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THE ROLE OF INSTITUTIONS IN ECONOMIC GROWTH: A SYSTEMATIC LITERATURE REVIEW

ABSTRACT

Purpose: This paper gives a systematic literature review of the research field of institutions and economic growth. The goal of the paper is to provide information on predominant trends in publishing studies, prevailing sentiments on the role of institutions, and emerging themes in the field, to identify gaps in the existing literature and possible avenues for further research.

Methodology: The study systematically reviews papers on institutions and economic growth from the Scopus database following the PRISMA protocol. The research uses descriptive analysis (annual distribution of articles, frequently referenced papers, central and emerging topics), sentiment analysis, and keyword co-occurrence network analysis.

Results: A total number of 78 papers published between 2006 and 2023 were analysed. The results suggest a growing interest in the subject, encompassing topics such as governance, human capital, trade openness, and the resource curse. Sentiment analysis suggests that most of the literature is optimistic about the impact of institutions on fostering economic growth. Keyword analysis indicates that institutions, governance, and economic growth remain key areas of interest, with increasing emphasis on region-specific research and empirical approaches.

Conclusion: The prevailing research indicates that quality institutions play a crucial role in economic growth, enhancing the impact of other factors like financial development, trade openness, and human capital. The review underscores the pivotal role of institutions in sustaining long-term economic progress and suggests further exploration of less researched areas, such as regional development and entrepreneurship, and the utilisation of additional scientific databases to deepen our comprehension of institutional dynamics.

Keywords: Economic growth, institutions, systematic literature review

1. Introduction

Three main theories explain how economies grow: the neo-Keynesian Harrod-Domar theory, the neo-classical Solow theory, and the new growth theories created by Paul Romer (Romer, 1986; 1990) and Robert Lucas. These theories and models suggest that savings, investment, overall productivity, technology, knowledge, and innovation can help explain development differences among countries.

One theory, the geography hypothesis, proposes that geography, culture, and beliefs influence a country's development. Another hypothesis, overlooked for a long time, is the impact of institutions on economic growth. The emergence of New Institutional Economics and the work of Douglass North (North, 1987; 1989; 1990) highlights the crucial role of institutions in economic growth. North defines institutions as the "rules of the game in a society that govern or regulate interpersonal relationships". Institutions determine economic incentives and resource distribution in a society. Well-designed institutions reduce uncertainty and increase incentives for investment and economic activity, enhancing economic growth and development.

Dani Rodrik (Rodrik, 2000; 2007) emphasises the interconnectedness of economic and political institutions, highlighting the crucial role of governance quality in upholding economic growth. He asserts that while economic institutions, such as property rights and regulatory frameworks, are vital, they must be underpinned by political institutions that foster transparency and accountability, mitigating the risks of political instability or corruption that can hinder progress. For example, countries with democratic institutions generally experience more substantial economic growth over time, as political competition and oversight contribute to transparent and accountable governance (Rodrik et al., 2004).

Drawing on the pivotal contributions of North and Rodrik, contemporary research has increasingly emphasised the important role of institutions. Institutions, whether formal or informal, not only shape the legal and regulatory framework for economic activities but also influence the broader economic landscape, by impacting social trust, political stability and governance. Recent empirical studies in New Institutional Economics indicate that nations with stronger institutions tend to experience higher levels of foreign investment, more extensive technological diffusion, and enhanced rates of eco-

nomic growth (Acemoglu et al., 2001; La Porta et al., 1999).

Researchers often consider various institutional dimensions, including property rights, regulatory efficiency, the rule of law, and control of corruption. Strong property rights enforcement, for example, creates a secure investment environment, encouraging domestic and foreign capital inflows. Similarly, efficient regulation can foster entrepreneurial activity by reducing business costs or hinder it through excessive bureaucracy and red tape (Knack & Keefer, 1995). A crucial aspect of the institutional framework is the role of governance in mediating the relationship between institutions and economic growth. Research indicates that better governance leads to more efficient public service delivery, reduced levels of corruption, and increases investor confidence, all of which enhance economic outcomes (Kaufmann et al., 2009). Another aspect is the influence of historical factors on institutional development. North (1990) stresses that institutional change tends to be gradual, as societies are bound by their past decisions. Acemoglu and Robinson (2012) further contend that inclusive institutions, fostering broad participation in economic and political activities, are more conducive to long-term economic growth than extractive institutions that centralise power and wealth in the hands of a few.

