



Article

Deconstructing Sustainability Challenges in the Transition to a Four-Day Workweek: The Case of Private Companies in Eastern Europe

Tatjana Tambovceva 1,*0, Regina Veckalne 1, Marina Järvis 2,30 and Jurgita Bruneckienė 40

- Faculty of Engineering Economics and Management, Governance and Security Institute, Riga Technical University, LV1048 Riga, Latvia; regina.veckalne@rtu.lv
- Department of Business Administration, Tallinn University of Technology, 19086 Tallinn, Estonia; marina.jarvis@taltech.ee
- Estonian Entrepreneurship University of Applied Sciences, 11415 Tallinn, Estonia
- School of Economics and Business, Kaunas University of Technology, LT-44239 Kaunas, Lithuania; jurgita.bruneckiene@ktu.lt
- * Correspondence: tatjana.tambovceva@rtu.lv

Abstract: As global challenges escalate—economic shocks, environmental issues, and evolving work expectations—the four-day workweek (4DWW) is gaining traction as a sustainable and viable alternative. This study investigates the transition from a traditional 5-day workweek to a 4DWW in the context of private companies in the Baltic States, supplemented by the insights from informal interviews with 17 representatives across Latvia, Lithuania, and Estonia and an in-depth case study of a Latvian wholesale company. Employing a mixed-methods approach, the research integrates document analysis, structured interviews, and quantitative assessment of key performance indicators over an 8-year period. The findings elucidate the phased transition process, detailing the multifaceted challenges encountered at individual, operational, and strategic levels. The study evaluates the impact of the 4DWW on organizational productivity, employee well-being, and environmental outcomes. Results indicate that, while the 4DWW can sustain or enhance operational efficiency and substantially improve work-life balance and stress reduction, these benefits are not uniformly observed across all economic sectors. This paper not only advances the literature on workweek restructuring by clarifying the algorithm for transitioning to a 4DWW but also underscores its potential as a sustainable business practice. The results offer valuable decision-making insights for private companies considering similar transitions, while also highlighting the need for context-specific strategies and policy support—including relevant legislative frameworks in the Baltic region—to ensure successful implementation.

Keywords: 4-day work week; reduced work week; shortened work week; Sustainable Development Goals; SDGs; employee well-being; environmental sustainability; work-life balance

check for updates

Academic Editors: Alexandra Zbuchea and Mauro Romanelli

Received: 24 March 2025 Revised: 9 May 2025 Accepted: 23 May 2025 Published: 27 May 2025

Citation: Tambovceva, T.; Veckalne, R.; Järvis, M.; Bruneckienė, J. Deconstructing Sustainability
Challenges in the Transition to a
Four-Day Workweek: The Case of
Private Companies in Eastern Europe.
Sustainability 2025, 17, 4904. https://doi.org/10.3390/su17114904

Copyright: © 2025 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

The 4-day work week (further 4DWW) first gained attention in the 1970s [1], and despite not being widely adopted, has recently regained prominence as a potential solution to the challenges faced by modern workplaces [2]. Traditionally, the 5-day workweek has been the standard across industries, driven by long-standing norms and economic considerations. However, as the world faces escalating challenges, such as economic shocks, environmental issues, shifting employee expectations, and evolving definitions and

conceptualizations of work-life balance, the 4DWW is starting to emerge as a compelling alternative that has the potential to align with the principles of sustainable development.

Changing business environments have led to the realization that existing conceptions of work and working models, which emerged during industrialization, often fail to meet the needs of both employers and employees. This has prompted many contemporary scholars to rethink the settings of the workweek [3]. Recent years have witnessed growing interest in the viability and impact of the 4DWW, from the perspectives of both employers and employees. While the broader concept of sustainability encompasses various issues related to work-life balance, environmental impact, and social well-being, the Sustainable Development Goals (SDGs) offer a structured framework for sustainable development. This structure allows for more focused and actionable research by providing clear goals and targets to guide efforts. Many earlier studies on the 4DWW have touched on these sustainability themes, but framing the research within the SDG context adds clarity and alignment with global objectives. By selecting literature that specifically addresses SDGs, this article seeks to highlight how the 4DWW can contribute to achieving key sustainability goals in a more structured and measurable way, providing both academic and practical insights for policy and business decision-making.

For instance, some scholars argue that work-time reduction reduces environmental pressure and unemployment, while improving human well-being [4,5]. Meanwhile, Pang emphasized that shorter work weeks lead to more time for family and community [6], while Ruppanner and Maume found no such connection [7]. Despite the identified potential benefits of 4DWW across various aspects of sustainability, research findings remain mixed, indicating a need for further study in this area. Some studies argue that shortening the workweek could negatively impact the environment [8,9]. Ultimately, the viability of the 4DWW would depend on the specific industry, organizational culture, and workforce dynamics of each small enterprise [10].

While the potential benefits of the 4DWW are widely discussed, its practical implications and the challenges of transitioning to this model remain underexplored, especially in Eastern European countries where such reforms are not yet very widespread.

This research investigates the challenges faced by private companies in the three Baltic States—Latvia, Lithuania, and Estonia—during the transition to the 4DWW, along with a case study of its implementation in a small company in Latvia. In Eastern European countries, the 4DWW is legally mandated exclusively within the public sector, while private enterprises have undertaken isolated and experimental initiatives to adopt or transition to this model.

This article aims to analyze the transition to a 4DWW within private sector companies by identifying and categorizing the key challenges encountered at the individual, operational, and strategic levels. Furthermore, the study evaluates the practical implications of the 4DWW model, with a particular focus on its alignment with the United Nations Sustainable Development Goals (SDGs) and its potential to advance organizational sustainability and social well-being.

It provides empirical insights for organizations considering the transition to a more sustainable workweek structure, with a particular focus on the wholesale sector, and outlines a systematic algorithm for the transition process. Furthermore, it examines the alignment of the 4DWW with the SDGs, specifically highlighting its contributions to SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), SDG 10 (Reduced Inequalities), and SDG 12 (Responsible Consumption and Production).

This paper is organized as follows: Section 2 presents the theoretical analysis of the 4DWW model and its links to the SDGs, it explains the three-level framework (individual, operational, strategic) used to study the model's development and current workplace

Sustainability **2025**, 17, 4904 3 of 23

applications. Section 3 outlines the research methodology, including the research sample, data collection, and analytical procedures. Section 4 presents the research results, detailing the main advantages and challenges associated with the transition to the 4DWW based on interviews, as well as the impact evaluation of the transition using a case analysis sample. Section 5 discusses challenge-coping solutions and the transition algorithm for the 4DWW, concluding with insights into how the model supports specific SDG goals. The paper concludes with the final remarks.

2. Literature Review

2.1. Theoretical Background on the 4DWW Model

The concept of 4DWW has gained increasing attention in recent years as organizations and researchers explore its potential to address challenges related to work-life balance, productivity, and sustainability. The notion of reducing work hours is not new. In 1869, the 18th president of the United States Ulysses S. Grant mandated a maximum 8-h workday for government workers, setting a precedent for labor reforms [9]. Later, in 1926, industrialist Henry Ford revolutionized the work week by limiting it to 40 h, a significant reduction from the previous norm. This change was motivated by Ford's belief that shorter work hours would boost productivity and ensure a more motivated workforce [10].

The early 1970s saw a resurgence of interest in reducing work hours, with discussions around the 4DWW gaining momentum. However, it wasn't until the recent global events, such as the COVID-19 pandemic, that the concept gained significant attention. The pandemic highlighted the potential of flexible work arrangements, prompting organizations to reconsider traditional work models [11].

There are several models of the 4DWW. One approach involves cutting one workday while maintaining the same number of working hours and wages, effectively condensing the workweek into fewer days, while another one reduces total working hours, ensuring employees work fewer hours without a pay cut. This 4DWW model is understood as the 100-80-100 system, in which employees receive 100% of their salary for 80% of the working time in exchange for maintaining 100% productivity [12]. These models aim to enhance productivity and employee satisfaction while maintaining operational efficiency. The efficiency wage theory supports the idea that higher wages and better working conditions can lead to increased productivity and staff retention [13]. This theory supports the argument for a 4DWW, suggesting that the benefits of reduced work hours, such as improved job satisfaction and work-life balance, can offset the costs associated with implementing such a model.

Additionally, research indicates that the 4DWW can significantly increase job satisfaction, improve work-life balance, and reduce employee stress [14]. Employees tend to perceive their time more positively, leading to enhanced productivity and creativity. Additionally, the model can promote gender equality by offering more flexible work arrangements, potentially reducing the gender gap in career advancement [1].

Nevertheless, concerns about maintaining productivity and meeting customer demands persist, particularly in industries that require constant availability. On top of that, the transition to a 4DWW requires a cultural shift within organizations, therefore, effective communication and change management strategies are crucial to ensure a smooth transition and address any resistance or skepticism [1].

