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MASTER'S THESIS

**THE IMPACT OF TIME MANAGEMENT ON EMPLOYEE PERFORMANCE IN AN
INTERNATIONAL COMPANY**

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LIST OF ABBREVIATIONS

TM – Time Management
TSQ – Time Structure Questionnaire
TMBS – Time Management Behaviour Scale
GST – Goal-Setting Theory
TMT – Temporal Motivation Theory
EP – Employee Performance
OCB – Organizational Citizenship Behaviour
AMO – Ability, Motivation, and Opportunity Theory
IWB – Innovative Work Behaviour
JD-R – Job Demands-Resources Model
SCT – Social Cognitive Theory
LMX – Leader-Member Exchange
COR – Conservation of Resources Theory
TPB – Theory of Planned Behaviour
PCT – Perceived Control of Time
SEM – Structural Equation Modelling
MLR – Multiple Linear Regression
SE – Self-Efficacy
WM – Work Motivation
WS – Work Stress
JS – Job Satisfaction
TP – Task (in-role) Performance
CP – Contextual (extra-role) Performance

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INTRODUCTION

Relevance of the topic. In the last few decades, the world's business environment has changed dramatically. It seems like every company is aiming to expand their operations on a global scale. However, with such complex markets and growing competition, it is increasingly harder to maintain a competitive advantage. Therefore, companies are looking for various ways to be more efficient, productive, and sustainable in their performance. One of ways to achieve this is through one of the most valuable resources a company has – their employees. Understanding how employees feel in their job role, what hinders or enhances their performance can be crucial to a company's success or failure. In this context, the importance of time management on employee performance in international companies has been increasingly recognized. Effective time management can be a beneficial and possibly crucial when trying to enhance employee job satisfaction, productivity, and overall work performance. Additionally, with the rise of more complex organizational environments, like hybrid or remote job roles, it is necessary to understand how to ensure and maintain optimal employee performance.

Effective time management is an advantageous tool, which can help lower employee stress, increase their motivation, and as a result boost performance. On the other hand, the lack of proper time management practices can increase the number of stressful situations, rushed projects, and the prioritization of deadlines over the quality of work. This can create a domino effect, starting with the decreased quality of work, lowered worker motivation and ending with an overall compromise on the success of the entire firm, even on the international scale.

Over the years, the interest in this topic and how time management can actually be implemented to employee performance has been increasingly relevant. Since this practice can have a significantly positive impact on productivity and work results, it is crucial to understand its functions, implementation, and the best ways it can be utilized to benefit both firms and employees.

Problem investigation level. The concept of time management is built on the research by Taylor (1911), Drucker (1967), Lakein (1973), Covey (1989), Macan (1994), and Odoh, & Moluno (2023). Authors Claessens et al. (2007), Hamzah et al. (2014), Francis, & Olori (2017) and others provide definitions and theoretical interpretations of the concept.

The interpretations or employee/work performance presented are by Atatsi, Stoffers, & Kil (2019), Diamantidis, & Chatzoglou (2018), Hermina, & Yosepha (2019), and Kibeb sii, & Chufi (2022). Borman, & Motowidlo (1993) and Motowidlo, & Van Scotter (1994) differentiate the framework between task and contextual performance. Then, Diamantidis, & Chatzoglou (2018) investigate employee performance impacting factors, such as intrinsic motivation, proactivity, job

environment, and other. Atatsi et al. (2019) research the influence of OCB, IWB, and LMX, and Elufioye et al. (2024) consider the implications of employee well-being.

Covey (1989) laid the foundation for emphasizing well-being and maintaining work life balance as a part of effective time management. Macan's (1994) model of time management proposed, how time management behaviours such as setting goals and priorities, scheduling and planning, and especially the perceived control of time can lead to an increased psychological regulation. These ideas, along with authors' Bedi, & Sass (2022), Kibebzii, & Chufi (2022), Cross, & Santeli (2020), and Diamantidis, & Chatzoglou, (2018) link the concepts of time management and employee performance. They suggest how practising effective time management can allow employees to experience more control over their time, feel less stress, and overall increase job satisfaction.

It should be noted, that despite the considerable attention paid to both time management and employee performance in academic literature, an all-encompassing understanding of their complex relationship requires deeper investigation. While literature acknowledges the crucial role of effective time management in boosting productivity and efficiency, a deeper examination into how specific time management practices influence the multi-dimensional framework of employee performance is not yet fully articulated. Current research focuses on fundamental time management practices such as task prioritization, sticking to deadlines, and implementing schedules. However, there is a gap in analysing how these practises actually translate into improved performance. So, it can be concluded, that the impact of time management on employee performance is a rather relevant topic, that is important to study on a both theoretical, and practical level.

Scientific problem — how does time management impact employee performance in an international company?

Object of the thesis is the impact of time management on employee performance in an international company.

Aim of the thesis is to investigate the impact of time management on employee performance in an international company.

Objectives of the thesis:

1. To analyse the concept of time management.
2. To examine the framework of employee performance and its impacting factors.
3. To find the links between time management and employee performance.
4. To analyse the empirical investigation level of research regarding the impact of time management on employee performance.

5. Having evaluated the results of theoretical and empirical research, to formulate the research model of the impact of time management on employee performance in an international company.
6. To perform empirical evaluation of the research model of the impact of time management on employee performance in an international company and to determine whether time management behaviours and the perceived control of time influence employee performance through employee self-efficacy, work motivation, work stress, and job satisfaction.

Structure of the thesis. The first chapter “THEORETICAL ASPECTS OF TIME MANAGEMENT ON EMPLOYEE PERFORMANCE” describes the concept of time management and its practises. In addition, it discusses the framework of employee performance and its impacting factors. Lastly, it presents the link between time management practises and employee performance in an international company.

The second chapter “EMPIRICAL INVESTIGATION LEVEL OF THE IMPACT OF TIME MANAGEMENT ON EMPLOYEE PERFORMANCE IN AN INTERNATIONAL COMPANY” analyses the empirical investigation level of research on the links between time management and employee performance. Moreover, it considers the implication of the international aspect. Having evaluated the results of theoretical and empirical research, the chapter presents the revised research model of the impact of time management on employee performance.

Thesis’ and research methods. The analysis of the theoretical and analytical premises of time management and employee performance were performed by analysis of scientific literature, synthesis and classification. In the empirical part, a quantitative research method was used to collect and analyse primary data via a structured survey of international company employees. The survey addressed themes such as time management, work motivation and work stress, and employee performance outcomes. The collected data were analysed using statistical techniques, including correlation analysis and single as well as multiple regression analysis, to assess the impact of time management on employee performance. This integrated approach ensures a comprehensive and robust evaluation, combining theoretical synthesis with empirical validation.

Literature sources used in the thesis. The theoretical part of the master’s thesis mainly used words by foreign authors and articles related to the concept of time management and its practices, employee performance, and the links between them. The main references are Covey (1989), Macan (1994), Diamantidis, & Chatzoglou (2018), Cross, & Santeli (2020), Bedi, & Sass (2022), Kibebssii, & Chufi (2022), Odoh, & Moluno (2023), and other authors related to the analysed topic.

Theoretical significance of the thesis:

- An analysis of theoretical material on time management was carried out. The evolution of time management shows a significant shift in the concept and allows for the distinction of two approaches: scientific (traditional) management and modern. The traditional way focused on strict time control and measure, task execution, and manager time planning, whereas the modern management prioritizes employee autonomy, confidence, and well-being. This change highlights the importance of psychological well-being, self-regulation, and work-life balance, and that the traditional methods which focused on efficiency and speed, no longer meet the demands of the contemporary business environment.
- The analysis of literature on employee performance allowed to define employee/work performance as both the quantity and quality of work, that is completed in a timely manner. However, performance can be differentiated further into task (in-role) and contextual (extra-role). Task performance is about the execution of the tasks described in the job description. Contextual performance (or OCB) is voluntary behaviour, such as helping others, being proactive, or having extra enthusiasm.
- Analysis of author perspectives allows to categorize the determinants of employee performance into three components: ability, motivation, and opportunity to perform (AMO theory). This explains that one has to possess the skills, willingness, and environment to perform. However, these factors are a collaborative effort from the employee themselves and the organization. Ability (skills, competencies, self-efficacy) stem from the employee, the opportunity (autonomy, support, access to resources) comes from the firm/environment, and the motivation is the combination of intrinsic and extrinsic which can be boosted by both parties.
- After evaluating the varying authors' observations on the influence of time management practices on employee performance, a theoretical model was constructed. This model shows the relationship between time management and perceived control of time, psychological well-being, and employee performance.

Practical significance of the thesis:

- An original questionnaire for the investigation of influence of TM on employee performance was developed through a literature review which contributes to the TM and EP literature. This questionnaire can be used and further developed into a more comprehensive measure for TM and EP.
- The influence time management, the perceived control of time, self-efficacy, motivation, stress, and job satisfaction on employee task (in-role) and contextual performance are explored in this research, and statistically significant findings are

presented. Thus, the findings of the research can provide better understanding to companies how TM can improve employee performance.

Approval of results. Radzevičiūtė, D., & Šarkiūnaitė, I. (2026). The Impact of Time Management on Employee Performance in an International Company. *20th Prof. Vladas Gronska International Scientific Conference*, 8th of May 2026. The thesis and its contents were presented in the scientific conference (Appendix 1).

Structure and scope of the thesis. The master's thesis consists of an introduction, 3 parts, and conclusions. The study is presented in 82 pages, including 36 tables and 7 figures. In addition to that, the thesis contains 3 appendices. The list of references consists of 82 references.

1. THEORETICAL ASPECTS OF THE IMPACT OF TIME MANAGEMENT ON EMPLOYEE PERFORMANCE

This chapter discusses time management (TM) but more specifically, how the concept and its definitions have changed throughout the years. It presents an evolution from traditional and classic understandings to the modern contemporary idea of time management. Furthermore, it describes the framework of employee performance and its core theories. Then, the theoretical aspects and links between time management and employee performance are analysed and discussed. Finally, the theoretical model of the impact of time management on employee performance is presented.

1.1. The concept of time management

Researchers believe that time is an essential resource in human life and must be utilized better (Al Hila et al., 2017). Although it cannot be controlled, time and management go hand in hand as when time is managed appropriately it can be used to its highest potential, allowing goals and tasks to be achieved with the least amount of time, effort, and cost possible (ibid).

Claessens et al. (2007) have written that not only theory, but a definition on time management (TM) is lacking. However, the authors described it as different behaviours, that possess the goal of an effective use of time, while completing specific tasks. Later, other authors have expanded on the definition or added their own take (Table 1).

Table 1

The definitions of time management

Author	Interpretation of the term <i>time management</i>
Claessens et al. (2007, p. 262)	Behaviours that aim at achieving an effective use of time while performing certain goal-directed activities.
De Vos, & Soens (2011)	A combination of sensitivity for time, the setting of goals, prioritizing tasks, and observation outcomes.
Abd el-Aziz, Eid, & Safan (2012)	A set of certain skills and methods to achieve targets, goals, and objectives, and organizing the available time.
Adebisi (2013)	Art of arranging business and personal affairs in a way, so that you and your things show up when, where, and how you have intended them to, as frequently, effortlessly, and ubiquitously, as possible, and to facilitate getting things done as quickly as possible with the least number of resources necessary.
Hamzah et al. (2014)	The ability of a person to accomplish the desired goals either in the short-term or long-term with the effective allocation of time.
Francis, & Olori (2017)	Numerous techniques and skills that can help a person to make use of the available time in the most efficient way and to accomplish goals, tasks and projects within the predetermined period of time.
Amonoo et al. (2019)	Art of arranging, organizing, scheduling, and budgeting one's time for the purpose of generating more effective work and productivity.
John (2020)	A set of principles, practices, skills, tools, and systems that work together and help firms gain value out of their time in order to increase productivity.
Aeon et al. (2021)	A form of decision making used by individuals to structure, protect, and adapt their time to changing conditions.

Source: created by the author.

Table 1 shows that scholars emphasize different aspects of TM, from goal-oriented behaviours to skills, systems, and decision-making. Claessens et al. (2007) focus on goal-oriented behaviours, Adebisi (2013), Amonoo et al. (2019), and Aeon et al. (2021) state that time management is a way or form of arranging or structuring time and affairs, while Hamzah et al. (2014), Abd el-Aziz, Eid, & Safan (2012), Francis, & Olori (2017), and John (2020) emphasize time management as a set of skills, tools, and methods aimed at improving effectiveness and productivity. However, the most recent interpretation by Aeon et al. (2021) describes time management as a form of decision-making that enables individuals to structure, protect, and adapt their time to changing conditions, which reflects the growing recognition of flexibility and personal influence in managing time. This fits Covey's (1989) idea of time management, which emphasized purpose, well-being, and personal goals.

Overall, these definitions reveal, that scholars frame TM through different perspectives, behavioural, cognitive, and organizational. Taking all of them into consideration, TM can be described as utilizing a pre-set amount of time to achieve set goals and targets, through methods, like task prioritization and other systems, while maintaining the highest form of efficiency.

Having defined the concept, it's important to understand how TM has evolved from classic to modern concepts. While informal forms of time management have existed throughout history, systemic time management began with The Industrial Revolution (Levinson, 2004). Table 2 presents how the concept of TM evolved.

Table 2

The evolution of the concept of time management

Source	Period	Interpretation of time management
Levinson (2004)	1760 – 1840 Industrial Revolution	Emergence of the first generation of time management and the use of clocks.
Taylor (1911)	Early 20 th century	The second generation emerges as Taylor (1911) presents a scientific management theory, where techniques include clear work goals, encouraging task completion, and promoting efficient work methods, all of which laid the foundation for modern time management techniques.
Drucker (1967), Lakein (1973), Covey (1989), Macan (1994)	Post World War II Late 20 th century	Drucker (1967) presented his theory on modern management and effectiveness. Lakein (1973) proposed one of the earliest systematic approaches for personal time management. Covey (1989) introduced a four-quadrant model to organize and prioritize tasks. Macan's (1994) further research focused on time management behaviours (goal setting, task prioritization) and their outcomes, such as impact on employee performance.
Odoh, & Moluno (2023)	Contemporary	Fourth-generation approaches focus on time assessment, planning, and monitoring behaviours. There is a growing emphasis on work-life balance and employee autonomy. Techniques include the involvement of technology and AI.

Source: created by the author.

As the industrial revolution took off the rise of automated factories resulted in people being led by machine time (Levinson, 2004). So, to maximize worked time, management set fixed schedules

and used clocks (Levinson, 2004). The rise of the new mindset towards time, prompted the growth of time management techniques (Levinson, 2004).

At the start of the century, Taylor (1911) introduced a scientific management theory, which laid the foundation for time management principles in organizational settings. His approach was based on the idea, that work processes could be studied scientifically to determine the most efficient way to perform tasks. According to Taylor (1911) managers should observe, measure, and analyse each job, and then, develop a method which would minimize wasted time and effort. Since the most notable element in his theory is the “task idea”, he suggested that management pre-plans and defines in detail the tasks that should be completed by employees. This shows that workers should focus on execution, while managers take the responsibility of planning (Taylor, 1911).

Following the start of scientific management, later scholars shifted from mechanical efficiency to personal and managerial effectiveness. The father of modern management, Drucker (1967) presented his theory, built on the belief, that effectiveness is a skill that can be learned and one should manage themselves to achieve maximum productivity. According to him, managers should combine their position and knowledge with the responsibility to contribute to the firm’s operations and results. However, he also suggested, that their motivation depends on their perceived effectiveness, which can be built through five steps (Drucker, 1967). First, managers should record, analyse, and eliminate unproductive demands and consolidate time. Then, focus on results and leverage their strengths. To add, tasks should be prioritized and abandoned if they no longer hold value. Lastly, their decisions should be treated as judgments, that require clear problem definition (Drucker, 1967).

While Drucker (1967) focused on the managerial role in organizations, Lakein (1973) shifted toward personal productivity. Lakein (1973) proposed one of the earliest systematic approaches for personal time management. He focused on maximizing effectiveness over speed and efficiency. The fundamentals for his theory are categorizing tasks into three groups: A, B, and C. These go from highest long-term value and priority, to lowest. The key is eliminating lower priority tasks, like the C category. That is, because the 80/20 rule suggests, that 80% of value comes from 20% of the tasks. Another key point of this system is planning short-term instead of long-term. To do so, the individual Internal Prime Time, when one concentrates the best, should be found. In terms of procrastination, Lakein (1973) recommends including smaller, instant tasks into bigger projects to gain momentum. To conclude, the author’s classic time management model emphasizes structures yet flexible control, which is slowly built on willpower and a trial and error (Lakein, 1973).

Alongside behavioural approaches, researchers also began exploring the psychological experience of time. The Time Structure Questionnaire (TSQ), developed by Bond, & Feather (1988) is a psychological tool, used to measure the time structure. It is defined as the extent to which one

perceives their time as structured and with purpose. The analysis had identified five factors that relate to the perceived control of time (Bond, & Feather, 1988):

1. sense of purpose (if daily activities have meaning),
2. structured routine (if there is a daily routine or planned activities),
3. present orientation (dwelling on the past or contemplating the future),
4. effective organization (organizing time or being motivated),
5. persistence (maintaining activities, not giving up).

Studies, using the TSQ, show that a higher score on the questionnaire (more structure and purpose in time use) is positively related to positive personality and well-being characteristics and negatively related to negative outcomes (Bond, & Feather, 1988). To elaborate, factors that are positively related to TSQ are having a sense of purpose in life, having a higher self-esteem, better health, more optimism, more efficient study habits, and employment. Whereas negatively related factors are depression, psychological distress, anxiety, neuroticism, physical unwell and hopelessness (Bond, & Feather, 1988). So, the authors' study findings show, that perceived control is a key psychological mechanism, through which time management behaviours manifest in positive outcomes.

Building on both behavioural and psychological perspectives, Covey (1989) introduced a more "principle-centred" approach toward TM. The author encouraged individuals to create a statement focusing on what the individual (character) wants to be, what to do (contributions), and what values are being built upon (Covey, 1989). Additionally, he noted, that task prioritization should stem from importance, not urgency, which emphasizes effectiveness over efficiency. So, Covey (1989) introduced the Time Management Matrix, which categorizes activities into four quadrants:

1. QI — urgent and important,
2. QII — important, but not urgent,
3. QIII — urgent, but not important,
4. QIV — neither urgent nor important.

The authors suggests that Quadrant II is the heart of effective personal management. According to him, if the focus is on important, but not yet urgent tasks, one's effectiveness will increase. That is due to the individual thinking ahead of time and completing tasks before they develop into crises (Covey, 1989).

In parallel, organizational psychologists began examining TM behaviours and their outcomes in more depth. Macan (1994) presented a model of TM and identified its three elements: setting goals and priorities, mechanics (making lists and scheduling), preference for organization. After defining TM behaviours, Macan (1996) did a study, which researched the effects of TM training on employees using the TMBS (Time Management Behaviour Scale). However, the author found, that respondents

did not report an increase of TM behaviours after the TM training program. But participants which chose to continue in the study, did perceive more control of their time (Macan, 1996). The findings also showed that there were no big differences between the training and no training groups in relation to job satisfaction or job induced tensions. So, Macan's (1996) evaluation suggests, that TM training sometimes improves perceived control but rarely changes behaviours.

The TMBS and TSQ capture two complementary dimensions of time management: behaviour (TMBS) and the psychological experience of structure and control (TSQ). While TMBS evaluates planning, prioritizing, scheduling, the TSQ analyses how individuals perceive and interpret their use of time. When combined, the two perspectives suggest that effective TM depends not only on specific behaviours but also on the subjective sense of control, routine, and purpose.

So, the first generation of time management focused on basic task lists and reminders, the second emphasized planning, scheduling, and prioritization, and the third integrated goal alignment and values into time use. This understanding of time management later evolved into the contemporary approach, which moves beyond tools and schedules to incorporate psychological, motivational, and contextual factors.

The fourth generation of TM, the modern/contemporary approach, emphasizes perceived control of time and self-regulation, which offers a more comprehensive understanding of the concept's influence.

Locke, & Latham (2002) contributed a crucial perspective on goal setting, which is one of the key parts of TM. The authors' Goal Setting Theory (GST) provides guidelines for effective planning and motivation. According to authors, a goal is defined as the object of an action, usually framed within a specific time. However, a conscious goal is specific and difficult, and it drives individuals to put in more effort and persist longer, until their abilities reach capacity. Authors further propose that goals motivate through four mediating mechanisms: effort, persistence, direction, and task strategies. To add, their effectiveness can be maximized through commitment and feedback (Locke, & Latham, 2002). Overall, the GST explains the high performance cycle. High goals lead to high performance, which leads to rewards, this results in high satisfaction and self-efficacy, which in turn motivates setting even higher goals (Locke, & Latham, 2002). It's worth mentioning, that the GST conflicts with the Expectancy Theory. This theory by Vroom (1964) suggests that motivation is a combination of expectancy, instrumentality, and valence. Meaning, that an individual's belief their effort will lead to a desired performance, the performance will lead to a specific outcome, and the value of the outcome is the essence of motivation (Vroom, 1964). However, Locke, & Latham (2002) suggest, that while higher expectancy leads to higher performance within a goal level, low expectancy leads to higher performance across goals levels because the difficult goal itself requires maximum effort (Locke, & Latham, 2002).

However, even well-designed goals can be hindered by psychological barriers, like motivation and procrastination. Steel's (2007) Temporal Motivation Theory (TMT) incorporates such findings on self-regulatory failure. TMT states, that a task's utility (how much an individual wants to do it), comes down to four components: expectancy, value, impulsiveness, and delay. Expectancy and value were described before in relation to the GST. Impulsiveness is the distractibility and lack of self-control, while delay is the time until the task is completed. As delay increases, utility shrinks (Steel, 2007). Another discussed factor of the theory is procrastination. TMT explains procrastination by showing how the perceived utility of tasks changes over time (Steel, 2007). Exciting activities, like socializing, feel rewarding immediately, so their utility stays high in the present. Important tasks feel less appealing at first because their reward seems further away, so the utility is low until the deadline approaches. As the delay decreases, utility suddenly rises and eventually becomes higher, which is typically when individuals take action. So, because rewards are given over time, people often plan actions for the future but then switch to easier, immediate rewards when the moment to act actually arrives. This creates the intention-action gap (Steel, 2007). In short, TMT confirms, that unpleasant or delayed tasks strongly increase procrastination, while high self-efficacy and conscientiousness reduce it (Steel, 2007). Based on these findings, it can be stated, that in order for tasks to be completed sooner or on time, self-regulation is crucial.

Beyond motivation, even deeper cognitive factors shape how individuals plan and organize time. Chase et al. (2013) recommend, that once desirable goals are identified, they should be evaluated in terms of whether they fall within the individual's control and if they are realistically attainable (Chase et al., 2013). That is because individuals are likely to experience the planning fallacy (Buehler et al., 2010). This theory in terms of time management is a well-documented cognitive bias, where individuals underestimate the time required to complete a future task. It is defined by the paradoxical combination of optimism about the future and realism about the past. This occurs due to the tendency to picture the best case scenario and ignore the past (Buehler et al., 2010). Individuals typically fail to learn from history, because they attribute past delays as temporary or external factors, which makes them seem irrelevant. This bias is common in personal or work related projects and especially in scenarios where interruptions are common. To add, it becomes stronger when people are motivated to see successful outcomes or plan in a too detailed manner. This mindset heightens the focus on success and overlooks potential obstacles (Buehler et al., 2010). Chase et al. (2013) suggest the following approaches: monitoring, setting goals, prioritizing, planning, delegating, and analysis of time spent. Unlike tools that focus only on setting tasks, these emphasize reflection. They propose maintaining a time log during the execution of tasks to identify procrastination patterns and how time is actually spent. If an objective is not progressing as expected, the individual should

identify the specific barriers causing delays (Chase et al., 2013). These reflective practices introduce real time feedback, which can reduce the influence of the planning fallacy.

In organizational settings, the planning fallacy could help explain why employees underestimate project durations and overlook constraints, like workload or other interruptions. To do so, planning behaviours should be accompanied by monitoring and reflection to counteract cognitive biases and support more realistic time allocation.

More recently, the digitalization of work has introduced completely new dynamics in TM. Wajcman (2019) explains the complexities are modern TM tools, which are always accessible and usually shared. Compared to old techniques, like paper calendars that were more flexible, digital tools promote a stricter view of time, which often overlooks the messy and emotional work of managing time in real life. More importantly, the increased visibility of such tools can lead to new pressures. For instance, individuals may overbook themselves with meetings or create fake appointments just to protect private personal time. Additionally, Wajcman (2019) discusses the rise of adaptive or “intelligent” time management tools that implement artificial intelligence. Mobile applications, like Timeful and Google Calendar’s “Goals” encourage people to implement better time management habits using behavioural science and big data. However, while they promise efficiency, the author warns, that they raise privacy concerns, can reduce autonomy, and can push individuals to overwork by chasing constant productivity (Wajcman, 2019). Overall, the author questions whether the use of such tools and structuring every minute of the day should be the goal. Instead, she suggests that individuals focus more on creating free time and gaining the freedom to choose how their time is spent. She theorizes, that this might be more important to well-being, than perfect rigid scheduling.

To sum up, the author writes about modern digital time management tools that are not only technologically advanced but already implement the use of artificial intelligence. However, with the use of internet and social media, there is already a growing “grinding” culture. As people are more seen by others, there is a growing pressure to stay busy and productive non-stop. The author states, that reserving more free personal time could actually increase well-being, which may improve intrinsic motivation to stay productive.

These developments are reflected in a range of modern TM methods that combine structure, psychology, and technology. Table 3 presents modern TM methods that reflect these ideas.

Table 3

Modern time management methods

Method	Author	The explanation of the method
Action priority matrix	Covey (1989)	A table of four quadrants helps prioritize tasks by categorizing based on importance and urgency.
Getting Things Done	Allen (2001)	Workload is divided into five stages. First, capture any task that takes less than two minutes and do it immediately. Then it is important to clarify and get specific about each task, organize them, reflect, and engage.

Table 3 (continued)

Method	Author	The explanation of the method
90/30 Method	Schwartz (2011)	90 minutes are given for intense focus for a specific task, then a half-hour break is scheduled for rest. The cycle repeats. The first cycle is recommended to be for the most important and complex tasks, and the following for tasks of lesser importance.
Time blocking	Newport (2016)	A period of time (a day or a week) is divided into smaller segments or blocks for specific tasks.
The Pomodoro Technique	Cirillo (2018)	The work process is divided into Pomodoros – periods of 25 minutes. Between periods, a five-minute break is taken, after which the cycle repeats. After every fourth cycle, a half-hour break is taken for a full rest. The method is suitable for anyone who performs monotonous work.

Source: created by the author.

As seen from the methods in Table 3, what separates the fourth generation of TM from previous attitudes, is the recognition of mental load, stress, and well-being. Instead of just doing more in a shorter period of time, the goal is to do what matters most while avoiding overwhelm and burn out. Most methods combine a variety techniques and practices but typically follow the same formula to maximize productivity and balance. One approach is identifying all the tasks and prioritizing them. Covey (1989) suggests prioritizing based on importance, whereas Allen (2001) suggests getting the quickest tasks out of the way first. Authors Schwartz (2011), Newport (2016), and Cirillo (2018) focus on time blocking. These methods encourage to organize time but differentiate between work and rest. This approach aids maintain mental clarity and avoid distractions. Together, these methods show how modern TM combines behavioural, mental, and technological factors that support more sustainable and human centred productivity.