Given the complex nature of institutions and their impact on economic growth, this paper takes a comprehensive approach to examining the literature on institutions and economic growth. Bibliometric analysis through a systematic literature review aims to describe how the research field has evolved, identify significant trends, and uncover new themes in the field. More specifically, this study aims to address the following research questions:

RQ1. What are the bibliometric trends in the research of institutions and economic growth, including the volume of published papers over time and the top 10 most cited papers?

RQ2. How are the sentiments in the literature on institutions and economic growth distributed, and what does this indicate about the tone and impact of institutions on economic growth?

RQ3. What are the primary themes and emerging research focal points in institutions and economic growth?

In order to address these research questions, we utilised the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol to

identify, screen, and assess the eligibility of 78 articles sourced from the Scopus database. Initially, we conducted an extensive search using pertinent keywords related to institutions and economic growth, ensuring comprehensive coverage of articles on this topic. Following the compilation of the initial pool of studies, we applied the PRISMA screening process, which encompassed the phases of identification, screening, eligibility, and inclusion. These steps were essential for refining the pool of studies directly pertinent to our research focus. Subsequently, we conducted descriptive analysis, sentiment analysis, and keyword analysis.

Regarding the first research question, a descriptive analysis of the dynamics of published articles seeks to uncover significant trends in the publication of research on institutions and economic growth and determine whether there has been a rise or fall in academic interest in this area. Moreover, by identifying the top 10 most-cited papers, the study will shed light on the research that has had the most profound impact on academic discussions.

Addressing the second research question, we use sentiment analysis to examine the distribution of sentiments (positive, neutral or negative) in the abstracts of the reviewed literature. The study anticipates that the tone of the literature will reflect the prevailing perspectives on whether institutions contribute to or impede economic growth. Reflecting on existing literature, we expect a larger inclination towards a positive sentiment.

The third research question addresses the structure of the focus of studies in the field. By analysing keyword co-occurrence and utilising network, overlay, and density visualisation techniques, the study aims to identify clusters of related topics, revealing the main research themes and emerging trends within the field that have gained prominence in recent years.

The findings will contribute to a deeper comprehension of the existing research on the role of institutions on economic growth. The outcomes will offer scholars and researchers clear insight into the evolution and advancement of the field, pinpointing where significant contributions have been made and identifying the interconnectedness of concepts and the prevailing sentiment towards the role of institutions in economic growth. This knowledge will aid in determining potential avenues for future research. Understanding the persistent and emerging trends in the literature can inform strategic decisions and enhance evidence-based

decision-making regarding institutional reforms, investment policies, and governance frameworks for governments and businesses, ensuring that their efforts align with global best practices and the latest research. For policymakers and government officials, understanding whether the academic literature predominantly reflects a positive or negative sentiment towards institutions could guide future reforms. For instance, a predominantly positive tone may indicate that institutional reforms have been largely effective and should be continued or expanded. Conversely, a negative tone could indicate the need for more fundamental changes or interventions to address institutional shortcomings.

This paper is organised into several sections. The Introduction delves into the theoretical background and research questions. Section 2 reviews the relevant empirical literature on the relationship between institutions and economic growth. Section 3 explains the methodology employed in the systematic literature review. Section 4 encompasses descriptive analysis, sentiment analysis and keyword analysis results and discussion. Finally, Section 5 provides concluding remarks and directions for further research.

2. Empirical background

The impact of institutions on economic growth has been extensively studied in empirical research. Many studies focus on the direct influence of quality institutions on economic efficiency through reducing transaction costs, protecting property rights, and maintaining law and order. These are vital factors for stimulating investment and innovation for driving economic growth. However, other research shows that high-quality institutions also affect economic growth indirectly, for example by amplifying the benefits of infrastructure, technology, and foreign investment.

Despite this research, most analyses only examine the macroeconomic level, neglecting the microeconomic aspects crucial for understanding how institutions impact individual decision-making, entrepreneurship, and business operations. Furthermore, the relationship between institutional quality and economic outcomes is complex and context-dependent, making it difficult to draw definitive conclusions. While institutions generally have a positive long-term impact on economic growth, their short-term effects are still subject to debate, suggesting the need for further research. Interestingly, resource-rich countries benefit

more from quality institutions, while those with fewer resources and weaker institutions face significant economic challenges.