2.2. The Three-Level Analytical Framework for Assessing Organizational Outcomes

To comprehensively evaluate organizational outcomes, a multi-level analytical framework provides a holistic perspective. It examines individual (micro), operational (meso), and strategic (macro) dimensions. This approach, widely recognized in organizational Sustainability **2025**, 17, 4904 4 of 23

research, enables a systematic linkage between employee behaviors, team dynamics, and firm-wide strategy.

At the **individual** level, factors such as employee well-being, motivation, and personal experiences shape engagement and personal performance [15,16]. These micro-level factors are critical in change management [17] and human resource (HR) practices, where targeted training and performance evaluations are designed to align personal development with broader goals [18].

The meso or **operational**, level focuses on internal processes, team coordination, and workflow optimization. Research on remote work [19] and agile practices [20] shows that team dynamics exert a direct influence on productivity. Furthermore, research in sustainability highlights how operational initiatives can be scaled to enhance strategic capabilities [21].

Finally, the macro or **strategic** level assesses long-term competitiveness, environmental sustainability, and alignment with global objectives like the SDGs. The European Commission [22] defines sustainable competitiveness as "the set of institutions, policies and factors that make a nation productive over the longer term while ensuring social and environmental sustainability", thereby establishing a direct connection to the SDGs agenda. This macro-level perspective is reinforced in studies examining early systems change for sustainability [23] and green supply chain management [24]. Whether analyzing IT-business alignment [25] or inter-organizational strategy [26], macro-level (strategic) outcomes emerge from micro and meso-level foundations while addressing broader societal and environmental challenges.

By integrating these three analytical tiers, as evidenced in research on change management, sustainability, HR, and remote work, the framework reveals how individual actions aggregate into operational efficiencies and, ultimately, strategic success. Its extensive application across diverse disciplines highlights its value in diagnosing, understanding, and enhancing organizational performance.

2.3. The 4DWW and SDGs: Opportunities for Sustainability

The United Nations adopted the Sustainable Development Goals in 2015 as part of its 2030 Agenda for Sustainable Development. These 17 goals, accompanied by 169 targets, were unanimously accepted by all 193 United Nations member states and address a wide range of global challenges, including poverty, inequality, climate change, and environmental degradation [27]. The SDGs build upon the earlier Millennium Development Goals (MDGs) but expand their scope to include a broader range of issues affecting both developed and developing countries [28]. While the MDGs primarily focused on poverty reduction, the SDGs adopt a holistic approach to sustainable development, integrating economic growth, social inclusion, and environmental sustainability. A key feature of the SDGs is their emphasis on integration and synergies among goals, reflecting the interconnected and cross-sectoral nature of sustainable development. For example, Pradhan et al. conducted a systematic study of SDG interactions and found that goals related to environmental protection often have positive synergies with social and economic objectives [29]. However, the study also highlighted potential trade-offs, such as economic growth conflicting with environmental sustainability if not carefully managed [29,30]. This underscores the importance of balancing competing priorities to achieve sustainable development. The SDGs thus represent a comprehensive framework for addressing global challenges through cooperation and innovation across industries and regions.

This approach not only supports the achievement of specific SDGs but also provides a practical framework for sustainable business practices. A reduced work week directly supports SDG 3 by improving employees' work-life balance and reducing burnout. Studies

Sustainability **2025**, 17, 4904 5 of 23

have shown that employees in firms implementing the 4DWW report lower stress levels, greater job satisfaction, and improved overall well-being [31,32]. For example, a report by 4 Day Work Week Global found that employees experienced significant improvements in mental and physical health after transitioning to the 4DWW [32]. The additional day off allows employees to engage in personal activities, spend time with family, and focus on their health, contributing to a healthier and more productive workforce.

The 4DWW also aligns with SDG 8, which emphasizes decent work and sustainable economic growth. By creating a more efficient and human-centered work environment, SMEs can enhance employee engagement, motivation, and performance [33]. Research from the Henley Business School highlights that firms adopting a 4DWW often experience improved productivity and efficiency, as employees are more focused and less fatigued during their working hours [34]. This demonstrates that reducing work hours does not necessarily compromise economic growth; instead, it can lead to higher-quality output and a more satisfied workforce.

The promotion of a reduced work week also supports SDG 12, which focuses on responsible consumption and production. SMEs that adopt a 4DWW are likely to reduce their ecological footprint by lowering energy consumption and managing office resources more efficiently. For instance, shorter business hours correlate with reduced energy usage for heating, lighting, and equipment operation [35,36]. Additionally, fewer commuting days result in lower fuel consumption and reduced carbon emissions, contributing to more sustainable consumption patterns [37]. Nevertheless, environmental impacts at the organizational level may be partially offset by increased individual consumption patterns. For instance, some studies argue that when employees have more leisure time, they could engage in activities that might increase their overall environmental footprint, such as more frequent trips [38], as well as increased energy consumption at home [39]. However, the findings of various scholars suggest the opposite. For example, one longitudinal study showed that a decrease in working hours leads to a decreased clothes consumption and commuting while increasing pro-environmental behavior [40]; and localized leisure activities, such as cycling [6]; rather than long-distance travel. Additionally, [36] found that despite European citizens work fewer hours than Americans, they also use less energy.

The environmental benefits of the 4DWW extend to SDG 12, which emphasizes the need for sustainable consumption and production patterns through efficient resource use, waste reduction, and corporate environmental responsibility. By reducing the number of commuting days, employees contribute to a lower carbon footprint, while businesses consume fewer resources such as electricity and water. These changes contribute to more sustainable consumption and production systems by reducing resource use and waste generation across individual behaviors and organizational operations.

It is in this light that SMEs have been presented with a chance to design and implement more sustainable business approaches that support the achievement of the SDGs through workweek reduction. For SMEs, the 4DWW represents a practical and innovative strategy to balance economic performance with social and environmental responsibilities. As the global business landscape continues to evolve, adopting sustainable work practices like the 4DWW can help SMEs remain competitive while contributing to a more sustainable and inclusive world. Future research should explore the scalability of the 4DWW across different industries and cultural contexts, further unlocking its potential to drive sustainable development.

While some research on reduced working hours addresses themes like well-being, gender equality, and climate impact, it often does so without explicitly referencing the SDGs. This study uses the SDG framework as a unifying lens to align these existing insights

Sustainability **2025**, 17, 4904 6 of 23

with global sustainability goals, making the findings more relevant for policy and business decision-making.

3. Research Methodology: Empirical Context, Data Collection and Analysis Methods

The research sample focuses on the three Baltic States: Latvia, Lithuania, and Estonia, located in Eastern Europe. These countries are situated along the Baltic Sea and share internal borders with each other, as well as external borders with Russia, Belarus, Poland, and the Kaliningrad region of Russia. All three Baltic States are small, open economies that the World Bank classifies as high-income economies. They are members of the European Union, NATO, and OECD. These countries are industrialized nations that have successfully integrated into the EU's value chains. Industry accounts for approximately 20% of their GDP, and industrial goods make up more than 80% of their exports of goods and services. The primary export markets for these countries are other EU member states.

The research employs a mixed-methods approach, combining qualitative and quantitative data. Qualitative insights were gathered from a content analysis of secondary sources (informal interviews), including quotes and reflections published in press articles and social media posts in the 2021–2024 period. In total, 17 practitioner perspectives were cited—6 from Lithuania, 4 from Latvia, and 7 from Estonia (see Appendix A). The sample consists of a mix of small, medium, and large enterprises, operating in the service sector (IT, software development, HR consulting, and business services) with additional representation from telecommunications, media, and energy. These companies vary in maturity, ranging from newly established startups (2–5 years old) to well-established organizations with over 25 years of experience.

These insights were complemented by a detailed case study of a privately owned Latvian wholesale company that implemented a 4DWW in September 2021. The company from the wholesale sector was chosen as a real-world case study due to its specific role within the value chain. On one hand, wholesale businesses are highly sensitive to operational efficiency and customer service demands; on the other hand, they maintain flexibility in collaborating with various value chain actors. Unlike other service sectors, which are often seen as more adaptable to flexible working conditions, the wholesale sector operates under tighter operational constraints. These characteristics make it a particularly interesting and challenging case for examining the transition process to a 4DWW.

To analyze the qualitative data from the case study, a combination of thematic analysis and content analysis was employed. Thematic analysis was used to analyze the structured interviews conducted with the eight employees in the case company. This method was chosen because it allows for the identification and interpretation of patterns or themes within the interview data, providing a deep understanding of the participants' experiences with the 4DWW model. The thematic analysis helped identify recurring themes related to employee well-being, productivity, and work-life balance, and it was used to categorize the data into key advantages and challenges faced by employees during the transition.

In the case study company, the decision to transition to a shorter workweek was driven primarily by the desire to improve employee well-being and promote a more sustainable work environment. The company recognized that traditional working hours were contributing to employee burnout and dissatisfaction while noticing that less work had been done on Fridays. The transition was initially piloted during the off-peak season, allowing the company to test the 4DWW model without disrupting critical business operations. After successful trials, the company fully adopted the 4DWW. The company employs eight staff members—six specialists (S1–S6 (LV)) and two managers (M1 and M2 (LV))—and

Sustainability **2025**, 17, 4904 7 of 23

reported an annual turnover of approximately EUR 2.89 million in 2023. The information about the experts is presented in Table 1.

