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## Modern Productivity Management: Why Work Systems Fail to Produce High Performance

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**Abstract:** The development of digital technology and modern work systems is often assumed to increase organizational productivity and performance. However, in practice, many organizations experience increased workloads without corresponding improvements in performance quality. This article aims to analyze why modern work systems often fail to produce high performance, despite being supported by increasingly sophisticated management practices and technology. Using a narrative-critical literature review approach to scientific publications in the fields of management, cognitive psychology, and organizational behavior from 2015 to 2025, this article examines the relationship between work system design, cognitive limitations, planning biases, emotional regulation, and performance sustainability. The analysis shows that modern work systems are built on assumptions that are at odds with human cognitive and emotional capacities, such as demands for multitasking, constant responsiveness, and overly optimistic performance targets. These conditions foster the illusion of activity-based productivity, increase cognitive load and emotional stress, and hinder deep focus and quality decision-making. This article contributes to the productivity management literature by asserting that productivity is a systemic phenomenon that depends on the alignment between work system design and human psychological capacities. The article's practical implications emphasize the importance of shifting work systems toward sustainable, high-quality performance.

**Keyword:** Cognitive Load, Productivity Management, Sustainable Performance, Work Psychology, Work Systems.

### INTRODUCTION

The development of digital technology, management information systems, and hard work are often considered the primary drivers of increased organizational productivity. Various digital collaboration platforms, performance management software, and work monitoring systems are designed to accelerate information flow, improve coordination efficiency, and expand the work capacity of individuals and teams. In many modern

organizations, digitalization is even considered the primary solution for improving organizational performance and competitiveness.

However, despite this progress, various studies have shown the emergence of a phenomenon often referred to as the productivity paradox in knowledge work. Despite a significant increase in work activity—characterized by the intensity of meetings, emails, and digital communication—the quality of work focus, depth, and strategic decision-making tend to decline. Research shows that modern workers spend a significant portion of their time on administrative and communicative coordination activities, leaving time for high-value cognitive work increasingly limited (Leroy et al., 2021; Mark et al., 2016).

This paradox challenges the fundamental assumptions of classical management literature, which defines productivity as the ratio between output and input, with a primary focus on the efficient use of organizational resources. This approach has given rise to various managerial instruments such as performance targets, key performance indicators (KPIs), and activity-based evaluation systems. While these instruments are crucial for maintaining organizational accountability, in practice they often focus on the visibility of activities—such as meeting attendance, speed of response to messages, and tight schedules—rather than on substantive contributions to the organization's strategic goals.

In the context of knowledge work, the activity-focused approach to productivity has received increasing scrutiny. Knowledge performance is determined not only by the quantity of work completed, but also by the quality of analysis, creativity, and the ability to generate solutions to complex problems. Therefore, some researchers argue that modern productivity is multidimensional and cannot be reduced to simple quantitative measures such as hours worked or the number of tasks completed (Bakker & Woerkm, 2017).

Beyond performance measurement issues, cognitive psychology literature also shows that many modern work systems are not designed to accommodate human mental capacity. While the digitalization of work through email, collaboration platforms, and instant messaging applications has increased the speed of coordination, it has also increased the frequency of interruptions and fragmented attention. Empirical research shows that modern workers experience a significant increase in the number of daily work interruptions, which directly contribute to increased stress and decreased ability to focus (Mark et al., 2016).

This phenomenon can be explained through cognitive load theory, which states that human working memory capacity is limited. When information demands exceed this capacity, an individual's ability to process information, make decisions, and solve complex problems declines (Sweller, 1988). Furthermore, work interruptions not only interrupt ongoing activities but also leave attention residue, the residual attention left on the previous task, reducing the effectiveness of transitions between tasks (Leroy et al., 2021). Thus, the decline in performance quality in many organizations is not solely caused by a lack of individual discipline, but rather by the structural design of work systems that fragment attention.

In addition to cognitive limitations, organizational decision-making is also influenced by various cognitive biases. One of the most widely discussed biases in management literature is the planning fallacy, the tendency of individuals and organizations to underestimate the time, cost, and complexity of work (Kahneman et al., 2019). In organizational practice, this bias is often reinforced by target pressure, a high-performance culture, and short-term incentives that encourage overly optimistic planning. Research shows that many large-scale project failures are caused not by a lack of technical capability, but by systematic planning errors rooted in the optimism bias (Flyvbjerg & Gardner, 2023).