So, throughout the years, the concept of TM has evolved. The introduction of scientific management theory helped managers identify areas for improvement in the workplace and the focus shifted toward higher efficiency and productivity. The following time management theories built on this foundation and tied goals with values. Currently there are countless productivity enhancing methods and people utilize time management not only in the workplace, but in their everyday personal lives.

So, the concept of time management has evolved significantly from early dependence on natural rhythms to more complex human-centric strategies. The first two generations of time management were more primitive, however as time went on, the third generation introduced a more holistic, "principle-centred" approach, such as prioritizing tasks based on importance over urgency and aligning daily actions with personal values and long-term goals. Later, the modern view builds on this foundation. It focuses on time management tools like goal setting, planning, and monitoring, while considering mental clarity, well-being, and work-life balance. Therefore, modern time management can be defined as purposeful, decision-making behaviour that structures time to achieve goals efficiently and effectively, while taking into account personal implications.

Having established the concept of time management, the following section examines the framework of employee performance and the key factors that influence it.

1.2. The framework of employee performance and its impacting factors

Employees are a critical resource through which organizations achieve their set objectives, adapt to changing environments, and maintain competitiveness. Therefore, the degree of effectiveness with which employees perform their roles is critical as it influences productivity, innovation, and is the foundation of the overall organizational functioning. Given this significance, the next section explores performance as a complex, multifaceted concept.

Employee performance (EP), a theory in organizational psychology, is hard to define or measure due to the various aspects of work behaviour assessments. In some contexts, it is referred to as task or in-role performance that correlates exclusively to the completion of tasks specified in job descriptions. In others, employee performance is described as the employee's awareness to accomplish work goals and fulfil job targets and expectations (Atatsi, Stoffers, & Kil, 2019). Table 4 provides various definitions of employee or work performance by different authors.

Table 4

The definition of employee/work performance

Author	Definition
Viswesvaran, & Ones (2000)	Employee performance - scalable actions, behaviour and outcomes that employees engage in that are linked with and contribute to organizational goals.
Ford et al. (2011)	Work performance - function of a person's behaviour and the extent to which that behaviour helps an organization to reach its goals.
Diamantidis, & Chatzoglou (2018)	Employee performance - The degree to which the level of productivity of an individual employee meets the firm's performance standards.
Herminal, & Yosepha (2019)	Work performance - work quality and quantity achieved by an employee in carrying out his function in accordance with the responsibilities given to him.
Atatsi, Stoffers, & Kil (2019)	Employee performance - employee's awareness to accomplish work goals, fulfil expectations in addition to meeting job targets.
Kibebsii, & Chufi (2022)	Employee performance - combination of efficiency and effectiveness of the employee's daily task in order to meet up with the expectations of stakeholders on time.

Source: created by the author.

Viswesvaran, & Ones (2000) describe employee performance as scalable actions, behaviour and outcomes that employees engage in that are linked with and contribute to organizational goals. Ford et al. (2011) write that work performance is a function of a person's behaviour and the extent to which that behaviour helps an organization to reach its goals. According to Herminal, & Yosepha (2019) the definition of work performance is the work quality and quantity achieved by an employee in carrying out his function in accordance with the responsibilities given to him. Similarly, Kibebsii, & Chufi (2022) agree, that is the combination of both the efficiency and effectiveness of task completion. Table 4 provides the definitions of employee or work performance.

Based on the different definitions, it is visible that employee performance is both the quality and quantity of work. It is not only about finishing assigned tasks but doing so in a proper, and perhaps timely manner. Employee performance is judged and assessed based on how well an employee is able to fulfil their job role, meet employer expectations, and to what extent they contribute to the firm's success.

As seen from the various definitions, EP is multidimensional. Campbell et al. (1990) agreed that performance has to be differentiated between its behavioural aspects and outcome aspects. The behavioural aspects are the specific actions employees carry out to fulfil their job role. For example, serving customers, repairing equipment, or doing any other task, that supports organizational goals. However, not all actions count as performance, only those that contribute to the organization's objectives, and those, that can be described, assessed, and rated in a measurable way. This research focuses on behavioural aspects of performance, as outcome aspects can depend on other external factors, that are not in the individual's control.

Borman, & Motowidlo (1993) differentiated between task and contextual performance and the concept is complex. Task performance describes how effectively an employee carries out duties, that directly support the organization's technical core. This contribution can be direct or indirect. For example, an employee working on production, i.e., completing technical aspects of a job role is a direct contribution. Managers or supporting staff can make indirect contributions (Borman, & Motowidlo, 1993; Motowidlo, & Van Scotter, 1994). Contextual performance behaviours do not directly contribute the organization's technical core but support the organizational, social, and psychological environment in which organizational goals are pursued (Borman, & Motowidlo, 1993; Motowidlo, & Van Scotter, 1994). They are actions that are not explicitly described in the job description, so, they usually manifest in a more discrete manner. Borman, & Motowidlo (1993) identified 5 categories of contextual performance:

1. volunteering to carry out task activities, that are not formally a part of the job,
2. showing extra enthusiasm when performing necessary tasks,
3. helping others,
4. following organizational rules,
5. supporting and defending organizational objectives.

According to Borman, & Motowidlo (1997) the differentiation between task and contextual performance is based on three main ideas. First, what counts as task performance tends to change from job to job, while contextual performance mostly looks the same. Second, task performance depends mainly on a person's skills and experience, but contextual performance is tied more to their personality and motivation. Third, task performance involves duties that are required, whereas

contextual performance is about voluntary actions that are not part of the official job description (Borman, & Motowidlo, 1997).

Task and contextual performance themselves are multifaceted. Out of eight performance components proposed by Campbell et al. (1990), five refer to task performance. They are job-specific task proficiency, non-job-specific task proficiency, written and oral communication proficiency, supervision (in a leadership position), and management/administration. Contextual performance can be further differentiated as well. They can be behaviours, that help the organization run smoothly, and those, that help improve or change the work processes. The stabilizing contextual performance behaviours are in essence Organizational Citizenship Behaviour (OCB), which are voluntary actions that help the organization (Atatsi, Stoffers, & Kil, 2019). They are made up of five different behaviours: helping others (altruism), being responsible and careful (conscientiousness), staying positive (sportsmanship), being polite and respectful (courtesy), and showing interest in the organization (civic virtue) (Atatsi, Stoffers, & Kil, 2019). These actions help employees feel more connected and committed to their workplace. This can improve their ability to create, share, apply, and retain knowledge, which can lead to better performance. In addition, employees that display these behaviours are able to inspire others and protect the organization, which can help the entire firm grow and adapt (Atatsi, Stoffers, & Kil, 2019).

In addition to that, EP as a concept is not linear and typically increases with experience before reaching a plateau (Sonnentag, & Frese, 2001). That is due to the fact, that early learning relies more on conscious effort, and later performance becomes more automatic. So, cognitive ability is more relevant in the early stages of work, but during the maintenance, factors like motivation, fatigue, or stress become more important as they can cause short-term changes (Sonnentag, & Frese, 2001).

The AMO theory developed by Appelbaum et al. (2000) explains, that performance is a function of three components: ability, motivation, and opportunity to perform. The ability component refers to the knowledge, skills, and competencies an employee has. Motivation encompasses the internal and external drivers, that influence an employee's willingness to exert effort, such as goal orientation, intrinsic motivation, or feedback. And lastly, opportunity explains the extent to which the work environment allows employees to apply their abilities and motivation, for instance, through job autonomy, supportive leadership, or access to resources (Appelbaum et al., 2000). AMO suggests, that when all three factors are present simultaneously, employees experience increased performance (ibid). In the HRM field, AMO is applied through two perceptions (Bos-Nehles et al., 2023). On the organizational level, the AMO enhancing practices focus on HR policies, that are designed to increase an employee's A, M, and O. Ability-enhancing practices include training, recruiting, and development, motivation-enhancing practices focus compensation, incentives, and performance appraisals, and opportunity-enhancing practices are about job design (Bos-Nehles et al., 2023). On

an individual level, it focuses on personal characteristics that contribute to performance, such as self-efficacy, intrinsic and extrinsic motivation, and support (Bos-Nehles et al., 2023).

Similarly, Sonnentag, & Frese (2001) define three main ideas on performance perspectives: individual differences perspective, situational perspective, and a performance regulation perspective. For comparison, Table 5 represents the perspectives.

Table 5

Perspectives on performance

Perspective	Question	Focus	Improvement
Individual Differences	Which individuals perform best?	Individual characteristics (cognitive ability, personality, motivational factors) and professional experience.	Select individuals based on their abilities, experience, and personality. Implement training programs to improve relevant knowledge and skills.
Situational	In which situations do individuals perform best?	Environment (workplace) factors, that support or hinder performance, like job autonomy, feedback or stressors.	Job design interventions, like increasing employee control.
Performance Regulation	How does the performance process look like?	Performance is an action process, that involves setting goals, planning, gathering information, carrying out tasks, and using feedback.	Setting goals, feedback, training to improve the action process, and behaviour modification, like positive reinforcement.

Source: Sonnentag, & Frese (2001). Performance Concepts and Performance Theory. In *Psychological Management of Individual Performance*, p. 9.

The main question addressed by the Individual Differences Perspective is “which individuals perform best?” (Sonnentag, & Frese, 2001, p. 8). The main idea is that differences in individuals’ performance can be attributed to their varying abilities, personalities, and/or motivation (Sonnentag, & Frese, 2001). So, when focusing on the individual, the strongest predictor of task performance seems to be **cognitive ability** as it can help acquire job knowledge and skills. In terms of personality, the general relationship tends to be insignificant, however, emotional stability and conscientiousness strongly impact some specific factors (Sonnentag, & Frese, 2001). Motowidlo et al. (1997) agree that cognitive ability is the main predictor of task performance, while personality variables are the deciding factors of contextual performance. Therefore, to improve this perspective employees should be selected based on their abilities, personality, and experience. However, firm or organisation can contribute to improvements by developing training programs to enhance employees’ knowledge and skills (Sonnentag, & Frese, 2001).

The Situational Perspective attempts to answer the question “in which situations do individuals perform best?” (Sonnentag, & Frese, 2001, p. 8). This perspective encompasses approaches that examine workplace factors as well as motivational theories. For instance, the Job Characteristics Model by Hackman & Oldham (1976) suggests that specific job characteristics, like **job autonomy** and **feedback**, affect critical psychological states, which in turn affect job performance. Even though findings show a small positive relationship between job characteristics and performance, intervention studies have found, that job design based on this model can positively

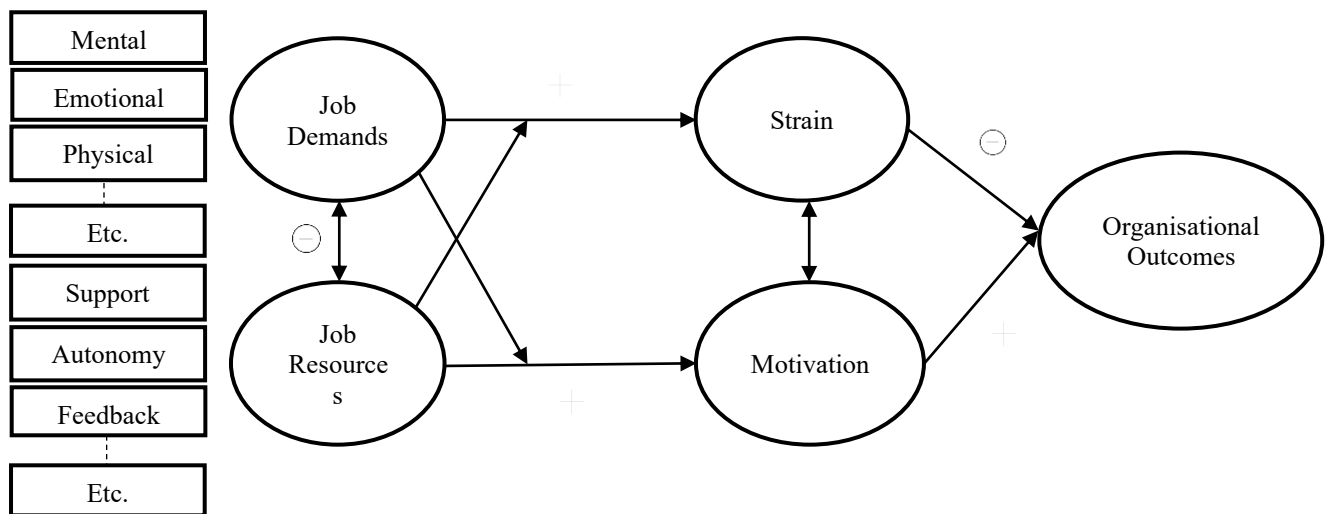
affect performance (Sonnentag, & Frese, 2001). Another study examining the association between job flexibility and worker self-assessed performance found, that flexible hours and remote work lead to reported higher employee productivity as flexible work arrangements can help employees avoid their negative personal life consequences getting in the way of work (Golden, 2012). Furthermore, higher autonomy can enhance proactivity or Innovative Work Behaviour (IWB), which described by the employee's voluntary efforts to improve firm's procedures through innovative suggestions and actions (Diamantidis, & Chatzoglou, 2018; Atatsi, Stoffers, & Kil, 2019). The idea that increased job autonomy can enhance performance is further underscored from another perspective, which is that role ambiguity is found to be a stressor, that can impede performance (Sonnentag, & Frese, 2001). Most importantly, this perspective highlights, that having more control at work and an increased job autonomy enhances individual performance and work process (Sonnentag, & Frese, 2001).

The third perspective is Performance Regulation, which examines the process of performance itself. This view answers the question: "how does the performance process look like?" (Sonnentag, & Frese, 2001, p. 8). First, this view is explained through the Action Theory, which describes the performance process using both a process point of view and a structural point of view. The process view focuses on the sequence of steps, which include goal development, searching for information, planning, execution of the action and its monitoring, and feedback processing, whereas the structural view refers to the hierarchical organization of the actions (Sonnentag, & Frese, 2001). Research suggests that high performers tend to focus on abstract and general information during problem comprehension, proceed from general to specific information, and apply a "relational strategy" by combining and integrating various aspects of the task. They also focus more on long-term goals and plan more when tasks are complex or poorly structured. So, the main areas to improve the actual process of performance are setting specific and difficult goals, which aligns with the GST, and utilizing reinforcement (financial, social, recognition). Research shows that using positive reinforcement in organizations can significantly improve task performance.

Although researchers often use the Performance Regulation Perspective separate from the others, there is a need to develop a comprehensive model that integrates it with the Individual Differences and Situational perspectives as well. As seen, the perspectives are mutually exclusive and often complement one another. However, a model integrating all into one could help specify how individual characteristics, like cognitive ability or motivation, and situational factors, like job autonomy, translate into the actual performance process and how they affect goal setting, planning, and feedback processing.

The Job Demands-Resources model (JD-R) by Bakker, & Demerouti (2007) is a framework for understanding employee well-being and performance. The JD-R classifies all job characteristics

in two fundamental categories – **job demands** and **job resources** (Bakker, & Demerouti, 2007). Figure 1 presents the JD-R model.



Source: Bakker, & Demerouti (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), p. 313.

Figure 1. The Job Demands-Resources model

Figure 1 shows, that job demands encompass the physical, psychological, social, or organizational aspects of the job that involve their prolonged use and are therefore associated with some costs. Some examples of this can be emotional demands or high work pressure. Although these demands are not inherently negative, they can become job stressors when the employee cannot recover from the high effort that is required to meet them (Bakker, & Demerouti, 2007). The job resources are the aspects of the job that used in achieving work goals, stimulate personal growth and learning, and help reduce job demands and their costs (ibid). Table 6 presents the main idea of the JD-R model, which is that these two factors (job demands and job resources) simultaneously institute dual psychological processes.

Table 6

Dual processes and performance outcomes

Process	Source	Employee outcome	Performance outcome
Health Impairment Process	Job Demands (work pressure, emotional demands).	Strain (burnout and exhaustion) and health problems by depleting mental and physical resources.	Lower in-role performance, higher sickness absence, may result in a draining of energy due to compensatory strategies.
Motivational Process	Job Resources (autonomy, performance feedback, coaching social support).	Motivation (work engagement, lower cynicism, organizational commitment) by fulfilling basic human needs or helping achieve goals.	Improved extra-role performance, through their relationship with engagement/disengagement.

Source: Bakker, & Demerouti (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), p. 317.

Table 6 presents that job demands are generally associated with lower performance while job resources are linked to higher extra-role performance due to increased motivation and engagement (Bakker, & Demerouti, 2007). The authors propose that since exhaustion is linked to decreased in-role performance, job resources can protect performance by keeping the strain low even when demands are high. The authors found that high workload or emotional demands do not result in burnout if employees have resources like autonomy, feedback, or social support (Bakker, & Demerouti, 2007). It is likely, that job autonomy helped cope with job demands, as employees could decide for themselves how and when to respond. Social support, like a high quality with a supervisor likely decreased the impact of job demands on burnout as they received instrumental help and emotional support. To add, feedback may have aided with providing employees with needed information to maintain appropriate performance (Bakker, & Demerouti, 2007). So, job resources can influence and improve motivation and performance even when job demands are high. This increased motivation is highly linked with improved performance (ibid).

These findings help draw conclusions, that if EP decreases due to high work pressure or other job demands, providing them with feedback and higher job autonomy can boost motivation and thus enhance EP.

These findings allow to draw a conclusion, that an individual's confidence about their abilities to mobilize motivation and cognitive resources can help them execute a task. This is how **self-efficacy** is defined according to Bandura (1997). This concept is a deeply rooted factor in the author's Social Cognitive Theory (SCT) (Bandura, 1997). SCT theorizes that it is a critical concept of one self's confidence and is a crucial factor determining job performance. Furthermore, SCT suggests, that an employee's self-efficacy interacts with their trust in the organization to predict job behaviours. For instance, self-efficacy has a strong positive effect on job satisfaction, task performance, and OCB when trust is high, but the outcome changes when trust is low. Meaning, that high trust provides predictability. This can encourage employees act on their desired as they assume favourable reactions and that their behaviours will be appreciated, valued, or rewarded. In short, when organization trust is high, self-efficacy can improve job satisfaction, OCB, and task performance thus improving overall performance (Bandura, 1997).

Diamantidis, & Chatzoglou (2018) further emphasize, that **managerial support and affirmation** is closely related to intrinsic motivation and can positively contribute to performance. Intrinsic affirmation, which is firm given affirmation to the employee, that their work can positively influence the firm and job environment (personal belonging), can show the extent to which the employee believes their environment satisfies their social needs and their self-efficacy. When employees perform in an environment where they are considered of importance, and they feel their contribution is crucial to the firm, they are more likely to be motivated to perform in the best way.

This aspect has an equally strong impact on the employee's adaptability and proactivity. Scholars argue that employees who feel they fit into their work environment may show more proactive and adaptive behaviour (Diamantidis, & Chatzoglou, 2018). On the other hand, when managers fail to support their employees, trust, respect, and morale decreases. This can negatively impact self-efficacy and OCB (Diamantidis, & Chatzoglou, 2018).

According to Hermina, & Yosepha (2019) **leadership style** is one of the main factors, that can affect an employee's performance in a company, however, is highly dependent of the personal qualities of the leader, such as their character, attitude, and overall ability to manage people (Hermina, & Yosepha, 2019). Leader-member exchange (LMX) is the quality of the relationship between a manager and their employee (Wayne et al., 2002). It is based on how much emotional support they give each other and how they share important resources. For instance, a strong relationship between a supervisor and an employee can lead to better job performance, flexibility, commitment, and responsibility. High-quality LMX involves trust, open communication, and mutual support, whereas low-quality LMX is limited to just following job duties without deeper connection (Atatsi, Stoffers, & Kil, 2019). A study by Tariq et al. (2014) found, that better LMX relationships lead to better employee performance. When employees feel supported and valued, they are more attached to the organization. This increases their ability to create, share, and use knowledge, helping the company grow and improve (Atatsi, Stoffers, & Kil, 2019). To add, employees, showing these positive behaviours are able to stay more motivated and make better use of resources (Atatsi, Stoffers, & Kil, 2019).

What's more, organizations are increasingly utilizing teamwork. **Team learning** is a concept that encompasses the "continual process of collective reflection and action distinguished by exploring, reflecting, discussion of errors and unexpected results of actions, soliciting feedback, and experimenting/verifying within and as a team" (Atatsi et al., 2019, p. 332). It allows groups to grow and provides individuals the opportunity to gain team and communication skills, as well as knowledge. Evidence shows that this factor is positively related to performance (Atatsi et al., 2019).

Employee well-being has become a focus in contemporary HR practices (Elufioye et al., 2024). Nowadays, this idea has gone beyond traditional job satisfaction and benefits, and recognizes mental health, emotional state, and social implications. Firms even after the COVID-19 pandemic, provide flexibility, with remote work options and flexible hours. These arrangements not only increase job autonomy but reduce stress levels and increase job satisfaction, too. The importance of physical health in well-being is increasingly recognized as well. Firms often offer wellness programs, like fitness classes, on-site gyms, health screenings, and comfortable office spaces. Destigmatizing mental health has been an important conversation, as many organizations offer counselling services, mental health days, and various training to foster a culture of support. Overall, by addressing these

multiple aspects of well-being, organizations improve job satisfaction, productivity and demonstrate a real commitment to helping employees thrive both personally and professionally (Elufioye et al., 2024).

Looking at the factors influencing employee performance, it can be concluded, that firms should focus on a variety of aspects. Firm/environmental aspects like management support and leadership-member exchange have a high impact on employee well-being, skill flexibility, adaptability, proactivity, and overall motivation. However, even though external factors, like firm and job environment have a significant impact, it is visible that employee related factors have the most influence over employee performance. Aspects like intrinsic motivation, proactivity, adaptability, innovative work behaviour, and organizational citizenship behaviour are most likely to increase their well-being, which in turn increases their desire to adapt to uncomfortable situations, come up with creative problem solutions, and overall perform better.

To sum up the subchapter on employee performance and its impacting factors, it can be concluded that employee performance encompasses both the quality and quantity of work. It is important to focus not only on task completion but on doing so proper and timely manner, as well as fulfilling job roles and contributing to the firm's success. As employee performance is considered multidimensional, it can be differentiated into two main types: task/in role performance and contextual/extra-role performance. Task performance refers to behaviours that are directly related to the technical aspects of a job while contextual performance is about voluntary actions that are not explicitly described in the job description but support the work environment. In terms of components that affect different kind of performance, there are employee, job, and firm/environmental factors. In short, while firm and environmental aspects like management support and leader-member exchange significantly impact employee well-being, skill flexibility, adaptability, proactivity, and motivation, employee-related factors like intrinsic motivation, proactivity, adaptability, innovative work behaviour, and organizational citizenship behaviour, show the most influence on performance. These factors boost well-being, which aids employees to adapt, innovate, and perform better.

After discussing the concept of time management, defining its current viewpoint, and analysing the framework of employee performance and its impacting factors, the following section will consider the link between time management practices and employee performance. It is relevant to evaluate if and how implementing effective time use tools can impact employee performance.

1.3. The link between time management and employee performance in an international company

After examining the concept of TM and the framework of EP and its impacting factors, it can be seen that the notions are intertwined. The concept of TM has traditionally been linked to

productivity and performance. As seen in its history and evolution, TM's emergence is directly tied to the want and need to increase work efficiency and productivity (Taylor, 1911; Al Hila et al., 2017; Costill, 2018; Taylor, 2019). So, TM is a valuable resource to consider when aiming to improve work performance and productivity (Bedi, & Sass, 2022; Kibebssii, & Chufi, 2022; Cross, & Santeli, 2020).

Scholars propose that individuals who practise TM behaviours are more likely to experience outcomes, such as increased job satisfaction, job performance, lower levels of stress, burnout, and conflict (Bedi, & Sass, 2022). Authors Bedi, & Sass (2022) write that the Conservation of Resources Theory (COR) can be used to prove, that time management can help individuals cope with work related stressors and help promote overall beneficial employee outcomes. COR proposes that individuals are motivated to acquire and protect resources (Hobfoll et al., 2018). These resources are defined as being anything personally valued by the individual, such as objects, conditions, energy (Bedi, & Sass, 2022). So, according to the theory, individuals with more resources, are able to cope better with hardships. In this context, TM is described as a resource. Meaning, that individuals who engage in TM behaviours, such as setting goals, prioritizing activities, scheduling, and organising tasks, are more likely to be resilient in difficult and demanding work situations. Similarly, individuals that believe they are more in control of their time are more likely to be able to deal with work stressors and experience positive work outcomes (Bedi, & Sass, 2022). The Theory of Planned Behaviour (TPB) suggests that there are three types of individual beliefs, that lead to the formation of intentions and can help predict behaviour:

1. an individual's attitude toward the behaviour (belief about consequences),
2. subjective norm (perceived social pressure),
3. perceived behavioural control (beliefs about personal or environmental factors influencing behaviour).

So, TPB proposes that even when intentions to perform a behaviour are the same, a person's perception of control can make a big difference in whether or not they actually do it (Bedi, & Sass, 2022). Macan (1994) applied TPB by stating that perceived control over time is the crucial link between TM behaviours and the desired outcomes. To be precise, it is not the behaviour itself that directly affects outcomes, but rather the individual's perception that these behaviours provide them with control over their time (Macan, 1994).

Claessens et al. (2004) investigated two mediation models of time management, which is the relationship between an individual's planning behaviour and their perceived control of time (PCTT). The first model was Macan's (1994) model, and the second one combined it with Karasek's et al. (1998) Job Demand-Control model. While the original theory hypothesized that PCTT would fully mediate the relationship between time planning and outcomes, this was rejected by the following research (Claessens et al., 2004). Instead, studies found support for partial mediation, suggesting that

planning behaviour has both an indirect and a direct effect on outcomes. This potentially occurs because planning helps individuals distribute attention and energy more effectively to avoid delays and overload (Claessens et al., 2004). The authors then extended this theory by combining Macan's (1994) model with Karasek's (1998) Job Demand-Control model. Then they found that the best fit was an extended partial mediation model, which incorporates planning behaviour with workload and job autonomy (Claessens et al., 2004). In the final model, planning behaviour and job autonomy were found to positively affect PCTT, whereas workload had a negative effect on PCTT. So, PCTT positively related to job performance and job satisfaction and negatively to work strain (ibid).

Cross, & Santeli (2020) share the same view that time is an essential and irreplicable resource. The idea stems from the fact, that once time is spent or misused, it cannot be regained. Although, the importance of TM highly depends on its effectiveness (Cross, & Santeli, 2020). This means, that it is crucial to focus on the most important tasks as there likely won't be enough time to complete everything. This is where the Pareto principle is reinforced. Essentially, concentrating on the key 20% of tasks which contribute the greatest value, is the critical object in enhancing performance. This is also referred to as the principle of forced efficiency. The sentiment acknowledges that while time is limited for all tasks, there is always time for most important ones (Cross, & Santeli, 2020). Going off of that, the authors theorize that the core idea of better time management is achieved through setting clear goals and prioritizing work based on how it contributes to meeting those goals. It involves investing time to determine what one wants to achieve from daily activities and ensuring suitable results are achieved within a specific timeframe, with an emphasis on effectiveness over mere efficiency. This leads to organized tasks, productivity, and achievements (Cross, & Santeli, 2020). The link of the concept to performance can also be seen through the following:

1. time assessment behaviours,
2. planning behaviours,
3. monitoring behaviours.

