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Editorial Foreword

Refining Scope, Strengthening Standards, and Elevating Peer Review in TNI

Vol. 6 No. 3 (2026): February–April 2026

Thai Journal of National Interest (TNI)

As Editor-in-Chief of the *Thai Journal of National Interest (TNI)*, I am pleased to present this issue, which marks an important step in the journal's continued development toward higher academic standards and greater international visibility.

Over the past year, the editorial board has undertaken a systematic effort to refine the journal's scope in order to ensure closer alignment with its core objectives. While TNI continues to embrace interdisciplinary research, particular emphasis is now placed on submissions that demonstrate strong theoretical grounding, analytical depth, and clear contributions to the study of national interest, political economy, and related fields. This refinement aims to enhance the coherence and scholarly impact of the journal.

In addition, the journal has strengthened its requirements for referencing and citation practices. Authors are now expected to adhere consistently to internationally recognized standards, particularly APA (7th edition). Accurate in-text citations, complete reference lists, and proper formatting are essential not only for maintaining academic integrity but also for ensuring transparency and credibility in scholarly communication.

Another significant development concerns the enhancement of the peer-review process. Evaluation criteria have been revised to place greater emphasis on originality, methodological

rigor, and analytical contribution. Manuscripts that rely primarily on descriptive approaches without clear theoretical or empirical advancement will be subject to more rigorous assessment. Through these measures, TNI aims to elevate the quality of published research and position itself more competitively within the broader academic landscape.

These improvements reflect the journal's commitment to continuous development and academic excellence. At the same time, I would like to extend an open invitation to scholars, researchers, and practitioners to submit their work to TNI. We particularly welcome contributions that offer innovative perspectives, interdisciplinary approaches, and critical insights into contemporary issues related to national interest and global transformation.

I would also like to express my sincere appreciation to our reviewers and editorial board members for their dedication and professionalism. Their contributions are essential to maintaining the integrity and quality of the journal.

We look forward to your continued support and to advancing scholarly dialogue through high-quality publications.

Dr. Jakkrit Siririn

Editor-in-Chief

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Rethinking Economic Stability: Temporal Coordination and Misalignment in Political Economy

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Abstract

This article examines how temporality shapes economic coordination, development, and governance in the contemporary global economy. While recent crises—such as financial instability, supply chain disruptions, and ecological stress—are often explained as failures of markets or institutions, this study argues that they reflect a deeper structural problem: misalignment between financial, industrial, infrastructural, and ecological time.

Existing literature on development, infrastructure, and global production networks provides important insights but remains fragmented and pays limited attention to temporal coordination across systems. This article addresses this gap by proposing the framework of

Temporal Political Economy, which conceptualizes economic stability and development as outcomes of alignment or misalignment between multiple temporal systems.

Methodologically, the study adopts a theory-building approach based on comparative structural analysis and interdisciplinary synthesis. It develops three key concepts: temporal misalignment, rhythmic equilibrium, and temporal sovereignty.

The findings suggest that instability arises when short-term financial cycles dominate long-term processes, while stability depends on the coordination of multiple temporal horizons. Artificial intelligence is conceptualized as temporal infrastructure that accelerates and synchronizes economic processes, generating new forms of inequality and governance challenges.

The article contributes to political economy by introducing temporality as a structural dimension of economic coordination and by providing a framework for understanding development and stability as problems of temporal governance.

Keywords: Temporal Political Economy; Temporal Sovereignty; Temporal Coordination; Uneven Development; Global Production Networks; Artificial Intelligence

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1. Introduction: The Question of Time in Political Economy

Recent global crises—including financial instability, supply chain disruptions, ecological stress, and technological inequality—have challenged conventional models of economic development and governance. These crises are often interpreted as failures of markets, institutions, or technology (Harvey, 2010; Tooze, 2018). This article argues that they reflect a deeper structural problem: the misalignment between the temporal rhythms of finance, production, infrastructure, and ecological systems.

The dominant sustainability paradigm assumes that efficiency, technological innovation, and institutional reform can stabilize complex systems under conditions of continuous growth (Meadows et al., 1972; WCED, 1987). However, most policy frameworks operate within short-term political and financial cycles, while infrastructure development, industrial transformation, and ecological processes unfold over much longer time horizons (Adam, 1998; Rosa, 2013). This mismatch generates structural instability.

This temporal divergence is evident across the global economy. Financial markets operate in real time, supply chains in weeks and months, industrial transformation in decades, and ecological regeneration over generations (Braudel, 1981). When these systems are forced into a single accelerated logic, instability emerges. From this perspective, economic crises, uneven development, and sustainability failures can be understood as outcomes of temporal misalignment.

A similar dynamic characterizes global production networks. While existing research emphasizes their spatial organization (Gereffi, 1999; Coe & Yeung, 2015), these systems also

depend on synchronized temporal processes, including production schedules, delivery times, and investment cycles (Rodrigue, 2020). Disruptions in logistics or energy supply therefore create temporal shocks that propagate across multiple regions. Control over infrastructure and logistics, in this sense, is also control over economic time.

To address this gap, this article introduces the framework of Temporal Political Economy, which conceptualizes development as a problem of temporal coordination rather than growth alone. It proposes the concept of rhythmic equilibrium, defined as the alignment of financial, industrial, infrastructural, and ecological processes operating at different speeds.

Within this framework, artificial intelligence is understood not only as a tool for efficiency but as temporal infrastructure. By enabling real-time coordination and predictive decision-making, AI compresses decision cycles and restructures economic time (Agrawal et al., 2018; Brynjolfsson & McAfee, 2014; Zuboff, 2019). This transformation introduces a new dimension of political economy: temporal sovereignty.

Temporal sovereignty refers to the capacity of states to control and coordinate their development timelines, including investment horizons, infrastructure development, and technological adoption. In a global economy shaped by financial cycles, logistics systems, and digital infrastructures, control over time becomes a strategic resource.

While temporality has been examined in social theory, historical sociology, and political economy, and coordination has been studied in systems theory and cybernetics, these literatures remain fragmented. What remains underdeveloped is an integrated framework explaining how temporal systems interact and how their alignment shapes economic stability and development.

This article addresses this gap by proposing Temporal Political Economy as a unified framework linking financial, industrial, infrastructural, and ecological time.

Research Questions

This study is guided by the following research questions:

How do temporal structures shape economic coordination, governance, and technological systems?

Why do existing development and sustainability frameworks fail to achieve long-term stability?

How does artificial intelligence restructure coordination through time?

What is temporal sovereignty, and how does it relate to national development strategy?

How can economic stability be reconceptualized as temporal coordination?

Objectives of the Study

The objectives of this study are:

To examine the role of temporality in economic coordination and governance

To analyze the temporal causes of development and sustainability failures

To investigate artificial intelligence as temporal infrastructure

To develop the concept of temporal sovereignty

To propose a framework of economic stability based on temporal coordination

Table 1

Analytical structure of the study

Research question	Objective	Analytical focus	Outcome
RQ1	Examine temporality	Financial, industrial, infrastructure, ecological time	Multiple temporal systems
RQ2	Analyze mismatch	Political vs financial vs ecological cycles	Temporal misalignment
RQ3	AI	Prediction, automation, real-time coordination	Time compression
RQ4	Sovereignty	Development strategy, infrastructure, finance	Control over time
RQ5	Stability	Coordination across systems	Rhythmic equilibrium

Note. Developed by the author.

Table 1 summarizes the analytical structure of the study, linking research questions, objectives, and expected outcomes within a unified framework.

2. Literature Review

2.1 Development, Industrialization, and Uneven Development

Economic development has traditionally been explained through capital accumulation, industrialization, technological upgrading, and institutional capacity. Classical development economists such as Gerschenkron (1962), Amsden (1989), Wade (2004), and Chang (2002) emphasize the role of the state in coordinating long-term industrial transformation. More recent

literature highlights the importance of global production networks and value chains, where development is shaped by a country's position within transnational systems of production, finance, and logistics (Gereffi, 1999; Baldwin, 2016; Coe & Yeung, 2015).

While these approaches explain structural transformation and global integration, they pay limited attention to the temporal structures underlying these processes. Industrial upgrading and infrastructure development unfold over long-term horizons, whereas financial systems operate on short-term cycles. As a result, development can be understood not only as a structural process but as a problem of coordinating different temporal regimes across finance, industry, and infrastructure.

Existing theories—including neoclassical growth models (Solow, 1956), institutional economics (North, 1990), and dependency and world-systems approaches (Frank, 1967; Wallerstein, 1974; Arrighi, 1994)—provide important explanations of development and inequality. However, they generally treat time as a secondary factor and do not systematically analyze how mismatched temporal horizons shape economic outcomes.

This article builds on these literatures by introducing temporality as a structural dimension of development. It argues that uneven development and instability can be better understood as outcomes of misalignment between financial cycles, industrial transformation, and infrastructure investment.

2.2 Infrastructure, Logistics, and Economic Development

Infrastructure has long been recognized as a key driver of economic development, influencing productivity, inequality, and market access (Aschauer, 1989; Calderón & Servén, 2010). More

recent research highlights the role of logistics systems, transport corridors, and ports in shaping global production networks (Rodrigue, 2020; Notteboom & Rodrigue, 2005).

Beyond its spatial function, infrastructure also operates as a temporal system that organizes the speed and reliability of economic activity. Transport networks, energy systems, and logistics corridors determine how production schedules are synchronized and how efficiently goods move across regions.

Infrastructure development typically follows long-term investment cycles, while industrial production operates on medium-term horizons and financial systems on short-term cycles. Effective development therefore depends on coordinating these different temporal regimes.

However, most infrastructure literature focuses on investment and spatial connectivity rather than on temporal coordination. As a result, infrastructure is often analyzed as a physical asset rather than as a system that structures economic time.

This article extends existing research by conceptualizing infrastructure as a mechanism for coordinating temporal processes and by examining how it interacts with financial cycles and production systems in shaping development outcomes.

2.3 Global Production Networks and Temporal Coordination

Global production networks (GPN) and global value chains (GVC) have transformed contemporary capitalism into a system of transnational production coordinated through firms, logistics, and digital infrastructures (Gereffi et al., 2005; Coe & Yeung, 2015; Baldwin, 2016). Production is no longer confined within national economies but distributed across multiple locations connected through trade, finance, and transport systems.

Existing literature emphasizes the spatial organization and governance of these networks. However, less attention has been given to their temporal dimension. Production systems depend on synchronized schedules, predictable delivery times, and stable logistics flows. Disruptions in transport routes, energy supply, or geopolitical conditions therefore generate not only spatial dislocation but also temporal disruption.

Recent supply chain disruptions illustrate this dynamic. Delays in shipping and port congestion disrupted production schedules across multiple regions, while financial systems continued to adjust rapidly through price mechanisms. This mismatch between short-term financial adjustment and slower production and logistics processes demonstrates how instability emerges from temporal misalignment rather than from supply constraints alone.

From this perspective, global production networks can be understood as systems of temporal coordination. Control over logistics systems, technological standards, and financial flows also implies control over the timing of production and investment. Countries positioned in lower segments of global value chains often operate under externally determined timelines, while those controlling infrastructure and finance shape global temporal structures. This asymmetry contributes to uneven development and dependency.

2.4 Time, Acceleration, and Social Theory

The role of time in economic and social systems has been explored in social theory, historical sociology, and systems theory. Braudel (1981) identifies multiple temporal layers in social processes, while Rosa (2013) and Adam (1998) emphasize acceleration and the coexistence of

different temporal regimes. These approaches suggest that modern societies are structured not only by institutions but also by temporal dynamics.

In political economy, these dynamics are often described as processes of time compression, where technological and logistical innovations reduce production and transport time (Harvey, 1989; Castells, 2010). However, acceleration alone does not ensure stability. Systems theory and cybernetics highlight that stability depends on feedback, adaptation, and coordination across different temporal processes (Wiener, 1948; Beer, 1972).

Despite these insights, time is often treated as a secondary variable in economic analysis. Existing approaches rarely integrate temporal structures across finance, production, infrastructure, and ecological systems. As a result, the interaction between these systems remains under-theorized.

This article builds on these traditions by conceptualizing time as a structural dimension of political economy. It argues that economic stability depends on the coordination of multiple temporal regimes operating at different speeds and scales. This perspective provides the theoretical foundation for the framework of Temporal Political Economy developed in this study.