Table 1. Professional profiles of the experts in the case company.

Role	Work Experience
President of the company (founder) (M1 (LV))	31 years in the case company, >50 years overall
CEO (M2 (LV))	31 years in the case company, >35 years overall
Accountant (S1 (LV))	6 years in the case company, >25 years overall
Sales director (S2 (LV))	9 years in the case company, >10 years overall
Manager (S3 (LV))	29 years in the case company, >40 years overall
Warehouse employee (S4 (LV))	5 years in the case company, >40 years overall
Warehouse employee (S5 (LV))	7 years in the case company, >30 years overall
Warehouse supervisor (S6 (LV))	7 years in the case company, >30 years overall

All employees were interviewed using structured interviews (see Appendix B), with responses recorded, transcribed, and analyzed using thematic analysis. For the quantitative evaluation of the transition's impact, the company's internal data—drawn from reports, records, and communication documents—was analyzed to assess operational and strategic motivations for the shift, as well as its effect on key performance indicators (KPIs) over an eight-year period (2014–2023). These KPIs included sales volume, revenue, employee productivity, and order fulfillment rates, providing a robust basis for evaluating the practical outcomes of the 4DWW transition.

The case study was selected to provide a detailed understanding of the context, motives, and process of the transition itself with more detailed reflection on the individual level (by interviewing all workers of the company). Meanwhile, the perspectives of the other 17 companies broaden the scope by highlighting common challenges and contextual factors. While the case study offers depth, the additional examples offer breadth, allowing the findings to be situated within a wider regional context and enhancing the generalizability of the analysis.

The research reliability was strengthened through data triangulation, drawing on three complementary methods: (a) practitioner insights from secondary sources; (b) structured interviews with all eight employees of the case company; and (c) quantitative analysis. The structured interviews, which included the perspectives of all employees in the case company, revealed specific advantages of the transition to the 4DWW, as presented in Section 4.1. Informal interviews were mainly used to explore the challenges of the 4DWW transition and were used to complement and support the findings from the structured case study interviews, as presented in Section 4.2. Longitudinal quantitative data, supplemented by the structured interview results, were used in Section 4.3 to analyze the impact of the 4DWW on key performance indicators. This multi-method, multi-source strategy ensured consistency across findings and contributed to the overall robustness and credibility of the research.

4. Results

The study uses a three-level analytical framework to present the results: individual, operational, and strategic. The individual level captures the impact on employee well-being, motivation, and personal experience. The operational level focuses on internal business processes, such as productivity, workflow coordination, and team dynamics. The strategic level addresses broader organizational performance, including environmental sustainability, long-term competitiveness, and alignment with policy objectives such as SDGs.

Sustainability **2025**, 17, 4904 8 of 23

4.1. Main Advantages of Transition to 4DWW Model

At the **individual level**, the main advantages were primarily associated with well-being. Nearly all employees from the case company (6 out of 8) reported positive changes in their health and well-being as a result of the 4DWW due to (a) improved work-life balance; (b) extra time for personal interests and (c) lowered stress levels (see Table 2).

Table 2. Main advantages at individual level.

Theme	Example of the Answers
Improved work-life balance	I started taking yoga classes and I feel much better mentally and physically now (S1 (LV)) I usually spend my weekends doing house chores, and by Monday I was already tied many Legand Friday and Setunday to do gramthing I was
•	already tired, now I spend Friday and Saturday to do everything I need, and Sunday is my relaxation day, so on Monday I am fully recharged and ready to work (S3 (LV))
Extra time for personal activities and/or time with family	I finally have time to travel. I often travel somewhere around the country at least once a month now, in addition to an annual vacation (S1 (LV)). I can now spend more time with my daughter and my husband (S5 (LV)).
Lowered stress-levels	I feel more rested and did not have a burnout in a while (M1 (LV)). I used to be very stressed about not spending enough time with my daughter, feeling guilty all the time, now this guilt is gone (S6 (LV)).

Employees reported increased job satisfaction, greater motivation during the workweek, and more time for personal pursuits. I am getting the same amount of money but working one day less. I can spend more time in my summer house playing with my grandkids. Of course, I will be super productive during work—I feel very lucky (S2 (LV)). S1 (LV) noted that the additional recovery time helped her maintain productivity as she aged, reducing feelings of overwhelm.

The main advantages of the 4DWW included improved work-life balance, more time to relax, greater freedom, closer relationships with family and friends, and improved health. Some employees (S3 (LV) and S4 (LV)) mentioned better commuting experiences, as they could avoid weekend traffic by traveling on Fridays. Employees appreciated having Fridays off to schedule doctor appointments, which previously required taking time off during the workweek.

At the **operational level**, the main advantages were mainly associated with enhanced work processes and employee performance. Most employees in specialist roles from the case company reported that their productivity either remained the same or increased under the 4DWW structure (operational advantage). Employees attributed this improvement to a heightened sense of focus and urgency during work hours, as they were motivated to complete tasks within a shorter timeframe. "I used to use my phone much more often during work. . . Now I use it much less, since I need to complete all of my tasks in a shorter period, but I don't see it as a problem, since I am looking forward to my day off on Friday" (S1 (LV)). Similarly, M2 (LV) noted that they took fewer short breaks, which they did not perceive as a disadvantage.

At the **strategic level**, the advantages are primarily related to environmental improvements and alignment with broader sustainability objectives. Employees reported saving time and money on commuting, as they traveled to work one day less each week. Those who drove cars also noted a reduction in CO_2 emissions, contributing positively to the environment. Manager (M1 (LV)) highlighted additional environmental benefits, including reduced electricity and water usage in the office and a slight decrease in waste generation. These changes contributed to the company's reduced carbon footprint and can be identified as a strategic-level advantage.

Sustainability **2025**, 17, 4904 9 of 23

Interestingly, our case study revealed a dominant tendency for employees to more frequently identify advantages of the transition than employers, often emphasizing them from an individual-level perspective. In contrast, employees in managers roles stressed more operational and strategic perspectives.

4.2. Main Challenges of Transition to 4DWW Model

Based on the analysis of the structured case study interviews (8 respondents) and informal interviews from secondary sources (17 companies' representatives), the main challenges of transitioning to the 4DWW model from the perspective of private companies were identified, systematized, and categorized in Table 3.

Table 3. Main challenges of transitioning to 4DWW model (created by the authors).

Challenge	Example of the Citations and Answers						
Individual Level							
Stress and burnout caused by changes	This can create significant stress and lead employees to burnout (C3 (LT)) Each of us has been pushed out of our comfort zone (C6 (LT)) For employees who had already optimized their workday prior to the experiment, the need to fit their weekly workload into four days began to create a sense of stress (C8 (LV)) Fewer workdays won't automatically mean less work (C9 (LV))						
Increased work intensity	The workday becomes more intense, and not everyone knows how to work in this way (C6 (LT)) We realized that a four-day workweek would require more staff to manage the workload, as some employees felt excessive pressure trying to complete five days' worth of work in four days during the trial. However, we haven't observed this issue with unlimited vacation (C17 (EE))						
Extra time to adjust to changes Work-life balance adjustments	After six months, we found that around 60–70% of employees had learned to complet everything within four working days (C6 (LT)) The to-do list still had tasks with deadlines, so there were a few workdays when I had work outside of standard working hours (C8 (LV))						
Anger of loved ones over inequality	Dealing with the anger of loved ones over inequality is time for yourself (C10 (LV))						
Employee resistance to change	Persuading all specialists to agree to the new schedule was initially difficult (M2 (LV))						
	Operational level						
The complexity of coordinating meetings within the company and with external partners	Due to shorter working hours or varying start times (employees starting their workday at 8 or 9 AM), it may become more challenging to coordinate meeting times (C4 (LT))						
Loss of team synergy and working efficiency	It may become more challenging to coordinate and complete all tasks effectively within a shorter timeframe (C3 (LT))						
Workflow restructuring	Not all employees are able to plan their tasks effectively. Not all employees manage to finish their work earlier (C5 (LT)) Such a schedule is possible for a team when the work content allows for planning and does not require an operational response. To compensate for one day off, businesses will be forced to hire additional employees to ensure the production of products and provision of services at the previous level (C8 (LV))						
Client and customer expectations	Most customers and partners were still working standard business hours and expected us to be reachable on Friday (C8 (LV))						
Reorganization of paperwork	The reorganization of paperwork, particularly the need to amend employee contracts, are the most significant obstacle (M1 (LV))						

Table 3. Cont.