Time assessment behaviours help become more aware of the use of time and allow to take on tasks that match possessing abilities. Through understanding their own capacity and how they spend their time, employees can avoid overcommitment and ensure they are taking on tasks that they can complete effectively. This awareness contributes to performance by preventing burnout and optimizing capabilities. Planning behaviours, like setting goals, making to-do lists, and organizing tasks by priority, help pursue objectives in a systematic and structured way. Lastly, monitoring behaviours focus on observing the use of time, which allows to reduce distractions and enhance focus. By actively monitoring how time is spent and identifying interruptions, individuals can become more proactive or disciplined in their time use (Cross, & Santeli, 2020).

However, growing research highlights time management's role in promoting employee well-being and maintaining work-life balance as well. Odoh, & Moluno (2023) write that time management has the following benefits:

1. lessens miscommunication and confusion, and aids in staff members' efficient use of time,
2. makes time and opportunities for completing the necessary tasks,
3. lessens conflicts regarding activities, schedules, and interpersonal relationships,
4. makes it easier to assign tasks to employees,
5. boosts employee productivity,
6. makes meeting deadlines easier for staff,
7. empowers employees to take charge of many aspects of their lives,
8. gives employees more time to unwind and engage in their favourite activities.

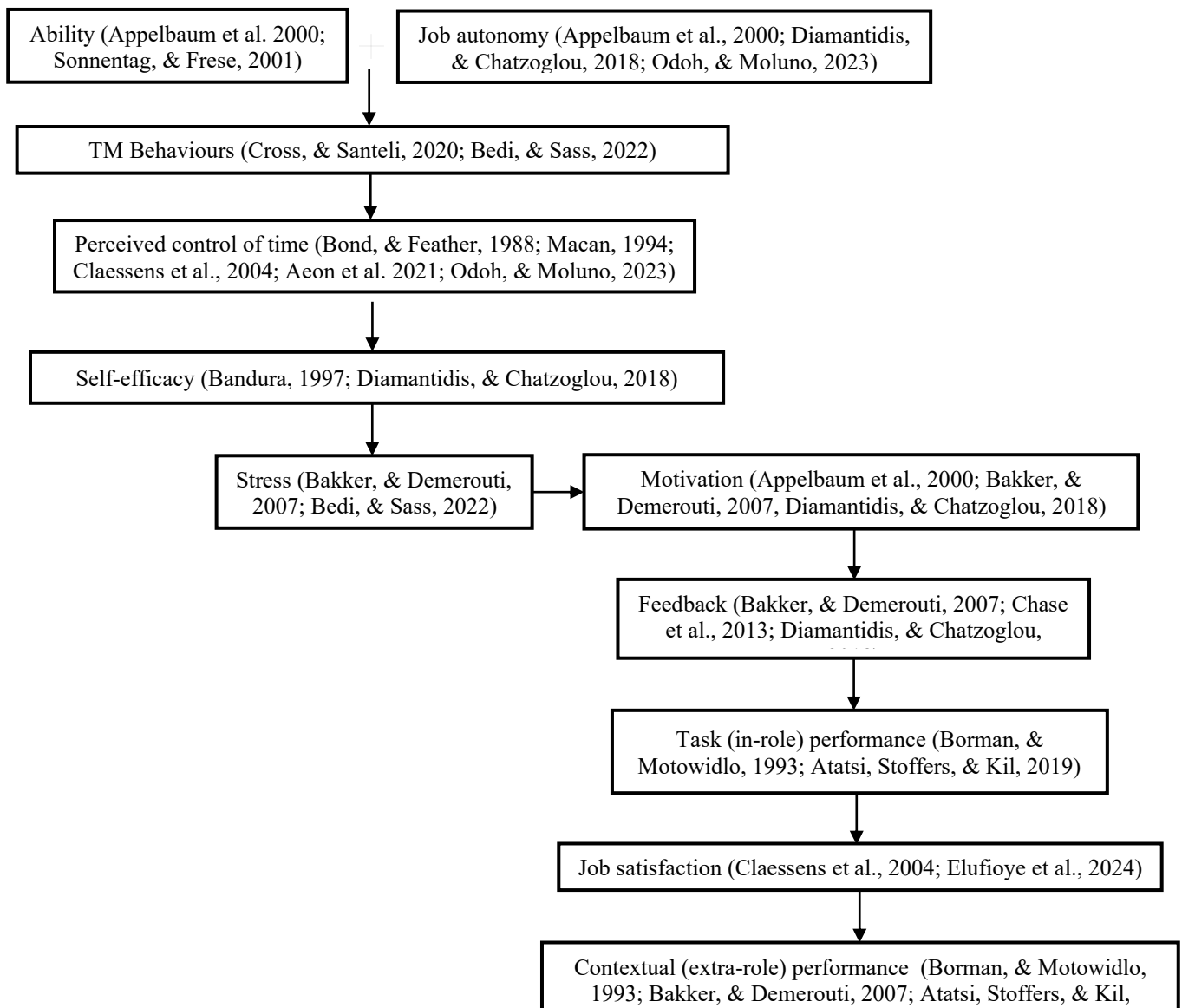
Covey (1989) laid the foundation for emphasizing well-being and maintaining work life balance as essential parts of effective time management. The author's ideas on establishing personal goals and a mission, that would be the basis for personal and work productivity, helped other scholars to later build on the idea and establish a new viewpoint. Odoh, & Moluno (2023) write that utilising Covey's Time Management Matrix can help decide on how to prioritize tasks and how to complete them in the most efficient way. A properly organized list can also help complete a larger number of tasks than usual. Overall, the matrix can help identify which quadrant should receive more focus and help develop new time management habits. This can result in higher productivity and a better work-life balance. To sum up, if individuals are dedicated to it, time management can be highly effective (Odoh, & Moluno, 2023).

Moreover, modern organisations, particularly those operating internationally, are challenged by the fact that intangible assets, such as knowledge, employees, and research and development (R&D) functions, are dispersed worldwide (Cross, & Santeli, 2020). As performance in an organisation focuses on efficiency and effectiveness, resources, employees and time must be allocated and managed properly to ensure functionality (Kibeb sii, & Chufi, 2022). Effective time management can help coordinate them and ensure that all parts of the business are working efficiently towards the same objectives (Cross, & Santeli, 2020). In terms of employee performance, the unpredictable environment of international companies, whereas it would be working in different time zones or in different places, makes it more difficult to determine employees' efficiency levels, as job roles and performance require fast adaptability (Diamantidis, & Chatzoglou, 2018). Management support, such as TM training can help employees to see clear goals and objectives, prioritize them properly, and make a planned schedule accordingly. This increased control of time can in turn also help increase intrinsic motivation, which helps employees be more proactive and adaptable in work environments. Alongside adaptability, proactivity (anticipating job-related problems or changes and being prepared)

is also crucial in an international context (Diamantidis, & Chatzoglou, 2018). Proactive employees take initiative, express their views and opinions, can prevent future problems or solve them faster, and are likely to boost the social environment in a company.

To conclude, the literature analysis highlights the varying impact of time management on employee performance. Mostly, it emphasizes its critical role in both individual and organizational productivity. Time management activities, such as planning ahead, setting goals, organizing tasks, making schedules, and monitoring time use can help employees organize their tasks and avoid procrastination or task incompleteness. For firms, time management can help manage resources, projects, and streamline its activities. This can lead to increased employee performance and could help organizations gain a competitive advantage as well. Not only that, but there is evidence, that time management practices can lead to an improved work-life balance and well-being.

Following that, the impact of time management on employee performance theoretical model is presented (Figure 2).



Source: created by the author

Figure 2. The impact of time management on employee performance theoretical model

The theoretical model is presented as a chain reaction. At the top of it sit factors ability and job autonomy. This reflects the AMO framework and the situational perspective on performance (Appelbaum et al., 2000). Employees must first have the ability and the opportunity to manage their time effectively. Ability refers to but is not limited to an individual's cognitive ability. It stems from the person itself and encompasses capabilities, like skills and knowledge. It is the foundation to any work process and determines the extent to which one is able to perform, improve, or receive feedback. Alongside is an environmental factor – job autonomy. Job autonomy explains if employees are able to set their schedule, manage their workload, and in general how much freedom or control they have over their job role. Since this factor is up for the firm to determine, employees usually have little to no control over it. Then, TM behaviours enter the equation. These include setting goals, planning, prioritising, scheduling, and other similar tools and methods. However, these are not just tools for more effective task completion. These are strategic cognitive and action processes that affect how one perceives time. This model represents, that TM tools and behaviours do not directly or immediately improve efficiency. Rather, they first increase the perceived control of time one has. This perception can be the reason why individuals use or apply TM methods, but unsuccessfully. That is because it is not the tool itself but rather the psychological effect they have. So, if an individual feels overwhelmed by tasks, most likely it is not because they apply absolutely no TM behaviours. It could be because those specific methods are ineffective of dealing with their specific issues. For instance, they write lists for all things they want accomplish but do not appropriately prioritise. Therefore, they do not feel in control over their tasks or time, rather they are “controlling” the individual. The model further illustrates, that the increased perceived control of time can positively influence self-efficacy, which is the individual's belief of their capacity to execute behaviours needed for specific performance. The perception and increased perceived control of time could then potentially help employees manage their stress better or avoid it as much as possible. The decreased physical and mental exhaustion could then increase their work motivation. Then, if the firm or organization provides appropriate feedback the employee is able to reflect, correct or improve their task completion. Additionally, if the employees are then satisfied in their job role, they could potentially improve their contextual (extra-role) performance as well. Meaning, be more proactive, adaptive, innovative, helpful, and overall efficient for their role and entire organization. To sum up, task performance is a behavioural expression of improved self-regulation, not the direct result of time management. Employees perform better because they feel more in control over their time, own self and workload, not because of TM alone. This leads them to experience improved focus, reduced stress, and increased motivation, which translate into increased effort. Additionally, improved task performance can lead to higher satisfaction, as work is completed better, faster, and most importantly, with more mental ease. This can result in improved contextual performance (or OCB) as satisfied

employees are more likely to show initiative, adapt to change, help others, and engage in innovative or proactive behaviours.

So, to sum up links of time management on employee performance, it can be noted that time management improves psychological regulation, which lowers stress and strengthens motivation, which in turn supports self-efficacy. These form a cognitive motivational pathway linking regulation to action. Self-efficacy feeds into feedback processes, and this feedback loop reflects ongoing self-regulation rather than one-off performance effects. Through these processes, employees achieve higher task (in-role) performance. Finally, improved task performance contributes to job satisfaction and supports contextual (extra-role) performance, indicating that well-regulated task execution creates conditions for proactive behaviours.

The literature analysis on the topic allows for the conclusion, that every firm can benefit from time management tools. However, to ensure maximum benefits, it is important to ensure organizational commitment. Then, implemented techniques can increase intrinsic motivation in employees and want to perform better. The results of that will lead to further benefits of increased well-being, better work-life balance, and higher efficiency. Furthermore, this can lead to the firm streamlining its operations, saving resources, better managing projects, and overall achieving set targets, goals, and objectives. The completed analysis helped identified how time management can be encouraged by managerial support and how it's implementation can lead to improved employee well-being and performance.

2. EMPIRICAL INVESTIGATION LEVEL OF THE IMPACT OF TIME MANAGEMENT ON EMPLOYEE PERFORMANCE IN AN INTERNATIONAL COMPANY

This chapter evaluates research by scholars analysing the impact of time management on employee performance in an international company. A research model of the impact of time management on employee performance in an international company is presented.

2.1. Research on the links between the time management and employee performance

The completed analysis of time management and employee performance theories shows that the concepts are interconnected. This can also be seen through empirical studies. Most scholars suggest that employee performance can be improved through decreased stress and increased job satisfaction, which elevates motivation. Time management behaviours and techniques, like goal setting, task prioritization, planning, and reduced procrastination can allow employees to manage their workload better. In turn, employees feel more in control of their time, tasks, and duties, which lowers stress and creates a higher sense of motivation. This results in increased job satisfaction. So, an employee, that feels in control and less stressed, is more satisfied, which translated into improved performance. This creates a sort of a cycle. Time management improves the management of duties and tasks, which lowers stress, enhances job satisfaction, and in turn improves employee performance.

The main criteria, that researchers use in their studies to assess the correlation between time management and employee performance are (Table 7):

- *Work stress* usually stems from time pressure, excessive workload, and unclear priorities.
- *Work motivation* is influenced by employees' perceptions of control and achievement. Effective TM increases feelings of accomplishment and autonomy, which strengthens work motivation and encourages greater work engagement.
- *Job satisfaction* reflects employees' positive evaluation of their work experience.
- *Employee performance (EP)* can be task (in-role) or contextual. Task performance includes efficiency, productivity, and work quality, while contextual performance includes extra behaviours, such as proactivity. They are also defined as Organizational Citizenship Behavior (OCB).

Table 7

The criteria between time management and employee performance in empirical studies

Author	Time management	Work stress	Work motivation	Job satisfaction	Employee performance
Juita (2025)	+	+	+		+
Yunus et al. (2025)	+			+	+
Wahyuni et al. (2024)				+	+
Maalouf, & Maalouf (2024)	+	+			+
Korzynski, & Protsiuk (2022)	+	+		+	+
Kibebzii, & Chufi (2022)	+				+
Yasa et al. (2022)	+			+	+
Yang et al. (2021)		+		+	+
Ariansy, & Kurnia (2022)		+	+	+	+
Riyanto et al. (2021)			+	+	+
Hassan et al. (2020)		+	+	+	+
Pancasila et al. (2020)			+	+	+
Cross, & Santeli (2020)	+	+	+		+
Sutharshini et al. (2019)	+	+			+

Source: created by the author.

As seen in the Table 7, some scholars investigate the implications of TM directly on EP. Cross, & Santeli (2020) studied the impact of TM on EP and found that there is a positive relationship between the factors. Similarly, Sutharshini et al. (2019) studied the effect of effective TM and organizational and individual performance, which led them to the same conclusion. According to the authors, there is a there is a positive and significant relationship between effective time management and individual performance (Sutharshini et al., 2019). Kibebzii, & Chufi (2022) researched the same correlation, specifically the effects of work schedule, punctuality, and procrastination on EP. Their findings were consistent with those of the previous authors, as they revealed that all three variables have a positive and a statistically significant effect on EP (Kibebzii, & Chufi, 2022).

Other authors research the predictors of performance through mediating factors, such as stress, motivation, and job satisfaction. Hassan et al. (2020) researched all three of these predictors and concluded, that job satisfaction is the best predictor of performance. However, no significant relationship was found between job motivation and job stress on performance (Hassan et al., 2020). The study by Yang et al. (2021) explored the relationship between between job satisfaction, job stress, job performance. In the traditional industry, the authors found, that job satisfaction and performance have a significant positive correlation, while job stress and performance showed a significant negative correlation (Yang et al., 2021). Pancasila et al. (2020) found that there is significant positive correlation between work motivation, job satisfaction and performance. Ariansy, & Kurnia (2022) found, that job stress has a negative impact on EP, whereas job satisfaction has a positive influence and can improve EP.

Korzynski, & Protsiuk (2022) through job satisfaction examined the relationships between workload, self-efficacy, TM skills, and cyberloafing. Authors found that job satisfaction mediates the relationship between workload, TM, self-efficacy, and cyberloafing, and additionally, TM skills have

a negative direct effect on cyberloafing (Korzynski, & Protsiuk, 2022). Similarly, Yunus et al. (2025) confirmed that job satisfaction partially mediates the influence of workload, self-efficacy, and TM on EP. Yasa et al. (2022) found, that job satisfaction partially mediates the effect of TM and OCB on EP. The empirical findings by Riyanto et al. (2021) prove, that motivation and job satisfaction have a positive and significant effect on EP. Whereas Wahyuni et al. (2024) established that job satisfaction increases motivation, which then enhanced overall performance.

Juita (2025) and Maalouf, & Maalouf (2024) confirmed that work stress had a significant negative effect, while TM had a significant positive impact on EP. Furthermore, Juita (2025) found, that job enrichment emerged as the most influential factor in driving increased performance because it provided task variation, meaning, and autonomy, which increased motivation and satisfaction.

In summary, the empirical research confirms that time management positively influences employee performance, either directly or through influencing mediating factors, like work stress, work motivation, and job satisfaction. Most significant discovery is that TM is not a direct driver of performance. Instead, it enhances EP indirectly through improving or regulating employees' psychological and motivational states. What's more, it is evident that job satisfaction emerges as the strongest predictor of performance closely followed by work stress. On the other hand, even though the research studies the impact of work motivation in relation to these performance indicators, there is a significant gap in its consideration relating to TM.

The empirical studies support the theoretical assumptions regarding TM and EP and help organizations identify internal shortcomings related to employee management and their use of time. The studies selected for empirical analysis examine not only time management, but its mediating factors, such as stress, motivation, and job satisfaction. Table 8 presents some studies and evidence, that analyse the links between job satisfaction and other mediating factors on EP.

Table 8

Empirical level of research on job satisfaction as a predictor of EP

Author	Research Aim	Method	Evidence	Findings
Pancasila et al. (2020)	To determine the impact of work motivation and leadership on job satisfaction and its effect on employee performance in the Bukit Asam Coal Mining Company in Indonesia.	Structural Equation Modelling (SEM), AMOS 22.	Job satisfaction and EP – .363 Work motivation and EP– .166 Work motivation and job satisfaction – .171	Job satisfaction is the biggest predictor of performance.
Yang et al. (2021)	To analyse the relationship between job stress, job satisfaction, and job performance, specifically between the traditional and high-technology industries in Taiwan.	One-way Analysis of Variance (ANOVA), and correlation analysis.	Job stress and performance in trad. industry – -.386 Job stress and performance in high-tech. industry – -.347 Job satisfaction and performance in trad. industry – .534	Job satisfaction is the biggest predictor of performance in traditional industries. It is less important in high-tech. (automated) industries.

Table 8 (continued)

Author	Research Aim	Method	Evidence	Findings
Yasa et al. (2022)	To analyse the impact of job satisfaction in mediating TM and OCB on performance.	Descriptive and inferential analysis, SEM-PLS.	TM and job satisfaction – .295 Job satisfaction and EP – .341	Job satisfaction has a significant positive effect on performance. It is also a critical partial mediator for TM and OCB.
Korzynski, & Protsiuk (2022)	To examine the direct and indirect relationships between job satisfaction, workload, self-efficacy, time management skills, and cyberloafing.	SEM with AMOS.	TM skills and job satisfaction – .285	Job satisfaction acts as a mediator. Poor TM leads to lower job satisfaction, leading to counter-productive behaviour.
Yunus et al. (2025)	Examine impact of workload, self-efficacy, and TM on job satisfaction and performance.	Partial Least Squares (PLS).	Job satisfaction and performance – .312 Self-efficacy and performance – .260 TM and performance – .229	Job satisfaction is a mediator, that motivates employees to manage their time and workload better.

Source: created by the author.

Table 8 presents that Pancasila et al. (2020) aimed to determine the effect of work motivation and leadership on job satisfaction and on EP. The study was conducted at the Bukit Asam Coal Mining Company Ltd. in Indonesia. Using the Structural Equation Modelling (SEM) technique, Pancasila et al. (2020) studied a sample of 355 employees and found, that work motivation, job satisfaction, and EP have positive and statistically significant relationships. The study concluded, that in order to improve EP, managerial policies should prioritize increasing job satisfaction. Furthermore, when comparing the variables, the effect of leadership toward EP was determined to be more prominent than the effect of work motivation, suggesting that improving leadership can be more beneficial (ibid).

Yang et al. (2021) compared the relationships among job stress, job satisfaction, and job performance between the high-technology industry and the traditional industry in Taiwan. Using a comparative questionnaire survey, the researchers collected a total of 60 valid questionnaires. The author's found that job stress and performance maintained a significantly negative correlation in both industrial contexts. The most significant difference was that job satisfaction, and job performance showed a significant positive correlation only in the traditional industry, which was also found to have more stress factors than high-tech industries (Yang et al., 2021).

The study by Yasa et al. (2022) analysed the effect of job satisfaction as a mediating factor between TM and OCB on employee performance. The study used a sample of 81 employees from the Regional Technical Implementation Unit of the Payangan District Health Centre in Indonesia. The analysis confirmed that time management has a positive and significant effect on job satisfaction, which positively affects EP (Yasa et al., 2022). So, TM is suggested to be further strengthened by encouraging employees to be more creative in their work, actively express ideas and opinions, and organize tasks according to priority levels in order to improve workflow efficiency (Yasa et al., 2022). It is also essential to ensure that employees are assigned to positions aligned with their areas of

expertise, as this can enhance motivation and support more effective performance. Finally, employees should be given opportunities to voice work-related concerns, particularly during formal meetings, to prevent feelings of excessive workload and work-related strain (Yasa et al., 2022).

Korzynski, & Protsiuk (2022) investigated the direct and indirect relationships (through job satisfaction) between several factors, such as workload, self-efficacy, time management skills, and cyberloafing, which is when employees use the internet for personal activities instead of completed work assignments. The study used a quantitative approach, collecting data from 217 employees, that represented the retail jewellery industry in Ukraine. The data analysis was performed using Structural Equation Modelling (SEM) with the AMOS software package. The study confirmed that job satisfaction fully mediates workload. However, excessive workload leads to job dissatisfaction, which in turn drives employees to engage in cyberloafing. But TM skills were shown to have a positive influence on cyberloafing. Meaning, that employees with better planning are less likely to engage in cyberloafing, or in other words, counterproductive work behaviour (Korzynski, & Protsiuk, 2022).

Yunus et al. (2025) examined the relationships between workload, self-efficacy, and time management on both job satisfaction and employee performance at the Banda Aceh Tax Service Office. The study was done on 100 employees and with the use of PLS-SEM analysis, the study found that effective time management allows employees at the tax office to complete tasks more efficiently and with lower stress levels (Yunus et al., 2025). Improved time management practices, like goal setting and prioritization, accounted for a 22.9% direct improvement in individual performance and contributed to 28.5% of the variation in job satisfaction. Employees, who managed their time well were more organized and completed tasks on schedule, which created a sense of accomplishment. Another important factor in the study is the impact of self-efficacy on performance. Researchers found that self-efficacy has a significant positive influence of 26% on performance as employees who highly believe in their capabilities approach challenges with more resilience and proactive problem solving (Yunus et al., 2025). Meaning, that high self-efficacy leads to greater attachment to work and higher job satisfaction (31.3%). All in all, the main finding is that job satisfaction is a strong mediator through which other factors reach their full performance potential. Authors state, that satisfied employees are significantly more motivated to utilize time management strategies and manage heavy workloads effectively (Yunus et al., 2025).

So, the reviewed studies show that job satisfaction is a mediating factor in enhancing EP. Other aspects, such as leadership, workload, job stress, self-efficacy, and TM influence performance mainly through their impact on satisfaction. Therefore, it can be concluded, that improving TM skills and managing workload can improve both satisfaction and performance in different organizational contexts.

Going off of the idea that TM is an enabling mechanism rather than being a direct driver of performance, task (in-role) performance can be examined as a behavioural expression of improved self-regulation (psychological regulation, motivation, self-efficacy). Rather than producing immediate performance gains, TM acts as a psychological shield that reduces job-related tension, mental and somatic stress, and emotional exhaustion (Sutharshini et al., 2019). Table 9 presents empirical findings of research on the correlation between stress and performance.

Table 9

Empirical level of research on stress as a predictor of EP

Author	Research Aim	Method	Evidence	Findings
Juita (2025)	Evaluate the impact of TM, work pressure, and task enrichment on performance.	Multiple linear regression, PLS with SPSS 25.	Coefficient: $-.148$, $t = -3.127$, $p\text{-value} = .002$.	Work stress has a significant negative effect on productivity.
Yunus et al. (2025)	Examine the impact of workload, self-efficacy, and TM on job satisfaction and performance.	Partial Least Squares (PLS).	TM and EP: $.229$, $t = 2.684$ Self-efficacy and EP: $.260$, $t = 3.249$ Job satisfaction and EP: $.312$, $t = 4.016$.	TM and self-efficacy significantly boost performance, both directly and through satisfaction.
Maalouf, & Maalouf (2024)	Determine the impact of organizational culture, job stress, and TM on performance.	Descriptive statistics and regression analysis, SPSS.	$R^2 = .215$ (Stress and TM explain 21.5% of performance variance) ($F = 5.988$, $p = .000$)	TM and job stress are significant determinants of performance (work-life balance and organizational culture had no significant effect).
Ariansy, & Kurnia (2022)	Analyse the effects of work stress, incentives, and environment on performance, with the mediation of job satisfaction.	Multiple linear regression, SPSS 25.	Work environment on EP: $.527$, $t = 11.250$, $p = .000$. Job satisfaction on EP: $.490$, $t = 10.153$, $p = .000$. Stress on EP: $.031$, $t = -.637$, $p = .527$. Incentives on EP: $-.042$, $t = .926$, $p = .360$. Stress – job satisfaction – EP: Mediation $Z = 2.822$.	Stress has an insignificant direct effect. Work environment and job satisfaction are the only variables a high statistical significance.
Kibeb sii, & Chufi (2022)	Examine the effect of TM (schedules, punctuality, procrastination) on performance.	Descriptive and inferential analysis, Ordinary Least Squares (OLS).	Punctuality on EP: $.092$, $t = 4.378$, $p = .000$. Work schedule on EP: $.154$, $t = 2.899$, $p = .001$. Procrastination: $-.198$, $t = 1.159$, $p = .013$. TM on EP: $R^2 = .651$.	Punctuality is the strongest individual predictor of EP. Overall, TM explains 65.1% of performance variation.
Yang et al. (2021)	Analyse job stress, satisfaction, and performance across industry types.	One-way Analysis of Variance (ANOVA), and correlation analysis.	Trad. industry correlation: -0.386 , High-tech. correlation: $-.347$.	Job stress and performance have a significantly negative correlation in both industry types.
Sutharshini et al. (2019)	Examine the relationship between TM, individual performance, and organizational performance.	Simple mediation analysis	TM on org. performance: $\beta = .334$, $p = .000$. TM on ind. performance: $\beta = .361$, $p = .000$.	TM reduces job stress and somatic strain.

Source: created by the author.

Table 9 shows that empirical evidence consistently identifies job stress as a direct block to performance. It is characterized by an inverse relationship where increased workplace pressure leads to declines in work quality and output.