2.5 Coordination, Systems, and Cybernetics

Systems theory and cybernetics provide an alternative perspective on economic stability by emphasizing coordination, feedback, and adaptive regulation over time. Wiener (1948) conceptualizes stability as a function of feedback loops and response time, while Beer's (1972) Viable System Model highlights the need to coordinate multiple subsystems operating at different speeds.

Similarly, social systems theory views modern societies as composed of autonomous subsystems—such as the economy, politics, and technology—each governed by distinct internal logics and temporal structures (Luhmann, 1995). Stability therefore depends not on equilibrium within a single system but on coordination across these subsystems.

Coordination theory further reinforces this view by showing that complex economic systems consist of interdependent activities that must be synchronized over time (Malone & Crowston, 1994). These perspectives suggest that economic stability is fundamentally a problem of coordination across systems operating at different temporal horizons.

Building on these insights, this article interprets political economy as a system of temporal coordination linking finance, industrial production, infrastructure, and ecological processes. This provides the theoretical foundation for the concept of rhythmic equilibrium developed in this study.

2.6 Temporal Coordination in Political Economy: Existing Debates

Existing debates in political economy explain stability through institutions (North, 1990), macroeconomic policy, or technological innovation (Solow, 1956). Other approaches emphasize global production networks and industrial policy (Gereffi et al., 2005; Wade, 2004).

While these perspectives provide important insights, they largely analyze economic systems in structural or institutional terms and pay limited attention to temporal dynamics. In particular, they do not systematically address how mismatched time horizons across financial systems, industrial production, and infrastructure investment affect coordination and stability.

This article extends these debates by introducing temporality as a structural dimension of political economy.

2.7 Research Gap

Taken together, the existing literature provides valuable insights into development, infrastructure, global production networks, and social acceleration. However, these fields remain analytically fragmented.

Development theory focuses on industrialization and institutions, infrastructure studies on spatial investment, global production network research on spatial organization, and social theory on acceleration and temporality. What remains under-theorized is how these systems interact across different time horizons.

In particular, the interaction between financial time (short-term cycles), production time (industrial processes), infrastructure time (long-term investment), and ecological time (regeneration processes) has not been systematically analyzed within a unified framework.

This article addresses this gap by proposing the framework of Temporal Political Economy, which explains how alignment and misalignment between these temporal systems shape economic stability, uneven development, and governance outcomes. By integrating multiple strands of literature, the study introduces temporality as a structural dimension of political economy and development.

2.8 Contribution of the Study

This article makes three main contributions to the literature on political economy and development.

First, it introduces temporality as a structural dimension of economic coordination. While existing literature emphasizes capital accumulation, technological change, and institutions, this study shows that the interaction between financial, industrial, infrastructural, and ecological time plays a critical role in shaping economic stability and uneven development.

Second, it develops the framework of Temporal Political Economy, which reconceptualizes economic coordination and crisis as outcomes of alignment or misalignment between multiple temporal systems. By integrating development theory, infrastructure studies, global production networks, and social theory of time, the framework provides a unified approach to analyzing temporal structures in economic systems.

Third, it conceptualizes artificial intelligence as temporal infrastructure and introduces the notion of temporal sovereignty. This highlights how control over time—through logistics systems, financial cycles, and digital technologies—becomes a strategic dimension of national development.

2.9 Critical Comparison of Existing Approaches

Existing approaches provide important insights but remain limited in addressing temporal coordination.

Neoclassical economics emphasizes equilibrium and allocation but treats time as a neutral parameter. Institutional and development economics focus on state capacity but do not systematically analyze temporal dynamics. GPN and GVC research explains spatial organization yet pays limited attention to synchronization across production processes. Dependency and world-

systems theories highlight structural inequality but do not explicitly examine temporal asymmetries.

As a result, existing frameworks analyze economic systems in structural or spatial terms while under-theorizing their temporal dimension.

This article addresses this limitation by introducing temporality as a structural dimension of political economy and by proposing an integrated framework that links financial, industrial, infrastructural, and ecological time.

3. Methodology

This study adopts a theory-building approach combined with comparative structural analysis to examine the role of time in political economy, development, and technological systems. Rather than testing a single hypothesis using quantitative methods, the study develops a conceptual framework through interdisciplinary synthesis across development theory, infrastructure studies, global production networks, social theory of time, and artificial intelligence research.

The objective of this approach is analytical generalization rather than statistical generalization. It seeks to identify structural relationships between temporal systems and their implications for economic coordination and stability. This methodology is consistent with established traditions in political economy and historical sociology, where theoretical frameworks are developed through comparative analysis and synthesis rather than empirical testing (Braudel, 1981; Gerschenkron, 1962; Swedberg, 2012).

3.1 Analytical Approach

The analysis proceeds in three steps.

First, the study identifies the temporal structures embedded in different socio-economic systems, including financial cycles, industrial production, infrastructure development, and ecological processes. This step draws on existing literature to clarify how each system operates across distinct time horizons.

Second, it applies comparative structural analysis to examine differences in temporal dynamics, focusing on variation in time horizons, adjustment speeds, and coordination requirements across these systems.

Third, the study analyzes the consequences of these differences. It argues that when systems operate under incompatible temporal conditions, coordination failures emerge in the form of financial instability, supply chain disruptions, and uneven development. This condition is conceptualized as temporal misalignment.

Through this process, the study develops the framework of Temporal Political Economy and introduces the concepts of temporal misalignment, rhythmic equilibrium, and temporal sovereignty.

3.2 Methodological Scope and Limitations

The findings of this study are derived from comparative theoretical analysis rather than from a single empirical dataset. The purpose is not to produce statistical generalization but to construct a conceptual framework that explains how temporal structures shape economic coordination and governance.

This approach is consistent with theory-building research in political economy, where new analytical models are developed through interdisciplinary synthesis. However, the framework requires further empirical validation in future research to assess its applicability across different national and sectoral contexts.

Figure 1 presents the analytical framework of the study. It conceptualizes political economy as the interaction of multiple systems operating at different time horizons. Instability and uneven development emerge when these systems become misaligned, while stability depends on their coordination over time.

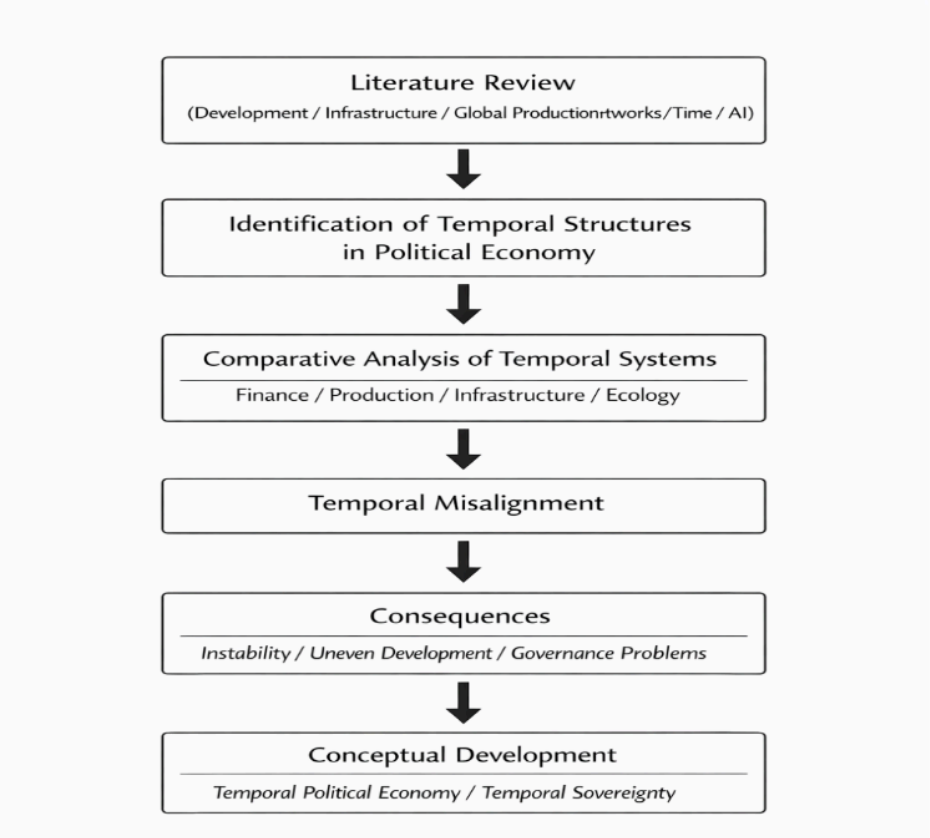

Figure 1. Analytical Framework of Temporal Political Economy

Note. Developed by the author.

The framework begins with an interdisciplinary literature review and identifies temporal structures across financial, industrial, infrastructural, and ecological systems. Through comparative analysis, it highlights how misalignment among these systems leads to instability, uneven development, and governance challenges. The framework culminates in the concepts of Temporal Political Economy and temporal sovereignty.

Methodological Positioning

This study adopts a theory-building approach aimed at analytical generalization rather than statistical generalization. It develops a conceptual framework to explain the relationship between temporality and economic coordination rather than testing a predefined hypothesis.

This approach follows established traditions in political economy and historical sociology, where theoretical models are constructed through interdisciplinary synthesis and comparative analysis (Braudel, 1981; Gerschenkron, 1962; Swedberg, 2012).

Accordingly, the contribution of this study lies in conceptual development, providing a framework that can be applied and tested in future empirical research.

4. Results

The findings are derived from comparative theoretical analysis and are presented in relation to the research questions.

Research Question 1

How does temporality structure economic coordination, governance, and technological systems?

Finding 1: Political economy operates through multiple temporal systems

The analysis shows that modern political economy operates through multiple temporal systems with different time horizons and operational speeds. These include financial cycles (short-term), industrial production (medium-term), infrastructure investment (long-term), and ecological processes (long-term).

This finding aligns with Braudel's (1981) concept of multiple temporalities and Adam's (1998) notion of timescapes. However, the analysis extends these perspectives by demonstrating that these temporal structures are not only social or historical features but also fundamental components of economic coordination.

The results indicate that coordination problems emerge when short-term financial cycles dominate and impose constraints on slower systems such as industrial development and infrastructure investment. This creates structural tension between systems operating at incompatible speeds.

Temporality should therefore be understood as a structural dimension shaping economic coordination, governance capacity, and technological systems.

Research Question 2

Why do existing sustainability and development frameworks fail to achieve long-term stability?

Finding 2: Development and sustainability failures result from temporal misalignment

The analysis suggests that instability in development and sustainability policies arises from misalignment between short-term financial and political cycles and long-term industrial, infrastructural, and ecological processes.

This interpretation is consistent with Hirschman's (1958) emphasis on long-term infrastructure development and Minsky's (1986) theory of short-term financial instability. Global production network research further highlights the need for coordinated long-term production systems (Gereffi et al., 2005; Coe & Yeung, 2015).

The results show that policies often fail because they operate within short-term decision cycles, while the systems they seek to govern require long-term coordination. This mismatch leads to policy inconsistency, underinvestment in infrastructure, and recurring instability.

From this perspective, development and sustainability challenges can be understood not only as institutional or technological problems but as failures of temporal coordination across systems operating at different speeds.

Research Question 3

How does artificial intelligence reshape economic and governance systems through time?

Finding 3: Artificial intelligence restructures coordination through time compression and synchronization

The analysis shows that artificial intelligence reshapes political economy by transforming the temporal structure of economic coordination. AI enables real-time data processing, predictive analytics, and automated decision-making, significantly reducing response time across financial systems, logistics networks, industrial production, and public administration.

This transformation can be understood as time compression, where processes that previously required extended periods are coordinated in real time. As a result, AI not only

increases efficiency but restructures the temporal organization of economic and governance systems.

The findings indicate that AI increasingly functions as temporal infrastructure, synchronizing activities across multiple systems. This shift alters governance structures, as decision-making becomes continuous and predictive rather than periodic.

From a development perspective, this transformation generates new inequalities between actors that control real-time data, algorithms, and digital infrastructure and those that do not. This condition can be described as temporal inequality, where some economies operate in real-time systems while others remain constrained by slower institutional and infrastructural dynamics.

Research Question 4

What is temporal sovereignty and how does it relate to national interest and development?