Challenge	Example of the Citations and Answers						
Operational level							
Challenges in onboarding new employees	New employees accustomed to a five-day workweek require clear onboarding guidelines and training materials. "The onboarding program was one of the key topics we thoroughly discussed during the preparation process. As of today, we have various guidelines and video trainings that explain our work arrangements and emphasize that the four-day workweek is not a given but rather the result of our collective effort and commitment. During onboarding, we primarily focus on introducing the work culture, setting expectations, and developing practical skills (C11 (EE)). Best practices and work techniques, such as smart time management—which is crucial for a four-day workweek—are an integral part of the program. It all starts with being aware of how you spend your time daily. Only then can you make the necessary adjustments to your work arrangements (C12(EE))						
The needed extra investment, time and preparational works for transition	We have seen that thorough preparation and the restructuring of work processes are essential cornerstones on which our success has been built so far C11(EE) It's simply about organizing your work more efficiently. This is a process that takes time—it took us over a year to refine habits and optimize work processes. Now, this year, we have achieved all our goals without reducing them or working overtime C12(EE)						
	Strategic level						
Risk of productivity maintain and decrease	Not all teams managed to maintain the required pace, which resulted in an overall decrease in productivity (C3 (LT)) The argument that we need to work less and smarter is hardly correct, because to increase productivity we need to work longer and harder, as the experience of developed countries has shown (C7 (LV)) And even if, at first, we might be able to significantly increase our productivity, then in a long-term we'll have to find ways to further optimize our workload by automating, delegating, or outsourcing some tasks (C9 (LV))						
Risk of quality decrease	For IT teams, software release cycles had to be adjusted—they were shortened by one day, which required changes to expectations about what could be accomplished in a two-week period. Additionally, IT teams released updates or necessary changes less frequently (C2 (LT)). We can try to increase employee productivity and keep production at the same levels, however, in such a scenario, there is a high risk that this would come at the cost of product quality (C9 (LV))						
Industry-specific constraints	For many manufacturing companies, a 20% reduction in working hours will directly translate into a 20% reduction in goods produced (C9 (LV))						
Risk of competitiveness decrease	In terms of competitiveness, we would definitely be left behind because not all sectors are truly capable, and not everyone actually needs this (C1 (LT))						

At the **individual level**, the main challenges relate to employees' well-being, including increased stress, higher work intensity, and adapting to change, which may lead to resistance. However, results at this level are often contradictory, as employees also report significant advantages. While most employees found their workloads manageable under the 4DWW structure, some (S1, S5, S6 (LV)) noted that busier seasons—particularly Mondays in the summer—could be more stressful. S4 (LV) described initial stress when returning to work after a long weekend, but this subsided after a few weeks of adjustment. Importantly, throughout the two years of the 4DWW implementation, employees were never required to work overtime or come in on Fridays, indicating they successfully managed their workloads despite occasional challenges. Individual attitudes toward change played a crucial role in adaptation. M2 (LV) reported minimal difficulties in adjusting, while S1 (LV) noted that transitioning during the quieter autumn season allowed for a smoother adaptation before the busier spring period when employees were already managing workloads effectively. Notably, all specialists (S1–S6 (LV)) agreed that the benefits

Sustainability **2025**, 17, 4904 11 of 23

of the 4DWW significantly outweighed the drawbacks, with none expressing a desire to return to a five-day workweek.

At the **operational level**, the main challenges are related to workflow coordination, administrative adjustments, and client expectations. Scheduling meetings became more complex due to shorter working hours and varying start times (C4 (LT)), while many clients and partners still expected availability on Fridays (C8 (LV)). Additionally, the shift required restructuring workflows to maintain efficiency within a compressed schedule (C3 (LT)). Administrative challenges, such as updating employee contracts, also posed significant obstacles (M1 (LV)).

At the **strategic level**, the main challenges involve maintaining productivity, ensuring quality, and sustaining competitiveness. A key concern is that the new model requires adjustments in administrative structures, team workflows, and processes, which may initially lead to decreased productivity. While the transition to a 4DWW can yield short-term productivity gains, significant uncertainty, and risks remain regarding long-term sustainability. Quality risks also emerge as efforts to maintain production levels by increasing employee productivity could compromise product quality. The competitiveness of companies and industries is another challenge, as not all sectors can adopt this model without falling behind. Notably, the ability to maintain productivity despite reduced working days is industry-specific. 4DWW is not a one-size-fits-all proposition—there will be companies for which a shorter working week will not be profitable or won't make sense from the business perspective. "Whether or not to work a 4-day workweek should be left to the discretion of each employer and employee, and it cannot be imposed" (C7 (LV)).

4.3. Impact of Transition to 4DWW Model

To assess the impact of the four-day workweek (4DWW) on company performance, several key performance indicators (KPIs) were analyzed over a 10-year period in the privately owned Latvian wholesale company. Key Performance Indicators (KPIs) are critical metrics that provide measurable insights into an organization's operational, financial, and employee-related performance [41]. The selected KPIs are as follows:

- Sales Volume and Revenue. These indicators are one of the most fundamental KPIs in any business. Sales volume reflects the number of goods sold, while revenue represents the total monetary value generated by these sales over a specific period. In traditional workweek models, these metrics are often maximized by ensuring efficient, continuous operations. Bockerman & Ilmakunnas, argue that increased employee satisfaction leads to higher productivity [42], so in case employees' satisfaction increases with a transition to a 4DWW it is possible not only to maintain but also to improve these KPIs. Furthermore, reduced workdays may lead to more focused and effective work, as employees concentrate on critical tasks, avoiding procrastination and unnecessary breaks. However, it is possible that businesses adopting a 4DWW may face challenges in maintaining or increasing sales compared to traditional 5-day work schedules. For example, one of the companies that took part in a 4-Day Work Week Pilot Project in the UK quit the project earlier, facing problems maintaining workload, increased fatigue levels among employees as well as scheduling difficulties [43]. A systemic review of 4DWW-related articles demonstrated that while there is a clear positive impact on job satisfaction, cost reductions, and reduced turnover, the impact on productivity was inconclusive [44]. Hence, there are concerns that the reduced work hours could limit the overall productive capacity of the workforce, potentially leading to lower sales volumes despite optimization efforts.
- 2. Order Fulfillment Rate. It measures a company's ability to deliver products to customers on the first attempt. This KPI is essential in wholesale because it directly

impacts customer satisfaction, loyalty, and future sales [45] A high fulfillment rate indicates that the company can efficiently manage inventory, logistics, and communication, ensuring timely delivery. A smooth supply chain allows businesses to meet customer expectations consistently, and interruptions or delays can lead to decreased customer trust [46]. In the context of a 4DWW, the challenge lies in maintaining fulfillment rates with fewer working hours, as the compressed schedule could make it more challenging for employees to complete all necessary tasks, potentially resulting in delays or inefficiencies that could impact customer service. Reduced work time may also limit the ability to handle unexpected events or fluctuations in demand, which could negatively affect order fulfillment.

- 3. Employee productivity (Sales per Employee). This KPI measures the average revenue generated by each employee over a given period. For a wholesale company, maintaining or improving sales per employee is critical for demonstrating that the reduced workweek does not negatively impact overall output. The "Law of Diminishing Returns" indicates that beyond a certain point, additional working hours can reduce efficiency [47], so reducing the number of working days may mitigate this by allowing employees to rest and recharge, leading to higher productivity levels within the remaining work hours. The concept of "work intensification" posits that employees tend to focus more when working hours are compressed, driving higher per-hour productivity [48].
- 4. Employee Turnover Rate. It measures the rate at which employees leave the company relative to the average number of employees. High turnover rates can indicate dissatisfaction, burnout, or better opportunities elsewhere, while low turnover often suggests a stable and satisfied workforce [49]. Employee retention is closely tied to job satisfaction, work-life balance, and organizational commitment [50,51]. The Job-Demands Resources Model emphasizes that reducing excessive job demands (like long workweeks) while providing adequate resources (e.g., flexibility, and support) can lead to higher employee engagement and retention [52]. A 4DWW may provide a better work-life balance, which could reduce burnout and enhance loyalty, thereby lowering turnover rates.

These indicators provide valuable insight into the company's operational efficiency, employee performance, and overall business outcomes before and after the implementation of the 4DWW in 2021. The analysis of the main KPIs of the investigated company is presented in Table 4.

the authors).										
KPI	2014	2015	2016	2017	2018	2019	2020	2021 *	2022	2023
Sales Volume	20,615	25,543	20,464	19,952	27,120	34,572	37,104	43,568	44,072	56,112
Revenue	70,137	66,965	71,674	76,208	114,154	158,238	209,347	278,769	256,992	284,826
Order Fulfillment	0.49/	020/	0.69/	0.69/	060/	070/	000/	000/	000/	000/

96%

3390

0.13

Table 4. KPIs of the investigated privately owned Latvian wholesale company (created by the authors).