Institutions play a significant role in shaping a country's long-term and short-term economic growth. Institutions' impact can be positive and negative, depending on how they are structured and managed. In general, and in most of the papers we reviewed, the institutions' impacts on economic growth are positive. Countries with stable, transparent, and accountable institutions tend to have better long-term economic growth. These institutions create a favourable environment for businesses and attract investment. Education and human capital development also contribute to sustained economic growth by providing individuals with the skills and knowledge needed for a modern workforce.

It has been observed that favourable institutions play a crucial role in promoting economic growth. The indices associated with institutional and policy rents are more significant than those focusing on curbing political rents and reducing transaction risks, particularly in developing countries. Additionally, there are positive complementarities between the indices related to political rents and those associated with risk-reducing technologies. These findings highlight the importance of creating and maintaining favourable institutions and policies to foster economic growth and development (Siddiqui & Ahmed, 2013).

The type of growth regime an economy belongs to is largely determined by its political institutions. Economic institutions, on the other hand, have a direct effect on growth rates within each regime. It can be said that political institutions act as a foundation for growth, providing a framework in which economic institutions and other standard factors can operate. This clarifies that effective political institutions are necessary for sustained economic growth. Furthermore, economic institutions are essential to nurturing and maintaining the positive effects of political institutions on growth (Flachaire et al., 2014).

Studies have shown that high institutional quality is vital for economic growth and development. Institutional indicators contribute over 0.3 percentage points to the estimated average annual growth rate of real output (Afonso, 2020). Improving institutional quality benefits countries at different stages of devel-

opment, leading to more investment and growth. This improved investment climate can also lead to more job creation, higher wages, and a general increase in living standards. This creates a more stable and prosperous economic environment (Gwartney et al., 2006; Valeriani & Peluso, 2011).

In developing countries, growth is influenced by institutions, particularly those related to property rights. It has been observed that institutions in one country can indirectly affect the economic growth of neighbouring countries through positive spillover effects. This supports an augmented convergence process faster than the conventional beta-convergence in standard growth models (Ahmad & Hall, 2017).

There are interdependent relationships in the short term between institutional quality, government expenditure, tax revenue, and economic growth. Tax revenue is a significant factor in driving long-term economic growth. To ensure sustained long-term economic growth of countries, it is crucial to develop stronger institutions and more effective fiscal policies simultaneously (Arvin et al., 2021).

It has been found that foreign aid can positively impact the economic growth of developing countries, but this is only the case when the institutional quality is high. This means that the quality of the country's institutions plays a crucial role in determining how effective foreign aid will promote economic growth. Therefore, it is recommended that foreign aid should be directed towards countries with higher institutional quality to achieve maximum effectiveness (Boateng et al., 2021; Maruta et al., 2020).

It has also been observed that institutional quality, CO2 emissions, and economic growth in developing countries are closely linked. Therefore, adopting holistic co-development policy frameworks that strengthen governance institutions and promote clean-energy industrial strategies can positively impact economic growth in these countries. Policymakers in developing countries are encouraged to implement such policies to reduce their carbon footprint and promote economic growth (Ahmed et al., 2022; Jiang et al., 2023; Nair et al., 2021).

Countries can benefit or suffer from their natural resources, depending on the quality of their institu-

tions and human capital. An analysis was conducted using an autoregressive distributed lag model to examine how natural resources, institutional quality, and human capital interact and affect economic growth. The findings indicate that countries must invest in human capital and anti-corruption measures to effectively utilise natural resources (Abdulahi et al., 2019; Antonakakis et al., 2017; Qiang & Jian, 2020; Zallé, 2019).

The influence of informal institutions on opportunity entrepreneurship is greater than that of formal institutions. In countries across the sample, including Latin American countries, factors like control of corruption, confidence in one's abilities, and access to private credit positively impact opportunity entrepreneurship and contribute to economic growth. By promoting effective institutions, we can foster opportunity entrepreneurship and create conditions for economic growth (Aparicio et al., 2016).

Among the papers we reviewed, only several found negative or neutral relations between institutions and economic growth. These studies suggest that institutions are less influential in economic growth than is often assumed. Furthermore, it has been suggested that other factors, such as technological progress and human capital, largely determine economic growth (Acheampong et al., 2021; Doré & Teixeira, 2023).

In summary, institutions can positively or negatively affect long-term and short-term economic growth. Institutions that function well and encourage stability, transparency, and accountability are crucial for maintaining economic development. Conversely, institutions that function poorly and are characterised by corruption, inefficiency, and a lack of transparency can impede economic growth. Therefore, policymakers must prioritise creating and maintaining effective institutions to promote sustainable and long-term economic growth.