The work psychology literature also highlights the importance of emotion regulation in determining performance quality. Procrastination, for example, is increasingly understood not as a mere failure of discipline, but as an emotional response to tasks perceived as stressful or

unpleasant (Sirois & Pychyl, 2016). In work systems that pile up demands without providing space for psychological recovery, emotional distress can increase and weaken work resilience. Research shows that emotional regulation skills are positively related to work performance and well-being, especially in high-demand work environments (Hulsheger et al., 2015).

In knowledge-based work, optimal performance is often associated with the experience of flow, a state of deep focus where individuals work with high engagement and a balance between challenge and ability. This state has been shown to increase output quality, intrinsic motivation, and job satisfaction (Bakker & Woerkm, 2017; Deci et al., 2017; Mazzetti et al., 2023). However, modern work systems, characterized by constant interruptions, multitasking, and demands for high responsiveness, often hinder the creation of this deep work state.

Although the literature on management, cognitive psychology, and organizational behavior has extensively discussed the various factors influencing work productivity, most research tends to examine these factors separately. Management studies generally emphasize work system design and performance control mechanisms, while psychology research focuses more on individual cognitive capacity and emotion regulation. Consequently, a conceptual gap remains in understanding how modern work system design interacts with human cognitive and emotional limitations to influence organizational productivity.

Based on these gaps, this article aims to develop a more integrative perspective on work productivity in modern organizations. Specifically, it analyzes how work system designs oriented toward busyness, constant responsiveness, and optimistic targets can conflict with the limitations of human cognitive and emotional capacities. Using a conceptual literature review approach to research in management, work psychology, and organizational behavior from 2015–2025, this article seeks to build a more comprehensive framework for understanding the dynamics of productivity in modern work systems.

The article's primary contribution lies in bridging the performance management literature with findings from cognitive and behavioral psychology to explain productivity as a systemic phenomenon. This article argues that productivity failures in many organizations are not solely caused by individual weaknesses, but rather are a consequence of work system designs that are not aligned with human psychological capacities. Thus, this article is expected to provide theoretical contributions to the development of productivity management studies while also providing practical implications for organizations in designing more effective and sustainable work systems.

## **METHOD**

### **Research Design**

This study uses a narrative-critical literature review approach. This approach was chosen because the primary purpose of this article is to develop a conceptual understanding of the failure of modern work systems to produce high performance, rather than to test specific empirical hypotheses. A narrative-critical literature review allows researchers to integrate and evaluate findings across disciplines—particularly management, work psychology, and organizational behavior—and identify patterns, contradictions, and theoretical gaps in the existing literature (Baumeister & Leary, 1997; Snyder, 2019; Sugiyono, 2019; Zed, 2014).

Unlike systematic reviews, which emphasize replication and quantification of findings, a narrative-critical approach is more appropriate for conceptual articles that aim to build new theoretical arguments and frameworks of understanding (Baumeister & Leary, 1997; Snyder, 2019). In the context of this research, the method is used to examine how managerial assumptions about productivity are often at odds with findings from cognitive and behavioral psychology.

### **Data Sources and Literature Search Strategy**

The literature analyzed in this study comes from reputable scientific publications published between 2015 and 2025. The search was conducted through major academic databases, namely Scopus, Web of Science, and Google Scholar, to ensure broad and relevant coverage of the literature.

The keywords used in the search included a combination of the following terms:

- 1) Productivity management, work performance, knowledge work.
- 2) Cognitive load, attention, digital work.
- 3) Planning fallacy, cognitive bias, decision making.
- 4) Emotion regulation, procrastination, work recovery.

The search was conducted iteratively, by cross-referencing primary articles to identify important works frequently cited in the literature.

### **Inclusion and Exclusion Criteria**

To maintain the relevance and quality of the study, this study applies the following inclusion and exclusion criteria. The inclusion criteria are as follows: (1) Articles discussing productivity, work performance, or work systems in an organizational context. (2) Studies linking performance to cognitive, emotional, or behavioral factors. (3) Publications in peer-reviewed scientific journals or reputable academic books. (4) Articles providing significant theoretical or empirical contributions to the understanding of work productivity.

Meanwhile, the exclusion criteria are as follows: (1) Popular non-academic articles and practical literature without a clear scientific basis. (2) Studies focusing solely on individual time management techniques without a work system context. (3) Publications with inadequately explained methodology.