Finding 4: Temporal sovereignty as control over development timelines

The analysis shows that contemporary economic systems operate as coordinated temporal structures in which production schedules, investment cycles, and technological adoption are aligned across countries (Gereffi et al., 2005; Coe & Yeung, 2015; Baldwin, 2016).

Within these systems, the ability to control time—particularly long-term investment, infrastructure development, and industrial transformation—becomes a key dimension of development strategy.

The findings define temporal sovereignty as the capacity of a state to coordinate and control its own development timelines. States with this capacity can pursue long-term strategies,

while those dependent on external finance and global production networks operate under externally determined temporal conditions.

This creates temporal dependency, where national development trajectories are shaped by external financial cycles, production schedules, and technological standards. In this sense, temporal sovereignty is closely linked to national interest and strategic autonomy.

From this perspective, development is not only a process of industrialization or technological upgrading but also the ability to control and coordinate long-term economic time.

Research Question 5

How should economic stability be reconceptualized within a temporal framework?

Finding 5: Economic stability as temporal coordination (rhythmic equilibrium)

The analysis reconceptualizes economic stability as a problem of temporal coordination rather than equilibrium or efficiency. Contemporary developments in artificial intelligence and data-driven governance highlight the growing importance of timing, synchronization, and real-time coordination in economic systems (Agrawal et al., 2018; Kitchin, 2017).

The findings show that stability emerges when financial cycles, industrial production, infrastructure development, and ecological processes operate within compatible time horizons. In contrast, instability arises when these systems become misaligned, particularly when short-term financial cycles dominate long-term processes.

This condition is conceptualized as rhythmic equilibrium, defined as the synchronization of multiple systems operating at different speeds in a way that sustains long-term development

and stability. Rhythmic equilibrium does not require uniform speed but compatible temporal alignment across systems.

From this perspective, economic stability depends on the capacity of institutions to coordinate multiple temporal processes. Economic crises can therefore be interpreted as breakdowns in temporal coordination rather than solely as financial or macroeconomic imbalances.

Table 2

Core Propositions of Temporal Political Economy

Proposition	Explanation
1	Political economy consists of multiple temporal systems
2	Economic crises result from temporal misalignment
3	Artificial intelligence restructures coordination through time compression
4	Development depends on temporal sovereignty
5	Stability depends on rhythmic equilibrium

Note. Developed by the author.

Table 3

Temporal Political Economy Framework

Temporal Structure	Outcome
Alignment	Stability
Misalignment	Crisis
Control over time	Development
External control	Dependency
Real-time coordination	Algorithmic governance

Note. Developed by the author.

Empirical Illustration: Temporal Misalignment in Global Supply Chains

Global production networks operate through tightly synchronized timelines. Recent disruptions—such as transport delays, geopolitical shocks, and energy constraints—have revealed structural mismatches between financial, production, and infrastructural processes.

For example, shipping delays disrupted production schedules for weeks, while financial systems adjusted rapidly through price mechanisms. Industrial production slowed due to missing inputs, and infrastructure systems lacked the flexibility to respond in the short term.

This mismatch between short-term financial cycles, medium-term production processes, and long-term infrastructure constraints generated cascading effects, including supply shortages, inflation, and production delays.

From the perspective of Temporal Political Economy, these disruptions illustrate temporal misalignment: a failure to coordinate systems operating at incompatible speeds. This example

demonstrates that instability arises not only from supply constraints but from breakdowns in temporal coordination across interconnected systems.

5. Discussion

The findings of this study suggest that temporality plays a structural role in political economy, development, and governance. While existing literature in social theory emphasizes multiple temporalities in economic and social systems (Braudel, 1981; Adam, 1998; Rosa, 2013; Harvey, 1989), this article extends these insights by demonstrating how misalignment between these temporal systems generates economic instability.

First, the findings challenge conventional development theory, which typically explains economic growth in terms of capital accumulation, technological progress, and institutional quality. While these factors remain important, this study argues that development outcomes are critically shaped by the relationship between different temporal systems, particularly financial time, industrial time, and infrastructure time. For instance, financial systems often operate on short-term cycles, while industrial transformation and infrastructure development require long-term coordination. When these systems operate under incompatible time horizons, development strategies become inconsistent and unstable.

Second, this study contributes to the literature on global production networks by introducing a temporal dimension to existing spatial analysis. While previous research has shown that global production is fragmented across regions and coordinated through logistics systems (Gereffi et al., 2005; Coe & Yeung, 2015), this article demonstrates that these networks depend on

synchronized temporal processes. Disruptions in logistics routes or energy supply do not only affect spatial flows but also create temporal disruptions that propagate across production systems.

This dynamic can be observed in recent global supply chain disruptions, where delays in shipping and port congestion created mismatches between production schedules and delivery timelines. While financial markets adjusted rapidly through price mechanisms, industrial production systems faced delays due to missing inputs, and infrastructure systems lacked the flexibility to respond in the short term. This mismatch illustrates how instability emerges from the failure to coordinate temporal systems rather than from supply shortages alone.

Third, the findings have important implications for sustainability and governance. Existing sustainability frameworks often assume that technological and institutional solutions can stabilize economic systems. However, this study shows that these frameworks fail when political cycles, financial systems, and ecological processes operate under different temporal horizons. Without mechanisms to coordinate these timeframes, sustainability policies remain structurally constrained.

Fourth, this article highlights the role of artificial intelligence as a form of temporal infrastructure. AI systems enable real-time coordination across finance, logistics, and governance, significantly reducing decision-making time. However, this acceleration also creates a gap between technological time and institutional adaptation, introducing new forms of systemic risk.

Fifth, the concept of temporal sovereignty provides a new perspective on development strategy. This article argues that development depends not only on capital or institutions but on the capacity of states to control and coordinate long-term development timelines. Countries that

lack such capacity remain dependent on external financial cycles and global production schedules, leading to what this study defines as temporal dependency.

Taken together, these findings suggest that economic stability should be reconceptualized as a problem of temporal coordination. This article introduces the concept of rhythmic equilibrium to describe a condition in which financial, industrial, infrastructural, and ecological systems operate within compatible time horizons. Instability, in contrast, emerges when these systems become misaligned.

By developing this framework, this study shifts the analytical focus of political economy from equilibrium and resource allocation to coordination and temporal governance. From this perspective, economic crises can be understood as breakdowns in temporal coordination rather than solely as financial or macroeconomic imbalances.

Theoretical Implications: From Equilibrium to Temporal Coordination

The findings of this study suggest a shift in how economic stability should be conceptualized in political economy. While traditional economic theory interprets stability as equilibrium in prices, output, or markets, this article argues that such perspectives overlook the temporal structure of economic systems.

Existing approaches generally treat time as a neutral parameter. In contrast, this study demonstrates that economic systems operate through multiple temporal regimes, including financial cycles, industrial production processes, infrastructure development timelines, and ecological regeneration. These systems do not naturally converge toward equilibrium; rather, they require continuous coordination across different time horizons.

From this perspective, stability does not emerge automatically from market mechanisms but depends on the alignment of these temporal systems. When financial systems operate on short-term cycles while industrial and infrastructural systems require long-term coordination, structural tensions arise. Economic crises, therefore, can be interpreted as breakdowns in temporal coordination rather than solely as financial or macroeconomic imbalances.

This argument shifts the analytical focus of political economy from equilibrium to coordination, from allocation to synchronization, and from efficiency to temporal governance. By introducing the concept of rhythmic equilibrium, this study provides a framework for understanding stability as the compatibility of multiple temporal processes rather than the balance of market variables alone.

Policy Implications: Temporal Governance and Development Strategy

The framework of Temporal Political Economy suggests that development policy should focus not only on increasing investment or technological adoption but on coordinating long-term economic time across different systems.

This implies that effective development strategies must align:

financial systems with long-term investment horizons,

industrial policy with technological learning cycles, and

political decision-making cycles with infrastructure and ecological timelines.

In practice, this requires institutional arrangements that support long-term coordination, including stable financial systems, strategic infrastructure planning, and logistics networks capable of reducing temporal uncertainty.

Recent disruptions in global supply chains illustrate this challenge. Delays in transport and logistics created mismatches between production schedules and delivery timelines, while financial markets continued to adjust rapidly. This divergence between short-term financial adjustment and slower industrial and infrastructural processes highlights the importance of temporal coordination in maintaining economic stability.

From this perspective, development policy is not only a question of resource allocation but of governing time. States must develop the capacity to manage different temporal horizons simultaneously in order to sustain long-term development.

Contribution to the Literature

This article contributes to political economy and development studies in three main ways.

First, it introduces temporality as a structural dimension of economic coordination, demonstrating that economic systems operate through multiple temporal regimes rather than a single linear timeline.

Second, it reconceptualizes economic stability as a problem of temporal coordination, proposing the concept of rhythmic equilibrium as a framework for analyzing the alignment of financial, industrial, infrastructural, and ecological processes.

Third, it develops the concept of temporal sovereignty, defined as the capacity of states to coordinate and control long-term development time within a global economy structured by financial cycles, logistics systems, and digital infrastructures.

Limitations of the Study

This study has several limitations.

First, it is primarily conceptual and does not rely on original empirical datasets. While the framework is supported by analytical reasoning and illustrative examples, further empirical validation is required to assess its applicability across different contexts.

Second, the level of abstraction may limit direct policy application without additional operationalization. The concepts of temporal misalignment, rhythmic equilibrium, and temporal sovereignty require further specification in empirical settings.

Third, the study focuses on structural relationships between temporal systems and does not fully capture micro-level dynamics within firms or institutions.

Future research should therefore aim to test and refine the framework through comparative case studies and sector-specific analysis, particularly in areas such as supply chain resilience, infrastructure development, and digital governance.

6. Conclusion: Time and the Future of Political Economy

This article has argued that many contemporary economic, developmental, and governance challenges can be better understood as problems of temporal coordination rather than purely economic, technological, or institutional problems. By introducing the framework of Temporal Political Economy, this study has examined how different systems—financial markets, industrial production, infrastructure development, and ecological processes—operate according to different time horizons and speeds, and how their interaction shapes economic stability and development trajectories.

The findings of this study suggest that economic instability, uneven development, and governance difficulties often emerge when these systems become temporally misaligned,

particularly when short-term financial cycles dominate long-term industrial and infrastructure development. From this perspective, development is not only a process of capital accumulation or technological upgrading, but also a process of coordinating long-term economic time.

This article contributes to political economy and development studies in three ways. First, it introduces temporality as a structural dimension of economic coordination. Second, it develops the concept of Temporal Political Economy as a framework for understanding economic stability and crisis as problems of temporal alignment and misalignment. Third, it introduces the concepts of rhythmic equilibrium and temporal sovereignty to explain how the control of time becomes a strategic dimension of national development in the contemporary global economy.

The concept of temporal sovereignty suggests that national development strategy in the twenty-first century increasingly depends on the ability of states to coordinate long-term infrastructure investment, industrial policy, logistics systems, and technological development while managing short-term financial pressures. In this sense, control over economic time becomes a strategic dimension of national interest and development policy.

Future research should further develop the empirical dimension of Temporal Political Economy by examining specific country cases, infrastructure systems, logistics networks, and financial regimes in order to better understand how temporal coordination affects development outcomes in different regions of the world. Comparative studies between countries that successfully coordinated long-term development and those that remained dependent on short-term financial and production cycles would be particularly useful.

In conclusion, this article argues that the central problem of contemporary political economy is not only the distribution of resources, technology, or capital, but the organization and coordination of time. Economic development, stability, and national power increasingly depend on the ability to coordinate multiple temporal systems operating at different speeds and time horizons.

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Resource Planning for the Publishing Project of a Scientific Monograph on Foreign Trade in Goods of Ukraine with EU Countries Using Microsoft Project

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Abstract

To increase the innovativeness of national economies, governments should allocate significant funds, including grants, to finance scientific research and development. The purpose of the article is to plan labor, financial, material resources and optimize the time of the project of publishing a monograph on foreign trade in goods between Ukraine and the EU countries using the Microsoft Project program within the framework of the grant of the President of Ukraine. The following methods were used: parameterization – to highlight the main characteristics of the publishing project; classification – to assign the project to different groups; structuring – to divide the project into separate hierarchical components; critical path – to plan its tasks; budgeting – to form its budget. The originality of the article lies in the detailed planning of the publishing project on foreign trade in goods between Ukraine and the EU countries, which is important in the context of Ukraine acquiring the status of a candidate for EU membership.

