorptive Capacity as a Catalyst for Resilience in SMEs: A Literature Analysis,” JRIIE, Apr. 2025, doi: 10.59765/mgpr6382.

[16] K. Meechang, K. Medini, and M. Pero, “Measuring Agility and Resilience in Engineer-to-Order Contexts,” in Advances in Production Management Systems. Cyber-Physical-Human Production Systems: Human-AI Collaboration and Beyond, H. Mizuyama, E. Morinaga, T. Nonaka, T. Kaihara, G. von Cieminski, and D. Romero, Eds., Kamakura: Springer Nature Switzerland, 2025, pp. 71–84. doi: 10.1007/978-3-032-03542-4_5.

[17] R. Cognini, F. Corradini, S. Gnesi, A. Polini, and B. Re, “Research challenges in business process adaptability,” in Proceedings of the 29th Annual ACM Symposium on Applied Computing, in SAC ’14. New York, NY, USA: Association for Computing Machinery, Mar. 2014, pp. 1049–1054. doi: 10.1145/2554850.2555055.

[18] A. Sarkar, “Will Code Remain a Relevant User Interface for End-User Programming with Generative AI Models?,” in Proceedings of the 2023 ACM SIGPLAN International Symposium on New Ideas, New Paradigms, and Reflections on Programming and Software, Cascais Portugal: ACM, Oct. 2023, pp. 153–167. doi: 10.1145/3622758.3622882.

[19] M. Nguyen, N. Trinh, A. Mehrotra, and S. Basahel, “Generative AI in the workplace: how employee experiences influence work outcomes?,” Journal of Enterprise Information Management, vol. 38, no. 5, pp. 1647–1666, May 2025, doi: 10.1108/JEIM-11-2024-0637.

[20] M. Mas-Machuca, A. Akhmedova, and F. Marimon, “Generati/ve AI and Workplace Productivity: A Qualitative Study in Spain,” pp. 625–631, 2025.

[21] J. Jia, X. Ning, and W. Liu, “The consequences and theoretical explanation of workplace AI on employees: a systematic literature review,” J. Digit. Manag., vol. 1, no. 1, p. 14, Oct. 2025, doi: 10.1007/s44362-025-00016-3.

[22] S. Gao, P.-L. Teh, and H. H. P. Ho, “Digital transformation and innovation in small and medium enterprises (SMEs): a systematic review and future research agenda,” Cogent

Business & Management, vol. 13, no. 1, p. 2612775, Jan. 2026, doi: 10.1080/23311975.2026.2612775.

[23] “5 Generative AI Resilience Use Cases Transforming Business Continuity,” Disaster Recovery Journal. Accessed: May 01, 2026. [Online]. Available: https://drj.com/journal_main/generative-ai-resilience-use-cases/

[24] “Prompt Sprawl: What the Real Costs Look Like in Production,” DEV Community. Accessed: Apr. 27, 2026. [Online]. Available: https://dev.to/gorealai/prompt-sprawl-what-the-real-costs-look-like-in-production-3mo9

[25] S. Zhang, P. Guo, Y. Yuan, and Y. Ji, “Anxiety or engaged? Research on the impact of technostress on employees’ innovative behavior in the era of artificial intelligence,” Acta Psychologica, vol. 259, p. 105442, Sep. 2025, doi: 10.1016/j.actpsy.2025.105442.

[26] M. Ragolane and S. Patel, “Too Much, Too Fast: Understanding Ai Fatigue In The Digital Acceleration Era,” International Journal of Arts Humanities & Social Science, vol. 6, pp. 53–60, Aug. 2025, doi: 10.56734/ijahss.v6n8a7.

[27] “AI and the Rise of Cognitive Overload | College of Public Health.” Accessed: Apr. 13, 2026. [Online]. Available: https://publichealth.gmu.edu/news/2026-03/ai-and-rise-cognitive-overload

[28] J. Bedard, M. Kropp, M. Hsu, O. T. Karaman, J. Hawes, and G. R. Kellerman, “When Using AI Leads to ‘Brain Fry,’” Harvard Business Review, Mar. 05, 2026. Accessed: Apr. 13, 2026. [Online]. Available: https://hbr.org/2026/03/when-using-ai-leads-to-brain-fry

[29] A. Wray and P. Merton, “‘Brain fry’ in Just a Minute : the challenges of talking without hesitation, repetition or deviation,” Comedy Studies, vol. 15, no. 2, pp. 137–153, Jul. 2024, doi: 10.1080/2040610X.2024.2373579.

[30] K. Niederhoffer, G. R. Kellerman, A. Lee, A. Liebscher, K. Rapuano, and J. T. Hancock, “AI-Generated ‘Workslop’ Is Destroying Productivity,” Harvard Business Review, Sep. 22, 2025. Accessed: Feb. 23, 2026. [Online]. Available: https://hbr.org/2025/09/ai-generated-workslop-is-destroying-productivity

[31] “Understanding Model Drift and Data Drift in LLMs (2026 Guide).” Accessed: May 05, 2026. [Online]. Available: https://orq.ai/blog/model-vs-data-drift

[32] E. Brynjolfsson, D. Rock, and C. Syverson, “The Productivity J-Curve: How Intangibles Complement General Purpose Technologies,” American Economic Journal: Macroeconomics, vol. 13, no. 1, pp. 333–372, Jan. 2021, doi: 10.1257/mac.20180386.

[33] J.-E. D. Neve, J. T. Hancock, and K. Niederhoffer, “Why Companies That Choose AI Augmentation Over Automation May Win in the Long Run,” Harvard Business Review, Apr. 15, 2026. Accessed: Apr. 23, 2026. [Online]. Available: https://hbr.org/2026/04/why-companies-that-choose-ai-augmentation-over-automation-may-win-in-the-long-run

[34] M. Hoffmann, S. Boysel, F. Nagle, S. Peng, and K. Xu, “Generative AI and the Nature of Work,” HBS Working Paper Series, no. 25–021, 2025.

[35] L. Ma, P. Yu, X. Zhang, G. Wang, and F. Hao, “How AI use in organizations contributes to employee competitive advantage: The moderating role of perceived organization support,” Technological Forecasting and Social Change, vol. 209, p. 123801, Dec. 2024, doi: 10.1016/j.techfore.2024.123801.

[36] N. Rudan, “6 Ways Marketers Are Using Generative AI: Is It Really Saving Time?,” Databox. Accessed: May 02, 2026. [Online]. Available: https://databox.com/how-are-marketers-using-gen-ai

[37] WEF, “World Economic Forum,” White paper, 2023. Accessed: Apr. 19, 2026. [Online]. Available: https://www3.weforum.org/docs/WEF_Measuring_Digital_Trust_2023.pdf