### **Literature Analysis Procedure**

The literature analysis was conducted using a thematic-critical analysis approach. The selected articles were grouped based on the following main themes: (1) productivity and work systems, (2) cognitive load and digital distractions, (3) cognitive biases in planning and decision-making, (4) emotion regulation and procrastination, and (5) performance recovery and sustainability.

Each theme was critically analyzed to identify similarities in findings, differences in perspectives, and limitations in the existing literature. The analysis focused not only on the research findings but also on the theoretical assumptions underlying these studies, particularly assumptions about individual rationality and work system design. This approach enabled researchers to highlight how productivity failures often emerge as systemic consequences, rather than individual problems.

### **Conceptual Validity and Method Limitations**

To enhance conceptual validity, this study integrates literature from various relevant disciplines and compares the empirical findings with the theoretical framework used in performance management. Furthermore, the use of reputable and up-to-date literature sources ensures that the analysis is based on reliable scientific findings.

However, this study has limitations. As a conceptual study based on a literature review, this article does not present primary empirical data. Therefore, the findings and arguments presented are interpretive and dependent on the quality and scope of the literature analyzed. This limitation opens up opportunities for further research to test the proposed conceptual framework through empirical approaches, both quantitative and qualitative.

## **RESULT AND DISCUSSION**

### **Productivity as a Systemic, Not an Individual, Problem**

The literature review confirms that productivity failures in modern organizations cannot be reduced to individual issues such as lack of discipline, motivation, or time management skills. Rather, these failures are systemic, rooted in a mismatch between work system design and people's cognitive and emotional capacities. This finding aligns with criticisms of the activity-based productivity paradigm that remains dominant in managerial practice (Bakker & Woerkm, 2017).

In many organizations, performance is assessed based on the visibility of activities—for example, schedule density, meeting attendance, and speed of response to messages—which are symbolically associated with productivity. However, research shows that these indicators do not always correlate positively with the quality of knowledge-based performance and can even obscure substantive contributions to the organization's strategic goals (Newport, 2021). Thus, modern work systems tend to create the illusion of productivity, where increased busyness is not accompanied by meaningful improvements in performance.

### **Work System Incompatibility with Cognitive Limitations**

A review of the literature shows that many modern work systems are built on the implicit assumption that individuals are capable of working simultaneously, switching tasks quickly, and maintaining high-quality performance despite intense interruptions. This assumption contradicts cognitive psychology findings regarding the limitations of working memory and the negative impact of interruptions on focus and information processing (Mark et al., 2016; Sweller, 1988).

A study by Mark et al. (2016) showed that frequent digital interruptions not only increase stress but also prolong focus recovery time. Furthermore, Leroy et al. (2021) explained that interruptions leave attention residue that reduces the effectiveness of transitions between tasks. In an organizational context, these findings indicate that decreased productivity is not caused by individuals' failure to manage attention, but rather by the structural design of work systems that fragment focus and increase cognitive load.

### **Institutionalized Cognitive Biases in Management Practice**

The discussion also reveals that cognitive biases—particularly the planning fallacy and optimism bias—not only affect individuals but are often institutionalized in managerial practices and organizational planning systems. Kahneman et al. (2019) show that individuals and organizations systematically underestimate the duration, complexity, and risk of projects, even when they have relevant historical experience.

At the organizational level, these biases are reinforced by target pressures and short-term incentives. Flyvbjerg & Gardner (2023) show that many major project failures are not caused by a lack of technical expertise, but rather by systematic planning errors rooted in optimism bias. When these biases become part of organizational norms, work systems tend to set unrealistic expectations, increase work stress, and decrease the quality of decision-making.

### **Emotion Regulation and Sustainable Performance**

Recent literature confirms that work performance is inseparable from the ability to regulate emotions. Procrastination, often understood as a failure of discipline, is increasingly viewed as an emotional response to tasks perceived as stressful or unpleasant (Sirois & Pychyl, 2016). In work systems that pile up demands without room for recovery, negative emotional responses tend to increase and weaken work resilience.

Hulsheger et al (2015) found that emotional regulation ability is positively correlated with work performance and well-being, especially in high-demand environments. This finding strengthens the argument that work systems that ignore the emotional dimension risk producing fragile and unsustainable short-term productivity. Thus, sustainable performance needs to be understood as the result of a balance between work demands and individual emotional capacities.