In the logistics sector, Juita (2025) established a significant negative effect of stress on performance with a coefficient of $-.148$. The research highlights that excessive pressure disturbs an employee's concentration and motivation, which are critical for the efficiency and accuracy required in logistics operations. When stress is unmanaged, it triggers fatigue and decreases enthusiasm, which ultimately affects the achievement of organizational goals. Maalouf, & Maalouf (2024) confirmed that as job stress increases, job performance significantly decreases, accepting their study's second hypothesis. Their regression analysis is particularly revealing because, out of four tested variables (including organizational culture and work-life balance), only job stress and time management significantly determined variations in performance. Together, these two factors explained 21.5% of the variance in how effectively employees complete their duties. Yang et al. (2021) found a significantly negative correlation between stress and performance across the manufacturing sector in Taiwan. However, their comparative analysis showed that the effect is more significant in traditional industries ($-.386$) than in high-tech industries ($-.347$). They suggest, that while high-tech sectors benefit from more automated operations, traditional sectors face a wider variety of stress factors, that decrease work output more aggressively (Yang et al., 2021). Ultimately, these studies suggest that unmanaged stress in employees creates a psychological burden that outweighs their ability to perform. This leads to mental exhaustion, more errors, and lower professional reputation.

Another set of authors investigate the relationship between stress and performance through job satisfaction. According to Yunus et al. (2025), workload significantly influences an employee's level of content, which then acts as a partial mediator explaining 31.2% of the total impact on performance outcomes. Meaning, that excessive workload adds to higher stress levels and decreases job satisfaction. This manifests in declined quality of work task execution. So, employees with higher satisfaction are able to better manage their responsibilities, whereas job dissatisfaction reveals the negative potential of occupational demands. Similarly, research by Ariansy, & Kurnia (2022) at PT. Telkom Magelang demonstrated that while the direct effect of work stress on performance may be statistically insignificant ($p = .527$), it has a strong indirect impediment by first damaging an employee's psychological well-being (Ariansy, & Kurnia, 2022). Their study confirmed this through a mediation *Z-value* of 2.822, proving that satisfaction serves as the primary psychological bridge through which workplace stress decreases operational outputs. (Ariansy, & Kurnia, 2022). Ultimately, these findings indicate, that management should prioritize psychological fulfilment to prevent workplace pressures from evolving into performance failures. In other words, appropriate

management of an employee's psychological state improves their abilities to manage stress and increases work efficiency.

Kibeb sii, & Chufi (2022) discuss how when workplace stress reaches unmanageable levels, it manifests through specific counterproductive behaviours that severely compromise operational efficiency and integrity. The authors identified that high stress levels, often a result of rushed work and poor scheduling, lead to a surge in operational errors and missed deadlines, which ultimately destroys an employee's professional reputation (Kibeb sii, & Chufi, 2022). Furthermore, Sutharshini et al. (2019) noted that stress often presents as somatic tension, a physiological response that directly slows down work speed and acts as a major impediment to both individual and organizational performance. These operational declines are further compounded by a significant loss of focus (Juita, 2025). She found that excessive pressure impairs an employee's concentration and motivation. This cognitive disruption prevents employees from meeting strategic organizational targets, which further supports the cycle of fatigue and decreased work quality (Juita, 2025).

The empirical findings suggest that job stress consistently hinders employee performance. Increased workplace pressure is repeatedly associated with declines in work quality, concentration, accuracy, and output, either through direct or indirect effects, like decreased job satisfaction and psychological well-being. These findings reinforce the view that stress does not only coexist with poor performance but actively undermines the cognitive and emotional resources required for effective task execution. TM is researched and found to be a viable option to establish a functioning mechanism, that would enable employees to mitigate stress. By reducing time pressure, cognitive overload, and somatic strain, TM preserves employees' capacity to self-regulate and maintain effort.

While the negative impact of job stress on employee performance and the relationship between TM – stress – performance is well established, the following researched factor is motivation. Table 10 presents the empirical research done on the motivation factor, considering research on performance and its connection to TM.

Table 10

Empirical level of research on motivation as a predictor of EP

Author	Research Aim	Method	Evidence	Findings
Pancasila et al. (2020)	Determine the impact of work motivation and leadership on job satisfaction and employee performance.	Structural Equation Modelling (SEM), AMOS 22.	Motivation on EP: .166, $t = 2.973$. Motivation on job satisfaction: .171, $t = 2.874$. Indirect effect (through satisfaction): .062.	Work motivation has a positive and significant direct effect on both job satisfaction and performance.
Hassan et al. (2020)	To investigate the impact of job satisfaction, stress, and motivation on job performance.	Confirmatory Factor Analysis (CFA), Cronbach's alpha, regression analysis.	Motivation on EP: .205, $t = 1.860$, $p = .067$.	In the academic context, no significant relationship was found between job motivation and performance.

Table 10 (continued)

Author	Research Aim	Method	Evidence	Findings
Riyanto et al. (2021)	Analyse the effect of motivation and job satisfaction on performance, with employee engagement as a mediator.	Partial Least Square (PLS) with SmartPLS 3.0.	Motivation on EP: .070, $t = 2.173$, $p = .030$.	Motivation significantly boosts performance and is a stronger driver of engagement than job satisfaction.
Ariansy, & Kurnia (2022)	To analyse the effect of work stress, incentives, and environment on performance and satisfaction.	Multiple linear regression, SPSS 25.	Incentives on EP: -.042, $t = .926$, $p = .360$. Incentives on satisfaction: -.143, $t = 1.002$, $p = .022$.	Incentives (extrinsic motivation) were found to have an insignificant direct effect on both performance and satisfaction.

Source: created by the author.

The research by Pancasila et al. (2020) provides a comprehensive quantitative analysis of how work motivation and leadership drive productivity at the Bukit Asam Coal Mining Company in Indonesia. Pancasila utilized SEM to measure the specific weights and significance of each variable path within the mining organization. One of the most significant contributions is the discovery that job satisfaction does not mediate the relationship between leadership, motivation and performance. This means that motivation and leadership improve performance directly, regardless of whether the employee feels satisfied with their role. Specifically, the direct effect of motivation on performance (.166) was found to be much stronger than the indirect effect through satisfaction (only .062) (Pancasila et al., 2020). In addition, leadership was found to have stronger influence than work motivation across all tested categories. Leadership demonstrated a total effect of .270 on performance, while work motivation contributed a total effect of .228. In terms of factors influencing motivation, study finds that self-actualization (opportunities to develop skills), social needs (maintaining kinship with colleagues), and meeting basic needs (sufficient salary) are the most important indicators in the mining sector (Pancasila et al., 2020). Overall, the study concludes that highly motivated employees work more enthusiastically and solve problems according to established rules.

Hassan et al. (2020) investigated the impact of motivation on job performance among faculty and management staff at six private universities in Karachi, Pakistan. The study's empirical results revealed that there was no significant relationship between job motivation and job performance within this specific academic context. Specifically, the regression analysis resulted in a *beta coefficient* of .205 and a *t-statistic* of 1.860, which has a *p-value* of .067 (Hassan et al., 2020). This *p-value* exceeded the standard .05 significance threshold, so motivation was found to explain 0% of the variance in employee performance for this sample. So, Hassan et al. (2020) concluded that while motivation is often a driver in other sectors, it did not significantly improve performance in this context.

In their study of IT system developers, Riyanto et al. (2021) empirically established that work motivation exerts a positive and significant direct effect on employee performance, with a *t-statistic* of 2.173 and a *p-value* of .030. Their findings highlight that motivation is a significantly more potent

driver of performance in the IT sector than either job satisfaction or direct employee engagement (Riyanto et al., 2021). Regarding the factors that influence motivation itself, the study found that establishing good socialization with colleagues is the most dominant driver, with a loading factor of .765. Other high-impact indicators include maintaining a sense of kinship with coworkers (.742) and the provision of health allowances (.726) (Riyanto et al., 2021). These findings confirm the results of Pancasila et al. (2020) stating that motivation is most impacted by social needs and meeting necessary basic human needs.

Ariansy, & Kurnia (2022) investigated the impact of incentives as a form of extrinsic motivation on EP at PT. Telkom Magelang. Their empirical results demonstrated that incentives have an insignificant direct effect on employee performance, yielding a *beta coefficient* of -.042, a *t-statistic* of .926, and a *p-value* of .360. While the study found that incentives had a significant positive impact on job satisfaction ($p = .022$), the mediation analysis results showed that satisfaction does not act as a bridge for incentives to improve performance, as evidenced by a *Z-value* of .290. These findings led the researchers to conclude that providing rewards or bonuses alone does not necessarily translate into higher productivity in this telecommunications sector.

In addition, it is worth adding, that even though her findings are not included in the table, in her empirical study of the logistics sector, Juita (2025) identified job enrichment as the most dominant determinant of employee performance with a regression coefficient of .571 and a *t-statistic* of 7.887. This research established that the job enrichment strategy significantly boosts intrinsic motivation by shifting employees away from monotonous routines through the introduction of task variation, meaningful work, and autonomy in decision-making. These factors create a sense of ownership and professional self-confidence, which allows employees to view their duties as constructive challenges rather than repetitive burdens. Therefore, the author concludes that when work is structured to offer higher levels of responsibility and challenges, it creates a motivational drive that directly enhances work effectiveness and strategic productivity (Juita, 2025).

Similarly, Cross, & Santeli (2020) discuss how effective TM can keep employees motivated and enhance their productivity. According to the authors, motivation is influenced by a chain reaction that occurs when an individual's daily practices and time management fall into alignment with their life purpose, leading to a greater sense of internal peace and more effective goal achievement. Their empirical study at Northern Nigeria Noodle Company found a strong positive relationship between time management and performance, with a *correlation coefficient* (r) of .682 ($R^2 = .465$), indicating that effective time use explains nearly 46.5% of the variation in employee output (Cross, & Santeli, 2020). In addition, scholars highlight that self-confidence is a crucial ingredient for this motivational drive, as employees must believe that developing time management skills is possible and trust the techniques used to see immense improvements in effectiveness (Cross, & Santeli, 2020). Ultimately,

they conclude that time management training serves as a vital tool to boost team productivity, helping staff perform at their highest skill level while maintaining a healthy work-life balance.

To sum up, studies indicate that motivation generally has a positive significant effect on employee performance. It determines the intensity and persistence an employee brings to work-related tasks. Highly motivated employees are more likely to exert discretionary effort to help their employers succeed. Even though research studies the impact of motivation and how it influences performance, it is evident that it is not studied enough how TM can be used to boost motivation, and in turn performance. So, in research there is a significant gap where role of time management as a tool to translate motivation into improved employee performance is often overlooked.

After having analysed how job satisfaction, stress, and motivation impact the relationship between time management and employee performance, in the topic of the impact of TM on EP in an international company, it is important to discuss how the addition of the international aspect changes the outcomes.

The relationship between TM and EP is not uniform, instead, it is influenced by industry-specific demands and international cultural contexts. Research across diverse regions, including Indonesia, Taiwan, Cameroon, Nigeria, Lebanon, and other countries shows that TM is generally a positive driver of performance, but its influenced factors, such as stress or motivation, can vary per industry or country. Table 11 presents the different industries and countries in studies and their findings.

Table 11

The impact of TM and other factors on EP in an international setting

Author	Industry	Country	Study Factors & Outcomes				
			TM	Stress	Motivation	Job satisfaction	EP
Cross, & Santeli (2020)	Manufacturing	Nigeria	Influence	Influence	Influence	-	Improved
Yang et al. (2021)		Taiwan	-	Influence	-	Influence	Improved
Hassan et al. (2020)	Public Sector & Government	Pakistan	-	No influence	No influence	Influence	Improved
Kibebzii, & Chufi (2022)		Cameroon	Influence	-	-	-	Improved
Yasa et al. (2022)		Indonesia	Influence	-	-	Mediator	Improved
Yunus et al. (2025)			Influence	-	-	Mediator	Improved
Riyanto et al. (2021)			-	-	Influence	No influence	Improved
Ariansy, & Kurnia (2022)			-	Indirect Influence	No influence	Influence	Improved
Sutharshini et al. (2019)	Services & Logistics	Sri Lanka	Influence	Influence	-	-	Improved
Korzynski, & Protsiuk (2022)		Ukraine	Influence	No influence	-	Mediator	Improved
Juita (2025)		Indonesia	Influence	Influence	Influence	-	Improved

Table 11 (continued)

Author	Industry	Country	Study Factors & Outcomes				
			TM	Stress	Motivation	Job satisfaction	EP
Pancasila et al. (2020)	Energy & Mining	Indonesia	-	-	Influence	Influence	Improved
Wahyuni et al. (2024)	General Commercial		-	-	-	Influence	Improved
Maalouf, & Maalouf (2024)		Lebanon/ Kuwait	Influence	Influence	-	-	Improved

Source: created by the author.

Table 11 shows, that regardless of the country or industry, improved TM typically reduced stress, increased motivation and job satisfaction, and overall results in increased EP. However, countries and industries results may vary. For instance, in the manufacturing industry in Taiwan both stress and job satisfaction were relevant for EP. But in the public sector in Pakistan, stress and motivation were found to not have significant impact. Job satisfaction was more important to increase performance.

So, it is evident that due to the studies being conducted across different countries and industries, results can vary, meaning that while TM impacts EP, the way that is achieved can be through different factors. Some results show more significance for stress, some highlight the importance of improving job satisfaction.

Empirical studies summarized in the chapter demonstrate, that effective TM behaviours increase the perceived control of time, which reduce time pressure and cognitive overload. As a result, TM in a way acts as a psychological shield. It prevents employees from feeling excessive work stress or lower motivation. As a result, increased job satisfaction improves employee performance.

While the link between motivation and performance is studied, the sources highlight that research often lacks consideration of TM as a critical enabler. Motivation provides the will to act, but without effective TM, even highly motivated employees can become pulled in too many directions and eventually burn out. Overall, the chapter concludes that TM is a critical organizational capability that supports performance indirectly by reducing stress, enhancing job satisfaction, strengthening motivation, and enabling self-regulation.

After evaluating empirical studies conducted by other scholars on the impact of time management on employee performance in an international company and considering the key findings discussed in this chapter, the research model is further developed to illustrate the relationships between time management, job stress, motivation, job satisfaction, and employee performance in an international company. It is relevant to propose a model that has not been comprehensively examined in prior research, as this allows for a deeper understanding into the role of time management as an enabling mechanism of employee performance.

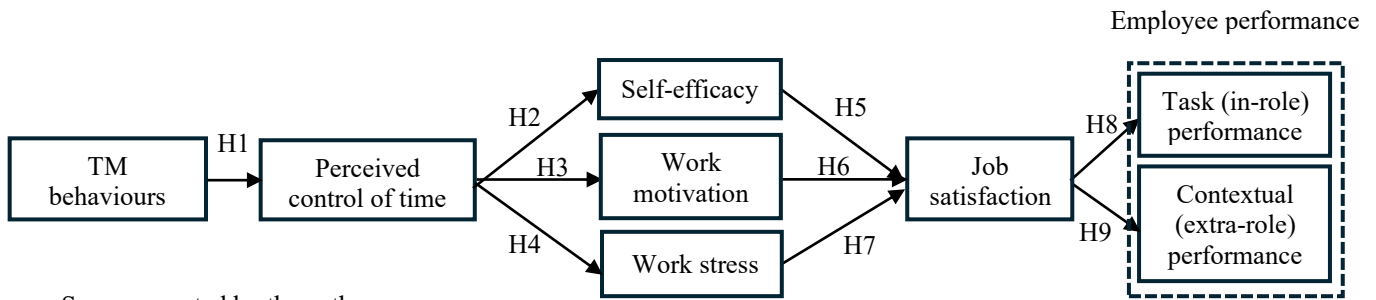
2.2. Research model of the impact of the time management on employee performance

As companies expand their operations to international markets, there is an increasing concern on how they can improve performance and maintain a competitive advantage. “However, optimal performance cannot be achieved without proper human resource management” (Juita, 2025, p. 620). In fact, optimal productivity is often blocked by poor time management, excessive workloads, and work stress. These factors lead to psychological pressure and decreased performance. Thus, in order to address these challenges and achieve improved sustainable performance, a solution requires to integrate TM with psychological employee factors, like work stress, job satisfaction, and similar (Juita, 2025). As a result, this research focuses on how TM can improve employee performance through cognitive employee related factors, perceived control of time, work motivation, self-efficacy, work stress, and job satisfaction.

Thus, the presented analysed theoretical and empirical literature provides a foundation for further empirical investigation. As a result, the theoretical model developed in the first part of the thesis must be refined based on empirical evidence. Certain variables (ability, job autonomy, and feedback) have been excluded from further analysis due to limited relevance to the research aim, which is to focus on the psychological process time management creates. Therefore, the research model of the impact of time management on employee performance in an international company is constructed by focusing on the most both theoretically and empirically supported factors, such as work stress, work motivation, self-efficacy, and job satisfaction. Additionally, the model is formed based on the following:

1. The level of empirical investigation shows that when analysing the relationship between time management and employee performance work motivation is not sufficiently examined. This highlights a clear gap in research regarding time management, work motivation, and employee performance.
2. The empirical analysis indicates that the majority of studies focus on a couple of factors at a time. This makes it possible to identify which factors have the strongest influence on performance outcomes. Moreover, this presents a research gap to study the factors as a chain reaction, rather than in an isolated manner.

Thus, after analysing the theoretical and practical (empirical) aspects of the impact of time management on employee performance in an international company, a research model is presented. It illustrates the relationships between time management, mediating factors, and employee performance (Figure 3).



Source: created by the author.

Figure 3. Research model of the impact of time management on employee performance

As shown in Figure 3, the research model has changed from the theoretical model (Figure 2). To investigate the impact of time management and focus on its effect, the model starts with TM behaviours, instead of ability and job autonomy. Time management behaviours include goal setting, prioritizing, planning, and its mechanics (i.e., list-making, scheduling) (Sutharshini et al., 2019; Yasa et al., 2022; Korzynski, & Protsiuk, 2022; Yunus et al., 2025). Effective TM behaviours are presumed to enhance employees perceived control of time (Korzynski, & Protsiuk, 2022; Yunus et al., 2025). This way, TM is treated not as a direct determinant of performance, but instead as an enabling mechanism that supports employees' self-efficacy, stress, motivation, and job satisfaction (Cross, & Santeli, 2020; Juita, 2025; Yunus et al., 2025). By improving these factors (for example, lowering stress) it is theorized, that TM can increase both task (in-role) and contextual (extra-role) performance (Sutharshini et al., 2019; Cross, & Santeli, 2020; Yasa et al., 2022; Yunus et al., 2025).

Additionally, the model presents research hypotheses:

H1: Time management behaviours positively influence employees' perceived control of time. This hypothesis reflects that TM behaviours are not the direct and sole reason individuals feel more efficient or productive. Instead, it is because TM behaviours can help increase the perceived control of time one experiences. When that is achieved, they are able to feel like they possess more authority over their tasks and time, which decreases feelings of overload and emotional strain, and helps manage time pressure more effectively (Korzynski, & Protsiuk, 2022).

H2: Perceived control of time positively influences self-efficacy. It is hypothesised that an increased sense of control over time one experiences can in turn boost an individual's self-efficacy (the belief that one possesses the necessary tools or abilities to complete a task), i.e. feeling more in control of time can increase the feeling of your abilities and competence (Korzynski, & Protsiuk, 2022). Implementing TM strategies and having more autonomy workload, fosters a sense of ownership and self-confidence in completing work challenges (Juita, 2025).

H3: Perceived control of time positively influences work motivation. Similar to self-efficacy, a sense of time control is closely linked to autonomy and freedom at work. When employees have the power to manage their tasks or decide how their work is structured, intrinsic motivation

increases as they find the work more meaningful and less of a forced routine (Juita, 2025). Additionally, employees who feel like they have the tools to manage their time are more likely to be motivated to handle their workloads effectively (Yunus et al., 2025).

H4: Perceived control of time negatively influences work stress. A sense of control over one's work is a crucial factor in navigating the impact of external pressures (Yang et al., 2021). Therefore, this mindset (control over circumstances) can help employees be more resilient in high pressure environments and therefore lower work related or somatic tension (Sutharshini et al., 2019; Yunus et al., 2025; Juita, 2025).

H5: Self-efficacy positively influences job satisfaction. Employees with increased self-efficacy feel more confident to overcome workplace challenges and show a higher sense of competence. This makes them more likely to attain valuable work results which creates higher job satisfaction (Korzynski, & Protsiuk, 2022; Yunus et al., 2025).

H6: Work motivation positively influences job satisfaction. Higher enthusiasm is likely to make the work feel more as a means to self-actualise, providing employees with a sense of fulfilment (Juita, 2025). Therefore, increased motivation can transform the work experience from a routine to a meaningful or rewarding activity, boosting job satisfaction (Yunus et al., 2025).

H7: Work stress negatively influences job satisfaction. Stress can increase feelings of job and somatic tension as well as burnout (Sutharshini et al., 2019; Yunus et al. 2025). This leads to lower well-being, contentment and job satisfaction (Yang et al., 2021; Korzynski, & Protsiuk, 2022).

H8: Job satisfaction positively influences task (in-role) performance. Higher job satisfaction allows employees to complete tasks quicker and with fewer errors which increases task (in-role) performance (Ariansy, & Kurnia, 2022). Additionally, employees that are satisfied with their environment and relationships are more motivated to carry out their duties effectively (Wahyuni et al., 2024).

H9: Job satisfaction positively influences contextual (extra-role) performance. Increased job satisfaction can increase Organizational Citizenship Behaviour (OCB) like helping others and being more proactive (Sutharshini et al., 2019; Pancasila et al., 2020; Riyanto et al., 2021).

Overall, the hypotheses presented in the model reveal a sequence of relationships through which time management behaviours indirectly influence employee performance. The model emphasizes that effective performance and job-related outcomes stem from internal psychological perceptions, like feelings of time control, perceptions of abilities, and internal experiences of motivation and stress, instead of TM behaviours alone. This as well reflects the theoretical assumptions of this thesis.

Summarising the proposed research model on the impact of time management on employee performance, it can be stated, that the main organisational objective should not be simply increased

productivity, but rather the creation of conditions which allow employees to function effectively under time-related demands. This is because sustainable performance can only be achieved when employees are able to manage their workload and job role tasks without time pressure or excessive strain.

The model emphasises that when employees are able to structure their tasks and overall feel more in control over their time, they are likely to experience increased self-efficacy and motivation, lower stress, and therefore job satisfaction. This enables them to perform their core job tasks more effectively and consistently. As a result, task (in-role) performance is improved. Additionally, higher job satisfaction is linked to higher contextual performance, meaning more proactive behaviour. So, based on the assessment of the empirical level of research and the formulation of the proposed model for further investigation, it can be concluded, that time management functions as a critical enabling mechanism linking organisational conditions with employee-level outcomes. Existing empirical studies usually focused on predictors of performance, such as workload and time management tools, while the role of the perceived control of time is not adequately explored. This model addresses this gap by positioning perceived control of time, self-efficacy, stress, motivation and job satisfaction as interconnected mechanisms.

Further empirical research should focus on examining these relationships, particularly in international organisational contexts characterised by high time pressure and cognitive demands. Such environments provide suitable conditions to assess how time management contributes to employee psychological states and performance. By exploring this relationship, firms could gain deeper insights into how supporting employees' time management capacities can enhance sustainable performance outcomes and organisational effectiveness.

3. EMPIRICAL RESEARCH OF THE IMPACT OF TIME MANAGEMENT ON EMPLOYEE PERFORMANCE IN AN INTERNATIONAL COMPANY

This chapter presents the empirical research methodics employed to examine the impact of time management (TM) on employee performance (EP) in an international company. This chapter presents the analysis and interpretation of the research results, based on the empirical investigation of the formulated hypotheses and evaluation of research results.

3.1. Research methodics

This subchapter presents the empirical part of the research. It aims to test the hypotheses developed in the analytical chapter and to assess the impact of time management on employee performance in an international company. The study applies a quantitative approach using survey data collected from employees working in international companies.

Aim of the research – based on *research model of the impact of time management on employee performance* to investigate whether time management behaviours and the perceived control of time influence employee performance through employee self-efficacy, work motivation, work stress, and job satisfaction.

Objectives of the research:

1. To examine the impact of TM behaviours on employee's perceived control of time.
2. To investigate how perceived control of time contributes to self-efficacy, stress and motivation.
3. To analyse the relationship between self-efficacy, stress, motivation and job satisfaction.
4. To examine the relationship between job satisfaction and task and contextual performance.
5. To determine the final link between TM and EP.

Research methods and hypotheses. This research implemented a quantitative method. The quantitative approach is used as “it provides exact measurements, observations related to the objective and truthful verification through the analysis of statistics” (Hassan et al., 2020, p. 79). Furthermore, the analysis of the empirical studies (subchapter 2.1.) showed that the qualitative method was much less frequently used and there is a general preference for the quantitative research method. To add, the study uses an explanatory method, which based on previously established hypotheses aims to identify cause and effect relationships between variables. Besides that, this study was conducted holding the idea of an objective reality. This perception in social sciences aims to find out the universal society's and the people's behaviour in it laws. Going off of that, analytical methodology involves splitting a phenomenon into separate elements, after which hypotheses can be made and tested through study (Arbnor, & Bjerke, 2014). To add, the research is grounded in the paradigm of positivism, under

which the world exists objectively and is external. Meaning, it exists independently of the researcher's feelings or beliefs (ibid).

To collect the primary data necessary for the study a structured online questionnaire using Likert scale is used. The results are analysed using the IBM SPSS 31.0.0.0. software. First, to determine the reliability of the results, the *Cronbach's Alpha* (α) is found. If the α is above 0.60-0.70 then the reliability is acceptable, if it is above 0.80 the reliability is good (Hassan et al., 2020).

Then, to determine the relationships between factors, correlations analysis is implemented, which represents the "effectiveness and level of association between two different variables" (Hassan et al., 2020, p. 81). Pearson's *correlation coefficient* (r) is commonly used as it that describes two variables i.e., X and Y in linear relation (Hassan et al., 2020). The value of correlation lies in the range of -1 to +1. A strong and negative relationship serves as -1 and +1 represents strong and positive relationship (0 means no correlation) (Hassan et al., 2020). While correlation measures the strength of association, regression analysis is used to determine the predictive power of one variable (ex., motivation) on another (ex., job satisfaction). Besides helping to see whether a relationship between variables exists or not, regression analysis also allows to test if it is statistically significant (Hassan et al., 2020). This is seen through the *p-value*, which is calculated to ensure the significance and reliability of the regression (Hassan et al., 2020). The results are considered statistically significant if the *p-value* is less than .05 with a 95% level of confidence. When the *p-value* is less than .01, the relationship is significant with a 99% level of confidence (ibid). In this research, all the hypotheses are tested through regression analysis to obtain the relationship among variables. After that, to test the indirect effects within the model, PCT and JS are analysed as mediators. For example, in the path between TM and WS, PCT serves as a potential mediator. Thus, after testing the hypotheses, the Hayes PROCESS Model 4 is used to conduct mediation analysis and to determine the significance of these indirect relationships. This test uses bootstrapping, which means that the computer resamples the data thousands of times, for example 5000, to be sure of the significance of relationships. The *Boot CI* (bootstrap confidence interval) then shows a range within which it can be 95% certain, that the true mediation effect exists. The range has an *LLCI* (lower-level confidence interval) and an *ULCI* (upper-level confidence interval). If this range stays within positive numbers ([+0.10, +1.10]) or negative numbers ([-1.10, -0.10]), then the relationship is significant. If it contains zero, meaning it goes from negative to positive ([-0.10, +0.10]), it means that the effect could be zero, therefore the relationship is not significant. After that, the Hayes PROCESS Model 6 is implemented to check the serial mediation effects. This allows to assess whether TM influences EP through a sequence of mediators (e.g., TM – PCT – WS – JS – EP). This means, that potentially, the model works as direct chains, meaning, TM improves PCT which enhances SE and WM, or decreases WS, which improves JS and then EP. This model, just like PROCESS Model 4, uses bootstrapping. Beyond the core

analysis, the study also investigates the influence of two potential moderators: gender and company's sector. To assess the impact of gender, an independent samples t-test is conducted. To compare mean differences between the two groups. Furthermore, to evaluate the influence of the sector, the Hayes PROCESS Model 1 is used (moderation analysis). This allows to determine if the strength or direction of the paths significantly shifts depending on the specific sector in which the international company operates. These tests complete the statistical analysis of the collected research data.