It was found that the project will involve labor resources – the author, reviewers, department, faculty academic council, university scientific council, university academic council, designer and publisher; material resources – 200 copies of the monograph; financial resources – author's salary, cover design costs, ISBN. The practical significance of the study lies in raising scientists' awareness of grant funding for scientific research and development. Its results can be used for planning the time, content, and budget of similar scientific and publishing projects; as well as when teaching subjects related to project management. Beyond its technical contribution, this study conceptualizes project planning as a form of temporal coordination within knowledge production systems. It argues that the ability to manage time, resources, and institutional processes is a key determinant of research outcomes and national research capacity.

Keywords: publishing project, project resource planning, labor resources, financial resources, material resources, Microsoft Project

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1. Introduction.

The development of the scientific sphere in any country in the world inevitably leads to the emergence of innovations, that is, the introduction of new ideas, knowledge, theories, methods and technologies into practice. And this, in turn, affects the emergence of new goods and services, GDP growth, increasing the competitiveness of companies in particular and the country as a whole, the development of the national economy and the inflow of currency, if the

developments find their buyers abroad. Therefore, governments of states must allocate significant funds, including grants, to finance scientific research and development for their further implementation in the practical activities of enterprises, institutions, organizations in various spheres of economic activity.

If we take into account Ukraine, here during 2010–2024 there was a significant reduction in the number of personnel involved in the implementation of scientific research and development. This is shown in **Fig. 1**.

As can be seen from **Fig. 1**, during the analyzed period, the number of researchers decreased by 3.1 times, technicians by 3.9 times, and support staff by 1.8 times. The main reasons for this phenomenon are low wages, depreciation of fixed assets, as well as the emigration of scientists abroad and martial law in the country. For researchers, the dynamics of indicators was decreasing in all years except 2020, 2023 and 2024; for technicians – annually, except 2024; for support staff – in all years except 2016–2017, 2023–2024.

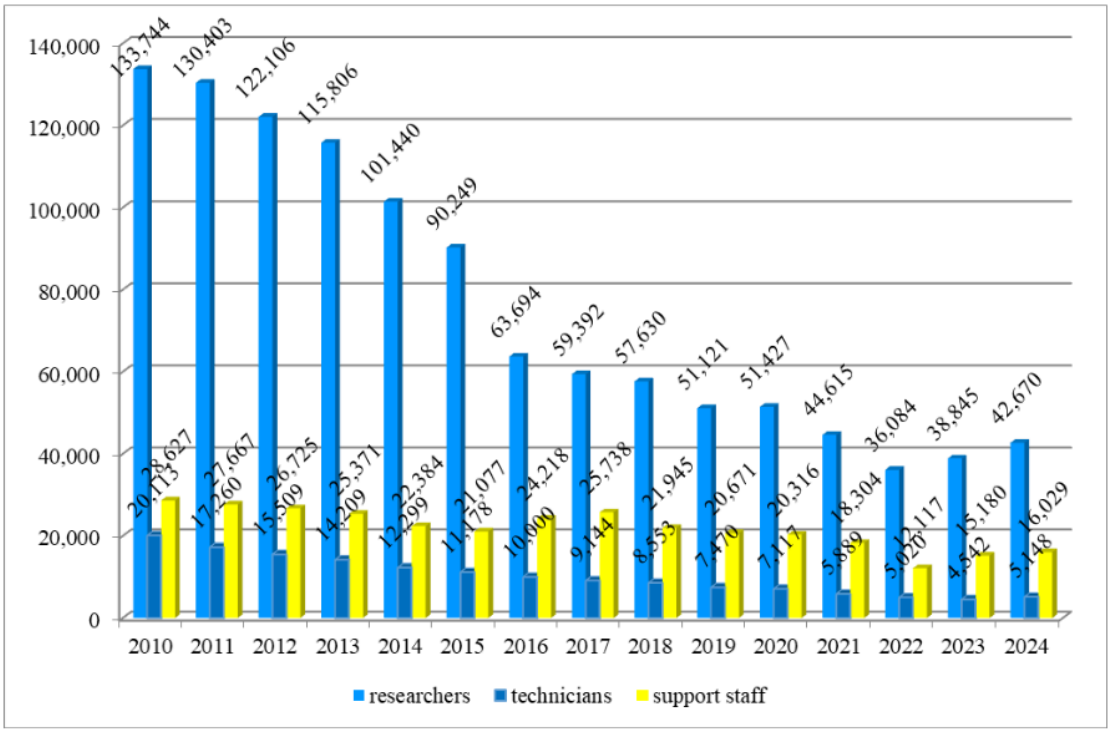

Figure 1. Number of employees involved in scientific research and development, people

Note. Compiled by the author based on statistical data (State Statistics Service of Ukraine, 2026a).

In turn, the share of spending on scientific research and development in Ukraine's GDP in recent years has been low:

2021 – 0.38%;

2022 – 0.33%;

2023 – 0.32%;

2024 – 0.37% (State Statistics Service of Ukraine, 2026b).

Note that scientists can publish the results of scientific research and development in various ways. They are shown in **Fig. 2**.

Publication of scientific research and development results
1. Publication of scientific articles in domestic and foreign journals
2. Publication of reports in the materials of national and international conferences
3. Publication of monographs
4. Publication of dictionaries, reference books, encyclopedias
5. Popular science publications (booklets, brochures, prospectuses, etc.)
6. Speeches at conferences and other communication events
7. Participation in exhibition events
8. Registration of protection documents for objects of intellectual property rights

Figure 2. Forms of publication of the results of scientific research and development

Note. Created by the author.

In this list, one of the most labor-intensive forms is the publication of monographs. After all, publishing books is a rather expensive business, which is preceded by a long writing period. In addition, their sale, and, accordingly, the receipt of profit, can be delayed in time. Therefore,

authors need to consider various options for publishing their works. One of the alternative ways to finance the publishing of books, in particular scientific monographs, is grant funds. Receiving a grant can cover not only printing costs, but also the salary of a scientific and pedagogical worker (hereinafter referred to as a SPW) planning to publish a book, and thus will be an additional incentive for him to conduct scientific research.

For example, the National Research Foundation of Ukraine holds the following scientific competitions:

- for receiving grants from the President of Ukraine to support scientific research and development of young scientists-doctors of sciences (up to 40 years old inclusive);

- for receiving grants from the President of Ukraine to support scientific research and development of young scientists-doctoral students (up to 35 years old inclusive);

- to receive grants from the President of Ukraine to support scientific research and development of young scientists – Doctors of Philosophy/Candidates of Sciences (up to 35 years old inclusive);

- to receive annual grants from the President of Ukraine to Doctors of Sciences (up to 45 years old inclusive) for conducting scientific research and development.

At the same time, starting in 2026, winners can receive from 300 to 700 thousand UAH to conduct their own research.

The topics of the applications submitted for the competition must correspond to one of the priority areas of science and technology development for the period until the termination or abolition of martial law in Ukraine, namely:

1) national security and defense;

2) fundamental scientific research on the most important problems of developing scientific and technical, socio-economic, socio-political, human potential to ensure the competitiveness of Ukraine in the world and the sustainable development of society and the state;

3) information and communication technologies;

4) energy and energy efficiency;

5) rational use of nature;

6) life sciences, new technologies for the prevention and treatment of the most common diseases;

7) new substances and materials (Verkhovna Rada of Ukraine, 2024).

Thus, the state implements a scientific and technological policy, stimulating scientific research and development in those areas that are important for its security, sustainable and innovative development.

Within the framework of the implementation of the grants of the President of Ukraine, expenses include only wages and accruals for them (the Unified social contribution rate is 22% of wages). In addition, personal income tax (18%) and military duty (5%) must be paid from the amount of earnings. However, winners, at their discretion, may direct part of the received salary to the publication of the obtained results in the form of monographs, scientific articles or conference abstracts. Since the implementation of the grants of the President of Ukraine must take place within eight months (from April to November inclusive), and improper fulfillment of the terms of the contract is grounds for its termination and the return of budget funds to the National Research Foundation of Ukraine in full, planning work on the monograph and its

publication requires considerable attention from the author. The use of various programs, in particular Microsoft Project or ProjectLibre, can provide great help in optimizing time and resource planning.

This study extends beyond a technical exercise in project planning by addressing a broader issue in political economy: the organization of knowledge production under institutional and temporal constraints. In many emerging and resource-constrained research environments, scientific output is shaped not only by intellectual capacity but also by the ability to coordinate time, funding, and labor. From this perspective, project planning becomes a structural mechanism that directly influences research productivity, knowledge quality, and the capacity of national research systems.

This study makes three main contributions. First, it provides a structured model for planning scientific publishing projects under constrained time and funding conditions. Second, it extends project planning into the domain of knowledge production by linking resource coordination with research system performance. Third, it offers practical insights for improving the efficiency of grant-based research and publishing activities.

Research Questions. The research will answer the following questions:

1) what is the optimal duration of a publishing project within the framework of the grant of the President of Ukraine;

2) what labor resources are needed for its implementation;

3) what will be the material result of the project;

4) what are the costs foreseen for the project;

5) what are the possible further directions of using the obtained results?

In addition to the operational questions, this study also explores the following analytical questions:

6) what do project-based planning models reveal about structural constraints in knowledge production systems;

7) how do temporal and resource limitations shape coordination processes and research outcomes?

2. Literature Review.

In recent years, the academic literature has produced a number of publications on various aspects of publishing projects. In particular, we would like to positively note the following:

on book preparation – Jalongo (2025) identified criteria for a high-quality edited book project and outlined the phases of book chapter development from self-assessment to completion of the production process; Jalongo et al. (2025) formulated recommendations for developing and writing book chapters; Saiya (2022) provided specific advice for novice authors planning to publish a scholarly book in a university press, from proposal writing to production. In our opinion, these scholarly works should be used by authors when planning to write books;

on publishing planning – Kasianchuk et al. (2023) examined how publishers plan their business operations in the crisis of a pandemic and a full-scale invasion; Sari (2025) described the transformation of publishers' product and program strategies under the influence of institutional and celebrity-led book clubs. These scientific works are more intended for publishing workers who are forced to work in crisis conditions or change their own strategy and want to adopt the experience of other companies;

on the application of information technologies – Gudinavičius and Markelevičiūtė (2020) investigated the use of augmented reality technology in Lithuanian book publishing in

the market of small-language books; Kudriashova and Ternovyi (2024) designed an information system for authentication and access control to publishing and printing facilities; Kulishova and Sajek (2025) studied the possibility of improving editorial and publishing processes during the development of book covers using machine learning and generative artificial intelligence methods; Limbert and DeSanto (2025) considered the Open Book Environment (OBE) dashboard as an innovative tool that helps authors make informed decisions about the publication of their works; Ryan et al. (2023) investigated a blockchain publishing model that creates value for micropublishers; Senkivskyi et al. (2021) examined the information technologies used by online publishers throughout the entire process of their activities (tools for working with text, graphics, layout, and tools for implementing business processes). These publications have a more technical focus and allow readers to improve their awareness of modern innovative technologies in book publishing;

on financial issues – Amaral and Furnival (2023) identified business models and funding sources used by university publishers in Brazil to finance the publication of academic and scientific e-books in open access. These models can be borrowed by university presses in other countries, adapting them to the specific operating conditions.

As we can see, most of the aforementioned scientific publications either provide advice on writing books or describe the use of various modern information technologies in the production processes of book publishing. In contrast, the purpose of this article is to plan labor, financial, material resources and optimize the time of the project of publishing a monograph on foreign trade in goods between Ukraine and the EU countries using the Microsoft Project program within the framework of a grant from the President of Ukraine. Such a topic of the monograph corresponds to the second priority area of development of science and technology

in Ukraine – fundamental scientific research on the most important problems of development of scientific and technical, socio-economic, socio-political, human potential to ensure the competitiveness of Ukraine in the world and the sustainable development of society and the state. It is important in the context of Ukraine's acquisition of candidate status for EU membership.

3. Methodology.

This study adopts a qualitative, simulation-based approach to project planning and resource optimization. The following methods will be used to conduct the study:

1) parameterization – to highlight the main characteristics of a publishing project;

2) classification – to assign the project to different groups according to 11 essential features;

3) structuring – to divide the project into separate hierarchical components;

4) critical path (CPM) – for planning the tasks of a publishing project;

5) budgeting – for forming its budget.