97%

4321.5

0.13

98%

4638

0

98%

5446

0

98%

5509

0

98%

7014

0

96%

2558

96%

2494

94%

3435.8

Employee

productivity Employee

Turnover Rate

92%

4257.1

As demonstrated in Table 4 the data revealed a significant upward trend in both indicators during the 10-year period, particularly in the final years of the transition. Sales volume increased from 206,155 units in 2014 to 56,112 units in 2023, while revenue grew

<sup>0 0.13 0

* 4</sup>DWW was introduced in 2021.

from EUR 701,375 in 2014 to EUR 2,848,265 in 2023. These results suggest that the 4DWW did not hinder the company's ability to generate sales or revenue.

The order fulfillment rate remained consistently high throughout the transition. In the context of a 4DWW, the challenge lies in maintaining fulfillment rates with fewer working hours, as the compressed schedule could make it more challenging for employees to complete all necessary tasks, potentially resulting in delays or inefficiencies that could impact customer service. Reduced work time may also limit the ability to handle unexpected events or fluctuations in demand, which could negatively affect order fulfillment, however, based on the results from the current study, the rate increased from 94% in 2014 to 98% in 2023 (Table 4), indicating that the company successfully managed logistical challenges despite the reduced workweek. This highlights the employees' ability to adapt to the compressed schedule and maintain high levels of efficiency in meeting customer demands.

Employee productivity, measured as sales per employee, showed steady growth over the 8-year period. Productivity increased from 3435 units per employee in 2014 to 7014 units per employee in 2023.

Based on the results from the current study, the employee turnover rate remained minimal throughout the transition, with no recorded turnover in most years. This stability reflects no negative impact of the 4DWW on employee retention, likely due to improved work-life balance, job satisfaction, and reduced burnout. Thus, a 4DWW may provide a better work-life balance, which could reduce burnout and enhance loyalty, thereby lowering turnover rates.

Therefore, it can be concluded that 4DWW did not have a negative impact on KPIs in the investigated company. The company's strong operational and financial performance during the transition demonstrated the 4DWW model's sustainability aligns with several Sustainable Development Goals (SDGs), as summarized in Table 5. As was already mentioned, eight company representatives provided responses and contributed to the study.

Table 5. Thematic analysis of the interviews in relation to SDGs (created by the authors).

SDG	Example of Answers and Contribution of Company Representative
SDG3 (Good Health)	I started taking yoga classes and I feel much better mentally and physically now (S1 (LV)) I can now have doctor appointments on Fridays, instead of requesting day-offs during the work week, it makes it much easier to manage my health (S4 (LV))
SDG5 (Gender Equality)	I can now spend more time with my daughter, and I don't feel like I am a bad mother (S6 (LV))
SDG10 (Reduced Inequalities)	As I was getting older, it was harder to maintain my productivity at work. The 4DWW gives me more time for recovery, so I don't feel as overwhelmed as before (S2 (LV)) I'm saving money on gas, and not having to deal with traffic five days a week is a huge relief (M1 (LV))
SDG13 (Climate Action)	We are using less water and electricity now, we could've used less heating as well, but we have central heating that we cannot control, unfortunately (M1 (LV)) It is not very noticeable, but the amount of waste we are creating during work has decreased, I think if we consider the yearly amount, it would be quite a lot, actually (M2 (LV)).

Although not initially identified among the primary SDGs SDG 5 (Gender Equality) emerged from qualitative data as an important additional outcome of the four-day work-week. Given the significant gender disparities in caregiving responsibilities [53], changes to work schedules inherently influence gender equality. The transition to a4DWW notably supports gender equality by enhancing workplace flexibility. Traditionally, caregiving roles disproportionately impact women [54], limiting their career progression and contributing to workplace inequality. The additional day off provides employees, especially women, with greater autonomy and the opportunity to manage family responsibilities without sacrificing professional growth. This reduction in time-related stress has the potential to decrease gender disparities in career advancement and job retention. Employees reported positive

Sustainability **2025**, 17, 4904 14 of 23

experiences directly related to managing caregiving roles (Table 5), highlighting the broader implications for improving gender equality through structural work-time adjustments.

Although historical data on electricity and water consumption were unavailable for the full 8-year period, an analysis of the latest bills (2020–2023) revealed a 10% reduction in both electricity and water usage. This reduction is attributed to fewer working days, which decreased the company's overall resource consumption. Additionally, the shortened workweek contributed to a lower carbon footprint by reducing commuting days for employees, further aligning the company's operations with Sustainable Development Goals (SDGs).

5. Discussion

The research results show that the success and long-term continuity of the transition to the 4DWW model depend both on the inherent specifics of the business activities and the company's readiness to implement the model. Service companies that provide technology development (e.g., C2 (LT), C9 (LV), C11 (EE)), consultancy business, human resources, legal, or accounting services (e.g., C4 (LT), C8 (LV), C12 (EE)), or creativity-related solutions (such as marketing, design, and content creation (e.g., C5 (LT)) are inherently more inclined to transition due to their operational flexibility and are more favorable toward adopting a shorter working hours week in the analyzed countries. Without a doubt, an important role is also played by the company's own readiness for change—investing in systems and processes that enable working fewer hours and help cope with challenges caused by the change. Of course, informing all employees, suppliers, and other partners, as well as ensuring all employees are involved and adhering to agreements is crucial. Otherwise, the changes simply will not work.

However, manufacturing (e.g., C1 (LT), C7 (LV), as well as logistics sectors often face operational rigidity, client-facing continuity, or labor intensity—which limits the success of the transition to 4DWW. Moreover, while service companies may have more digital infrastructure and task-based work organization, these advantages alone do not guarantee a smooth transition to a 4DWW. Several service firms interviewed also reported significant adaptation challenges, including employee stress, workflow disruptions, and client expectations (e.g., C6 (LT), C8 (LV), C9 (LV)), suggesting that sectoral flexibility is not a panacea.

When it comes to the case company, interviews revealed that the transition to the 4DWW had positive effects on employees and the company. Employees reported improved productivity, health, and work-life balance, along with increased job satisfaction and reduced stress levels. While some initial challenges were noted (such as changing the documentation, such as work contracts), particularly for management, these were quickly resolved. The environmental benefits, including reduced commuting and resource usage, further underscored the advantages of the 4DWW. Overall, the results demonstrate that the 4DWW is a viable and beneficial alternative to the traditional five-day workweek.

The findings of this study provide compelling evidence that the implementation of a 4DWW can yield significant benefits across multiple dimensions, including employee well-being, organizational performance, and environmental sustainability. These findings correspond to the findings of Sebastian Neubert et al. [40], who indicated that the reduction in working time negatively correlates with workers' well-being, decreasing burnout, while also decreasing clothes consumption and commuting.

These outcomes align with several SDGs, as illustrated in Figure 1, which serves as a conceptual framework for understanding the contributions of the 4DWW to sustainable development.

Sustainability **2025**, 17, 4904 15 of 23

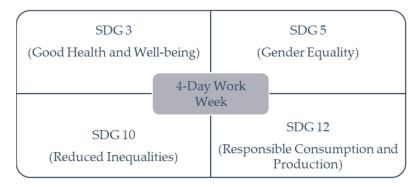


Figure 1. Contribution of the 4-Day Work Week to achievement of SDGs (created by authors).

The framework highlights the interconnectedness of the 4DWW with SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), SDG 10 (Reduced Inequalities), and SDG 12 (Responsible Consumption and Production). Each of these contributions is supported by both qualitative insights from employee interviews and quantitative data from the company's KPIs. Each connection represents a specific area of impact: SDG 3 (Good Health and Well-being), exemplified by improved employee health, reduced stress, and enhanced work-life balance; SDG 5 (Gender Equality), demonstrated through greater flexibility for women to balance work and caregiving responsibilities; SDG 10 (Reduced Inequalities), reflecting increased inclusivity for older employees and reduced workplace disparities; and SDG 12 (Responsible Consumption and Production), indicating lower carbon emissions, reduced resource consumption, and decreased waste generation. This framework underscores the multidimensional benefits of the 4DWW, demonstrating its potential as a sustainable work model that balances economic, social, and environmental priorities.

The wholesale sector is intermediate between service and manufacture in the transition to 4DWW rigidity, and based on the analysis of the case company the authors provided the following algorithm for the transition to the 4DWW is proposed (Figure 2). This algorithm refers to a systematic process or framework designed to guide organizations through the transition from a five-day workweek to a 4DWW. While the exact details of the algorithm would depend on the specifics of our research, it includes a series of structured steps that address the challenges, opportunities, and practical considerations of implementing the 4DWW.

In the case company, the first stage of the transition involved reducing the lunch break from one hour to 20 min and shortening the workday to 09:00–17:00 instead of the standard 09:00–18:00. This change was tested over three months and, after proving successful, was permanently adopted. The second stage addressed the issue of employees arriving late to work due to heavy traffic. After an in-depth discussion with the employees, it became clear that they were usually late due to heavy traffic, which they naturally did not have control over, the decision was made to start work at 09:30. This adjustment was tested for three months, and adopted after proving it did not impact productivity negatively. Finally, a shift to the 4DWW has been made. It started during the off-season and was piloted for a year before the complete acceptance of the transition.