The full questionnaire is provided in Appendix 2 and consists of 4 parts:

1st part "General information" (1 – 7 Questions). The first question is a control question, which aims to filter out respondents not working in international companies. The following questions aim to find out the following data about the participants: gender, age, education level, job position, sector in which their company operates, and their current work arrangement.

2nd part "Time management" (8 – 16 Statements). The aim of this part is to find out the tendencies of the respondents using time management behaviours and the extent of them feeling in control their time.

3rd part "Employee factors" (17 – 32 Statements). The aim of this part is to find out the personal psychological perceptions of the employees, like their self-efficacy, motivation, and perception of stress.

4th part "Work related factors" (33 – 44 Statements). The aim of this part is to find how satisfied employees feel in their jobs and what are the results of their performance (task and contextual).

Table 12 presents research hypotheses and survey questions to test them.

Table 12

Description of hypotheses according to the questionnaire

Hypothesis	Statements	Aim of the questions
H1 – Time management behaviours positively influence employees' perceived control of time.	TM 8-12 PCT 13-16	To measure the extent to which employees engage in TM behaviours (mechanics, goal setting, prioritizing) to determine how these actions influence their perceived control of time.
H2 – Perceived control of time positively influences self-efficacy.	PCT 13-16 Self-Efficacy 27-31	To find how having a sense of control over time strengthens an employee's confidence in their ability to perform tasks and solve problems.
H3 – Perceived control of time positively influences motivation.	PCT 13-16 Motivation 22-26	To evaluate how an employee's perceived control of time fuels their internal drive and willingness to perform.
H4 – Perceived control of time negatively influences work stress.	PCT 13-16 Stress 17-21	To identify the level of stress and emotional pressure employees experience due to their workload.
H5 – Self-efficacy positively influences job satisfaction.	Self- Efficacy 27-31 Job Satisfaction 32-36	To identify how an employee's confidence in their own capabilities and problem-solving skills contributes to their sense satisfaction in the workplace.
H6 – Motivation positively influences job satisfaction.	Motivation 22-26 Job Satisfaction 32-36	To measure the level of employee engagement and enthusiasm to determine how internal drive contributes to overall job satisfaction.

Table 12 (continued)

H7 – Work stress negatively influences job satisfaction.	Stress 17-21 Job Satisfaction 32-36	To evaluate to what extent stress (psychological pressure, emotional exhaustion) reduce an employee's overall sense of professional satisfaction.
H8 – Job satisfaction positively influences task (in-role) performance.	Job Satisfaction 32-36 Task Performance 37-40	To determine the extent to which an employee's job satisfaction and sense of fulfilment lead to improved core job role responsibilities.
H9 – Job satisfaction positively influences contextual (extra-role) performance.	Job Satisfaction 32-36 Contextual Performance 41-44	To determine the extent to which an employee's job satisfaction and sense of fulfilment lead to extra work behaviours.

Source: created by the author.

Table 12 presents the questions of the survey, with the exclusion of the control questions. Before showing the statements, a control question determines whether the respondent works in an international company. This step is critical, as the survey targets only employees of international companies. Respondents who do not meet this criterion are filtered out.

The questions were formed after evaluating the hypotheses and which aspects they are aimed to test. The first hypothesis (**H1**) is formed to find whether **TM behaviours** positively influence employees' perceived control of time. To find which questions should be asked to research this hypothesis most optimally Macan et al. (1990) The Time Management Behaviour Scale (TMBS) was used as a reference. The TMBS is a research tool measuring how people manage time through four factors: setting goals and priorities, mechanics of TM (scheduling, making lists), perceived control of time, and preference for organization (Macan et al., 1990). It offers insights into stress and performance by using the Likert scale to assess behaviour. The Likert scale is a psychometric survey tool used to measure attitudes, opinions, and behaviours by asking respondents to rate their level of agreement usually using 5- or 7-point range. It makes it possible to quantify nuanced feelings by using statements "Strongly Agree/Disagree", "Always/Never", "Important/Unimportant" and etc. Macan et al. (1990) TMBS Scale uses statements such as "Sets deadlines", "Sets priorities/completes priority tasks", "Schedules time daily", "Makes list of things to do", "Reviews goals" that in the Likert scale ranged from seldom true (0) to very often true (4) (Macan et al., 1990, p. 762). Therefore, the statements have been adapted and modified to research the first hypothesis about TM behaviours. Respondents are asked to evaluate how strongly they agree with statements like "*I set clear priorities for my daily tasks*", "*I regularly review how I spend my time*" and other.

The following researched factor is the **perceived control of time** which concerns hypotheses **H2**, **H3**, and **H4**. Items regarding the perceived control of time individuals experience were taken from Macan et al. (1990). Statements 13 to 16 ("I feel in control of my time", "I underestimate the time it would take to accomplish tasks", "I find myself overwhelmed by unimportant tasks", and "I tend to procrastinate on important work tasks") are taken from the TMB Scale by Macan et al. (1990).

To test the **work stress** part of the hypotheses (**H4**, **H7**) The Workplace Stress Scale (WSS) developed by the Marlin Company and the American Institute of Stress (2011) is used. This

questionnaire uses a 5-point range Likert scale from never to very often. However, to keep the questionnaire cohesive and easy to fill out the Likert scale used ranges from strongly disagree to strongly agree. Statement 17 (“I have too much work to do and/or too many unreasonable deadlines”) is Item 3 in the WSS (The Marlin Company, 2011). Other items taken from this source are Statements 18 (Item 6) and 19 (Item 2) (The Marlin Company, 2011). Statement 18 (originally “I feel that I have inadequate control or input over my work duties.” has been modified to “I lack control over my work duties” for easier understanding for the general public. Statement 20 is taken from the Work Stress Questionnaire by Holmgren (2008). The original Item number is 15a and 15b (Do you find it hard to set a limit to work assignment although you have a lot to do? If yes or partly – do you perceive that as stressful?) (Holmgren, 2008). This statement has been modified to “I have a hard time setting limits on my workload, even when I am overwhelmed” for easier understanding. Statement 21 is from the WWS (Item 5) (The Marlin Company, 2011).

To assess the **motivation** factor (**H3, H6**) the Work Extrinsic and Intrinsic Motivation Scale (WEIMS) or The "Why Do You Do Your Work?" scale was used. It is an 18-item tool developed by Tremblay et al. (2009) used to measure work motivation based on Self-Determination Theory (SDT). It assesses six types of motivation ranging from intrinsic to amotivation using a 7-point Likert scale (Tremblay et al., 2009). Item 4 from the scale is Statement 26, Item 8 is modified to a standard statement and is Statement 24, and Item 15 is Statement 25. Statement 23 in the questionnaire is taken from The Multidimensional Work Motivation Scale (MWMS) by Gagne et al. (2015).

Statements about **self-efficacy** (**H2, H5**) are derived from the New General Self-Efficacy Scale (NGSE) created by Chen, Gully, & Eden (2001). It is an 8-item measure that assesses how much people believe they can achieve their goals, despite difficulties. It uses scoring from 1 (strongly disagree) to 5 (strongly agree) (Chen, Gully, & Eden, 2001). Out of the 8 Items only 5 are used considering the length of the questionnaire (excluded Items are number 1, 3, and 7).

To determine the level of **job satisfaction** (**H5, H6, H7, H8, H9**) The Generic Job Satisfaction Scale by Macdonald, & MacIntyre (1997) is used. The full scale is made up of 10 Items, but to keep the survey concise, only Items 1, 3, 8, 9, and 10 were used.

Task (in-role) performance (H8) and **Contextual (extra-role) performance (H9)** are evaluated using the Individual Work Performance Questionnaire (IWPQ) (Koopmans, 2014). It is designed to measure individual work performance (IWP) in a generic way across various occupational sectors. It focuses on employee behaviours or actions that are relevant to organizational goals and under the individual's control, rather than the results of those behaviours. The framework is based on a three-dimensional model of performance: task and contextual performance, and counterproductive work behaviour (Koopmans, 2014). For statements regarding task performance, Items from Scale 1:

Task performance 1, 2, 3, and 4 were used. For statements regarding contextual performance, Items from Scale 2: Contextual performance 9, 10, 11, and 13 were used.

Research sample. A sample size calculation was performed based on an average number of international company employees working in Lithuania, Poland, and Denmark, as these are the countries the questionnaire is intended to be distributed to. The data states there are approximately 180,000 to 200,000 international company employees working in Lithuania, therefore the number 190,000 was taken as an average (Invest Lithuania, 2024). In Poland, there are about 2,000,000 international company employees, therefore that is the number used (Trade.gov.pl., 2023). In Denmark, there are around 397,000 international company employees, so that is the number used (European Employment Services, 2025). The final estimated population size is the sum of all these numbers, which is 2,587,000. Using a 95% confidence level and a 7% margin of error, the minimum recommended sample size was calculated to be 196 respondents.

To determine the minimum required sample size, Cochran's formula adjusted for a finite population was applied:

$$n = \frac{N \cdot z^2 \cdot p \cdot (1 - p)}{e^2 \cdot (N - 1) + z^2 \cdot p \cdot (1 - p)}$$

Where:

n is the calculated sample size,

N is the estimated population size (190,000),

z is the Z-score corresponding to the desired confidence level (1.96 for 95%),

p is the estimated population proportion (0.5 was used for maximum variability), and

e is the margin of error (0.07 or 7%).

Therefore, the sample calculation is as follows:

$$195.98 = \frac{2,587,000 \cdot (1.96)^2 \cdot 0.5 \cdot (1 - 0.5)}{(0.07)^2 \cdot (2,587,000 - 1) + (1.96)^2 \cdot 0.5 \cdot (1 - 0.5)}$$

Research organization. The research data was collected through an online questionnaire in April 2026. The links of the questionnaire were sent to related people working in international organizations in Lithuania, Poland, and Denmark. The questionnaire was forwarded through internal communication channels. A total of 223 responses were received. To ensure data reliability, nine responses were deleted due to suspicious patterns, inconsistent responses or irrelevant data. From the remaining 214 responses, 11 were removed as they answered “No” to the control question “Do you work in an international company?”. Following that, the final number of completed valid surveys for statistical analysis is 203.

In summary, this subchapter presents the design and methodology of the research. This study implements the quantitative survey research method in order to collected primary data. The aim of this study is to determine the impact of time management and the perceived control of time on employee related factors and performance in an international company. This subchapter also presents information, which explains how the data of the results will be analysed in ordered to interpret it and reach set objectives.

3.2. The research data analysis and the discussion of the results

This section presents and analyses the data of the empirical study and the findings regarding TM, PCT, SE, WM, WS, JS, and EP (task and contextual).

Demographics. The sample for this study consisted of 203 employees working in international companies. Table 13 presents minimums, maximums, means, and standard deviations of the study variables.

Table 13

Descriptive statistics

Variable	<i>M</i>	<i>SD</i>	Min	Max
Time management	3.65	0.99	1.00	5.00
Perceived control of time	3.27	0.99	1.00	5.00
Self-efficacy	4.02	0.78	1.00	5.00
Work motivation	3.97	0.80	1.00	5.00
Work stress	2.72	1.10	1.00	5.00
Job satisfaction	3.80	0.80	1.00	5.00
Task performance	4.07	0.82	1.00	5.00
Contextual performance	3.90	0.93	1.00	5.00

Source: created by the author. Note. *N* = 203, *M* = Mean; *SD* = Standard Deviation; *Min* = Minimum; *Max* = Maximum.

Table 13 presents the descriptive statistics variables, such as the means standard deviations. Overall, it is visible that most variables lean toward the middle of the 1-5 Likert scale. TM is slightly above, meaning most people “Agree” to implementing some form of TM behaviours. The mean of PCT ($M = 3.27$) suggests that employees generally “Neither agree nor disagree” to feeling in control of their time. Despite that, survey respondents typically showed generally high SE ($M = 4.02$) and levels of WM ($M = 3.97$). To add, these factors had lower standard deviation ($SD = 0.78$ for self-efficacy, $SD = 0.80$ for work motivation). This suggests, that there is a high level of consensus in employees regarding motivation and belief in their own skills and capacity. Although, this could be due to a phenomenon called the social desirability bias seen in organizational reseach. It suggests that survey respondents have a tendency to answer questions in a way that presents them in a positive light. WS ($M = 2.72$, $SD = 1.10$) suggests that employyes lean toward “Disagreeing” that they experience high job pressure and work-life interference. Moreover, work related attitudes seem to relatively high as JS, TP, and CP have generally higher scores.

Furthermore, to check and verify the assumption of normality required for parametric testing, histograms were created for all variables. Essentially, the assumption is that typically the majority of answers will follow a bell curve, meaning, the bigger part of the population would fall in the middle of answers or categories. The graphs of the answers showed that overall they follow a distribution that is acceptable for testing. PCT and WS variables followed a symmetrical normal distribution. Although not all answers followed a perfect bell curve. For example, variables, like SE and EP (total performance) had a slight negative skew, with answers leaning toward the higher end of the Likert scale. Despite this, all variables tested were found to be within acceptable limits for the Pearson correlations and linear regressions.

Table 14 shows demographic profile of the respondents represented in the survey.

Table 14

Demographic characteristics of the survey sample

	Frequency	Percentage
1. Gender		
Female	108	53.2%
Male	91	44.8%
Prefer not to say	4	2.0%
2. Age		
18-24	42	20.7%
25-29	86	42.4%
30-39	45	22.2%
40-49	24	11.8%
50-59	6	3.0%
3. Education level		
High School or equivalent	15	7.4%
Vocational/Technical School	11	5.4%
Bachelor's Degree	85	41.9%
Master's Degree	89	43.8%
Doctorate (PhD, etc.)	3	1.5%
4. Job position		
Operational/Technical Staff (fieldwork, production)	19	9.4%
Administrative/Support Staff (office support)	25	12.3%
Junior Specialist/Associate (entry to mid-level professional)	65	32.0%
Senior Specialist	42	20.7%
Team lead/Manager (employee supervision)	33	16.3%
Middle Management (department head, regional manager)	15	7.4%
Top-Level Management/Executive (director, VP, CEO)	4	2.0%
5. Company sector		
Business, Marketing & Consulting (Marketing, Advertising, HR, Legal, Management)	42	20.7%
Education, Government & Non-profit	7	3.4%
Finance, Banking & Insurance (Financial Services, Accounting, Real Estate)	30	14.8%
Healthcare (Medicine, Pharma, Social Services)	11	5.4%
Logistics, Supply Chain & Transportation	22	10.8%
Manufacturing & Industrial (Automotive, Energy, Construction, Chemicals)	23	11.3%
Retail, Trade & Hospitality (Sales, Food & Beverage, Tourism)	13	6.4%
Technology & Communications (IT, Software, Telecommunications, Media)	55	27.1%
6. Work arrangement		
On site (Office-based)	111	54.7%
Hybrid (Some days in office, some days from home)	79	38.9%
Remote (100% work from home)	13	6.4%

Source: created by the author.

As seen in Table 14, the gender distribution of the sample is relatively balanced, with females representing the majority (53.2%), followed by males (44.8%). Only 2% of the research sample chose not to disclose their gender. To see whether there is a difference in TM behaviours between the genders, and whether that has an impact on performance, 2 independent samples t-tests were performed. Table 15 shows the results for both tests.

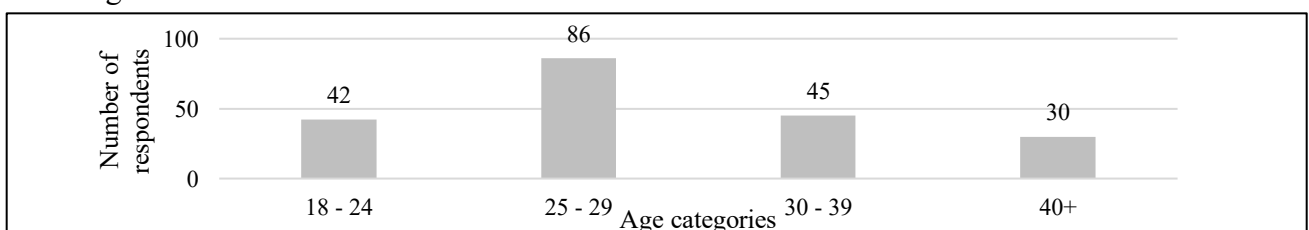
Table 15

Independent samples t-test on gender differences in TM and performance outcomes

Variable	Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>Cohen's d</i>
TM	Male	91	3.45	1.091	-2.552	197	.011	-.363
	Female	108	3.81	0.879				
EP	Male	91	3.96	0.860	-0.447	197	.655	-.064
	Female	108	4.01	0.767				

Source: created by the author.

The results on first test, that was performed on gender differences, are presented under the TM variable. They show a statistically significant difference between the two groups as the $t = -2.552$, $p = 0.11$. The negative t result means that the second group (female) have a higher mean ($M = 3.81$) than the first (male) ($M = 3.45$). However, the male demographic have a higher standard deviation ($SD = 1.09$), meaning their answers varied a bit more than female's ($SD = 0.88$). A t -value $= \pm 1.96$ (or less than -1.96) is considered statistically significant at the 95% confidence level. The p -value $= 0.11$ is as well below the standard $.05$ indicating a statistically significant result. The df (*Degrees of Freedom*) value is calculated $(91 \text{ males} + 108 \text{ females}) - 2 = 197$. It shows how much the data is free to vary. Lastly, the *Cohen's d* tells the size of the difference. Typically, $.2 = \text{small}$, $.5 = \text{medium}$, $.8 = \text{large}$, therefore a *Cohen's d* $= -.363$ is a small to medium difference. So, females reported a bit higher TM behaviours. However, looking at the outcome on the test that was done on performance, it is seen that the results are statistically insignificant ($p = .655$). Males reported a bit lower ($M = 3.96$) performance outcomes than females ($M = 4.01$) but the difference between the groups is very small $t = -0.45$. Moreover, *Cohen's d* $= -.064$ means, that the difference has barely any practical importance. So, it can be concluded, that any difference in the difference of performance outcomes in terms of gender is likely due to random chance. This suggests that gender does not play a significant role in performance. In terms of age, the sample is predominantly made up of younger professionals, with the largest group of participants falling into the 25-29 age category (42.4%). Figure 4 presents a visual of the age distribution.

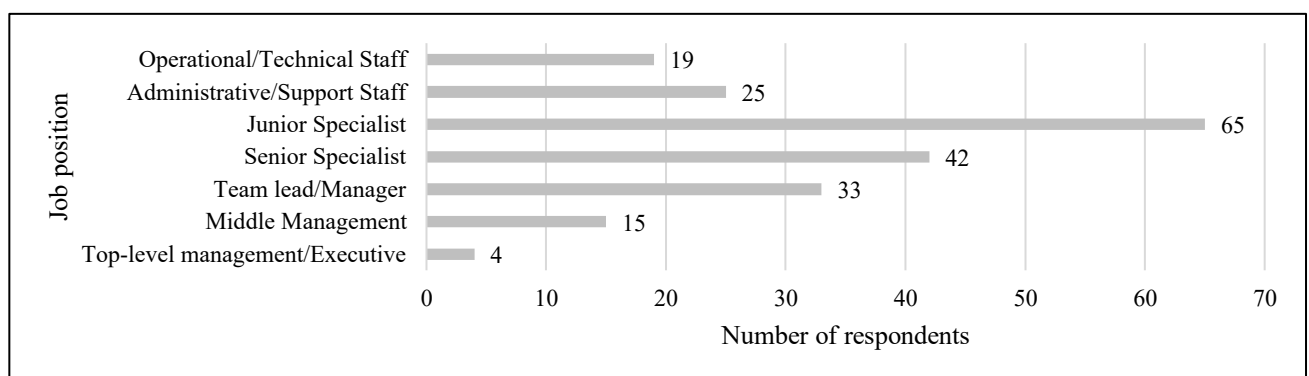


Source: created by the author.

Figure 4. Age distribution of the research sample

As seen in the figure, the second largest group is the 30-39 age bracket (22.2%), and the 18-24 age group (20.7%). These results indicate, the over 63% of this research sample is under the age of 30, meaning that the findings of this study mostly reflect the experiences and TM behaviours of the younger generation. Figure 4 presents a visual of the age distribution.

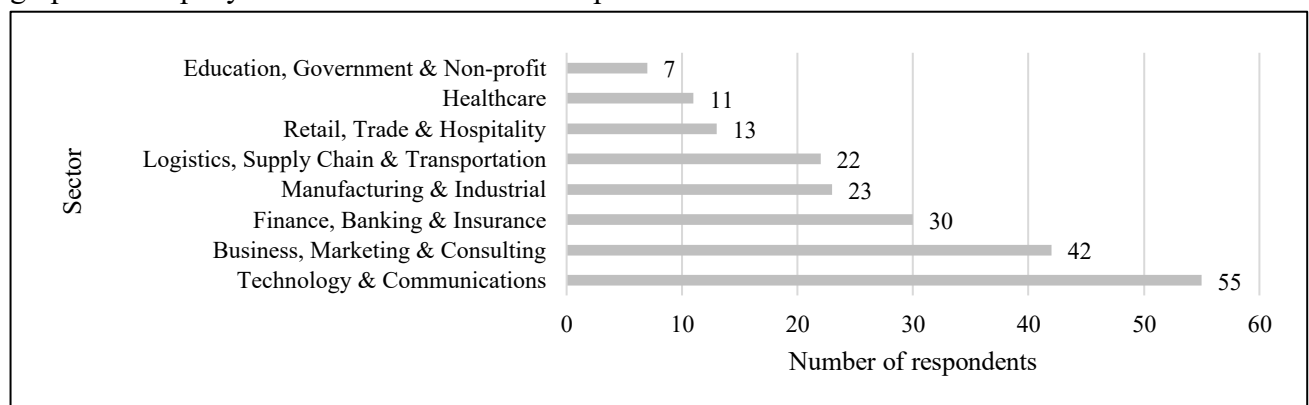
In terms of education, the largest group (43.8%) hold a master's degree, and only a few respondents less have a bachelor's degree (41.9%). This means that in total 85.7% of the sample have completed higher education. With the inclusion of the doctorate degree (1.5%), the percentage of higher education holders rises to 87.2%. The rest of the research sample hold a high school diploma, an equivalent or have technical school education. In terms of the job position, Figure 5 presents a visual representation of its distributions.



Source: created by the author.

Figure 5. Job position distribution of the research sample

As seen in Figure 5, the largest number of respondents are junior specialists (32%), meaning they are entry or mid-level professionals. The second largest number (20.7%) is a rank one position up, senior specialists. If administrative or office support employees (12.3%) are added, it means that 65% of employees (more than half of the research sample) are in their early career. However, while the majority leans toward non-managerial roles, 25.7% of respondents are team leads, regional managers or executives. Moreover, the company sectors are rather varied. The entire sample reported working in 8 different sectors, from logistics and finance to technology. Figure 6 provides a visual graph of company sectors in the research sample.



Source: created by the author.

Figure 6. Company sectors of the research sample.

Figure 6 shows, that most respondents of the research sample work in the Technology & Communications (27.1%) sector, followed by Business, Marketing & Consulting companies (20.7%). Then follows the Finance sector (14.8%). Surprisingly, the Logistics & Supply chain sector (10.8%) has an almost identical number of respondents with the Manufacturing & Industrial sector (11.3%). The remaining 15% of respondents work in either Retail, Trade & Hospitality, Healthcare, or Education, Government & Non-profit organizations.

Lastly, the final data variable of the respondents is their work arrangement. The majority of the respondents mainly work on-site (54.7%). Still, a significant 38.9% of employees work under the hybrid work arrangement. Only a small minority of the sample operates in a fully remote job role (6.4%). This distribution shows that post-pandemic companies have moved to work to offices but have maintained a great percentage of flexible work arrangements.

Having described the research sample, a moderation analysis is done to evaluate whether the company sector has an influence on the TM – EP relationship. To achieve this, the PROCESS Model 1 is used. Table 16 presents the results.

Table 16

Sector moderation analysis on the TM – EP relationship

Predictor	<i>B (Unstandardized)</i>	<i>Standard Error (SE)</i>	<i>t</i>	<i>p</i>
Outcome (Dependent variable) – EP				
(Constant)	3.1956	.4003	7.9831	<.001
TM (Independent variable)	.2617	.1075	2.4349	.0158
Sector (Moderator)	-.2047	.0690	-2.9688	.0034
Interaction (TM – Sector)	.0476	.0186	2.5623	.0111

Source: created by the author. Note. $R^2 = .4269$; $F(3, 199) = 49.4101$, $p < .001$.

Table 16 presents the PROCESS Model 1 moderation analysis. The dependent variable is total (task and contextual) EP, the independent variable is TM, and the moderator is the company sector. TM is seen to be a significant positive predictor of performance ($B = .2617$, $p = .0158$). This shows, that regardless of the sector, overall TM has a positive impact on EP. Furthermore, the analysis revealed that the company's sector has a significant direct effect on EP ($B = -.2047$, $p = .0034$). This means, that the organizational environment plays a key role in performance outcomes. However, most importantly, the interaction between TM and sector is statistically significant ($B = .0476$, $p = .0111$). This finding confirms, that the sector acts as a significant moderator in the relationship between TM and EP. Meaning, that the impact of TM is not the same in all companies and varies depending on its sector. Table 17 presents the individual sector results.

Table 17

Sector outcomes

Sector	<i>B (Unstandardized)</i>	<i>p</i>	Impact
Business, Marketing, & Consulting	.6425	<.001	Highest
Finance, Banking, & Insurance	.5949	<.001	Very high
Technology & Communications	.5473	<.001	High

Table 17 (continued)

Sector	<i>B (Unstandardized)</i>	<i>p</i>	Impact
Manufacturing & Industrial	.4997	<.001	High
Healthcare	.4521	<.001	Moderate
Education & Government	.4045	<.001	Moderate-Low
Retail, Trade & Hospitality	.3569	<.001	Low
Logistics & Supply Chain	.3093	<.001	Lowest

Source: created by the author.

Table 17 shows the various sectors and the effect of the interaction. A linear model is used, as some sectors had too low of a respondent count. Consequently, SPSS does not look at each group separately but rather calculates a straight-line trend for the interaction. Therefore, the effect is calculated using the interaction coefficient, which is .0476. Meaning, that for every one move in the sector list, the impact of TM changes by .0476. So, the effect of the finance sector is calculated Business (Sector 1) - .0476 = .5949 and so on. However, it should be acknowledged, that these increments between sectors are a mathematical simplification. In reality, sectors exist as distinct environments with different levels of autonomy. This linear model serves as a substitute, to show that there is a varying impact of TM on EP based on which sector it is implemented in. It is seen here, that as job roles and sectors move toward having more autonomy, the impact of TM becomes more evident.