Note that CPM consists in establishing cause-and-effect relationships between the work being performed, allows you to calculate possible calendar schedules for their implementation and provides a grid plan for the implementation of the work (Dovhan et al., 2017). Using this method will help identify critical project tasks, the delay of which will lead to an increase in the project duration. Therefore, their implementation should be under the close attention of the author of the monograph.

Budgeting, in our case, is the planning of the costs necessary for the implementation of the publishing project. Using this method will allow you to distribute the project's financial resources between individual tasks for their subsequent control.

The planning of the publishing project will be carried out using Microsoft Project, although the free software ProjectLibre can be used as an alternative.

It should be noted that this study adopts a simulation-based analytical approach rather than empirical observation. The model is constructed using assumed parameters to illustrate structural relationships between time, cost, and resource allocation. Therefore, the findings should be interpreted as analytical insights rather than predictive outcomes. Future research may extend this framework through empirical validation, comparative case studies, or sensitivity analysis.

A limitation of this study is that it is based on assumed parameters and does not include empirical validation.

4. Results.

Initial parameters for planning labor, financial, material resources and optimizing time for a monograph publishing project: let the SPW receive a grant from the President of Ukraine to conduct scientific research, within the framework of which it plans to spend part of the funds (up to 150 thousand UAH) on the preparation and printing of a monograph. He will write the book himself, but other SPWs will be involved for its review and recommendations, and a designer and a publishing house will be involved for the cover design and printing.

Characteristic features of a publishing project:

goal – writing and printing a monograph on foreign trade in goods between Ukraine and the EU countries;

hierarchical goals – preparatory (data collection), main (writing a monograph) and final stage (recommendation and printing a book);

coordinated implementation of tasks – writing and printing a monograph should take place in accordance with the calendar plan for performing scientific research within the framework of the received grant; all tasks are interconnected, and some are performed sequentially, some in parallel;

time frame – eight months (from 01.04.2026 to 30.11.2026);

budget – costs for the publishing project should not exceed 150 thousand UAH;

uniqueness – the monograph will consist of 27 sections – one for each EU country with which Ukraine trades goods; in each of them, analysis, trend extrapolation method, and fuzzy set theory will be used to study the data.

Further, this project will be classified according to various classification criteria as follows:

1) by scale – small;

2) by duration – short-term;

3) by industry affiliation – scientific;

4) by functional direction – research and development;

5) by the nature of the parties involved – local;

6) by the degree of complexity – complex (since the author must prepare a one-man monograph with a large number of sections in a short time);

7) by the composition and structure of the organizations involved – multifunctional;

8) by the requirements for the quality of the project – standard;

9) by the degree of obligation – mandatory;

10) by the degree of connection – independent;

11) by the number of participants – group (author – SPW, publishing house, etc.).

The project will use a standard calendar: working days – from Monday to Friday; working hours – from 9.00 to 13.00, from 14.00 to 18.00.

We will begin resource planning for a scientific monograph publishing project using Microsoft Project by forming its tasks. **Tables 1–3** show for each project task the sequence number, its number in the work breakdown structure (WBS), financial costs for implementation, duration, start and end dates, predecessor task number, and names of resources involved.

Table 1 shows the preparatory stage of the project. It will last one day, since it is assumed that the author selected data on Ukraine's foreign trade in goods with EU countries for analysis and forecasting when applying for the grant, and may also continue this work in parallel with writing the sections of the monograph.

Table 1

Publishing project tasks (preparatory stage)

Task number	WBS	Task name	Costs, UAH	Duration, days	Start	End	Predecessors	Resource names
1	**0**	**Publishing project**	**139,750.00**	**160**	**Wed 01.04.26**	**Tue 10.11.26**		
2	1.1	Project start	0.00	0	Wed 01.04.26	Wed 01.04.26		
3	**1.2**	**Preparatory stage**	**800.00**	**1**	**Wed 01.04.26**	**Wed 01.04.26**		
4	1.2.1	Beginning of the preparatory stage	0.00	0	Wed 01.04.26	Wed 01.04.26	2	
5	1.2.2	Data collection for analysis and forecasting	800.00	1	Wed 01.04.26	Wed 01.04.26	4	SPW [50%]

Task number	WBS	Task name	Costs, UAH	Duration, days	Start	End	Predecessors	Resource names
6	1.2.3	End of the preparatory stage	0.00	0	Wed 01.04.26	Wed 01.04.26	5	

Note. Formed by the author.

Since, in addition to writing a monograph, the SPW must also be engaged in educational, methodological, scientific and organizational work at the university, it is assumed that half of his working time (four out of eight hours of a working day) will be spent on the project. This is reflected in the last column of **Table 1**.

Table 2 shows the main stage of the project. It requires the greatest time, since it will last 137 days. During this period, the author must write the introduction and conclusions of the monograph, as well as 27 subsections. It is assumed that writing the introduction and conclusions of the book will take one day, and the subsections – five days each. To complete this stage, like the previous one, only the author of the monograph will be involved. All tasks will be performed sequentially.

Table 2

Publishing project tasks (main stage)

Task number	WBS	Task name	Costs, UAH	Duration, days	Start	End	Predecessors	Resource names
7	**1.3**	**Main stage**	**109,600.00**	**137**	**Wed 01.04.26**	**Fri 09.10.26**		
8	1.3.1	Start of the main stage	0.00	0	Wed 01.04.26	Wed 01.04.26	6	
9	1.3.2	Preparing the introduction to the monograph	800.00	1	Thu 02.04.26	Thu 02.04.26	8	SPW [50%]
10	1.3.3	Analysis and forecasting of Ukraine's foreign trade in goods with Austria	4,000.00	5	Fri 03.04.26	Thu 09.04.26	9	SPW [50%]

Task number	WBS	Task name	Costs, UAH	Duration, days	Start	End	Predecessors	Resource names
11	1.3.4	Analysis and forecasting of Ukraine's foreign trade in goods with Belgium	4,000.00	5	Fri 10.04.26	Thu 16.04.26	10	SPW [50%]
12	1.3.5	Analysis and forecasting of Ukraine's foreign trade in goods with Bulgaria	4,000.00	5	Fri 17.04.26	Thu 23.04.26	11	SPW [50%]
13	1.3.6	Analysis and forecasting of Ukraine's foreign trade in goods with Greece	4,000.00	5	Fri 24.04.26	Thu 30.04.26	12	SPW [50%]
14	1.3.7	Analysis and forecasting of Ukraine's foreign trade in goods with Denmark	4,000.00	5	Fri 01.05.26	Thu 07.05.26	13	SPW [50%]
15	1.3.8	Analysis and forecasting of Ukraine's foreign trade in goods with Estonia	4,000.00	5	Fri 08.05.26	Thu 14.05.26	14	SPW [50%]
16	1.3.9	Analysis and forecasting of Ukraine's foreign trade in goods with Ireland	4,000.00	5	Fri 15.05.26	Thu 21.05.26	15	SPW [50%]
17	1.3.10	Analysis and forecasting of Ukraine's foreign trade in goods with Spain	4,000.00	5	Fri 22.05.26	Thu 28.05.26	16	SPW [50%]
18	1.3.11	Analysis and forecasting of Ukraine's foreign trade in goods with Italy	4,000.00	5	Fri 29.05.26	Thu 04.06.26	17	SPW [50%]
19	1.3.12	Analysis and forecasting of Ukraine's foreign trade in goods with Cyprus	4,000.00	5	Fri 05.06.26	Thu 11.06.26	18	SPW [50%]
20	1.3.13	Analysis and forecasting of Ukraine's foreign trade in goods with Latvia	4,000.00	5	Fri 12.06.26	Thu 18.06.26	19	SPW [50%]
21	1.3.14	Analysis and forecasting of Ukraine's foreign trade in goods with Lithuania	4,000.00	5	Fri 19.06.26	Thu 25.06.26	20	SPW [50%]
22	1.3.15	Analysis and forecasting of Ukraine's foreign trade in goods with Luxembourg	4,000.00	5	Fri 26.06.26	Thu 02.07.26	21	SPW [50%]
23	1.3.16	Analysis and forecasting of Ukraine's foreign trade in goods with Malta	4,000.00	5	Fri 03.07.26	Thu 09.07.26	22	SPW [50%]
24	1.3.17	Analysis and forecasting of Ukraine's foreign trade in goods with the Netherlands	4,000.00	5	Fri 10.07.26	Thu 16.07.26	23	SPW [50%]

Task number	WBS	Task name	Costs, UAH	Duration, days	Start	End	Predecessors	Resource names
25	1.3.18	Analysis and forecasting of Ukraine's foreign trade in goods with Germany	4,000.00	5	Fri 17.07.26	Thu 23.07.26	24	SPW [50%]
26	1.3.19	Analysis and forecasting of Ukraine's foreign trade in goods with Poland	4,000.00	5	Fri 24.07.26	Thu 30.07.26	25	SPW [50%]
27	1.3.20	Analysis and forecasting of Ukraine's foreign trade in goods with Portugal	4,000.00	5	Fri 31.07.26	Thu 06.08.26	26	SPW [50%]
28	1.3.21	Analysis and forecasting of Ukraine's foreign trade in goods with Romania	4,000.00	5	Fri 07.08.26	Thu 13.08.26	27	SPW [50%]
29	1.3.22	Analysis and forecasting of Ukraine's foreign trade in goods with Slovakia	4,000.00	5	Fri 14.08.26	Thu 20.08.26	28	SPW [50%]
30	1.3.23	Analysis and forecasting of Ukraine's foreign trade in goods with Slovenia	4,000.00	5	Fri 21.08.26	Thu 27.08.26	29	SPW [50%]
31	1.3.24	Analysis and forecasting of Ukraine's foreign trade in goods with Hungary	4,000.00	5	Fri 28.08.26	Thu 03.09.26	30	SPW [50%]
32	1.3.25	Analysis and forecasting of Ukraine's foreign trade in goods with Finland	4,000.00	5	Fri 04.09.26	Thu 10.09.26	31	SPW [50%]
33	1.3.26	Analysis and forecasting of Ukraine's foreign trade in goods with France	4,000.00	5	Fri 11.09.26	Thu 17.09.26	32	SPW [50%]
34	1.3.27	Analysis and forecasting of Ukraine's foreign trade in goods with Croatia	4,000.00	5	Fri 18.09.26	Thu 24.09.26	33	SPW [50%]
35	1.3.28	Analysis and forecasting of Ukraine's foreign trade in goods with Czech Republic	4,000.00	5	Fri 25.09.26	Thu 01.10.26	34	SPW [50%]
36	1.3.29	Analysis and forecasting of Ukraine's foreign trade in goods with Sweden	4,000.00	5	Fri 02.10.26	Thu 08.10.26	35	SPW [50%]
37	1.3.30	Preparation of monograph conclusions	800.00	1	Fri 09.10.26	Fri 09.10.26	36	SPW [50%]
38	1.3.31	End of the main stage	0.00	0	Fri 09.10.26	Fri 09.10.26	37	

Note. Formed by the author.

It should be noted that some tasks of this stage have time limits for completion, since it is assumed that the author must prepare four sections of the monograph per month:

13 Analysis and forecasting of Ukraine's foreign trade in goods with Greece – no later than 30.04.2026;

17 Analysis and forecasting of Ukraine's foreign trade in goods with Spain – no later than 31.05.2026;

21 Analysis and forecasting of Ukraine's foreign trade in goods with Lithuania – no later than 30.06.2026;

25 Analysis and forecasting of Ukraine's foreign trade in goods with Germany – no later than 31.07.2026;

29 Analysis and forecasting of Ukraine's foreign trade in goods with Slovakia – no later than 31.08.2026;

33 Analysis and forecasting of Ukraine's foreign trade in goods with France – no later than 30.09.2026;

37 Preparation of monograph conclusions – no later than 31.10.2026.

Table 3 shows the final stage of the project, which will last 22 days. For its implementation, in addition to the SPW, other participants will be involved: reviewers, chair, faculty academic council, university scientific council, university academic council, designer, publishing house. They will also allocate only part of their working time to participate in this project. Note that some tasks of the final stage will be performed in parallel, since different participants are involved in their implementation. Namely:

1) checking the monograph for plagiarism by the author; preparing reviews for the monograph by reviewers;

2) monograph cover design by the designer; assigning an ISBN to the monograph by the publishing house.