While different companies will need to adjust these steps to their specific needs (i.e., shortening lunch breaks may not be seen as beneficial in many other workplaces), this algorithm may act as a guideline for a successful transition to the new schedule. It is worth noting that for the successful implementation of the 4DWW, it is important to monitor the company's KPI regularly to ensure that the transition does not negatively affect its performance.

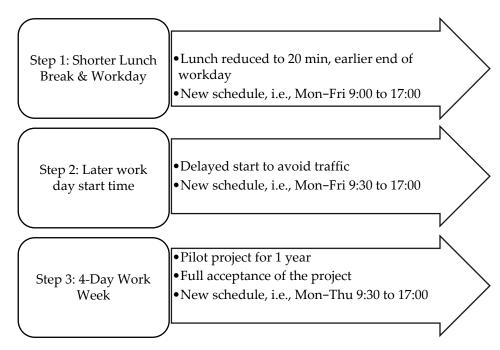


Figure 2. The algorithm of a transition to a 4DWW (created by the authors).

The authors collected some challenge-coping-oriented solutions that enable the transition to the 4DWW model effectively (see Table 6). These solutions are based on the empirical findings from the case study and informal interviews.

Table 6. Challenge-coping-oriented solutions for the transition to the 4DWW model effectively (created by the authors).

Challenge Level	Possible Solutions
Individual	Providing training on time-management to the employees with the 4DWW schedule can help them tackle the problem of feeling overwhelmed with the number of tasks necessary to be performed within a shorter period of time and avoid burnout. A gradual transition period allowing the workers to adjust to a new schedule may be helpful. Raising awareness among the decision-makers in the company, for example, via consultation with "4 Day Week Global" representatives can help clarify the benefits and fight fears regarding the transition.
Operational	On-call at home (employees must be reachable by phone or be ready to work in the event of an unforeseen situation or must arrive at the workplace within two hours or promptly log in to their computer if the task can be completed remotely). Implementation of systems and processes that allow tasks to be delegated to other teams or colleagues. Internal meetings are limited to a maximum of 30 min, and participants are expected to come prepared and leave with agreed-upon next steps. Solutions for the digitization and automation of tasks.
Strategic	Transition in stages—first, test and adapt the company's operational processes to the "Shorter Friday" or "Availability Hours" models. Transition in seasons—apply 4DWW model when the season of activities in company is low. Partial transition, where only a part of the company operates under the 4DWW model. Ensuring internal fairness for colleagues who cannot work in the four-day workweek regime.

Sustainability **2025**, 17, 4904 17 of 23

Future research should aim to validate and refine the proposed algorithm for transitioning to a 4-day workweek (4DWW) across a broader set of industries and organizational contexts. While the current study provides valuable insights from a single Latvian wholesale company, replicating this analysis across various sectors—especially manufacturing, logistics, and client-facing services—could offer a more comprehensive understanding of sector-specific challenges and solutions. Additionally, future studies should employ longitudinal designs that monitor not only organizational KPIs but also employee well-being, environmental impacts, and household-level behavioral changes to better understand potential rebound effects. Comparative cross-country studies would also be beneficial in examining how cultural, legal, and economic differences influence the feasibility and outcomes of the 4DWW. Finally, integrating environmental life cycle assessments (LCAs) or carbon accounting frameworks could more accurately capture the sustainability impact of the 4DWW on both organizational and societal levels.

While there is very limited research available on the reduced work week in general, to our knowledge no such exists in the context of the Baltic States. Our case study on a Latvian wholesale company adds an important dimension to the literature by showcasing how businesses in sectors with tighter operational constraints can still benefit from a 4DWW, provided that the transition is phased and strategically managed. This aligns with findings from Berkery et al. [55], who note that the success of work-time reduction strategies is often dependent on sector and cultural characteristics. Moreover, Jain et al. [56] emphasize the positive attitude of employees toward the potential of compressing the workweek. Finally, as noted by Gomez-Baggethun [57] negative environmental impact, increased inequality as well as growing dissatisfaction with work-centered lives call for restructuring of the work week as we know it.

6. Conclusions

The implementation of the 4-Day Work Week in the Latvian wholesale company demonstrates its potential as a sustainable and innovative work model, offering significant benefits in terms of employee well-being, organizational performance, and environmental sustainability. The findings align with Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), SDG 10 (Reduced Inequalities), and SDG 12 (Responsible Consumption and Production). Employees reported improved work-life balance, reduced stress, and better health, while the company maintained or improved key performance indicators such as sales volume, revenue, and productivity. Environmental benefits included reduced commuting, lower reported resource consumption, and decreased reported waste generation, further supporting sustainability goals.

However, recent investigations in the Baltic region highlight critical aspects and potential challenges of the 4DWW that must be addressed. One concern is the risk of work intensification, where employees may experience stress from compressing a five-day workload into four days, particularly during busier periods. Generational resistance to change, especially among older managers, was another challenge, requiring extensive discussions and pilot testing to build consensus. Additionally, the administrative burden of adjusting contracts and schedules posed logistical difficulties. Industry-specific limitations also emerged as sectors requiring continuous operations or high customer availability may struggle to adopt the 4DWW without compromising service quality or incurring additional costs. Furthermore, while the environmental benefits of reduced commuting and office resource use are clear, these may be partially offset by increased energy consumption at home during the additional day off. These criticisms underscore the complexity of transitioning to a 4DWW and the importance of context-specific strategies. A gradual, well-

planned approach, as demonstrated in this case study, is essential to address challenges and ensure a smooth transition.

The 4DWW offers clear benefits but requires careful planning, adaptation, and evaluation. As a sustainable work model, it supports SDG 3, SDG 5, SDG 10, and SDG 12, driving positive change while balancing economic, social, and environmental goals.

The research makes several academic and practical contributions. First, we advance the literature on employment models and work-life balance by incorporating the 4DWW model and categorizing the challenges of this transition into three distinct levels: individual, operational, and strategic. We also clarify the conceptualization of the 4DWW model implementation by analyzing it through the lens of private companies. Second, we contribute to the SDGs literature by linking the shift to the 4DWW with specific SDGs. Third, we enrich this analysis with illustrative examples from the case of Eastern European countries, as the academic literature predominantly examines the successes and challenges of the 4DWW transition in the public sector or in countries where this model is legally established (e.g., Japan, Iceland, Spain, Belgium) or where strategic changes have been implemented (e.g., the United Kingdom, Denmark, Sweden, France, Canada, and the United States). Finally, this study provides valuable decision-making insights for private companies planning to implement the 4DWW model. Additionally, it enhances private companies' theoretical understanding and awareness of the 4DWW model, as a lack of knowledge is considered a factor that constrains its practical implementation.

Our research also has some limitations and offers directions for future studies. One limitation concerns the empirical data used. The analysis is based on a single case company and secondary data drawn from articles and social media, which may overlook industry-specific challenges. Furthermore, this approach does not provide empirical validation of the proposed algorithm for transitioning to a 4DWW, particularly in relation to its alignment with the SDGs. In addition, the study focuses on company-level environmental impacts but does not fully account for potential rebound effects—such as increased household energy consumption or travel resulting from additional free time. Future research should adopt a more holistic approach by examining both organizational and individual ecological behaviors to more accurately assess the overall sustainability impact of the 4DWW. Expanding the sample size and including a wider range of industries would also contribute to a broader and more generalizable understanding of the 4DWW transition.

Author Contributions: Conceptualization, T.T. and R.V.; methodology, T.T., M.J. and J.B.; validation, T.T., R.V., M.J. and J.B.; formal analysis, R.V.; investigation, T.T., R.V., M.J. and J.B.; resources, T.T.; data curation, T.T. and R.V.; writing—original draft preparation, T.T., R.V., M.J. and J.B.; writing—review and editing, T.T., R.V., M.J. and J.B.; visualization, R.V.; supervision, T.T.; project administration, T.T.; funding acquisition, T.T. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Ethical review and approval were approved for this study because a research ethics committee at Riga Technical University (RTU) was established in 2024, and before that, According to https://www.zva.gov.lv/en/about-us/about-agency/code-ethics (accessed on 2 February 2025) only clinical trials need to obtain ethical approval.

Informed Consent Statement: Informed consent was obtained from all respondents.

Data Availability Statement: Dataset available on request from the authors.

Acknowledgments: This article is based upon work from COST Action CA22124—ECO4ALL "EU Circular Economy Network for All: Consumer Protection through reducing, reusing, repairing", supported by COST (European Cooperation in Science and Technology—www.cost.eu).