After presenting and discussing the demographics of the research sample, Table 18 presents the reliability analysis.

Table 18

Reliability coefficients of the study variables

	<i>Cronbach's Alpha (α)</i>	Number of items
Time management	.903	5
Perceived control of time	.796	4
Self-efficacy	.913	5
Motivation	.858	5
Work stress	.907	5
Job satisfaction	.854	5
Task (in-role) performance	.868	4
Contextual (extra-role) performance	.877	4
Employee performance (total)	.909	8

Source: created by the author.

Reliability analysis shows the internal consistency of the set of items used in the questionnaire which are represented by *Cronbach's Alpha coefficient* in Table 18. Typically, $\alpha \geq .70$ is for acceptable reliability, while .90+ is excellent. As it can be seen from the table, all variables from the table are above .80 or .90. The lowest variable PCT is .796, although it is still above .70. These results indicate that the data is reliable. Having discussed this data, the results of the strength of the relationships between all the study variables by correlation analysis can be seen in Table 19. The full correlation matrix can be viewed in Appendix 3.

Table 19

Correlation matrix

Variable		1	2	3	4	5	6	7	8	9
Time management	<i>Correlation Coefficient</i>	-	-	-	-	-	-	-	-	-
	<i>Sig. (2-tailed)</i>	-	-	-	-	-	-	-	-	-
Perceived control of time	<i>Correlation Coefficient</i>	.417**	-	-	-	-	-	-	-	-
	<i>Sig. (2-tailed)</i>	<.001	-	-	-	-	-	-	-	-
Self-efficacy	<i>Correlation Coefficient</i>	.537**	.479**	-	-	-	-	-	-	-
	<i>Sig. (2-tailed)</i>	<.001	<.001	-	-	-	-	-	-	-
Work motivation	<i>Correlation Coefficient</i>	.516**	.475**	.712**	-	-	-	-	-	-
	<i>Sig. (2-tailed)</i>	<.001	<.001	<.001	-	-	-	-	-	-
Work stress	<i>Correlation Coefficient</i>	-.254**	-.709**	-.300**	-.380**	-	-	-	-	-
	<i>Sig. (2-tailed)</i>	<.001	<.001	<.001	<.001	-	-	-	-	-
Job satisfaction	<i>Correlation Coefficient</i>	.587**	.456**	.669**	.707**	-.399**	-	-	-	-
	<i>Sig. (2-tailed)</i>	<.001	<.001	<.001	<.001	<.001	-	-	-	-
Task performance	<i>Correlation Coefficient</i>	.621**	.605**	.737**	.680**	-.461**	.676**	-	-	-
	<i>Sig. (2-tailed)</i>	<.001	<.001	<.001	<.001	<.001	<.001	-	-	-
Contextual performance	<i>Correlation Coefficient</i>	.545**	.436**	.711**	.667**	-.225**	.649**	.691**	-	-
	<i>Sig. (2-tailed)</i>	<.001	<.001	<.001	<.001	<.001	<.001	<.001	-	-
Employee performance (total)	<i>Correlation Coefficient</i>	.631**	.560**	.786**	.731**	-.364**	.719**	.908**	.930**	-
	<i>Sig. (2-tailed)</i>	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	-

Source: created by the author.

Table 19 presents the Pearson correlation analysis, which was done to evaluate the relationships between time management, employee-related factors, and employee performance. The results show that all study variables were found to be significantly correlated ($p < .001$). This value means, that there is 0.1% chance that these correlations are accidental. So, these factors are interconnected within the sample of respondents. Excluding correlations between task and contextual performance with total employee performance, the strongest correlation is between SE and EP ($r = .786, p < .001$). This suggest that an employee's belief in their own abilities is the strongest indicator of their performance outcomes. In fact, there is a high correlation between SE and TP ($r = .737, p < .001$). So, SE is extremely relevant not only to overall EP, but specifically to how well an employee completes their core job tasks and duties. Additionally, WM shows a very strong positive relationship with JS ($r = .707, p < .001$) and EP ($r = .731, p < .001$). This means, that employees who are self-confident are more likely to put in extra effort into their work, and similarly, employees who experience higher WM are more likely to be satisfied in their job roles and perform well. Actually, there is a high correlation between SE and WM ($r = .712, p < .001$), which means, that employees who are more motivated are likely to experience more self-confidence and vice versa. To add, overall

JS has one of the highest correlations with performance ($r = .719, p < .001$). However, another finding is that TM seems to have more impact on EP ($r = .631, p < .001$) than PCT ($r = .560, p < .001$). This suggests that TM behaviours might be enough to improve productivity or results. Despite this, while TM is better for performance, PCT is superior for decreasing WS ($r = -.709, p < .001$) compared to TM ($r = -.254, p < .001$).

Following that, while the correlation analysis confirmed the significant associations between the study variables, it does not account for the directional influence or amount of variation within the proposed model. So, to test hypotheses H1 – H9, simple linear regression analyses were done. Table 20 presents the test of H1.

Table 20

Simple linear regression for H1 – time management behaviours positively influence employees' perceived control of time

	R^2	B (Unstandardized)	Standard Error (SE)	β (Standardized)	t	p
TM and PCT	.173	.418	.064	.417	6.495	<.001

Source: created by the author.

Table 20 presents the regression results for hypothesis H. R^2 (Coefficient of Determination) quantifies the proportion of variance in the dependent variable which is explained by the independent variable. $R^2 = .173$ ($\beta = .417, t = 6.495, p < .001$) means that TM behaviours significantly influence the PCT and explain 17.3% of its variance. A β (Standardized beta coefficient) of .417 means that for every one standard deviation increase in TM, PCT is expected to increase by .417 standard deviations. Typically, β ranges from -1.0 to +1.0, therefore .417 indicates a moderate to strong relationship. The t -value = 6.495 is way above 1.96 meaning the relationship is statistically significant. Therefore, **hypothesis H1 is supported**. The main proposal of this study, is that is it not TM specifically that boosts performance, but it is rather crucial for one to first experience an increased control of their time. Mainly because as much as TM has methods, tools, actions, and behaviours, it is also a cognitive process. It is not enough to make a list to become more productive. It is argued, that one of the main benefits TM brings is actually the increased PCT one experiences. If TM tools are implemented and an employee actually feels like they have more control over their time and tasks, it is likely to cause a cognitive domino effect, where the PCT improves other psychological processes. Therefore, after confirming H1, Table 21 presents the regression analysis for H2.

Table 21

Simple linear regression for H2 – perceived control of time positively influences self-efficacy

	R^2	B (Unstandardized)	Standard Error (SE)	β (Standardized)	t	p
PCT and SE	.229	.374	.048	.479	7.726	<.001

Source: created by the author.

Table 21 presents the simple linear regression for H2. The relationship is statistically significant and $R^2 = .229$ ($\beta = .479$, $t = 7.726$, $p < .001$) means, that PCT explains 22.9% of the variance in employee self-efficacy. Thus, **hypothesis H2 is supported**. Consequently, is seen, that PCT boosts an employee's self-efficacy. This suggests, that when an employee feels more in control over their time and tasks, their belief in their own capabilities to execute those tasks is significantly enhanced. Thus, after confirming the effect of PCT on SE, Table 22 presents the results for H3.

Table 22

Simple linear regression for H3 – perceived control of time positively influences work motivation

	R^2	B (Unstandardized)	Standard Error (SE)	β (Standardized)	t	p
PCT and WM	.225	.380	.050	.475	7.648	<.001

Source: created by the author.

Table 22 shows, that the regression results for H3 indicate a statistically significant relationship. $R^2 = .225$ ($\beta = .475$, $t = 7.648$, $p < .001$) means, that PCT explains 22.5% of the variance in employee WM. So, **hypothesis H3 is supported**. So, when employees experience higher PCT, which is essentially boosting their autonomy, it eases their mental load. This allows employees to experience lower overwhelm which as a results enhances the inner drive and focus. Additionally, feeling more control allows employees to take ownership of their work, which likely causes them to care more about the results. Overall, it is evident, that feeling increased PCT improves employee WM. Having confirmed hypothesis H3, the following simple linear regression is conducted on H4. Thus, Table 23 presents the results for H4.

Table 23

Simple linear regression for H4 – perceived control of time negatively influences work stress

	R^2	B (Unstandardized)	Standard Error (SE)	β (Standardized)	t	p
PCT and WS	.502	-.785	.055	-.709	-14.237	<.001

Source: created by the author.

These results show a statistically significant relationship and $R^2 = .502$ ($\beta = -.709$, $t = -14.237$, $p < .001$) means that PCT explains 50.2% of the variance in WS. Therefore, **hypothesis H4 is supported**. This shows, that increased PCT is actually able to lower the WS employees experience by half. This suggests, that the majority of the WS employees feel, is caused by the lack of control over their work tasks, decision making, or overall lower autonomy in the workplace. Therefore, increased employees' PCT and autonomy over their time and tasks, reduces WS and lowers these feeling of overwhelm. Having confirmed hypothesis H4, Table 24 shows the multiple regression results for H5, H6, and H7.

Table 24

Multiple regression analysis for H5, H6, H7

Predictor	<i>B (Unstandardized)</i>	<i>Standard Error (SE)</i>	<i>β (Standardized)</i>	<i>t</i>	<i>p</i>
(Constant)	1.031	.275		3.744	< .001
SE	.339	.068	.328	4.965	< .001
WM	.425	.069	.420	6.170	< .001
WS	-.103	.037	-.141	-2.804	.006
Summary:	$R^2 = .573$	.529	$F = 88.893$		< .001

Source: created by the author.

To test hypotheses H5: self-efficacy positively influences job satisfaction, H6: motivation positively influences job satisfaction, and H7: work stress negatively influences job satisfaction, a multiple linear regression was done with JS as the dependent variable, and SE, IM, and WS as independent variables. The overall results show that the model was highly significant and explained 57.3% ($R^2 = .573$) of the variance in JS ($p < .001$). To add, it can be seen that WM ($\beta = .420, p < .001$) is the strongest predictor of JS. SE is the second strongest with $\beta = .328, p < .001$. WS is a significant negative predictor ($\beta = -.141, p = .006$). Therefore, **hypotheses H5, H6, H7 are supported**. These results indicate, that employees' psychological processes, like the belief in their own abilities, the intrinsic motivation they experience, and their mental overwhelm, are significant determinants of the overall sense of JS they feel. This shows, that in order to improve an employee's happiness in their work role, it is crucial not to overlook their psychological well-being. That is because these cognitive processes are the foundation on which the work results are built on. Consequently, having confirmed the hypotheses H5, H6, H7, Table 25 presents the results of simple linear regression analysis for H8.

Table 25

Simple linear regression for H8 – job satisfaction positively influences task (in-role) performance

	R^2	<i>B (Unstandardized)</i>	<i>Standard Error (SE)</i>	<i>β (Standardized)</i>	<i>t</i>	<i>p</i>
JS and TP	.456	.686	.053	.676	12.991	<.001

Source: created by the author.

As seen in the table, the link is statistically significant ($p < .001$), and JS explains 45.6% of the variance in TP ($R^2 = .456$). This suggests, that how employees feel in their job role is a major determinant of their task (in-role) effectiveness. To elaborate, when employees feel happier and more satisfied in their work roles, they are more likely to perform and complete the essential job duties effectively and with ease. Thus, **H8 is supported**. So, Table 26 presents the final testing of H9.

Table 26

Simple linear regression for H9 – job satisfaction positively influences contextual (extra-role) performance

	R^2	<i>B (Unstandardized)</i>	<i>Standard Error (SE)</i>	<i>β (Standardized)</i>	<i>t</i>	<i>p</i>
JS and CP	.421	.750	.062	.649	12.083	<.001

Source: created by the author.

The results show that the relationship is statistically significant ($p < .001$), and JS explains 42.1% ($R^2 = .421$) of the variance in contextual performance. This means, that enhanced JS not only improves task (in-role) performance, but boosts employees' contextual (extra-role) performance. Essentially, happier and more satisfied employees are more likely to show proactive behaviours, that are not mandatory or included in the job role but still benefit the firm or organization. Therefore, **H9 is supported.**

Since all proposed research hypotheses were confirmed, additional tests were done to see whether other discoveries or confirmations can be made. A multiple regression analysis was done on individual TM behaviours to evaluate which can the most impact on PCT. Table 27 presents the findings.

Table 27

Multiple regression analysis for individual TM behaviours

TM Behaviour	<i>B (Unstandardized)</i>	<i>SE</i>	β (Standardized)	<i>t</i>	<i>p</i>	<i>VIF</i>
(Constant)	2.112	.260		8.117	<.001	
TM1: Making lists and/or schedule	-.235	.075	-.278	-3.135	.002	2.026
TM2: Prioritizing	.219	.105	.228	2.083	.038	3.090
TM3: Planning	.178	.130	.202	1.377	.170	5.523
TM5: Monitoring	.185	.065	.258	2.847	.005	2.115

Source: created by the author. *Note.* Dependent variable: PCT.

As seen in Table 27, a significant finding of this research is that TM behaviour “Making lists and/or schedules” is a significant negative predictor ($\beta = -.278, p = .002$) of PCT. This indicates, that the more an employee relies on lists and schedules, their sense of time control actually decreases. It could be, that without prioritizing or monitoring time use, a long list of tasks just becomes a source of WS, rather than a tool for organizing time. In fact, monitoring time (TM5) ($\beta = .258, p = .005$) and prioritizing (TM2) ($\beta = .228, p = .038$) are actually seen to be significant positive predictors of PCT. This suggests, that focusing on most important tasks and reflecting on time habits allows employees to feel more in control of their time. In terms of planning (TM3), the factor did not reach statistical significance in this specific model ($p = .170$). However, this is most likely due to multicollinearity (variables overlapping). *VIF* stands for Variance Inflation Factor and measures the variance or uncertainty of a regression coefficient. Typically, $VIF = 1$ means no correlation, VIF between 1 and 5 is moderate correlation, whereas more than 5 or 10 is high correlation. Planning (TM3) ($VIF = 5.523$) has a higher *variance inflation factor*, meaning it is overlapping with other variables. To explain further, these results suggest, that TM behaviours like prioritizing (TM2) ($VIF = 3.090$) and planning (TM3) are so highly correlated, that the model has a hard time distinguishing their individual effects. This could also explain why it has a higher and in this model insignificant *p-value*. Therefore, it can be stated that planning, prioritizing, and monitoring time use have a high positive effect on PCT.

Having confirmed all research model hypotheses and analyzed individual TM behaviours, the following tests have been done on potential mediators PCT and JS. In the research model (Figure 3), these factors are in between others, which could mean they are in fact mediating the relationships. Therefore, the Hayes PROCESS Model 4 is used to analyse the mediating effects of PCT and JS. Table 28 presents the results on the relationship between TM, PCT and WS.

Table 28

Mediation analysis of TM on WS via PCT

Path	β (Standardized)	Standard Error (SE)	t / Boot CI	p
TM – PCT	.4183	.0644	6.495	< .001
PCT – WS	-.8073	.0606	-13.312	< .001
TM – WS	.0548	.0609	0.899	.3693
TM – PCT – WS	-.3377	.0746	[-.4901, -.2003]	-

Source: created by the author.

The results show, that TM was a significant positive predictor of PCT ($\beta = .4183, p < .001$). PCT, in turn, was a significant negative predictor of WS ($\beta = -.8073, p < .001$). Meaning, as PCT increases, WS decreases. The direct effect of TM on WS was not significant ($\beta = .0548, p = .3693$) as $p > .05$, suggesting there is no direct relationship when the mediator is included. However, the indirect effect (TM – PCT – WS) was significant ($\beta = -.338, [-.4901, -.2003]$), as the Boot CI does not include zero. So, as the indirect link is statistically significant, while the direct relationship is not, this suggests that **PCT fully mediates the relationship between TM and WS**. This means, that TM does not lower WS. In fact, it is only able to bring any benefits to employee experienced WS because it boosts PCT. So, PCT is a crucial factor to WS. Having examined this relationship, the following test is done to see whether PCT also mediates the relationship between TM and WM (Table 29).

Table 29

Mediation analysis of TM on WM via PCT

Path	β (Standardized)	Standard Error (SE)	t / Boot CI	p
PCT – WM	.2517	.0503	5.0036	< .001
TM – WM	.3103	.0505	6.1414	< .001
TM – PCT – WM	.1053	.0314	[.0489, .1719]	-

Source: created by the author.

Table 28 already shows that TM on PCT has a significant positive effect, therefore this result is not included in Table 29. Here, Table 29 reveals, that all relationships are statistically significant as the *p-value* is <.001. Additionally, the mediation path's (TM – PCT – WM) Boot CI does not include zero ([.0489, .1719]). This indicates, that TM actually boosts WM both directly and indirectly (through PCT). Thus, **PCT partially mediates the relationship between TM and WM**. So, while PCT is essential to lowering WS, meaning one must actually feel more autonomy over their time and tasks to feel less WS, that is not the case in terms of WM. Here it is seen, that implementing TM behaviours, like starting to prioritise tasks, can give an immediate and direct positive effect to WM.

Having completed two mediation tests, the final one relating to PCT is done on SE. Thus, Table 30 presents the final PCT mediation path (TM – PCT – SE).

Table 30

Mediation analysis of TM on SE via PCT

Path	β (Standardized)	Standard Error (SE)	t / Boot CI	p
PCT – SE	.2413	.0484	4.9828	< .001
TM – SE	.3212	.0486	6.6030	< .001
TM – PCT – SE	.1009	.0309	[.0465, .1686]	-

Source: created by the author.

Table 30 presents the same outcome of results as Table 29. This means, that all relationships are significant ($p < .001$) and *Boot CI* = [.0465, .1686]. Therefore, **PCT partially mediates the relationship between TM and SE**. So, TM reduces WS primarily because it increases employees' perceived control over their time and tasks. In other words, TM alone is not able to directly lower stress. Rather, it enhances feelings of autonomy and control, which then reduced WS and overwhelm. So, since WS is closely linked to feelings of overload, pressure, and lack of control, PCT becomes an essential factor to actually feeling TM benefits. However, in terms of WM and SE, TM might improve these psychological processes beyond autonomy and control. For example, employees who implement TM might feel more organized, productive, and capable of achieving goals or completing tasks, which can directly boost their self-confidence and WM. Additionally, TM can give a direct sense of accomplishment or progress. Therefore, PCT is an important but not the only important factor regarding WM and SE.

So, since discovering that PCT fully mediates the relationship between TM and WS, and partially mediates the relationship between TM, WM, and SE, the second potential mediator of the research model is tested. Consequently, the following tests are done on JS potentially mediating the relationships between SE, WM, and WS with EP (task and contextual). Table 31 shows the results on the path WM – JS – EP.

Table 31

Mediation analysis of WM on EP via JS

Path	β (Standardized)	Standard Error (SE)	t / Boot CI	p
JS – EP	.4030	.0619	6.5102	<.001
WM – JS	.7146	.0504	14.1757	<.001
WM – EP	.4505	.0626	7.1999	<.001
WM – JS – EP	.2880	.0589	[.1686, .3987]	-

Source: created by the author.

Table 31 presents the mediation analysis results, which indicate a significant indirect effect of WM on EP through JS. That is because all relationships are statistically significant ($p < .001$) and the *Bootstrap Confidence Interval* (*Boot CI* = [.1686, .3987]) does not include zero. As a result, **JS partially mediates the relationship between WM and EP**. This suggests, that increased WM enhances EP both directly, and indirectly (through JS). That is likely because motivated employees

are more productive and efficient, which directly boosts performance. But at the same time, they are likely happier and more fulfilled in their job roles, which further enhances performance through increased JS. Having completed the mediation between WM and EP through JS, Table 32 presents the test results of JS mediating the relationship between SE and EP.

Table 32

Mediation analysis of SE on EP via JS

Path	β (Standardized)	Standard Error (SE)	<i>t</i> / Boot CI	<i>p</i>
JS – EP	.3485	.0533	6.5332	<.001
SE – JS	.6925	.0542	12.7706	<.001
SE – EP	.5715	.0552	10.3527	<.001
SE – JS – EP	.2414	.0529	[-.1462, .3510]	-

Source: created by the author.

Table 32 shows, the same results as Table 31. All relationships are significant as the *p-value* is <.001 and *Boot CI* does not contain zero ([-.1462, .3510]). Therefore, **JS partially mediates the relationship between SE and EP**. This means, that employees who have higher self-belief in their own capabilities likely perform better but also feel happier in their job roles, which results in their performance (because of SE) improving both directly, and indirectly. Thus, Table 33 presents the final mediation results (WS – JS – EP).

Table 33

Mediation analysis of WS on EP via JS

Path	β (Standardized)	Standard Error (SE)	<i>t</i> / Boot CI	<i>p</i>
JS – EP	.6814	.0532	12.8157	<.001
WS – JS	-.2916	.0473	-6.1646	<.001
WS – EP	-.0675	.0389	-1.7351	.0843
WS – JS – EP	-.1987	.0422	[-.2854, -.1192]	-

Source: created by the author.

Table 33 shows, that while the direct effect of WS on performance is not significant (*p* = .0843), the indirect impact (through JS) is significant as the *Boot CI* [-.2854, -.1192] does not include zero. Therefore, these results show, that **JS fully mediates the relationship between WS and EP**. Similarly to the results between TM – PCT – WS, where the PCT is a crucial link, JS is an essential factor between WS and EP. This shows, that while WS alone does not impair performance, it does decrease it by first decreasing JS. If WS had a direct effect, it would mean that it would physically not allow the employee to perform. However, these results show, that that is not the case. As long as employees feel satisfied in their job roles, their performance remains unharmed, even when high stress is present. But, if WS is so significant to the extent it lowers JS, EP decreases.

Since the results confirm PCT and JS mediation, the final tests are done on the research model's (Figure 3) serial mediation. The Hayes PROCESS Model 6 is used to conduct the tests and Table 34 presents the results on the first path (through SE).

Table 34

Serial mediation analysis of TM on EP via PCT, SE, and JS

Path	β (Standardized)	Standard Error (SE)	Boot CI	<i>p</i>
Direct Path (TM – EP)	.1486	.0386	[.0725, .2247]	<.001
Indirect Path (PCT – SE – JS)	.3643	.0546	[.2611, .4734]	-
TM – PCT – EP	.0540	.0189	[.0213, .0952]	-
TM – PCT – SE – JS – EP	.0112	.0050	[.0035, .0227]	-

Source: created by the author.

Table 34 shows, that the first relationship tested is the direct path between TM and EP. The $\beta = .1486$ and *p-value* of .0002 indicate a statistically significant relationship. This means, that TM behaviours have a direct positive impact on EP, and even without the psychological path (feeling of increased perception of time control), and can still provide a boost to employee efficiency and productivity. The following path analysed is the indirect effect between the variables. It is the sum of the different paths through which TM behaviours influence performance through mediators (PCT, SE, and JS). The path is significant as the *Boot CI* [.2611, .4734] does not contain zero. This relationship confirms, that a big reason why TM is able to enhance productivity is because it changes how employees feel. TM increased their feeling of time control, the belief in their own capabilities, and job satisfaction. This chain then drives their performance. The next results show the cognitive path between TM and EP, which is through PCT. This statistically significant relationship ([.0213, .0952]) explains that managing time and implementing TM behaviours, like planning or prioritizing, increases employee sense of autonomy. The final results in the table show, that the link in the research model is confirmed. However, while the direct link between TM and EP in the research model was not added, it is statistically confirmed here. Table 35 presents the results of the test of the entire research model path (between TM and EP) through motivation.

Table 35

Serial mediation analysis of TM on EP via PCT, WM, and JS

Path	β (Standardized)	Standard Error (SE)	Boot CI	<i>p</i>
Direct Path (TM – EP)	.1819	.0414	[.1002, .2635]	<.001
Indirect Path (PCT – WM – JS)	.3310	.0523	[.2345, .4392]	-
TM – PCT – EP	.0627	.0223	[.0245, .1123]	-
TM – PCT – WM – JS – EP	.0143	.0067	[.0033, .0296]	-

Source: created by the author.

As discussed in the previous Table 34, the path through WM is as well statistically significant ([.0033, .0296]). This confirms, that as TM behaviours increase SE, they simultaneously boost WM. This leads to higher JS and as a result enhanced EP. Therefore, Table 36 presents the final serial mediation path of the research model (Figure 3) which is TM – PCT – WS – JS – EP.

Serial mediation analysis of TM on EP via PCT, WS, and JS

Path	β (Standardized)	Standard Error (SE)	Boot CI	p
Direct Path (TM – EP)	.2022	.0445	[.1145, .2900]	<.001
Indirect Path (PCT – WS – JS)	.3107	.0527	[.2107, .4195]	-
TM – PCT – EP	.1099	.0358	[.0502, .1895]	-
TM – PCT – WS – JS – EP	.0224	.0113	[.0046, .0489]	-

Source: created by the author.

Table 36 shows, that the final mediation path is statistically confirmed ($\beta = .0224$, *Boot CI* = [.0046, .0489]). This means, that TM increases PCT, which lowers perceived WS, which as a result enhances employee JS, which improves EP. However, it should additionally be mentioned, that while this study researches the impact of TM through the cognitive employee processes to understand not only if but also how and why TM works, it is seen, that there is a statistically significant positive direct effect between TM and EP ($\beta = .2022$, *Boot CI* = [.1145, .2900], $p < .001$). This direct path is also shown in Tables 34 and 35. This indicates, that even without the psychological employee-related factors, TM is still able to directly boost EP. Meaning, that prioritizing most important tasks, planning time effectively, and monitoring overall time use is able to increase EP, as the work is most likely completed in a more efficient and organized manner.

Thus, after confirming hypothesis H1 – H9 through single and multiple regression analysis, confirming the mediation of PCT and JS, and conducting the serial mediation analysis of all research model paths, it can be concluded, that TM behaviours have both a direct and indirect significant positive impact on EP. Indirectly, TM enhances the psychological employee-related factors, like SE and WM, which are seen to be significant determinants of their overall performance. While directly TM is able to help employees be more productive, as the workload and tasks are planned while focusing on the most important and beneficial tasks. Nonetheless, the results show, that the statistical total indirect effects are consistently higher than direct effects, which suggests, that the psychological benefits (increased SE and IM, lower WS) are as important as the behaviours themselves. Therefore, this research presents not only if TM is able to increase EP, but exactly how the effects translate and manifest in employee cognitive processes. The explanation of this psychological reaction that occurs when employees implement TM provides a deeper understanding of why TM should be utilized as an organizational tool.

3.3. Evaluation of research results

This section discusses the results of the hypothesis testing obtained during the analysis of the survey data, which revealed the influence of TM behaviours and PCT on EP. All hypothesis H1 – H9 were supported and each one is discussed in more detail below.