Table 3

Publishing project tasks (final stage)

Task number	WBS	Task name	Costs, UAH	Duration, days	Start	End	Predecessors	Resource names
39	**1.4**	**Final stage**	**29,350.00**	**22**	**Fri 09.10.26**	**Tue 10.11.26**		
40	1.4.1	Beginning of the final stage	0.00	0	Fri 09.10.26	Fri 09.10.26	38	
41	1.4.2	Checking the monograph for plagiarism	800.00	1	Mon 12.10.26	Mon 12.10.26	40	SPW [50%]
42	1.4.3	Preparing reviews for the monograph	0.00	3	Mon 12.10.26	Wed 14.10.26	40	Reviewers [50%]
43	1.4.4	Recommendation of the monograph for publication at a chair meeting	0.00	1	Thu 15.10.26	Thu 15.10.26	41;42	Chair [50%]
44	1.4.5	Recommendation of the monograph for publication by the faculty academic council	0.00	1	Fri 16.10.26	Fri 16.10.26	43	Faculty academic council [50%]
45	1.4.6	Recommendation of the monograph for publication by the university scientific council	0.00	1	Thu 22.10.26	Thu 22.10.26	44	University scientific council [50%]
46	1.4.7	Recommendation of the monograph for publication by the university academic council	0.00	1	Thu 29.10.26	Thu 29.10.26	45	University academic council [50%]

Task number	WBS	Task name	Costs, UAH	Duration, days	Start	End	Predecessors	Resource names
47	1.4.8	Monograph cover design	500.00	3	Fri 30.10.26	Tue 03.11.26	46	Designer [10%]; Cover design [500.00 UAH]
48	1.4.9	Assigning an ISBN to the monograph	450.00	1	Fri 30.10.26	Fri 30.10.26	46	Publishing house[5%]; ISBN [450.00 UAH]
49	1.4.10	Printing the monograph	27,600.00	5	Wed 04.11.26	Tue 10.11.26	47;48	Publishing house[50%]; Book [200 copies]
50	1.4.11	End of the final stage	0.00	0	Tue 10.11.26	Tue 10.11.26	49	
51	1.5	Project completion	0.00	0	Tue 10.11.26	Tue 10.11.26	50	

Note. Formed by the author.

Beyond its technical outputs, the model reveals an underlying structural constraint in knowledge production: the compression of complex intellectual work into fixed and often limited temporal frameworks. The requirement to complete a scientific monograph within a defined project period highlights the tension between research depth and administrative time constraints, suggesting that temporal coordination is a key determinant of research outcomes.

It should be noted that some tasks of this stage have start time restrictions, since it is planned that the meeting of the university scientific council will take place on the penultimate Thursday of the month, and the meeting of the university academic council will take place on the last Thursday of the month; they must be preceded by meetings of the chair and the faculty academic council:

43 Recommendation of the monograph for publication at a chair meeting – no earlier than 07.10.2026;

44 Recommendation of the monograph for publication by the faculty academic council – no earlier than 14.10.2026;

45 Recommendation of the monograph for publication by the university scientific council – no earlier than 22.10.2026;

46 Recommendation of the monograph for publication by the university academic council – no earlier than 29.10.2026.

All project resources are shown in **Table 4**. They are divided into three types: work, costs, material. It is assumed that all labor resources, as well as the SPW, will be involved in other work, so their participation in this project will be less than 100%.

Table 4

Resource sheet

Resource name	Type	Material unit of measure	Initials	Maxi-mum units	Normal rate	Accrual	Master calendar
SPW	Work		SPW	50%	200.00 UAH/hour	Proportional	Standard
Reviewers	Work		R	50%	0.00 UAH/hour	Proportional	Standard
Chair	Work		C	50%	0.00 UAH/hour	Proportional	Standard
Faculty academic council	Work		FAC	50%	0.00 UAH/hour	Proportional	Standard
University scientific council	Work		USC	50%	0.00 UAH/hour	Proportional	Standard
University academic council	Work		UAC	50%	0.00 UAH/hour	Proportional	Standard
Designer	Work		D	10%	0.00 UAH/hour	Proportional	Standard
Publishing house	Work		PH	50%	0.00 UAH/hour	Proportional	Standard
Cover design	Costs		CD			Proportional	
ISBN	Costs		ISBN			Proportional	
Book	Material	copies	B		138.00 UAH	Proportional	

Note. Formed by the author.

The project Gantt chart is shown in **Fig. 3a–3b**.

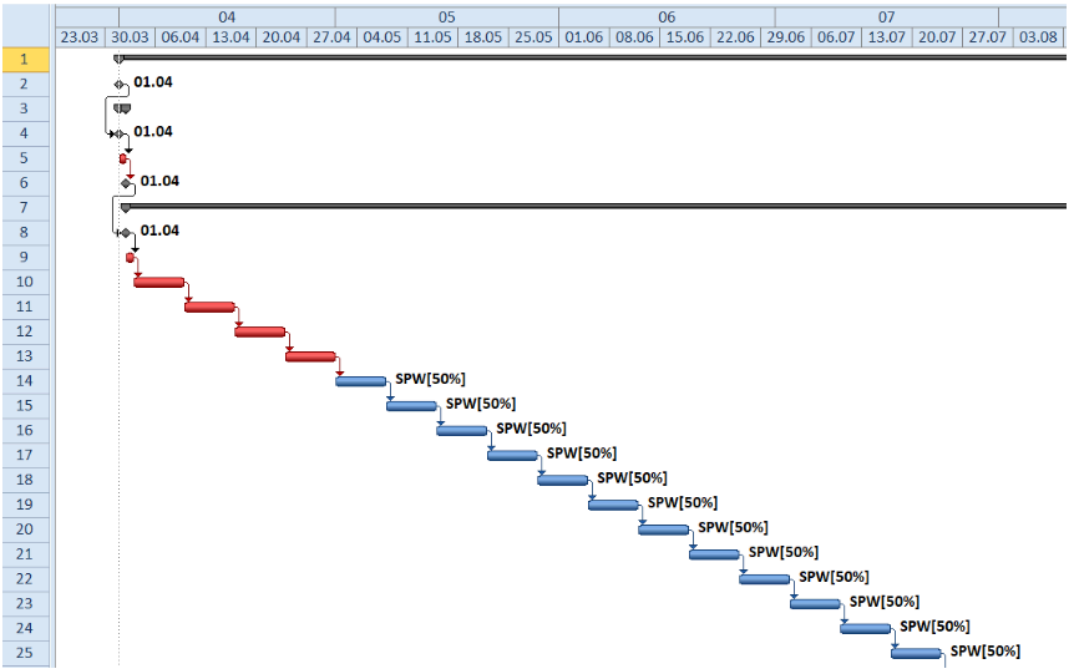

Figure 3a. Gantt chart of a publishing project *(*tasks 1–25*)*

Note. Created by the author based on **Tables 1–2**.

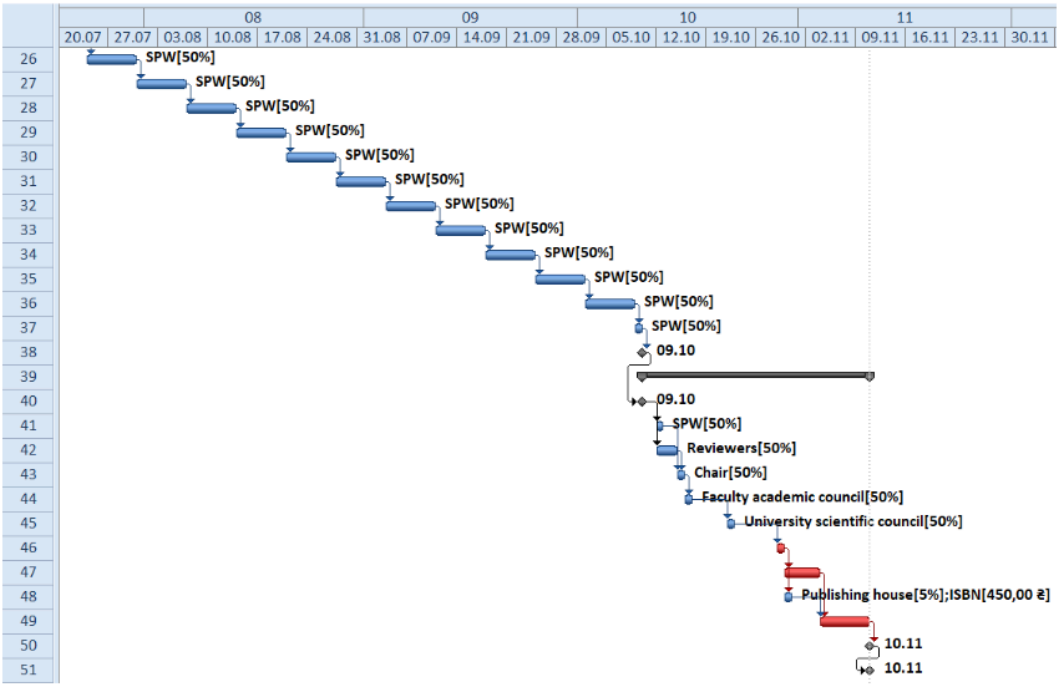

Figure 3b. Gantt chart of a publishing project *(*tasks 26–51*)*

Note. Created by the author based on **Tables 2–3**.

These figures show in red the critical tasks whose delay will increase the project duration. In our case, these are tasks numbered 5, 9–13, 46–47, and 49.

5. Discussion.

Please note that the financial costs of the project are approximate, since the amount of grant funds for various competitions for conducting scientific research and development may differ, as well as change over time. In addition, this project does not take into account taxes related to the author's remuneration, namely accruals and deductions from wages:

- Single social contribution (22%);
- personal income tax (18%);
- military levy (5%).

However, we believe that this project can be used as a basis for other publishing projects, in particular monographs prepared based on the results of fundamental or applied research. Thus, they will contribute to the dissemination of new knowledge, the implementation of scientific developments in business practice, and the growth of the country's economy's innovativeness.

For example, similar constraints can be observed in grant-based research systems in Eastern Europe, where short funding cycles require researchers to compress complex projects into limited timeframes. In such cases, delays in institutional approval or publishing processes often affect the quality and dissemination of research outputs, reinforcing the importance of structured project planning.

The findings suggest that project planning is not merely a technical or managerial activity, but a structural component of knowledge production systems. In contexts where

research is tied to short-term funding cycles, scholars are required to align complex intellectual processes with externally imposed timelines. This may lead to standardization of outputs, reduced analytical depth, and constraints on innovation. Thus, temporal coordination becomes a critical factor shaping not only project execution but also the quality and scope of scientific work.

From a broader perspective, the organization of knowledge production has direct implications for national research capacity and long-term development. Efficient coordination of research projects contributes to scientific output, institutional performance, and innovation systems. Therefore, improving project planning frameworks is not only a managerial concern but also a matter of strategic importance for national development and policy design.

6. Conclusions.

Planning the publication of a monograph on foreign trade in goods between Ukraine and the EU countries using the Microsoft Project program within the framework of a grant from the President of Ukraine allowed us to obtain the following results:

1) project duration – from 01.04.2026 to 10.11.2026 (the time saved until the end of November can be used to present the monograph, write a report on the results of the grant implementation);

2) labor resources involved – author (with a salary of 200 UAH/hour); monograph reviewers (employees of other universities or scientific institutions); chair where the SPW works; academic council of the faculty to which the department belongs; scientific council of the university where the scientific research is being carried out; academic council of the same university; designer and publisher house;

3) the project involves the publication of 200 copies of the scientific monograph;

4) the project includes costs for cover design (500 UAH), assigning an ISBN to the monograph (450 UAH).

In total, the project budget will be 139,750.00 UAH, and the remaining funds in the amount of 10,250 UAH (provided that the amount of funds allocated for the preparation and printing of the monograph is up to 150 thousand UAH) can be used by the author to publish other scientific works related to the research topic, in particular scientific articles or conference abstracts.

Further directions for using the obtained results:

1) check whether the actual resource costs corresponded to the planned ones;

2) study the factors that influenced their change (if there were such deviations).

The practical significance of the study lies in raising scientists' awareness of grant funding for scientific research and development. The participation of researchers in grant projects will contribute to their creation of new knowledge, its implementation in the activities of economic entities, increasing the competitiveness of enterprises, and sustainable development of the country.