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A. Empirical Data: Companies and Interviewees

Code	Organization	Activity	Size by Employees	Company's Age	Interviewer Position	Source
C1 (LT)	Lithuanian Employers' Confederation	Association	Not relevant	25	Director-General	URL (accessed on 2 February 2025). https://www.delfi.lt/verslas/verslas/4-darbo-dienu-savaite-isbande-lietuviai-minusu-nemato-taciau-darbdaviai-sako-zmones-nori-dirbti-120036828
C2 (LT)	OBDeleven	Service (Computer software development)	84	11	Chief Marketing Officer	URL (accessed on 2 February 2025). https://www.vz.lt/verslo-valdymas/2024/04/13/trumpesne- darbo-savaite-tenkina-ne-visus-bet-isbandyti-verta
C3 (LT)	Oxylabs	Computers and software	233	16	Executive Director	
C4 (LT)	Leinonen	Service (accounting, consulting)	95	28	Specialist	URL (accessed on 2 February 2025). https://www.vz.lt/verslo-valdymas/2024/05/14/vos-valanda-
C5 (LT)	Manpower Lit	Service (innovative HR and workforce solutions)	254	19	Business Operations Manager	trumpesne-darbo-diena-ir-darbuotojai-kur-kas-laimingesni
C6 (LT)	Vilniaus šilumos tinklai	Energy	593	27	Director	URL (accessed on 2 February 2025). https://www.vz.lt/verslo-valdymas/2023/08/13 /mokslininkai-rekomenduoja-penktadieniais-nedirbti
C7 (LV)	Latvian Employers' Confederation	Association	Not relevant	25	Director-General	URL (accessed on 5 February 2025). https://www.facebook.com/watch/?v=918287397060527 https://nra.lv/ekonomika/latvija/476952-lddk-prezidents-sobrid-vajadzetu-stradat-pat-sesas-dienas-nedela.htm
C8 (LV)	SmartHR	Service (HR consulting)	5	13	Director	URL (accessed on 5 February 2025). https://smarthr.lv/4-darba-dienu-nedela-smarthr-pieredze
C9 (LV)	DeskTime	Service (programming)	29	7	Director	URL (accessed on 5 February 2025). https://labsoflatvia.com/en/news/does-latvia-need-a-four-day-workweek
C10 (LV)	Scoro Software	Service (programming)		11	Talent acquisition specialist	URL (accessed on 5 February 2025). https://www.lsm.lv/raksts/zinas/ekonomika/vai-cetru-dienu- darba-nedela-latvija-ir-iespejama-un-nepieciesama.a494413/
C11 (EE)	Scoro Software OÜ (Scoro)	Business Management Software for Service Firms	90	2	Human resources manager	URL (accessed on 10 February 2025). https://talenthub.ee/kaks-aastat-hiljem-scoro-ja-talenthub-toestavad-et-neljapaevane-toonadal-suurendab-tootajate-produktiivsust-ja-rahulolu/

Code	Organization	Activity	Size by Employees	Company's Age	Interviewer Position	Source	
C12 (EE)	TalentHub	Recruitment Agency	8	6	Co-founder	URL (accessed on 3 February 2025). https://talenthub.ee/kaks-aastat-hiljem-scoro-ja-talenthub-toestavad-et-neljapaevane-toonadal-suurendab-tootajate-produktiivsust-ja-rahulolu/	
C13 (EE)	Elisa Eesti AS	Telecommunication	894	30	Technology unit manager	URL (accessed on 7 February 2025). https://www.aripaev.ee/saated/2024/05/16/elisa- neljapaevane-toonadal-on-firmakultuuri-kusimus	
C14 (EE)	SMARTFUL Growth OÜ	Recruitment agency	6	5	Founder, CEO	URL (accessed on 2 February 2025). https://dspace.ut.ee/server/api/core/bitstreams/d29b33ea-e7	
C15 (EE)	Solutional OÜ	Software development	12	5	Assistant	28-4372-92ac-a01c3322c9e3/content	
C16 (EE)	Postimees Grupp AS	Publishing of newspapers	487	28	Human resources manager	URL (accessed on 3 February 2025). https://dspace.ut.ee/server/api/core/bitstreams/d29b33ea-e7 28-4372-92ac-a01c3322c9e3/content	
C17 (EE)	Tele2 Eesti AS	IT and mobile provider	378	26	Human resources manager	URL (accessed on 5 February 2025). https://digi.geenius.ee/blogi/tehnikast-ja-trendidest-blogi/eestis-on-ettevote-kus-saab-piiramatult-puhata-aga-kes-siis-tood-teeb/	

Sustainability **2025**, 17, 4904 21 of 23

Appendix B. List of Questions Used in the Structured Interviews for the Case Company

PART 1: Introductory questions:

- 1. What is your name; surname, position in the company and working experience
 - PART 2: Challenges
- 2. What challenges did the company face during the transition to a 4DWW?
 - PART 3: Impact
- 3. How has the 4DWW affected your productivity?
- 4. Do you feel that your workload is manageable within the 4DWW structure?
- 5. Have you observed any changes in health and well-being?
- 6. How has your overall work experience changed since the implementation of the 4DWW?
- 7. What are the biggest advantages and disadvantages of the 4DWW for you personally?
- 8. How has the reduction in workdays affected your commuting patterns and transportation costs?
- Are there any environmental benefits the company has experienced due to the 4DWW? (This question is for managers only)

References

- 1. Jahal, T.; Bardoel, A.; Hopkins, J.L. Could the 4-day Week work? A Scoping Review. *Asia Pac. J. Hum. Resour.* **2023**, *62*, e12395. [CrossRef]
- 2. Hamermesh, D.; Biddle, J.E. Days of Work over a Half Century: The Rise of the Four-Day Week. *SSRN Electron. J.* **2022**, 15325. [CrossRef]
- 3. Komlosy, A.; Watson, J.K.; Balhorn, L. Work: The Last 1000 Years; Verso: Brooklyn, NY, USA, 2018.
- 4. Pullinger, M. Working time reduction policy in a sustainable economy: Criteria and options for its design. *Ecol. Econ.* **2014**, *103*, 11–19. [CrossRef]
- 5. Shao, Q.; Rodríguez-Labajos, B. Does decreasing working time reduce environmental pressures? New evidence based on dynamic panel approach. *J. Clean. Prod.* **2016**, *125*, 227–235. [CrossRef]
- 6. Pang, A.S.-K. Creating more sustainable careers and businesses through shorter work weeks. *Lead. Lead.* **2020**, 2020, 7–11. [CrossRef]
- 7. Ruppanner, L.; Maume, D.J. Shorter Work Hours and Work-to-Family Interference: Surprising Findings from 32 Countries. *Soc. Forces* **2016**, *95*, 693–720. [CrossRef]
- 8. Shao, Q.; Shen, S. When reduced working time harms the environment: A panel threshold analysis for EU-15, 1970–2010. *J. Clean. Prod.* **2017**, 147, 319–329. [CrossRef]
- 9. Hartman, R.L.; Weaver, K.M. Four factors influencing conversion to a four-day work week. *Hum. Resour. Manag.* **1977**, 16, 24–27. [CrossRef]
- The Josh Bersin Company. The Four-Day Work Week: Learnings from Companies at the Forefront of Work-Time Reduction (p. 2).
 2023. Available online: https://mgaleg.maryland.gov/cmte_testimony/2024/fin/1Z7cJqwZB-VALczY9QJ8VbrhD_VYDlf_z.pdf (accessed on 12 January 2025).
- 11. Abrams, Z. Rise of the 4-Day Workweek. 2025. Available online: https://www.apa.org/monitor/2025/01/rise-of-4-day-workweek (accessed on 5 February 2025).
- 12. 4 Day Work Week Global. 2023 Long Term Pilot Report (p. 4). Autonomy Research. 2024. Available online: https://www.4dayweek.com/long-term-2023-pilot-results (accessed on 12 December 2024).
- 13. Sng, M.; Khor, W.; Oide, T.; Suchar, S.C.; Tan, B.C. Effectiveness of a Four-days/Eight Hour Work a Week. 2021. Available online: https://commons.erau.edu/ww-research-methods-rsch202/21 (accessed on 10 February 2025).
- 14. Laker, B. How Far-Reaching Could the Four-Day Workweek Become? MIT Sloan Management Review. 2023. Available online: https://sloanreview.mit.edu/article/how-far-reaching-could-the-four-day-workweek-become/ (accessed on 10 February 2025).
- 15. Li, X.; Guan, Y.; Yang, Q.; Wu, M. Future work self and employee workplace well-being: A self-determination perspective. *J. Vocat. Behav.* **2021**, 124, 103522. [CrossRef]
- 16. Smith, K. Employee well-being and organizational performance: A strategic HR perspective. *J. Appl. Psychol.* **2024**, 109, 412–428. [CrossRef]
- 17. Da Ros, L.; Pennucci, F.; De Rosis, S. Unlocking organizational change: A deep dive through a data triangulation in healthcare. *Manag. Decis.* **2023**, *61*, 1–21. [CrossRef]
- 18. Sundari, S.; Kusmiati, M. Training needs analysis of operational. Perwira Int. J. Econ. Bus. 2022, 2, 1–8. [CrossRef]

Sustainability **2025**, 17, 4904 22 of 23

19. Belanger, F.; Watson-Manheim, M.B.; Swan, B.R. A multi-level socio-technical systems telecommuting framework. *Behav. Inf. Technol.* **2013**, *32*, 1257–1279. [CrossRef]