H1: Time management behaviours positively influence employees' perceived control of time. Hypothesis testing revealed that TM behaviours are statistically and positively related to PCT. This result supports the theoretical assumption, that TM serves the cognitive bridge that allows TM behaviours to translate into productivity. As Korzynski, & Protsiuk (2022) write, when this feeling is achieved, an employee feels like they hold more authority over their time and tasks, which decreases time strain and in turn helps them manage time more effectively. Nonetheless, it is important to note, that not all TM behaviours impact PCT equally. The multiple regression analysis for individual behaviours further revealed, that while prioritizing and monitoring time use are significant positive predictors of PCT, making lists and schedules was found to have a significant negative impact. Therefore, it can be stated, that without prioritizing most important tasks or monitoring how time is spent, a long list of tasks or a tight schedule actually becomes a stressor and decrease an employee's sense of time control. On the other hand, the multiple regression analysis further revealed, that planning was found to be statistically insignificant. However, this result likely occurred because planning and prioritizing were very highly correlated. Meaning, that it is not that the behaviour is not statistically significant, but rather that it was found to have a too similar of an effect to prioritizing. Therefore, it is evident, that only making lists is not a productive form of TM, however, with proper planning, prioritizing, and monitoring time use, and employee can experience increased PCT and enhanced autonomy over their time and tasks. Thus, H1 is supported.

H2: Perceived control of time positively influences self-efficacy. According to the results of the statistical analysis, PCT was found to be statistically and positively related to employee SE. These findings support the theoretical and empirical evidence, that employees feeling enhanced authority over their tasks boosts their belief in their own capabilities and competence (Korzynski, & Protsiuk, 2022). Moreover, further mediation analysis revealed that PCT partially mediates the relationship between TM and SE. This suggests that TM has both a direct, and an indirect effect on SE (through PCT). Therefore, simply implementing TM behaviours boosts employee self-belief and confidence, most likely because the tasks seem more manageable, thus giving an impression of higher employee competence, accomplishment, or even sense of increased progress. However, through PCT and higher experienced autonomy over their workload, employees feel a sense of ownership, which then as well increases self-confidence in completing tasks and handling work challenges. This confirms that the psychological state of feeling in control over time is highly relevant to employees having the confidence to perform well. Therefore, H2 is supported.

H3: Perceived control of time positively influences work motivation. The simple linear regression results indicate a statistically significant positive relationship, which confirms this link. Yunus et al. (2025) write that employees who feel like they are able to manage their own time are more likely to be motivated to handle their workloads effectively. This explains, that having authority

over time, tasks, and work structure increases employee WM. However, further mediation analysis between TM, PCT and WM using the Hayes PROCESS Model 4 revealed, that PCT partially mediates the relationship between TM and WM. This means, that TM is able to directly boost employee WM. That likely occurs, as TM behaviours, like prioritizing and planning already ease the mental load and organize the tasks in a more productive manner. This makes the work process easier and more efficient, which provides employees with a boost of motivation to not only complete them, but do so with more effort. On the other hand, indirectly (through PCT), employees experience more in control, leading to a higher sense of authority over their work structure. This makes the work feel more meaningful thus increasing WM (Juita, 2025). As a result, H3 is confirmed.

H4: Perceived control of time negatively influences work stress. The statistical analysis revealed that PCT was found to be significantly and negatively related to WS. Meaning, that as PCT increases, WS decreases. Additionally, the mediation analysis demonstrated, that PCT fully mediates the relationship between TM and WS. This indicates that TM does not have a direct impact on WS. TM behaviours are only able to decrease WS through the increased perception of time control. This is most likely due to the fact, that most of the WS or overwhelm employees experience is caused by the lack of control or autonomy over time, tasks, and workload. Therefore, for WS the psychological effect of feeling in control of time is essential. Yang et al. (2021) write that a sense of control over one's work is a crucial factor in navigating the impact of external pressures. Therefore, by possessing a sense of authority over their tasks, employees can experience lower work-related tension. Thus, H4 is confirmed.

H5: Self-efficacy positively influences job satisfaction. According to the testing of the hypothesis, SE was found to be significantly positively related to JS. In fact, in a multiple regression analysis that included WM and WS, SE emerged as the second strongest predictor of JS. This aligns with the theoretical findings, that employees with increased SE feel a higher sense of competence, therefore experience higher JS (Korzynski, & Protsiuk, 2022; Yunus et al., 2025). Furthermore, testing using Hayes PROCESS Model 4 revealed, that JS partially mediates the relationship between SE and EP. Meaning, that while employee's belief in their abilities boosts their performance, it can also enhance it indirectly by increasing an employee's JS first. As a result, H5 is confirmed.

H6: Work motivation positively influences job satisfaction. In a multiple regression analysis, WM was found to be not only significantly positively related to JS but also emerged as JS's strongest predictor. Higher enthusiasm is likely to make the work feel more as a means to self-actualise, providing employees with a sense of fulfilment (Juita, 2025). Therefore, increased motivation can transform the work experience from a routine to a meaningful or rewarding activity, boosting employee JS (Yunus et al., 2025). In addition, further conducted mediation analysis revealed that JS partially mediates the relationship between WM and EP. This indicates that while highly

motivated employees are directly more productive, their performance is further enhanced through enhanced satisfaction in their job roles. Thus, H6 is confirmed.

H7: Work stress negatively influences job satisfaction. As seen in the statistical analysis, WS was found to be a significant negative predictor of JS. This result aligns with both the theoretical and empirical findings, which state that stress can lead to tension and burnout, which lowers contentment and JS (Yang et al., 2021; Korzynski, & Protsiuk, 2022). Furthermore, the mediation analysis between WS, JS, and EP showed, that JS fully mediates the relationship between WS and EP, as the direct link between WS and EP was found to be statistically insignificant. Meaning, that even if an employee experiences higher WS but they remain perceiving themselves as satisfied in their job roles, their EP does not decrease. This suggests, that satisfied employees are more resilient. However, if the WS is high enough to reduce JS, EP decreases. This highlights the importance of prioritizing employee JS. To add, a serial mediation path (TM – PCT – WS – JS – EP) as well demonstrated, that TM behaviours reduce WS by increasing PCT, which as a result protects JS, and ultimately improves EP. Therefore, H7 is confirmed.

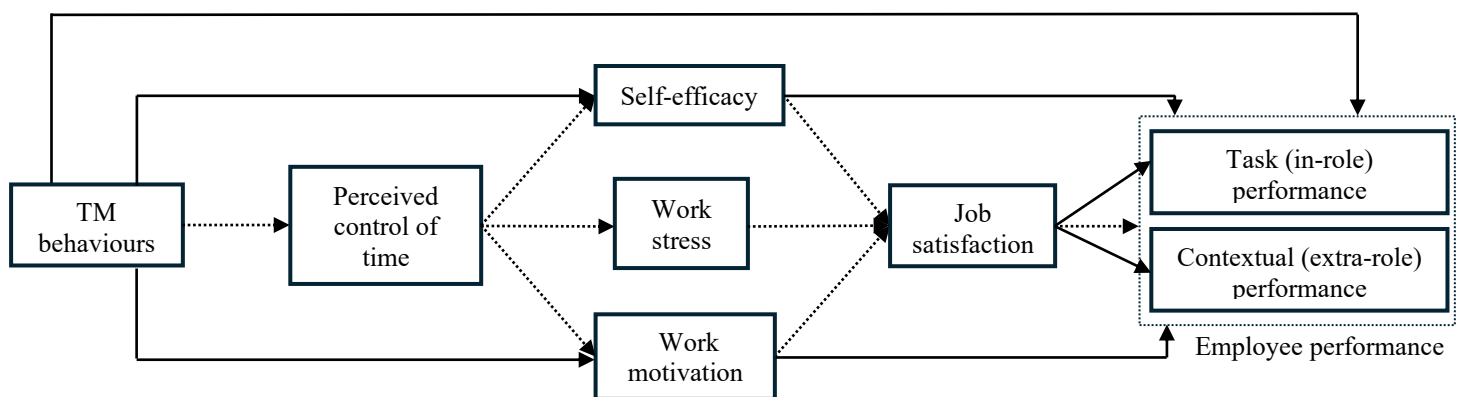
H8: Job satisfaction positively influences task (in-role) performance. According to the results of the research, JS was found to be a significant positive predictor of TP. These results support both the theoretical and empirical findings. Ariansy, & Kurnia (2022) write, that higher JS allows employees to complete tasks quicker and with less mistakes. This improves employee TP. Additionally, the empirical investigation level (Table 7, Table 8) revealed, that authors find JS to be one of the most prominent and significant determinants of performance. Therefore, employees who are satisfied with their work environment and professional relationships are more motivated and inclined to complete their duties effectively. Furthermore, conducted serial mediation analysis showed, that JS is a critical factor and one of the primary causes of employee in-role effectiveness. Thus, H8 is confirmed.

H9: Job satisfaction positively influences contextual (extra-role) performance. According to the testing of the hypothesis, JS was found to be a significant and positive predictor of CP. This suggests that employees that are more satisfied in their job roles, are more likely to show voluntary extra work behaviours, which are not mandatory or included in the job role yet still benefit the firm or organization. These actions are defined as putting in more effort, being more creative, proactive, and overall showing more enthusiasm. This aligns with the conducted statistical analysis, which confirms, that how satisfied employees are in their job role is a significant predictor of their enthusiasm to engage in extra work behaviours. Thus, H9 is confirmed.

Besides using regression, mediation, and serial mediation analyses to confirm the proposed research model (Figure 3), two moderation tests were done to evaluate whether other external factors, like gender or company sector, have an impact of the relationship between TM and EP. The independent

samples t-test on gender differences (Table 15) demonstrated, that even though females reported a bit higher TM behaviours, the overall effect on performance was not significant. Therefore, it was determined that gender does not play a significant role between TM and performance outcomes. However, the conducted sector moderation analysis using the PROCESS Model 1 showed, that that the organizational environment plays a key role in performance outcomes. In fact, it is seen, that as job roles and sectors move toward providing employees with more autonomy, the impact of TM becomes more evident. So, sectors, such as Business, Marketing, & Consulting, Finance, Banking, & Insurance, and Technology & Communications showed more significant impact of TM compared to sectors, like Retail, Trade & Hospitality and Logistics & Supply Chain, where it is likely employees

Therefore, Figure 7 presents the empirically validated model of the impact of TM on EP in an international company.



Source: created by the author.

Figure 7. The empirically tested research model of the impact of time management on employee performance

As seen in Figure 7, the entire research model is statistically confirmed and supported. First, single linear and multiple regression analyses confirmed the proposed research hypotheses between the researched factors. Then, PCT and JS were found to be mediators. It was confirmed, that PCT fully mediates the link between TM and WS, and JS fully mediates the relationship between WS and EP. Additionally, PCT was found to partially mediate the links between TM and SE, and between TM and WM. Therefore, the model shows the addition of direct links between TM and SE, and between TM and WM. Similarly, JS was found to partially mediate the links between SE and EP, and between WM and EP. Thus, the model presents direct links between SE and EP, and between WM and EP.

After these findings, to confirm the entire three paths of the model (through SE, WM, and WS) serial mediation tests were completed. The results confirmed that TM increases PCT, which

boosts SE and WM, lowers WS, all of which increase JS and enhance EP (TP and CP). Furthermore, even though the hypothesis was not raised before the research, as the aim was to study the cognitive path and effect of TM on EP, the serial mediation path results did confirm that TM directly impacts performance. Thus, a direct link from TM to EP was added. This means, that TM behaviours are able to both directly and indirectly (through internal employee cognitive processes) enhance performance. Therefore, the model presents the final and confirmed links.

Moreover, this model shows not only that TM works and is a valuable organizational tool, but explains how and why specifically to help better understand the value of its implementation. TM behaviours are able not only to enhance performance, but provide employees with resources which improve productivity, boost motivation, and lower stress. To firms, these findings provide insights into what factors are more important what trying to understand or enhance employee productivity.

Summarizing the results of the research study, TM behaviours were found be significant positive predictors of EP both directly and through a cognitive bridge. While all main hypotheses were supported, making lists and schedules was found to have a significant negative influence on the PCT. It could be, that making lists and schedules without properly prioritizing and focusing and most important tasks, becomes a source of WS rather than a tool for organization. Therefore, the most useful TM tools are prioritizing, planning, and monitoring time spent. Within the psychological factors (SE, WM, WS), SE was found to be the best predictor of performance, closely followed by WM and JS. SE having such a high statistical significance aligns with theoretical research, where skills and abilities was found to be a significant predictor of EP. While not the same, it seems like employee-related factors are one of the most important determents of performance. To add, the findings on motivation add to gap of research discovered in relation to TM and EP in the empirical section of the thesis. The results show that WM is a significant link in the path between TM and EP. Finally, while gender was found to have no significant impact in the relationship between TM and EP, company sector was seen to be of influence. It was found that the more job autonomy an employee has, the more significant the impact of TM. Thus, sectors, that provide their employees with more autonomy might benefit more from the implementation of TM. To conclude, TM enhances EP both directly and indirectly, however statistical findings show, that total indirect effects, especially through the psychological benefits of feeling in control, motivation, and self-efficacy, are consistently higher and more impactful than the behaviours themselves. Therefore, employee related psychological factors, like self-efficacy, work motivation, and work stress, should not be overlooked when aiming to enhance performance.

CONCLUSIONS

1. The analysis of the concept of time management reveals, that TM has evolved from basic efficiency to a more complex, human centred idea. TM's biggest shift happened in the third generation, where TM behaviours moved beyond simply setting goals and scheduling tasks toward task prioritization and aligning goals with personal values. The fourth generation, or the current modern perspective, is built on this foundation, thus combining TM behaviours with both cognitive and digital variables. It implements modern tools, such as digital calendars and artificial intelligence. But most importantly, it highlights the importance of mental clarity and well-being. Thus, contemporary TM is defined as form of purposeful decision making, that allows individuals to structure, protect and adapt their time to constantly changing conditions. Furthermore, a critical theoretical insight, is that effective TM depends not only on behaviours, like goal setting, planning, and prioritizing, but also on the perceived control of time. PCT acts as a critical cognitive bridge through which TM behaviours actually manifest in positive outcomes, like improved efficiency. Therefore, the concept of TM has evolved to a more complex idea that considers various psychological aspects of actually being able to effectively manage time.
2. After examining the framework of employee performance and its impacting factors, it is seen that employee performance is a multidimensional concept. Therefore, it is best understood when split into two different perspectives: task (in-role) performance and contextual (extra-role) performance. Task performance refers to the technical execution of duties which are explicitly described in the job description. They are mainly linked to an employee's cognitive ability, knowledge, skills and experience. Contextual performance, or OCB, involves voluntary actions, like helping others, being proactive, or showing extra enthusiasm. Instead of supporting the technical core of the organization, they boost the social and psychological environment, thus still benefiting the firm. Additionally, they linked more to an employee's personality and motivation. Moreover, while it is seen, that employee performance depends on various both external and internal factors, such as managerial support, job autonomy, and their own willingness to perform, employee-related factors, like self-efficacy and intrinsic motivation, are linked to having the most significant impact on overall employee performance.
3. After finding the links between time management and employee performance, it is visible that the concepts are tied not only through a direct relationship but also through a complex psychological pathway. This occurs specifically through the perceived control of time. The

analysed literature suggests that it is not only the TM behaviours (e.g., making lists) themselves that directly improve performance, but also the feeling that occurs as a result of it. TM increases perception that an employee has more control and authority over their time and tasks. This streamlines the work process and makes the completion of tasks a smoother and overall more productive process. This then reduces work stress and burnout, improves work motivation, job satisfaction, and overall boosts employee performance.

4. Having analysed the empirical investigation level of research regarding the impact of TM on EP, it is evident, that currently TM is investigated on a more complex level. Instead of being treated like a direct driver of performance, it is characterised as a critical enabling mechanism that, by stabilizing or boosting psychological and motivational states, indirectly enhances employee performance. Additionally, work stress and job satisfaction emerge as the strongest predictors of performance, as well as key mediators between TM and EP. However, it is also worth noting, that while investigating TM and the most significant employee performance impacting factors, empirical studies commonly overlook the relationship between TM, work motivation, and EP. Consequently, there is a research gap in examining how TM translates into work motivation and performance outputs. Furthermore, the empirical investigation level reveals, that the impact of TM highly depends on the context. Meaning, that across various international sectors TM can have a varying effect.
5. After evaluating the results of the theoretical and empirical research of the impact of TM on EP in an international company, a model of the impact of TM on EP was formed. It suggests that TM works through a cognitive path, rather than acting as a direct driver of performance. The factors include: time management behaviours, the perceived control of time, employee self-efficacy, work motivation, work stress, job satisfaction, and task and contextual performance.
6. The empirical evaluation of the model of the impact of TM on EP showed, that TM increases performance both directly and indirectly. Furthermore, TM behaviour making lists and schedules was found to actually decrease PCT. Meaning, that without prioritizing, planning, and monitoring time use, a long list of tasks can actually become a stressor. Moreover, it was determined, that PCT fully mediates the link between TM and WS, meaning, that in order for an employee to experience decreased WS, they have to actually feel more in control of their time. Similarly, it was found, that JS fully mediates the relationship between WS and EP. This means, that if employees are under a lot of stress and pressure, their performance will not

decrease, as long as they feel satisfied with their work environment. This suggests, that satisfied employees are in fact more resilient. To add, it was determined, that while PCT has a positive significant effect on employee SE and WM, TM actually has a direct positive effect on these factors as well. To add, while JS was found to partially mediate the relationships between SE, WM, and EP, this suggests that there are direct links between the factors as well.

RECOMMENDATIONS

1. Based on the empirical findings showing that making lists and schedules without prioritization can actually have a significant negative impact on an employee's perceived control of time, international companies should instead of providing employees with a long list of tasks or tight schedules, focus on prioritizing the most important and beneficial tasks and goals. Therefore, managers should break down big projects into smaller and more manageable tasks. For employees, this builds momentum and lowers procrastination, and for companies, this ensures that the most important objectives are always being met. Furthermore, long and formal reviews should be replaced with more frequent shorter check-ins to monitor progress and catch or correct problems faster.
2. The research highlighted job satisfaction as one of the main predictors of employee performance. Additionally, it was found, that job satisfaction fully mediates the relationship between work stress and performance, meaning that increased stress or high-pressure environments only impair employee performance when they first damage employee job satisfaction. This suggests that happy and satisfied employees are not only linked to showing more proactive behaviours but are actually more resilient. Therefore, in order to improve employee performance and efficiency, organizations should not only implement effective TM as mentioned before, but as well prioritize employee well-being and satisfaction. This can be achieved through regular well-being check-ins, open discussions, employee reward programs, and even monetary incentives.
3. Moreover, as seen from the research, company sectors that typically provide employees with more job autonomy, are more likely to benefit from TM. Therefore, managers should provide their teams and employees with more agency over how their workload and schedule is managed.
4. While this study provided valuable insights into the impact of TM on EP in international companies, several areas remain open for future research. Further studies should investigate how the addition of digital time management tools or AI change the proposed model. Additionally, comparative studies across additional countries or company sectors could help refine the applicability of the proposed model.

Radzevičiūtė, D. (2026). *Laiko valdymo poveikis darbuotojų veiklos rezultatams tarptautinėje įmonėje*. Magistro baigiamasis darbas. Kaunas: Vilniaus universitetas Kauno fakultetas, 82 p.

SANTRAUKA

Šiame darbe nagrinėjamas laiko valdymo poveikis darbuotojų veiklos rezultatams tarptautinėse įmonėse. Darbe analizuojama, kaip laiko valdymo veiksmai, tokie kaip tikslų kėlimas, prioritetų nustatymas, planavimas, ir praleisto laiko įvertinimas, veikia darbuotojų psichologines būsenas, tokias kaip suvokiama laiko kontrolė, saviveiksmingumas, darbo motyvacija bei darbo stresas. Tyrimo aktualumą sustiprina spartus tarptautinių įmonių augimas, kuris dėl didėjančios konkurencijos skatina organizacijas ieškoti būdų, kaip didinti produktyvumą.

Darbo objektas – laiko valdymo poveikis darbuotojų veiklos rezultatams tarptautinėje įmonėje.

Darbo tikslas – ištirti laiko valdymo poveikį darbuotojų veiklos rezultatams tarptautinėje įmonėje.

Darbo uždaviniai:

1. Išanalizuoti laiko valdymo koncepciją.
2. Išnagrinėti darbuotojų veiklos sampratą ir jos įtakai turinčius veiksnus.
3. Rasti laiko valdymo ir darbuotojų veiklos sąsajas.
4. Išanalizuoti empirinio lygmens tyrimus apie laiko valdymo poveikį darbuotojų veiklos rezultatams.
5. Įvertinus teorinio ir empirinio lygmens tyrimus, suformuluoti laiko valdymo poveikio darbuotojų veiklos rezultatams tarptautinėje įmonėje tyrimo modelį.
6. Atlikti empirinį laiko valdymo poveikio darbuotojų veiklos rezultatams tarptautinėje įmonėje tyrimo modelio vertinimą ir nustatyti laiko valdymo poveikį darbuotojų veiklos rezultatams tarptautinėje įmonėje.

Teorinėje darbo dalyje išanalizuota laiko valdymo samprata, jos transformacija, taip pat pateiktas darbuotojų veiklos apibrėžimas, jo tipai bei didžiausią jam įtaką turintys veiksniai. Tarp laiko valdymo ir darbuotojų veiklos atrasti veiksniai. Analitinėje dalyje apžvelgti antriniai šaltiniai, kurie tiria didžiausią įtaką darbuotojų veiklos rezultatams turinčius veiksnus.

Tyrimo metu nustatyta, kad laiko valdymas ir tiesioginį, ir netiesioginį teigiamą poveikį darbuotojų veiklos rezultatams. Netiesiogiai, laiko valdymas didina darbuotojų jaučiamą laiko kontrolę, kuri teigiamai veikia saviveiksmingumą ir darbo motyvaciją. Taip pat rasta, kad laiko kontrolė net 50.2% mažina darbuotojų darbo stresą. Šie teigiamai paveikti faktoriai didina darbuotojų pasitenkinimą darbu kuris yra vienas didžiausių įtaką darbuotojų veiklai turinčių veiksnių.

Darbo apimtis – 82 puslapiai, 7 paveikslai, 36 lentelės, 3 priedai.

REFERENCES

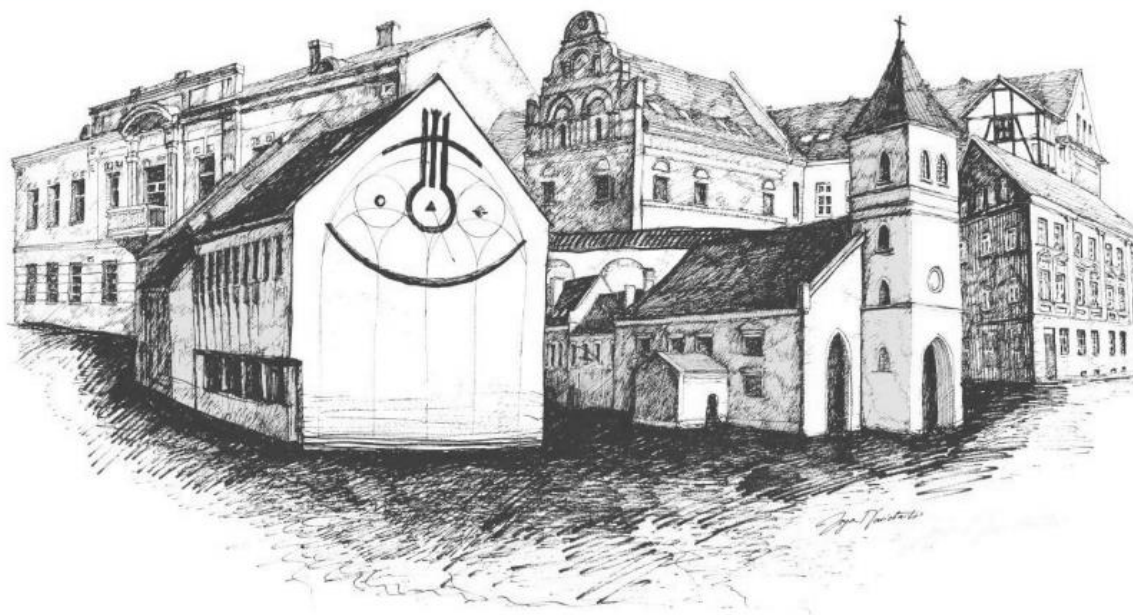
1. Abd el-Aziz, L. T., Eid, N. M., & Safan, S. M. (2012). Test anxiety, and Skills of Time Management Among Faculty Nursing Students. *Journal of American Science*, 8(4), 261–269.
2. Adebisi, J. F. (2013). Time Management Practices and Its Effect on Business Performance. *Canadian Social Science*, 9(1), 165–168. <https://doi.org/10.3968/j.css.1923669720130901.2419>
3. Aeon, B., Faber, A., & Panaccio, A. (2021). Does Time Management Work? A Meta-Analysis. *PLoS ONE*, 16(1), 1–20. <https://doi.org/10.1371/journal.pone.0245066>
4. Al Hila, A. M., Al Shobaki, M. M., Abu Naser, S. S., & Abu Amuna, Y. M. (2017). The Reality of the Effectiveness of Time Management from the Perspective of the Employees of the Beauty Clinic of Dentistry. *International Journal of Engineering and Information Systems (IJEAIS)*, 1(6), 137–156.
5. Allen, D. (2001). *Getting Things Done: The Art of Stress-Free Productivity*. Penguin.
6. Amonoo, E., Arthur, K. N. A., Anim, C., & Adjibolosoo, S. V. K. (2019). *Time Management And Organisational Effectiveness: Evidence From The Presbyterian Women's College Of Education, Aburi*. 7(4).
7. Appelbaum, E., Bailey, T., & Berg, P. (2000). *Manufacturing Advantage: Why High-performance Work Systems Pay Off*. Cornell University Press.
8. Arbnor, I., & Bjerke, B. (2014). *Methodology for Creating Business Knowledge* (2nd edition). SAGE Ltd.
9. Ariansy, N. I., & Kurnia, M. (2022). Pengaruh Stres Kerja, Insentif Dan Lingkungan Kerja Terhadap Kinerja Karyawan Dengan Kepuasan Kerja Sebagai Variabel Mediasi. *Borobudur Management Review*, 2(1), 1–23. <https://doi.org/10.31603/bmar.v2i1.6820>
10. Atatsi, E. A., Stoffers, J., & Kil, A. (2019). Factors Affecting Employee Performance: A Systematic Literature Review. *Journal of Advances in Management Research*, 16(3), 329–351. (world). <https://doi.org/10.1108/JAMR-06-2018-0052>
11. Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
12. Bandura, A. (1997). *Self-efficacy: The exercise of control* (pp. ix, 604). W H Freeman/Times Books/ Henry Holt & Co.
13. Bedi, A., & Sass, M. D. (2022). But I Have No Time To Read This Article! A Meta-Analytic Review of The Consequences of Employee Time Management Behaviors. *Journal of Social Psychology*, 163(5), 676–697. <https://doi.org/10.1080/00224545.2022.2159302>
14. Bond, M. J., & Feather, N. T. (1988). Some correlates of structure and purpose in the use of time. *Journal of Personality and Social Psychology*, 55(2), 321–329. <https://doi.org/10.1037/0022-3514.55.2.321>
15. Borman, W. C., & Motowidlo, S. J. (1997). Task Performance and Contextual Performance: The Meaning for Personnel Selection Research. *Human Performance*, 10(2), 99–109. https://doi.org/10.1207/s15327043hup1002_3
16. Borman, W., & Motowidlo, S. (1993). Expanding the Criterion Domain to Include Elements of Contextual Performance. *Personnel Selection in Organizations*, 71–98.
17. Bos-Nehles, A., Townsend, K., Cafferkey, K., & Trullen, J. (2023). Examining the Ability, Motivation and Opportunity (AMO) framework in HRM research: Conceptualization, measurement and interactions. *International Journal of Management Reviews*, 25(4), 725–739. <https://doi.org/10.1111/ijmr.12332>
18. Buehler, R., Griffin, D., & Peetz, J. (2010). The Planning Fallacy: Cognitive, Motivational, and Social Origins. *Advances in Experimental Social Psychology*, 43, 1–62. [https://doi.org/10.1016/S0065-2601\(10\)43001-4](https://doi.org/10.1016/S0065-2601(10)43001-4)