In addition, its results can be used in scientific and publishing activities – for planning the time, content and budget of similar projects. In particular, these can be individual or collective monographs with the results of scientific research in various fields of knowledge, carried out in scientific institutions or higher education institutions, financed by the National Research Foundation of Ukraine, the Ministry of Education and Science of Ukraine or another grant-giving institution. In this case, changes should be made to the project in terms of the

structure of the work (content of the book), time, labor and material resources, budget. It can also be used in educational activities – when teaching disciplines related to project management.

This study highlights that knowledge production is shaped by the interaction between time, resources, and institutional coordination. By conceptualizing project planning as a form of temporal governance, the analysis contributes to a broader understanding of how research systems operate under constraints. Future studies may build on this framework to examine comparative cases, institutional variation, and the role of digital tools in enhancing coordination efficiency.

More broadly, this study suggests that research systems should be understood not only in terms of funding and output, but also in terms of their temporal organization. The ability to coordinate time across multiple processes may become a defining feature of effective knowledge production systems in the future.

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Declaration of Interest

The author declares no competing interests.

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Use of Generative AI

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Linguo-Psychological Dimension of Manipulative Strategies in the Modern Media Space

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Abstract

This article examines the linguo-psychological mechanisms underlying manipulative strategies in contemporary media space. It argues that media manipulation functions as a systemic process of psychological programming in which linguistic structures, emotional triggers, and cognitive biases interact to shape mass perception. Drawing on an interdisciplinary framework that integrates psycholinguistics, cognitive psychology, and media discourse analysis, the study identifies key

linguistic tools, including evaluative vocabulary, metaphors, euphemisms, framing, and suggestiveness, as central mechanisms of influence.

The analysis further demonstrates that the effectiveness of manipulation depends on the activation of emotional responses that bypass rational evaluation, particularly in digitally mediated environments. In social networks, these processes are intensified through algorithmic amplification and the integration of visual and verbal elements, forming self-reinforcing "information bubbles." Special attention is given to the role of Information and Psychological Operations (PsyOps) in hybrid contexts, where language is systematically employed to influence perception and reshape cognitive models of reality.

The study proposes a multi-level analytical framework that conceptualizes manipulation as the interaction between linguistic, psychological, and digital processes. It contributes to existing research by systematizing these mechanisms and highlighting their relevance for media literacy and psychological security. The findings suggest that strengthening psycholinguistic awareness and critical thinking is essential for counteracting manipulative influence in contemporary information environments.

Keywords: Media Manipulation; Psycholinguistics; Cognitive Bias; Hybrid Warfare; Media Discourse; Information Security

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1. Formulation of the Problem

In the contemporary digital environment, characterized by intensified information flows and the rapid expansion of digital platforms, the media space has evolved into a complex system of psychological influence. Media communication no longer functions merely as a channel of information transmission but increasingly operates as a mechanism for shaping mass consciousness through manipulative strategies.

These strategies are grounded in the interaction between linguistic structures and psychological mechanisms, enabling the transformation of perceptions and cognitive models of reality. However, existing approaches to media analysis often fail to adequately integrate the linguo-psychological dimension necessary to decode such hidden influences.

A key challenge lies in the systemic nature of media manipulation. Rather than relying on isolated techniques, manipulation operates by exploiting cognitive vulnerabilities through carefully structured linguistic messages. Elements such as evaluative vocabulary, metaphors, and suggestiveness activate emotional responses and cognitive biases that bypass rational evaluation, thereby influencing interpretation at a subconscious level. Despite extensive research in linguistics, cognitive psychology, and communication studies, these processes are often examined separately, obscuring their combined effect as mechanisms of psychological programming.

This problem becomes particularly acute in the context of hybrid warfare and socio-political crises, where media space functions as a strategic battlefield. In such environments, specific terminology, symbolic markers, and emotionally intensified narratives are employed to

demoralize opponents, mobilize audiences, and construct polarized representations of reality. These dynamics are closely linked to Information and Psychological Operations (PsyOps), which extend beyond traditional misinformation by systematically shaping perception through coordinated linguistic and emotional cues.

Another critical issue concerns the limited development of psycholinguistic literacy. While general media literacy initiatives exist, they rarely address the complex mechanisms of suggestion embedded in language, including strategies such as the "mask of positivity" and other forms of covert persuasion. This gap is particularly significant in digital environments, where verbal and non-verbal elements interact to reinforce manipulative effects and complicate critical evaluation.

Furthermore, methodological limitations persist in identifying and counteracting manipulative influence. Conventional analytical approaches often fail to capture the transition from objective information to covert psychological pressure, in which recipients internalize imposed interpretations as their own judgments. The absence of an integrated interdisciplinary framework that connects linguistic markers with psychological processes weakens efforts to ensure informational and psychological security.

In response to these challenges, this study adopts an interdisciplinary perspective that conceptualizes manipulative strategies as interconnected linguo-psychological processes. It argues that understanding the interaction between language, cognition, and emotional response is essential for developing effective strategies of critical thinking and resilience in contemporary media environments.

This study makes several contributions to the existing literature. First, it systematizes linguo-psychological mechanisms of media manipulation by integrating linguistic, cognitive, and pragmatic perspectives into a unified analytical framework. Second, it conceptualizes manipulation as a systemic process of psychological programming, emphasizing the dynamic interaction between language structures and cognitive processes. Third, it contributes to interdisciplinary dialogue by linking psycholinguistics with media discourse analysis and information security studies. Finally, it provides practical implications for enhancing media literacy and psychological resilience through the identification of key markers of manipulative influence.

The purpose of this article is to systematize and theoretically examine the linguo-psychological mechanisms underlying manipulative strategies in the modern media space. By synthesizing interdisciplinary research, the study aims to identify how linguistic and psychological factors interact to shape emotional and cognitive responses, and to demonstrate how psycholinguistic literacy can serve as a critical tool for counteracting manipulation and ensuring informational stability.

2. Analysis of Recent Research and Publications

Recent research into manipulative strategies and linguo-psychological influence in the media space reveals an increasing focus on the mechanisms that allow for the hidden transformation of mass consciousness. Ivashchenko and Hryshyn (2024) argue that manipulation in social media is not a random occurrence but a systemic component of communicative strategies involving attention management and the strategic repetition of messages. Their findings emphasize that the digital

environment significantly amplifies the psychological effect of manipulation due to its interactive nature and high speed of information dissemination.

Several studies highlight the importance of linguistic resources as tools for psychological programming. Kyryliuk (2020) demonstrates how linguistic mechanisms of manipulation become critical during information warfare, aimed at altering cognitive models of reality. Similarly, Korol and Voloshchuk (2020) examine the German-language media discourse, noting that the use of euphemisms and specific metaphors serves to either "blur" negative information or hyperbolize events to achieve a desired emotional effect.

The psychological community has also increasingly turned to the idea of suggestiveness and emotional triggers as key factors in manipulative effectiveness. Levko (2020) explores these aspects within Ukrainian religious media discourse, showing how the use of precedent units—such as well-known quotes or sacred symbols—activates collective knowledge and emotional associations, thereby legitimizing manipulative ideas. This is complemented by the work of Kondruk (2019), who identifies the "manipulative strategy of positivity," where a communicator uses excessive politeness and a "mask of benevolence" to bypass the rational filters of the recipient.

Empirical studies suggest that manipulative influence operates through both verbal and non-verbal channels. Pomazan and Ilina (2025) analyze the linguopragmatic symbiosis in social networks, where images and video serve as "psychological anchors" that fix a specific emotion while the text provides a distorted interpretation of facts. In the context of hybrid warfare, Lutsenko et al. (2025) and Telpis (2025) investigate the effects of Information and Psychological Operations

(PsyOps), noting that specific terminology and high emotional intensity are used to create "information bubbles" and demoralize the public.

Ukrainian studies also deepen the understanding of how to counteract these threats through educational frameworks. Krylova-Grek and Korniyaka (2023) emphasize the necessity of implementing a psycholinguistic component into media education to help citizens recognize complex models of suggestion. Furthermore, Hudzenko (2023) and Hudzenko et al.(2024) explores the role of emotional self-regulation and dialogue as natural barriers to strategies of hostility, suggesting that psycholinguistic literacy is essential for maintaining a critical distance from media triggers.

Together, these studies suggest that effective strategies for ensuring psychological security must integrate linguistic expertise, cognitive-pragmatic analysis, and media literacy. The literature supports the development of comprehensive programs that enable individuals to deconstruct manipulative meanings and resist suggestiveness in an increasingly polarized information environment.

3. Analytical Framework of Linguo-Psychological Manipulation

Based on an interdisciplinary synthesis, this study proposes a multi-level analytical framework for understanding manipulative strategies in media discourse. The framework conceptualizes manipulation as a coordinated interaction among three interrelated dimensions: linguistic structures, psychological mechanisms, and digital amplification processes.

At the linguistic level, manipulation operates through strategic lexical and stylistic choices, including evaluative vocabulary, metaphors, euphemisms, and syntactic constructions that shape interpretation. These elements function as carriers of implicit meaning, structuring the semantic field within which information is perceived. Pragmatic strategies such as framing and suggestiveness play a central role in directing attention and constraining alternative interpretations.

At the psychological level, these linguistic cues activate emotional responses and cognitive biases. Mechanisms such as the halo effect, emotional contagion, and associative priming reduce the recipient's capacity for critical evaluation. In this context, manipulation derives its effectiveness not from informational content alone but from its capacity to exploit pre-existing cognitive vulnerabilities and affective dispositions.

At the digital level, manipulative influence is amplified through algorithmic distribution, interactivity, and the integration of multimodal elements. Social media platforms intensify the reach and persistence of manipulative content by fostering selective exposure and reinforcing "echo chambers." Non-verbal components, including images, videos, and interface design features, function as psychological anchors that precondition emotional responses and stabilize interpretive bias.

The interaction among these three levels generates a self-reinforcing system in which linguistic signals trigger psychological reactions that are subsequently amplified and sustained within digital environments. This framework underscores that manipulation is not a linear phenomenon but a complex, multi-layered process requiring a holistic analytical perspective.

4. Methodological Approach

This study adopts a qualitative, discourse-analytical approach to examine the linguo-psychological mechanisms underlying manipulative strategies in contemporary media space. Rather than relying on quantitative measurement, the research emphasizes interpretive analysis of language structures, communicative patterns, and psychological triggers embedded in media discourse. The methodological framework integrates perspectives from psycholinguistics, cognitive psychology, and media studies to capture the multidimensional nature of manipulative influence.

The primary unit of analysis is the media text, broadly defined to include journalistic content, social media posts, and hybrid digital formats that combine verbal and non-verbal elements. The analysis focuses on identifying recurrent linguistic markers of manipulation, such as emotionally charged vocabulary, metaphorical constructions, euphemistic substitutions, and pragmatic strategies including framing, suggestiveness, and the use of precedent units. These features are examined in relation to their psychological effects, particularly their capacity to trigger affective responses, activate cognitive biases, and bypass rational evaluation.

In addition to linguistic analysis, the study incorporates a cognitive-pragmatic perspective that explores how meaning is constructed and internalized by the recipient. Particular attention is given to the relationship between emotional arousal and cognitive processing, as elevated emotional states are known to reduce critical reflection and increase susceptibility to manipulative influence. This approach enables the analysis to move beyond surface-level textual features toward a deeper understanding of language as an instrument of psychological programming.

The methodological design also involves the comparative synthesis of existing scholarly literature. By integrating findings across disciplines, the study identifies recurring patterns and systemic characteristics of manipulation that transcend specific contexts. This interdisciplinary approach allows for the development of a unified analytical framework.

It should be noted that this study does not rely on a fixed empirical dataset but instead employs illustrative examples and theoretical generalization to highlight structural mechanisms. Accordingly, the findings should be interpreted as conceptual insights rather than empirically generalizable conclusions. Future research may extend this framework through corpus-based analysis, experimental design, or case-based investigations of specific media environments.