3. Methodology and data

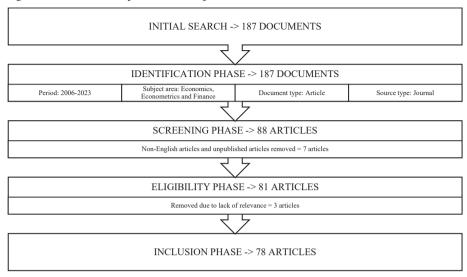
We utilised the PRISMA protocol for systematic reviews to ensure a comprehensive and transparent analysis of the relationship between institutions and economic growth. This protocol comprises four stages: identification, screening, eligibility, and inclusion (Moher et al., 2009). As part of our search strategy,

we combed through the SCOPUS database using the keywords "Institutions AND Economic Growth" OR "Institutional Quality AND Economic GROWTH" from 2006-2023, which yielded 187 papers in the titles, abstracts, and keywords.

Figure 1 demonstrates the implementation of the PRISMA protocol for a systematic literature review of the 187 papers obtained from our search on the Scopus database. The process began with an initial search that retrieved 187 documents from the Scopus database using the keywords "Institutions AND Economic Growth" OR "Institutional Quality AND Economic Growth". The methodology is divided into four phases: identification, screening, eligibility, and inclusion.

- All 187 documents found during the search are included during the identification phase. These documents are filtered based on their publication year (2006-2023) and limited to the subject areas of Economics, Econometrics, and Finance. Furthermore, only journal articles were included in the further review, while other document types, such as conference papers and book chapters, were excluded.
- 2. In the screening phase, the initial filters reduced the number of articles to 88. At this stage, non-English articles and those that were not at the final publication stage were excluded, resulting in the removal of 7 articles. This left a total of 81 articles for the next phase of assessment.
- 3. During the eligibility phase, each article underwent a thorough evaluation to determine its relevance to the research topic. Articles that did not directly relate to the role of institutions in economic growth were excluded, resulting in the removal of three more articles. As a result, 78 articles remained eligible for inclusion.
- 4. The inclusion phase resulted in 78 articles to be included in the final analysis. These articles serve as the basis for the bibliometric analysis, which explores trends, sentiments, and thematic developments in the literature on institutions and economic growth.

Figure 1 Visualisation of the PRISMA protocol



Source: Authors' presentation

We conducted a thorough descriptive analysis of the selected papers to determine whether interest in exploring the relationship between institutions and economic growth has grown over time. This involved examining the annual number of publications to identify potential trends in research output on this topic. Additionally, we aimed to identify the individual papers with the highest citation counts, offering insight into which works have made the greatest impact on the academic discourse.

Next, we conducted a sentiment analysis of the abstracts to gain a deeper understanding of the tone and perspectives expressed. This analysis categorised the abstracts based on whether they conveyed a positive, neutral, or negative outlook on the role of institutions in economic growth. This enabled us to evaluate whether the prevailing sentiment in the literature reflects optimism about institutional reforms or underscores concerns and challenges regarding institutional efficiency and governance. A positive tone in the literature indicates optimism about the role of institutions, encompassing discussions about successful institutional reforms, improvements in governance, or instances where institutions have played a key role in fostering economic growth. A neutral tone may reflect a balanced or indifferent perspective, often found in descriptive or empirical studies without strongly expressing opinions about institutional efficacy. On the other hand, a negative

tone would signal concerns or challenges, including institutional failures, corruption, or inefficiency, which could hinder economic growth.

Utilising the VOSviewer software for bibliometric analysis, we constructed a keyword co-occurrence network to visually represent the relationships between key concepts and terms found in the reviewed abstracts. This network enables us to observe the frequency of association between keywords, offering a visual map of the intellectual structure within the field. In addition, we generated an overlay visualisation to track the prominence of specific keywords over time, helping us identify topics that have gained or lost relevance in recent years. The use of density visualisation methods allowed us to pinpoint areas of research concentration within the literature. By visualising the most densely interconnected keywords and concepts, we were able to identify "hotspots" where certain themes are especially well-developed or popular among researchers. This analysis also enabled us to explore which empirical models and methodologies are most frequently used in the studies, providing insights into the prevailing analytical approaches in the field.