19. Campbell, J. P., McHENRY, J. J., & Wise, L. L. (1990). Modeling Job Performance in a Population of Jobs. *Personnel Psychology*, 43(2), 313–575. <https://doi.org/10.1111/j.1744-6570.1990.tb01561.x>
20. Chase, J.-A. D., Topp, R., Smith, C. E., Cohen, M. Z., Fahrenwald, N., Zerwic, J. J., Benefield, L. E., Anderson, C. M., & Conn, V. S. (2013). Time Management Strategies for Research Productivity. *Western Journal of Nursing Research*, 35(2), 155–176. <https://doi.org/10.1177/0193945912451163>
21. Chen, G., Gully, S., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. *Organizational Research Methods - ORGAN RES METHODS*, 4. <https://doi.org/10.1177/109442810141004>
22. Cirillo, F. (2018). *The Pomodoro Technique: The Acclaimed Time-Management System That Has Transformed How We Work*. Crown.
23. Claessens, B. J. C., Van Eerde, W., Rutte, C. G., & Roe, R. A. (2004). Planning behavior and perceived control of time at work. *Journal of Organizational Behavior*, 25(8), 937–950. <https://doi.org/10.1002/job.292>
24. Claessens, B. J. C., van Eerde, W., Rutte, C. G., & Roe, R. A. (2007). A review of the time management literature. *Personnel Review*, 36(2), 255–276. <https://doi.org/10.1108/00483480710726136>
25. Costill, A. (2018, September 24). *Brief History of Time Management and Why It's Crucial to a Happy Life*. Calendar. <https://www.calendar.com/blog/brief-history-of-time-management/>
26. Covey, S. R. (1989). *The 7 habits of highly effective people: Powerful lessons in personal change*. <https://icrrd.com/public/media/01-11-2020-212827The%207%20Habits%20of%20Highly%20Effective%20People.pdf>
27. Cross, D., & Santeli, J. (2020). Effective Time Management on Employee Performance of Northern Nigeria Noodle Company LTD. *International Journal of Research Science & Management*, 7(1), 72–82. <https://doi.org/10.5281/zenodo.3612089>
28. De Vos, & Soens. (2011). Protean Attitude and Career Success: The Mediating Role of Self-Management. *Journal of Vocational Behavior*, 73(3), 449–456.
29. Diamantidis, A. D., & Chatzoglou, P. (2018). Factors Affecting Employee Performance: An Empirical Approach. *International Journal of Productivity and Performance Management*, 68(1), 171–193. (world). <https://doi.org/10.1108/IJPPM-01-2018-0012>
30. Drucker, P. (1967). *The Effective Executive*. New York: Harper & Row.
31. Elufioye, O. A., Ndubuisi, N. L., Daraojimba, R. E., Awonuga, K. F., Ayanponle, L. O., & Asuzu, O. F. (2024). Reviewing Employee Well-Being and M Mental Health Initiatives in Contemporary HR Practices. *International Journal of Science and Research Archive*, 11(1), 828–840. <https://doi.org/10.30574/ijrsra.2024.11.1.0153>
32. European Commission. (2025, May 19). *Economic forecast for Denmark—Economy and Finance—European Commission*. https://economy-finance.ec.europa.eu/economic-surveillance-eu-member-states/country-pages/denmark/economic-forecast-denmark_en
33. Ford, M. T., Cerasoli, C. P., Higgins, J. A., & Decesare, A. L. (2011). Relationships between psychological, physical, and behavioural health and work performance: A review and meta-analysis. *Work & Stress*, 25(3), 185–204. <https://doi.org/10.1080/02678373.2011.609035>
34. Francis, N. W., & Olori, W. O. (2017). Time Management And Organizational Effectiveness: A Study Of Manufacturing Companies In Port Harcourt, Nigeria. *International Journal of Advanced Academic Research*, 3(4), 31–49.
35. Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van Den Broeck, A., Aspel, A. K., Bellerose, J., Benabou, C., Chemolli, E., Güntert, S. T., Halvari, H., Indiyastuti, D. L., Johnson, P. A., Molstad, M. H., Naudin, M., Ndao, A., Olafsen, A. H., Roussel, P., Wang, Z., & Westbye, C. (2015). The Multidimensional Work Motivation Scale: Validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology*, 24(2), 178–196. <https://doi.org/10.1080/1359432X.2013.877892>

36. Golden, L. (2012). The Effects of Working Time on Productivity and Firm Performance, Research Synthesis Paper. *International Labour Organization*. <https://papers.ssrn.com/abstract=2149325>
37. Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
38. Hamzah, A. R., Lucky, E. O.-I., & Joarder, M. H. R. (2014). Time Management, External Motivation, and Students' Academic Performance: Evidence from a Malaysian Public University. *Asian Social Science*, 10(13), p55. <https://doi.org/10.5539/ass.v10n13p55>
39. Hassan, M., Azmat, U., Sarwar, S., Adil, I. H., & Gillani, S. H. M. (2020). Impact of Job Satisfaction, Job Stress and Motivation on Job Performance: A Case from Private Universities of Karachi. *Kuwait Chapter of the Arabian Journal of Business and Management Review*, 9(2), 76–86.
40. Hermina, U. N., & Yosepha, S. Y. (2019). The Model of Employee Performance. *International Review of Management and Marketing*, 9(3), 69–73.
41. Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of Resources in the Organizational Context: The Reality of Resources and Their Consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5(Volume 5, 2018), 103–128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>
42. Holmgren, K. (2008). *The Work Stress Questionnaire (WSQ)*. <https://doi.org/10.6084/m9.figshare.11293037.v1>
43. Invest Lithuania. (2024). *Lithuania's Business Services Report*. <https://investlithuania.com/wp-content/uploads/LT-GBS-Report-2024.pdf>
44. John, M. (2020). Time Management as a Tool for Higher Productivity in an Organization. *INOSR Arts and Management*, 6(1), 38–43.
45. Juita, M. V. (2025). Analysis of Time Management, Work Stress, and Job Enrichment on Employee Performance at PT. Tiga Putra Logistik in Sidoarjo. *Jurnal Ar Ro'is Mandalika (Armada)*, 5(3), 619–631. <https://doi.org/10.59613/armada.v5i3.5215>
46. Karasek, R., Kawakami, N., Brisson, C., & Houtman, I. (1998). The Job Content Questionnaire (JCQ): An Instrument for Internationally Comparative Assessments of Psychosocial Job Characteristics. *Journal of Occupational Health Psychology*, 3(4), 322–355. <https://doi.org/10.1037/1076-8998.3.4.322>
47. Kibeb sii, N. M., & Chufi, N. G. (2022). Effect of Time Management on Employee Performance in Public Sector Organisations (Councils) in Boyo Division, Cameroon. *International Journal of Research and Innovation in Social Science*, VI(XII), 608–613. <https://doi.org/10.47772/IJRISS.2022.61234>
48. Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Van Buuren, S., Van Der Beek, A. J., & De Vet, H. C. W. (2014). *Individual Work Performance Questionnaire [Dataset]*. <https://doi.org/10.1037/t35489-000>
49. Korzynski, P., & Protsiuk, O. (2022). What leads to cyberloafing: The empirical study of workload, self-efficacy, time management skills, and mediating effect of job satisfaction. *Behaviour & Information Technology*, 43(1), 200–211. <https://doi.org/10.1080/0144929X.2022.2159525>
50. Lakein, A. (1973). *How to Get Control of Your Time and Your Life*. New York: New American Library.
51. Levinson, M. H. (2004). TIME-BINDING TIME: A History of Time-Measurement and Time-Management in America. *ETC: A Review of General Semantics*, 61(1), 9–18.
52. Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717. <https://doi.org/10.1037/0003-066X.57.9.705>
53. Maalouf, E., & Maalouf, G. (2024). THE IMPACT OF ORGANIZATIONAL CULTURE, JOB STRESS, TIME MANAGEMENT, AND WORK-LIFE BALANCE ON EMPLOYEE

- JOB PERFORMANCE. *International Journal of Business Management and Economic Review*, 07(06), 177–194. <https://doi.org/10.35409/IJBMER.2024.3633>
54. Macan, T. H. (1994). Time Management: Test of a Process Model. *Journal of Applied Psychology*, 79(3), 381–391. <https://doi.org/10.1037/0021-9010.79.3.381>
 55. Macan, T. H. (1996). Time-Management Training: Effects on Time Behaviors, Attitudes, and Job Performance. *The Journal of Psychology*, 130(3), 229–236. <https://doi.org/10.1080/00223980.1996.9915004>
 56. Macan, T. H., Shahani, C., Dipboye, R. L., & Phillips, A. P. (1990). College students' time management: Correlations with academic performance and stress. *Journal of Educational Psychology*, 82(4), 760–768. <https://doi.org/10.1037/0022-0663.82.4.760>
 57. Macdonald, S., & MacIntyre, P. (1997). The Generic Job Satisfaction Scale: Scale Development and Its Correlates. *Employee Assistance Quarterly*, 13(2), 1–16. https://doi.org/10.1300/J022v13n02_01
 58. Motowidlo, S. J., Borman, W. C., & Schmit, M. J. (1997). A theory of individual differences in task and contextual performance. *Human Performance*, 10(2), 71–83. https://doi.org/10.1207/s15327043hup1002_1
 59. Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, 79(4), 475–480. <https://doi.org/10.1037/0021-9010.79.4.475>
 60. Newport, C. (2016). *Deep Work: Rules for Focused Success in a Distracted World*. Hachette UK.
 61. Odoh, C. O., & Moluno, S. U. (2023). Time Management and Employee Productivity in Government Institutions in Delta State. *International Journal of Public Administration Studies*, 3(2), 130–138. <https://doi.org/10.29103/ijpas.v3i2.13891>
 62. Oliver, E. R., & Edema, A. J. M. (2019). Exploring Time Management Skills For Employee Performance. *International Journal of Economics, Commerce and Management*, VII(10), 364–379.
 63. Pancasila, I., Haryono, S., & Sulisty, B. A. (2020). Effects of work motivation and leadership toward work satisfaction and employee performance: Evidence from Indonesia. *The Journal of Asian Finance, Economics, and Business*, 7(6), 387–397.
 64. Riyanto, S., Endri, E., & Herlisha, N. (2021). Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement. *Problems and Perspectives in Management*, 19(3), 162–174. [https://doi.org/10.21511/ppm.19\(3\).2021.14](https://doi.org/10.21511/ppm.19(3).2021.14)
 65. Schwartz, T. (2011, January 24). *A 90-Minute Plan for Personal Effectiveness*. Harvard Business Review. <https://hbr.org/2011/01/the-most-important-practice-i>
 66. Sonnentag, S., & Frese, M. (2001). Performance Concepts and Performance Theory. In *Psychological Management of Individual Performance* (pp. 1–25). John Wiley & Sons, Ltd. <https://doi.org/10.1002/0470013419.ch1>
 67. Steel, P. (2007). The Nature of Procrastination: A Meta-Analytic and Theoretical Review of Quintessential Self-Regulatory Failure. *Psychological Bulletin*, 133(1), 65–94. <https://doi.org/10.1037/0033-2909.133.1.65>
 68. Sutharshini, B., Thevanes, N., & Arulrajah, A. A. (2019). Effective Time Management as a Tool for Individual and Organizational Performance in Financial Institutions. *IUP Journal of Organizational Behavior*, 18(2), 25–41. (136529727).
 69. Tariq, U., Mumtaz, R., Dr. H. Mushtaq, A., & Dr. Ajmal, W. (2014). Impact of Leader Member Exchange on Organizational Performance and Commitment with Organizational Culture as Moderator: A Non-Monetary Tactic to Enhance Outcome. *International Journal of Scientific & Engineering Research*, 5(12), 92–100.
 70. Taylor, F. W. (1911). *The Principles of Scientific Time Management*. [http://strategy.sjsu.edu/www.stable/pdf/Taylor,%20F.%20W.%20\(1911\).%20New%20York,%20Harper%20&%20Brothers.pdf](http://strategy.sjsu.edu/www.stable/pdf/Taylor,%20F.%20W.%20(1911).%20New%20York,%20Harper%20&%20Brothers.pdf)

71. Taylor, H. (2019, May 3). History of Time Management | Taylor in Time. *Taylor in Time*. <https://www.taylorintime.com/history-of-time-management/>
72. The Marlin Company. (2011). *The Workplace Stress Scale*. <https://www.stress.org/wp-content/uploads/2023/02/The-Workplace-Stress-Scale.pdf>
73. Trade.gov.pl. (2023). Companies with Foreign Capital in Poland. *Trade.Gov.Pl*. <https://www.trade.gov.pl/en/news/companies-with-foreign-capital-in-poland-2/>
74. Tremblay, M., Blanchard, C., Taylor, S., Pelletier, L., & Villeneuve, M. (2009). Work Extrinsic and Intrinsic Motivation Scale: Its Value for Organizational Psychology Research. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 41, 213–226. <https://doi.org/10.1037/a0015167>
75. Viswesvaran, C., & Ones, D. S. (2000). Perspectives on Models of Job Performance. *International Journal of Selection and Assessment*, 8(4), 216–226. <https://doi.org/10.1111/1468-2389.00151>
76. Vroom, V. H. (1964). *Work and Motivation*. San Francisco, CA: Jossey-Bass.
77. Wahyuni, N. S., Fatma, A., Julkarnain, J., & Pinem, Mhd. N. (2024). The Influence Of Work Discipline And Job Satisfaction On Employee Performance At Cv. Wanglai Medan. *Bengkulu International Conference on Economics, Management, Business and Accounting (BICEMBA)*, 2, 213–222. <https://doi.org/10.33369/bicemba.2.2024.70>
78. Wajcman, J. (2019). The Digital Architecture of Time Management. *Science, Technology, & Human Values*, 44(2), 315–337. <https://doi.org/10.1177/0162243918795041>
79. Wayne, S. J., Shore, L. M., Bommer, W. H., & Tetrick, L. E. (2002). The Role of Fair Treatment and Rewards in Perceptions of Organizational Support and Leader-Member Exchange. *Journal of Applied Psychology*, 87(3), 590–598. <https://doi.org/10.1037/0021-9010.87.3.590>
80. Yang, S. Y., Chen, S. C., Lee, L., & Liu, Y. S. (2021). Employee Stress, Job Satisfaction, and Job Performance: A Comparison between High-technology and Traditional Industry in Taiwan. *The Journal of Asian Finance, Economics and Business*, 8(3), 605–618. <https://doi.org/10.13106/JAFEB.2021.VOL8.NO3.0605>
81. Yasa, K. D., Sugianingrat, I. A. P. W., & Astrama, M. (2022). The Role of Job Satisfaction Mediating Time Management and Organizational Citizenship Behavior on Performance. *Journal of Economics, Finance And Management Studies*, 05(04). <https://doi.org/10.47191/jefms/v5-i4-03>
82. Yunus, M., Sahputri, Y., & Adam, M. (2025). The Influence of Workload, Self-Efficacy, and Time Management on Job Satisfaction and Its Impact on the Performance of Banda Aceh Tax Service Office Employees. *International Journal of Research and Innovation in Social Science*, IX(III), 4116–4132. <https://doi.org/10.47772/IJRISS.2025.90300329>



KAUNAS FACULTY
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CERTIFICATE

8 May 2026 No. VUKnF-2026-17-28

awarded to

Dominyka Radzevičiūtė

Vilnius University, Lithuania

for the presentation

**The Impact of Time Management on Employee Performance
in an International Company**

(co-author Ingrida Šarkiūnaitė)

presented at the 20th Prof Vladas Gronskas International Scientific Conference
held at the Kaunas Faculty of Vilnius University on the 8th of May, 2026.

Dean

Assoc. Prof. Dr Giedrius Romeika

Questionnaire

Dear Respondent,

My name is Dominyka Radzevičiūtė and I'm currently in the process of completing my master's degree in international business management from Vilnius University. This questionnaire has been created to conduct research for my master's thesis which is studying the impact of time management on employee performance. Its aim is to find how time management practises and the perceived control of time effect employee work stress, motivation, and job satisfaction.

This survey is fully anonymous, no personal information (name, last name, email address) is needed to fill out the questionnaire. All information obtained will be used purely for scientific purposes and to complete my research and thesis. The survey consists of four parts as follows: General Information, Time Management, Employee-Related Factors, and Work-Related Factors. Please answer the questions in the questionnaire sincerely and without skipping any statements to keep scientific validity and reliability of the research. Thank you for your time and effort in helping me conduct this research and complete my thesis.

1. GENERAL INFORMATION

This section consists of questions regarding general information about you and your company.

1. **Control Question - Do you work in an international company?** (Defined as a company that has business operations, offices, or employees in more than one country)
 - ☐ Yes
 - ☐ No
2. Gender:
 - ☐ Female
 - ☐ Male
 - ☐ Prefer not to say
3. Age:
 - ☐ 18-24
 - ☐ 25-29
 - ☐ 30-39
 - ☐ 40-49
 - ☐ 50-59
 - ☐ 60+
4. Education level:
 - ☐ High School or equivalent

- Vocational/Technical School
 - Bachelor's Degree
 - Master's Degree
 - Doctorate (PhD, etc.)
5. Job position:
- Operational/Technical Staff (fieldwork, production)
 - Administrative/Support Staff (office support)
 - Junior Specialist/Associate (entry to mid-level professional)
 - Senior Specialist
 - Team lead/Manager (employee supervision)
 - Middle Management (department head, regional manager)
 - Top-Level Management/Executive (director, VP, CEO)
 - Other _____
6. The sector in which your company operates:
- Business, Marketing & Consulting (Marketing, Advertising, HR, Legal, Management)
 - Finance, Banking & Insurance (Financial Services, Accounting, Real Estate)
 - Technology & Communications (IT, Software, Telecommunications, Media)
 - Manufacturing & Industrial (Automotive, Energy, Construction, Chemicals)
 - Healthcare (Medicine, Pharma, Social Services)
 - Education, Government & Non-profit
 - Retail, Trade & Hospitality (Sales, Food & Beverage, Tourism)
 - Logistics, Supply Chain & Transportation
 - Other _____
7. Current work arrangement:
- On site (Office-based)
 - Hybrid (Some days in office, some days from home)
 - Remote (100% work from home)

2. TIME MANAGEMENT

Time Management Behaviours

Please respond to the following statements about your Time Management Behaviour practices in **your professional routine**. *Time Management Behaviours refer to the specific actions, tools or methods individuals use to manage their time and tasks. These may include goal setting, task prioritization, making to-do lists, and utilizing various mechanics for planning and scheduling.*

APPENDIX 2 (CONTINUED)

Choose a number from 1 (Strongly Disagree) to 5 (Strongly Agree) that best reflects your current habits.

TM behaviours						
Statements		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
8.	I make schedules or to-do lists.	1	2	3	4	5
9.	I set clear priorities for my daily tasks.	1	2	3	4	5
10.	I plan my work activities in advance.	1	2	3	4	5
11.	I allocate my time efficiently across tasks.	1	2	3	4	5
12.	I regularly review how I spend my time.	1	2	3	4	5

Perceived Control of Time

Please respond to the following statements about your Perceived Control of Time in your **professional routine**. *Perceived Control of Time refers to the extent to which an individual believes that they can directly affect how their time is spent. Unlike specific behaviours, this represents a psychological state. This perception is often influenced by how one manages interruptions, task estimation, and procrastination.* Choose a number from 1 (Strongly Disagree) to 5 (Strongly Agree) that best reflects your current feelings.

Perceived control of time						
Statements		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
13.	I feel in control of my time.	1	2	3	4	5
14.	I underestimate the time it would take to accomplish tasks.	1	2	3	4	5
15.	I find myself overwhelmed by unimportant tasks.	1	2	3	4	5
16.	I tend to procrastinate on important work tasks.	1	2	3	4	5

3. EMPLOYEE-RELATED FACTORS

Work Stress

Please respond to the following statements about your **job stress**. *Job Stress refers to a psychological and physical state that happens when an individual (employee) experiences an imbalance of job demands and their own personal capacity. This then influences how they are able to navigate heavy workloads, role ambiguity, interpersonal conflicts, and the pressure of organizational structure.* Choose a number from 1 (Strongly Disagree) to 5 (Strongly Agree) that best reflects your current feelings.

Stress						
Statements		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
17.	I have too much work to do and/or too many unreasonable deadlines.	1	2	3	4	5
18.	I lack control over my work duties.	1	2	3	4	5
19.	I feel that my job is negatively affecting my physical or emotional well-being.	1	2	3	4	5
20.	I have a hard time setting limits on my workload, even when I am overwhelmed.	1	2	3	4	5
21.	I feel that job pressures interfere with my family or personal life.	1	2	3	4	5

APPENDIX 2 (CONTINUED)

Work Motivation

Please respond to the following statements about your **work motivation**. *Work Motivation refers to the internal and external forces that encourage work-related behaviour. It represents the psychological feeling an individual can apply toward achieving professional goals, navigating challenges, and maintaining persistence through daily tasks.* Choose a number from 1 (Strongly Disagree) to 5 (Strongly Agree) that best reflects your current feelings.

	Statements	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
22.	I enjoy my work very much.	1	2	3	4	5
23.	I have fun doing my job.	1	2	3	4	5
24.	I feel satisfied when I take on interesting challenges.	1	2	3	4	5
25.	I feel satisfied when I am successful at doing difficult tasks.	1	2	3	4	5
26.	I feel pleasure while I am learning new things.	1	2	3	4	5

Self-Efficacy

Please respond to the following statements regarding your **self-efficacy**. *It refers to an individual's belief in their own abilities to execute tasks and manage challenges. This belief dictates how much effort people will expend, how long they will persist obstacles, and how resilient are in difficult situations.* Choose a number from 1 (Strongly Disagree) to 5 (Strongly Agree) that best reflects your current feelings.

Self-efficacy						
	Statements	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
27.	When facing difficult tasks, I am certain that I will accomplish them.	1	2	3	4	5
28.	I believe I can succeed at almost any endeavour that I set my mind to.	1	2	3	4	5
29.	I believe that I can successfully overcome challenges.	1	2	3	4	5
30.	I am confident that I can perform effectively on many different tasks.	1	2	3	4	5
31.	Even when things are tough, I can perform quite well.	1	2	3	4	5

4. WORK RELATED FACTORS

Job Satisfaction

Please respond to the following statements regarding your **job satisfaction**. *Job satisfaction refers to the level of contentment, fulfilment, and positive emotional response an individual gets from their work and job role.* Choose a number from 1 (Strongly Disagree) to 5 (Strongly Agree) that best reflects your current feelings.

Job satisfaction						
	Statements	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
32.	I feel good about my job.	1	2	3	4	5

APPENDIX 2 (CONTINUED)

33.	All my talents and skills are used at work.	1	2	3	4	5
34.	I receive recognition for a job well done.	1	2	3	4	5
35.	I feel good about working at this company.	1	2	3	4	5
36.	I get along with my supervisors.	1	2	3	4	5

Task (in-role) and Contextual (extra-role) Performance

Please respond to the following statements regarding your **task (in-role) and contextual performance**. *Task performance (or in-role performance) refers to the level to which an individual fulfils the requirements and duties in their job role. This encompasses the technical execution of tasks, meeting required standards, and the timely completion of core responsibilities that directly contribute to organizational goals. Contextual (or extra-role performance) refers to the voluntary extra work behaviours, which are not included in the job description, such as being proactive. Choose a number from 1 (Strongly Disagree) to 5 (Strongly Agree) that best reflects your current work output.*

Scale 1: Task (in-role) performance						
Statements		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
37.	I am able to plan my work so that I finish it on time.	1	2	3	4	5
38.	I keep in mind the work result I need to achieve.	1	2	3	4	5
39.	I am able to set priorities.	1	2	3	4	5
40.	I am able to carry out my work efficiently.	1	2	3	4	5
Scale 2: Contextual performance						
Statements		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
41.	I take on extra responsibilities.	1	2	3	4	5
42.	I work on keeping my job-related knowledge up to date.	1	2	3	4	5
43.	I come up with creative solutions for new problems.	1	2	3	4	5
44.	I actively participate in meetings and/or consultations.	1	2	3	4	5

Correlations

		Correlations								
		Avg_TM	Avg_PC	Avg_Stress	Avg_Motivation	Avg_SelfEfficacy	Avg_JS	Avg_TaskPerformance	Avg_ContextualPerformance	Avg_Performance
Avg_TM	Pearson Correlation	1	.417**	-.254**	.516**	.537**	.587**	.621**	.545**	.631**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	203	203	203	203	203	203	203	203	203
Avg_PC	Pearson Correlation	.417**	1	-.709**	.475**	.479**	.456**	.605**	.436**	.560**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	203	203	203	203	203	203	203	203	203
Avg_Stress	Pearson Correlation	-.254**	-.709**	1	-.380**	-.300**	-.399**	-.461**	-.225**	-.364**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001	.001	<.001
	N	203	203	203	203	203	203	203	203	203
Avg_Motivation	Pearson Correlation	.516**	.475**	-.380**	1	.712**	.707**	.680**	.667**	.731**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001	<.001	<.001
	N	203	203	203	203	203	203	203	203	203
Avg_SelfEfficacy	Pearson Correlation	.537**	.479**	-.300**	.712**	1	.669**	.737**	.711**	.786**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001
	N	203	203	203	203	203	203	203	203	203
Avg_JS	Pearson Correlation	.587**	.456**	-.399**	.707**	.669**	1	.676**	.649**	.719**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001
	N	203	203	203	203	203	203	203	203	203
Avg_TaskPerformance	Pearson Correlation	.621**	.605**	-.461**	.680**	.737**	.676**	1	.691**	.908**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001
	N	203	203	203	203	203	203	203	203	203
Avg_ContextualPerformance	Pearson Correlation	.545**	.436**	-.225**	.667**	.711**	.649**	.691**	1	.930**
	Sig. (2-tailed)	<.001	<.001	.001	<.001	<.001	<.001	<.001		<.001
	N	203	203	203	203	203	203	203	203	203
Avg_Performance	Pearson Correlation	.631**	.560**	-.364**	.731**	.786**	.719**	.908**	.930**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	
	N	203	203	203	203	203	203	203	203	203

** . Correlation is significant at the 0.01 level (2-tailed).