5. Presenting Main Material

The structural transformation of the contemporary media landscape is analyzed by Hudzenko et al. (2024), who posit that communication channels have shifted from neutral information carriers to sophisticated instruments of psychological programming. Her research suggests that this process constitutes a systemic strategy aimed at the covert modification of social conduct and value systems. The effectiveness of such intervention, as detailed by Hudzenko et al.(2024), relies on the strategic exploitation of cognitive vulnerabilities through meticulously crafted linguistic messages where the intersection of terminology and emotional context dictates the outcome. They emphasize that when emotional arousal bypasses rational scrutiny, the recipient becomes susceptible to deeply embedded cognitive distortions. This phenomenon is further complicated by the fact that modern

media do not just transmit facts but construct a surrogate reality that serves specific ideological interests, effectively narrowing the audience's perceptive field. .

This framework of strategic pressure is further elaborated by Kyryliuk (2020), who investigates how the specific lexicon of information warfare serves as a primary vehicle for reconfiguring an individual's perception of reality. Her findings indicate that in hybrid conflict scenarios, language is weaponized to systematically deconstruct the opponent's consciousness, replacing objective knowledge with "markers of danger." In a complementary study, Korol and Voloshchuk (2020) evaluate the pragmatic functions of metaphors and euphemisms within German-language media, illustrating how these tools either obscure inconvenient truths or amplify specific events to trigger a calculated emotional response. These observations resonate with the conclusions of Nahorna (2023), who highlights that stylistically polarized vocabulary is essential for the artificial fabrication of "hero" and "enemy" archetypes within political narratives, thereby fostering deep social polarization.

The "manipulative strategy of positivity" is scrutinized by Kondruk (2019), who describes how communicators employ exaggerated benevolence to mask underlying pragmatic intentions. This approach capitalizes on the "halo effect," where the positive affect generated by the source's demeanor is reflexively attributed to the message itself, thereby neutralizing critical filters. Shchetinina et al. (2019) expand on this by demonstrating that such mechanisms effectively transmute the media consumer into a passive object of management by short-circuiting independent analytical processes through the imposition of ready-made semantic schemes.

Additionally, Hudzenko (2023) examine the paradox of professional "polite manipulation," noting that markers of benevolence can serve as a deceptive facade for strategies of social distancing and hostility, making them particularly difficult to challenge within conventional social norms. This subtle form of aggression exploits the recipient's desire for social approval, turning "politeness" into a barrier against critical questioning and rational debate.

Ideological and theological dimensions are addressed by Levko (2020), who illustrates how precedent units—ranging from iconic religious symbols to authoritative quotes—activate collective associations that grant immediate legitimacy to a manipulator's discourse. Her empirical data suggest that such communication is often internalized without skepticism due to its reliance on established spiritual authority, providing "pre-packaged" meanings that recipients adopt as their own. This is supported by Pavliv (2023), who identifies the linguopragmatic aspects of psychological pressure as a universal feature of human speech behavior across diverse discursive fields, including political, religious, and everyday communication.

The digital metamorphosis of these strategies is tracked by Ivashchenko and Hryshyn (2024) and Telpis (2025), who observe that social platforms intensify manipulative efficacy through high interactivity and the formation of "echo chambers". Telpis (2025) specifically highlights the mechanics of Psychological Operations (PsyOps), where digital content is engineered to bypass logical reasoning by inducing immediate, unreflective affective reactions through "shock-content" and rapid repetition. This is bolstered by Pomazan and Ilina (2025), who define a "linguopragmatic symbiosis" where non-verbal elements like video and imagery function as "psychological anchors,"

pre-setting the emotional state before the verbal content is even processed. Moreover, Lutsenko et al.(2025) underscore that during active military confrontations, language serves as a direct instrument for demoralizing populations and inciting systemic social instability by exploiting collective trauma and spreading paralyzing narratives of despair that undermine national resilience.

Finally, the synthesized literature indicates that a sustainable defense against such threats resides in the systematic cultivation of psycholinguistic literacy. Krylova-Grek and Korniyaka (2023) advocate for the integration of psycholinguistic modules into standard media education to assist individuals in decoding complex models of suggestion and recognizing the triggers of emotional contagion. Kuzmenko et al.(2023) reinforce this by demanding a rigorous deconstruction of the linguistic tools utilized in political advertising to expose hidden persuasive tactics that undermine democratic choice. As summarized by Hudzenko (2023) and Hudzenko et al. (2024), a commitment to a "culture of dialogue" and emotional self-regulation forms a natural barrier to the propagation of hostility. They conclude that the ability to engage in empathetic reflection and critical analysis is vital for preserving mental well-being and maintaining social cohesion amidst the informational challenges of the modern age. This psycholinguistic resilience ensures that individuals remain subjects of their own thoughts rather than objects of external control, promoting human flourishing even in unstable information environments.

Table 1

Mechanisms of Linguo-Psychological Manipulation in Media

Mechanism Category	Specific Examples	Scientific Source (Reference)
Linguistic Tools	Euphemisms, metaphors, evaluative vocabulary, emotional lexemes	Korol & Voloshchuk (2020); Nahorna (2023); Kyryliuk (2020)
Pragmatic Strategies	Framing, precedent units, "mask of positivity", suggestiveness	Levko (2020); Kondruk (2019); Pavliv (2023)
Psychological Anchors	Visual elements, emotional contagion, PsyOps, "halo effect"	Pomazan & Ilina (2025); Telpis (2025); Lutsenko et al. (2025)
Security & Literacy	Media education, emotional regulation, deconstruction of advertising	Krylova-Grek & Korniyaka (2023); Hudzenko (2023); Kuzmenko et al. (2023)

Note. Developed by the authors.

Thus, the reviewed studies collectively illustrate that media manipulation is not a series of isolated linguistic tricks but a multifaceted, systemic, and context-dependent psycholinguistic process. It involves the strategic integration of verbal, pragmatic, and non-verbal resources that enable manipulators to bypass rational filters and reshape mass consciousness. Whether in the face of hybrid warfare, political discourse, or digital communication, manipulative influence emerges not simply from the content of messages but from the dynamic interaction between specifically structured language, emotional triggers, and cognitive biases. This holistic understanding is crucial

for designing effective media education frameworks and psychological security strategies that aim not only to protect the public from disinformation but to foster critical thinking and cognitive autonomy amid information instability.

6. Discussion

To illustrate the practical application of the proposed framework, this section examines contemporary examples from digital media environments. In periods of political tension and hybrid conflict, social media platforms serve as key channels for disseminating emotionally intensified narratives aimed at shaping public perception. These narratives frequently rely on polarized vocabulary, simplified dichotomies such as "friend" versus "enemy," and repetitive visual imagery to generate strong affective responses.

From the perspective of the analytical framework, such strategies operate simultaneously across linguistic, psychological, and digital levels. At the linguistic level, the use of evaluative lexemes and metaphorical constructions constrains interpretation by framing events within predetermined semantic boundaries. At the psychological level, these linguistic cues activate emotional responses and cognitive biases, thereby reducing the capacity for critical reflection. At the digital level, algorithmic distribution systems amplify these effects by prioritizing highly engaging content, ensuring rapid circulation and repeated exposure.

The integration of verbal and visual elements further strengthens manipulative influence. Visual components, including symbolic imagery and emotionally charged representations, function as psychological anchors that precondition interpretation before textual content is

cognitively processed. This multimodal interaction reinforces a specific narrative and stabilizes interpretive bias within the audience.

Moreover, the repetitive dissemination of such narratives contributes to the formation of "information bubbles," in which individuals are predominantly exposed to content that aligns with their existing beliefs. This selective exposure intensifies cognitive bias and reduces the likelihood of encountering alternative perspectives. As a result, manipulation becomes embedded not only in individual messages but in the broader informational environment, creating a self-reinforcing system of influence.

These observations confirm that manipulative influence cannot be understood as a set of isolated linguistic techniques. Rather, it emerges from the dynamic interaction between language, psychological processes, and digital infrastructures. This systemic perspective highlights the necessity of addressing manipulation at multiple levels simultaneously.

From a practical standpoint, the findings underscore the importance of developing strategies that enhance informational resilience. Such strategies include strengthening psycholinguistic literacy, promoting critical evaluation of media content, and increasing awareness of algorithmic mediation. By equipping individuals with the ability to recognize linguistic triggers and emotional manipulation, it becomes possible to mitigate the impact of covert influence and support more autonomous cognitive processing in digital environments.

7. Conclusions

The contemporary exploration of manipulative strategies and linguo-psychological mechanisms within the media space confirms that the hidden transformation of mass consciousness is not merely a result of individual linguistic tricks. Instead, media manipulation functions as a systemic, high-tech process driven by the synergy of language structures, emotional triggers, and cognitive predispositions.

First, it is evident that manipulation should be perceived not as a static message but as a dynamic psychological programming process. Studies by Hudzenko (2023), Hudzenko et al. (2024), and Shchetinina et al. (2019) demonstrate that the effectiveness of media influence is closely linked to the exploitation of vulnerable zones in the human psyche, where specifically organized speech components bypass rational scrutiny to impose ready-made cognitive models.

Second, both empirical and theoretical analysis emphasize the critical role of linguistic "masks" and symbolic resources in establishing communicative authority. The research on the "manipulative strategy of positivity" (Kondruk, 2019) and the psycholinguistic dimension of religious discourse (Levko, 2020) highlight that benevolent markers and precedent units—such as iconic quotes or spiritual symbols—can neutralize critical thinking by activating affective attachment and collective associations.

Third, manipulative influence must be understood as a multi-level phenomenon that integrates verbal and non-verbal components. Investigations by Pomazan and Ilina (2025) and Telpis (2025) indicate that social networks amplify these effects through a "linguopragmatic

symbiosis," where visual "anchors" and rapid-fire Psychological Operations (PsyOps) create information bubbles. This supports a shift from simple content analysis to a more holistic deconstruction of digital communicative strategies.

While much of the literature focuses on the mechanisms of influence, it is equally important to consider the collective impact of information warfare. During hybrid conflicts, as noted by Lutsenko et al. (2025) and Kyryliuk (2020), the weaponization of language aims to demoralize entire populations and disrupt social cohesion through demoralizing narratives and specific "markers of danger". This dimension becomes especially salient in high-stress environments where the speed of content distribution can trigger mass panic.

Fourth, findings from Krylova-Grek and Korniyaka (2023) and Hudzenko (2023) suggest that targeted education in psycholinguistic literacy—particularly when integrated into media education systems—can strengthen both personal and societal resilience against suggestion. Training in semantic deconstruction, emotional self-regulation, and source verification is especially effective in preparing individuals for the pressures of a polarized media environment.

To synthesize these findings into a practical framework, the following table outlines the systemic strategies for enhancing information and psychological security:

Table 2

Practical Recommendations for Counteracting Media Manipulation

Direction of Counteraction	Specific Measures and Tools	Scientific Source (Reference)
Media Education	Implementation of psycholinguistic modules to decode suggestion models and recognize linguistic triggers.	Krylova-Grek & Korniyaka (2023)
Cognitive Defense	Development of critical thinking skills to analyze political advertising and deconstruct persuasive tactics.	Kuzmenko et al. (2023)
Psychological Regulation	Cultivation of emotional self-regulation and empathetic dialogue as barriers to hostility and polarization.	Hudzenko (2023)
Linguistic Analysis	Monitoring of "weaponized" lexicon, euphemisms, and metaphors used in hybrid warfare and propaganda.	Kyryliuk (2020); Korol & Voloshchuk (2020)

Direction of Counteraction	Specific Measures and Tools	Scientific Source (Reference)
Digital Verification	Recognition of visual "anchors" and PsyOps patterns in social media to avoid "echo chambers".	Pomazan & Ilina (2025); Telpis (2025)

Note. Developed by the authors.

Although the concepts of manipulation and linguo-psychological influence are thoroughly discussed, the research would benefit from a more precise operationalization of these constructs for practical defense strategies. To enhance the practical relevance of this framework, it is important to define measurable indicators of "manipulative intensity" in media texts. These could include variables such as the density of emotional-evaluative lexemes (Nahorna, 2023), the frequency of suggestiveness in metaphors (Korol & Voloshchuk, 2020), or the pragmatic impact of political advertising (Kuzmenko et al., 2023).

Finally, the methodological challenges in identifying hidden influence point to the need for a unified interdisciplinary approach. As shown by the synthesized research, future practice must prioritize the development of a "culture of dialogue" (Hudzenko, 2023) to neutralize the strategies of hostility. Without a comprehensive framework that connects linguistic markers with psychological reactions, society remains vulnerable to the sophisticated technologies of cognitive control.

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