### **Managerial Implications: From Control to Work System Design**

Based on the discussion above, this article proposes a managerial paradigm shift from an individual control approach to work system design that aligns with human capacities. Rather than increasing supervision, targets, or work hours, managers need to evaluate how work structures, communication flows, and performance evaluation practices impact employee attention, emotions, and focus.

Research on flow and deep work suggests that optimal performance is more likely to be achieved when individuals have the opportunity to work in a state of sustained, uninterrupted focus (Bakker & Woerkm, 2017; Newport, 2021). Furthermore, the work recovery literature confirms that rest and psychological recovery are essential prerequisites for sustained performance (Barnes & Drake, 2015; Sonnentag et al., 2017). These implications call for a shift in how organizations define and manage productivity, moving away from simply work intensity toward the quality and sustainability of performance.

### **Theoretical Contributions and Cross-Disciplinary Integration**

Theoretically, this article contributes to the productivity management literature by asserting that productivity is a systemic phenomenon that emerges from the interaction between work system design and human psychological capacities. By integrating findings from cognitive and behavioral psychology into the analysis of performance management, this article challenges the assumption of complete rationality that remains dominant in many managerial models.

This cross-disciplinary approach broadens the discourse on productivity management by providing a more realistic and sustainability-oriented conceptual framework. Furthermore, this article opens the door to further empirical research to examine the relationships between work system design, cognitive load, emotion regulation, and long-term performance in various organizational contexts.

## **CONCLUSION**

### **Conclusion**

This article aims to critically examine why modern work systems often fail to produce high performance, despite being supported by increasingly sophisticated digital technologies and management practices. Based on a narrative-critical literature review of research in management, cognitive psychology, and organizational behavior, this article demonstrates that productivity failure cannot be understood solely as an individual problem, but rather as a systemic phenomenon rooted in the design of the work system itself.

The article's conceptual findings confirm that many modern work systems are built on assumptions that are at odds with human cognitive and emotional capacities. The demands of multitasking, constant responsiveness, and optimistic performance targets tend to increase cognitive load, reinforce planning bias, and weaken emotion regulation and psychological recovery. As a result, these work systems encourage busyness that appears productive, but actually hinders deep focus, quality decision-making, and sustained performance.

By positioning productivity as the result of the interaction between work system design and individual psychological capacities, this article offers an alternative perspective on

modern productivity management. Productivity is understood not as a function of working hours or activity intensity, but rather as the ability of an organizational system to create conditions that enable sustained high-quality performance.

### **Theoretical Implications**

Theoretically, this article contributes to the productivity and performance management literature by integrating findings from cognitive and behavioral psychology into the analysis of work systems. This approach challenges the assumption of complete rationality inherent in many performance management models and expands the understanding of productivity from an individual perspective to a systemic and contextual perspective.

This article also enriches the discourse on knowledge work by emphasizing that knowledge-based performance is highly dependent on the design of work systems that support focus, emotional regulation, and recovery. Thus, productivity is no longer viewed as a purely technical issue, but as a cross-disciplinary issue that requires integration between management, psychology, and organizational design.

### **Practical Managerial Implications**

From a practical perspective, the findings of this article provide important implications for managers and work system designers. First, organizations need to review performance indicators that overemphasize activity visibility and responsiveness, and shift them toward evaluating substantive contributions to strategic objectives. Second, work system design needs to consider human cognitive limitations by limiting non-essential interruptions, restructuring meeting practices, and creating space for deep work.

Third, sustainable productivity management requires recognizing the role of emotional regulation and psychological recovery. Rest, work breaks, and flexibility are not barriers to productivity, but rather strategic components in maintaining long-term performance quality. By adopting this approach, organizations have the potential to achieve a balance between high performance and work well-being.

### **Limitations and Directions for Further Research**

As a conceptual article based on a literature review, this study is limited by the lack of primary empirical data. Therefore, the findings and proposed conceptual framework are interpretive and dependent on the quality of the literature analyzed. Future research is recommended to empirically test the relationship between work system design, cognitive load, emotional regulation, and sustainable performance through quantitative, qualitative, or mixed-methods approaches.

In addition, future studies could explore variations in organizational contexts, industry sectors, and work cultures to deepen understanding of how modern productivity management can be designed more adaptively and contextually.

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