- 20. Gren, L. Agile practices and team performance: The role of interpersonal conflict. J. Syst. Softw. 2019, 147, 1–6. [CrossRef]
- 21. Stoyanova, V.; Stoyanov, S. From operational capability to dynamic sustainability: A three-level process model in banking. *Bus. Strategy Environ.* **2023**, 32, 1892–1907. [CrossRef]
- 22. European Commission. Sustainable Competitiveness: Policies for Long-Term Growth. Publications Office of the European Union. 2016. Available online: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0739 (accessed on 10 December 2024).
- 23. Moallemi, E.A.; Malekpour, S.; Hadjikakou, M.; Raven, R.; Szetey, K.; Bryan, B.A. Early systems change necessary for catalyzing long-term sustainability in a post-2030 agenda. *Nat. Sustain.* **2020**, *3*, 739–747. [CrossRef]
- 24. Muñoz-Torres, M.J.; Fernández-Izquierdo, M.Á.; Rivera-Lirio, J.M. Green supply chain management and corporate sustainability: Strategic alignment and long-term competitiveness. *J. Clean. Prod.* **2024**, 384, 135618. [CrossRef]
- 25. Benbya, H.; McKelvey, B. Toward a complexity theory of information systems development. *Inf. Technol. People* **2006**, *19*, 12–34. [CrossRef]
- 26. Czernek-Marszałek, K.; Klimas, P. Levels of cooperation strategy: Individual, operational, and strategic dynamics. *J. Entrep. Manag. Innov.* **2024**, *20*, 45–72. [CrossRef]
- 27. Sachs, J.D.; Schmidt-Traub, G.; Mazzucato, M.; Messner, D.; Nakicenovic, N.; Rockström, J. Six Transformations to achieve the Sustainable Development Goals. *Nat. Sustain.* **2019**, *2*, 805–814. [CrossRef]
- 28. Fukuda-Parr, S. From the Millennium Development Goals to the Sustainable Development Goals: Shifts in purpose, concept, and politics of global goal setting for development. *Gend. Dev.* **2016**, 24, 43–52. [CrossRef]
- 29. Pradhan, P.; Costa, L.; Rybski, D.; Lucht, W.; Kropp, J.P. A Systematic Study of Sustainable Development Goal (SDG) Interactions. *Earth's Future* **2017**, *5*, 1169–1179. [CrossRef]
- 30. Ekins, P.; Zenghelis, D. The costs and benefits of environmental sustainability. Sustain. Sci. 2021, 16, 949–965. [CrossRef] [PubMed]
- Mariappanadar, S. Improving Quality of Work for Positive Health: Interaction of Sustainable Development Goal (SDG) 8 and SDG 3 from the Sustainable HRM Perspective. Sustainability 2024, 16, 5356. [CrossRef]
- 32. 4 Day Work Week Global. *The Results Are in: The UK's Four-Day Week Pilot;* Autonomy Research: Hampshire, UK, 2023; p. 6. Available online: https://autonomy.work/wp-content/uploads/2023/02/The-results-are-in-The-UKs-four-day-week-pilot.pdf (accessed on 15 February 2025).
- 33. Eicker, J.; Keil, K. Who cares? Towards a convergence of feminist economics and degrowth in the (re)valuation of unpaid care work. In *Exploring Economics*; 2018. Available online: https://www.exploring-economics.org/en/discover/who-cares/ (accessed on 15 February 2025).
- 34. Henley Business School. *Four Better or Four Worse? A White Paper on the 4-day Work Week*; Henley Business School: Henley-on-Thames, UK, 2019.
- 35. Malone, D.; EY Ireland. What Impact Would a Reduced Working Week Have on Sustainability. 2023. Available online: https://www.ey.com/en_ie/sustainability/what-impact-would-a-reduced-working-week-have-on-sustainability (accessed on 15 December 2024).
- 36. Rosnick, D.; Weisbrot, M. Are Shorter Work Hours Good for the Environment? A Comparison of U.S. and European Energy Consumption. *Int. J. Health Serv.* **2007**, *37*, 405–417. [CrossRef]
- 37. Yildizhan, H.; Hosouli, S.; Yılmaz, S.E.; Gomes, J.; Pandey, C.; Alkharusi, T. Alternative work arrangements: Individual, organizational and environmental outcomes. *Heliyon* **2023**, *9*, e21899. [CrossRef]
- 38. Kallis, G.; Kalush, M.; O'Flynn, H.; Rossiter, J.; Ashford, N. "Friday off": Reducing Working Hours in Europe. *Sustainability* **2013**, 5, 1545–1567. [CrossRef]
- 39. Hook, A.; Court, V.; Sovacool, B.; Sorrell, S. A systematic review of the energy and climate impacts of teleworking. *Environ. Res. Lett.* **2020**, *15*, 093003. [CrossRef]
- 40. Neubert, S.; Bader, C.; Hanbury, H.; Moser, S. Free days for future? Longitudinal effects of working time reductions on individual well-being and environmental behaviour. *J. Environ. Psychol.* **2022**, *82*, 101849. [CrossRef]
- 41. Setiawan, I.; Purba, H.H. A systematic literature review of key performance indicators (KPIs) implementation. *J. Ind. Eng. Manag. Res.* **2020**, *1*, 200–208. [CrossRef]
- 42. Bockerman, P.; Ilmakunnas, P. The Job Satisfaction-Productivity Nexus: A Study Using Matched Survey and Register Data. *SSRN Electron. J.* **2010**. [CrossRef]
- 43. 4 Day Work Week Global. The 4 Day Week UK Results. 2023. Available online: https://www.4dayweek.com/uk-pilot-results (accessed on 20 December 2024).
- 44. Campbell, T.T. The four-day work week: A chronological, systematic review of the academic literature. *Manag. Rev. Q.* **2023**, 74, 1791–1807. [CrossRef]

Sustainability **2025**, 17, 4904 23 of 23

45. Thirumalai, S.; Sinha, K.K. Customer satisfaction with order fulfillment in retail supply chains: Implications of product type in electronic B2C transactions. *J. Oper. Manag.* **2004**, *23*, 291–303. [CrossRef]

- 46. Ware, E.; Karikari, D.; Agbanu, C.; Martey, M.; Poku, M. Impact of supply chain management practices on customer satisfaction: An exploratory study of medium to large enterprises in Ghana. *Am. J. Ind. Bus. Manag.* **2022**, *1*, 1–60.
- 47. Milgram, L. Law of Diminishing Returns. In *Managing Smart*; Elsevier EBooks: Amsterdam, The Netherlands, 1999; p. 51. [CrossRef]
- 48. Kelliher, C.; Anderson, D. Doing more with less? Flexible working practices and the intensification of work. *Hum. Relat.* **2010**, *63*, 83–106. [CrossRef]
- 49. Suraihi, W.A.A.; Samikon, S.A.; Suraihi, A.-H.A.A.; Ibrahim, I. Employee turnover: Causes, importance and retention strategies. *Eur. J. Bus. Manag. Res.* **2021**, *6*, 1–10. [CrossRef]
- 50. Abdirahman, H.I.H.; Najeemdeen, I.S.; Abidemi, B.T.; Ahmad, R. The Relationship between Job Satisfaction, Work-Life Balance and Organizational Commitment on Employee Performance. *Adv. Bus. Res. Int. J.* **2020**, *4*, 42. [CrossRef]
- 51. Irabor, I.E.; Okolie, U.C. A Review of Employees' Job Satisfaction and its affect on their Retention. *Ann. Spiru Haret Univ. Econ. Ser.* **2019**, *19*, 93–114. [CrossRef]
- 52. Schaufeli, W.B.; Taris, T.W. A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. *Bridg. Occup. Organ. Public Health* **2014**, *1*, 43–68. [CrossRef]
- 53. Thébaud, S.; Hoppen, C.; David, J.; Boris, E. Understanding Gender Disparities in Caregiving, Stress, and Perceptions of Institutional Support among Faculty during the COVID-19 Pandemic. Soc. Sci. 2024, 13, 181. [CrossRef]
- 54. Sharma, N.; Chakrabarti, S.; Grover, S. Gender differences in caregiving among family—Caregivers of people with mental illnesses. *World J. Psychiatry* **2016**, *6*, 7–17. [CrossRef] [PubMed]
- 55. ReferencesBerkery, E.; Peretz, H.; Tiernan, S.; Morley, M.J. The impact of flexi-time uptake on organizational outcomes and the moderating role of formal and informal institutions across 22 countries. *Eur. Manag. J.* 2024; *in press.* [CrossRef]
- 56. Jain, M.J.; Chouliara, N.; Blake, H. From Five to Four: Examining Employee Perspectives Towards the Four-Day Workweek. *Adm. Sci.* **2025**, *15*, 114. [CrossRef]
- 57. Gomez-Baggethun, E. Rethinking work for a just and sustainable future. Ecol. Econ. 2022, 200, 107506. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.