It is important to note that the search query used in this analysis, specifically "Institutions AND Economic Growth" OR "Institutional Quality AND Economic Growth", has some limitations. The use of quotation marks in the search query means that the Scopus database returned papers where these exact phrases appeared together in the title, abstract, or keywords. However, this approach may have limited the scope of our review by excluding papers that discuss institutions and economic growth in broader or more varied contexts. Also, we only focus on articles written in English and published in journals indexed in the SCOPUS database. Consequently, we might have omitted articles published in other languages and indexed in other databases such as Web of Science, Google Scholar, etc., which might provide additional insight.

4. Results and discussion

4.1 Descriptive analytics

In this subsection, we analyse the frequency of papers focused on institutions and economic growth from 2006 to 2023. Figure 2 depicts the fluctuating trend in the number of published articles during this period, with several distinct peaks:

- The number of papers peaked in 2017, with 10 publications.
- Another peak occurred in 2020, with the highest number of papers (11) recorded in this period.
- The year 2021 experienced a slight decline to 8 papers, followed by a substantial drop in 2022 to just 1 paper. However, 2023 witnessed a recovery, with 7 papers published.

The dotted trendline indicates an upward trajectory, reflecting a growing interest among researchers in studying the role of institutions in economic growth. This upward trend, notwithstanding yearly fluctuations, indicates an increasing focus on this research topic in academic circles.

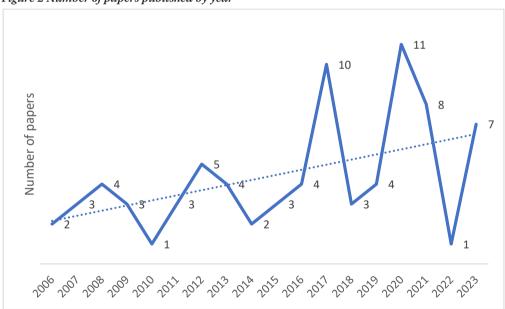


Figure 2 Number of papers published by year

Source: Authors' calculations

The rising volume of published articles indicates a growing interest in the correlation between institutions and economic growth. This pattern suggests that scholars are acknowledging the pivotal role institutions play in shaping economic outcomes. This upward trajectory indicates a field of study with

numerous opportunities for further exploration, especially in areas that may still be underdeveloped. Spikes in publication numbers may also signify breakthroughs or emerging trends in institutional research, motivating scholars to expand on these foundations.

For policymakers, the mounting interest underscores the significance of institutions in devising effective economic policies. Governments, particularly in developing or transitional economies, can interpret this as a call to prioritise institutional reforms, recognising their essential role in long-term economic success. The expanding body of literature also emphasises the importance of robust institutions in providing a stable and predictable environment for business. Additionally, international organisations involved in development efforts can leverage this trend as empirical support for advocating institutional reforms to promote sustainable development.

Table 1 presents the top 10 papers with the highest number of citations in the field of institutions and economic growth, reflecting the most influential studies on the topic. These papers cover a wide array of themes, including the relationship between natural resources, institutions, and economic growth, the effects of remittances and institutional quality on growth, and the role of institutions in innovation, policy volatility, and financial globalisation.

At the top of the list is Brunnschweiler's (2008) paper "Cursing the Blessings? Natural Resource Abundance, Institutions, and Economic Growth", published in World Development, with 423 citations. This study delves into the widely debated resource curse hypothesis and investigates the role of institutions in mitigating the adverse effects of natural resource abundance on economic growth. Next, with 286 citations, there follows "Remittances, Institutions, and Economic Growth" by Catrinescu et al. (2009), also published in World Development, which examines how remittances, when combined with institutional quality, can impact economic growth, emphasising the significance of the institutional context in realising the potential benefits of remittances. Other papers on the list, such as those by Gwartney et al. (2006) and Tebaldi and Elmslie (2013), focus on how institutions influence investment and innovation. Meanwhile, studies by Fatás & Mihov (2013) and Butkiewicz and Yanikkaya (2006) examine policy volatility and the maintenance of the rule of law or democratic institutions as crucial factors for growth.

Table 1 Top 10 papers with the most citations

Title	Authors	Year	Journal	Citations
Cursing the Blessings? Natural Resource Abundance, Institutions, and Economic Growth	Brunnschweiler C.N.	2008	World Development	423
Remittances, Institutions, and Economic Growth	Catrinescu N.; Leon- Ledesma M.; Piracha M.; Quillin B.	2009	World Development	286
Institutions and the impact of investment on growth	Gwartney J.D.; Holcombe R.G.; Lawson R.A.	2006	Kyklos	203
Does institutional quality impact innovation? Evidence from cross-country patent grant data	Tebaldi E.; Elmslie B.	2013	Applied Economics	155
Policy volatility, institutions, and economic growth	Fatás A.; Mihov I.	2013	Review of Economics and Statistics	149
Institutional quality and economic growth: Maintenance of the rule of law or democratic institutions, or both?	Butkiewicz J.L.; Yanik-kaya H.	2006	Economic Modelling	136

Title	Authors	Year	Journal	Citations
Renewable energy, CO2 emissions and economic growth in sub-Saharan Africa: Does institutional quality matter?	Acheampong A.O.; Dzator J.; Savage D.A.	2021	Journal of Policy Modeling	103
Institutions, human capital, and growth: The institutional mechanism	Dias J.; Tebaldi E.	2012	Structural Change and Economic Dynamics	92
How do financial globalization, institutions and economic growth impact financial sector development in European countries?	Nasreen S.; Mahalik M.K.; Shahbaz M.; Abbas Q.	2020 Research in International Business and Finance		77
Natural Resources, Institutional Quality, and Economic Growth in China	Ji K.; Magnus J.R.; Wang W.	2014	Environmental and Resource Economics	76

Source: Authors' calculations

The diverse range of topics and the substantial number of citations of these papers underscore the importance of institutional quality across different areas of economic research. For academics, these works provide foundational theories and evidence on the influence of institutions on economic growth, covering topics from resource management to innovation. Researchers can use these studies as a basis for exploring new areas or expanding their findings to different environments. For policymakers, the findings stress the significance of strong institutional frameworks in promoting sustainable development. For example, Brunnschweiler's (2008) work on the resource curse and institutional mitigation offers valuable guidance for resource-rich nations, while Catrinescu et al. (2009) underscore the importance of institutional quality in maximising the impact of remittances on growth. For businesses and investors, the focus on institutional stability in these papers offers valuable insights for risk management and long-term planning, especially in regions undergoing institutional changes. Similarly, international organisations like the World Bank and the IMF can leverage these findings to support their advocacy for institutional reforms in developing nations. In summary, these works contribute not only to theoretical debates but also offer practical insights for policymakers, underscoring the significant role that well-functioning institutions play in fostering economic growth and sustainable economic development.

4.2 Sentiment analysis

Sentiment analysis of the abstracts highlights a distinctly positive inclination in the literature concerning institutions and economic growth. Among the 78 abstracts reviewed, 75 portray a positive sentiment, while only 3 convey a negative sentiment (the lower section of Figure 3). The scale of sentiment scores, spanning from -0.765 (negative) to 1.00 (positive), suggests that most studies express optimism or a favourable outlook regarding the influence of institutions on economic growth. The histogram in the upper section of Figure 3 illustrates that the majority of sentiment scores cluster near 1.00, confirming the dominance of positive sentiment.

The prevailing positive sentiment in the literature indicates that institutions are widely recognised as crucial catalysts for economic advancement. This widespread optimism may stem from empirical evidence showing that well-functioning institutions, encompassing strong legal frameworks, property rights, and regulatory bodies, as well as government efficiency and low levels of corruption, can bolster economic performance, mitigate uncertainty, and stimulate both local and foreign investments.

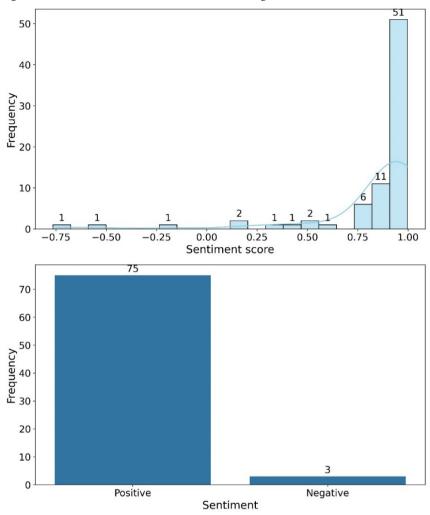


Figure 3 Abstracts sentiment distribution and categories

Source: Authors' calculations

The prevalence of positive sentiment emphasises the necessity of continuing to implement and enhance institutional reforms. These reforms are widely viewed as impacting economic outcomes directly and positively, making them crucial for businesses and investors seeking stable environments for long-term investments. This trend also affirms the support for institutional reforms in developing regions by international organisations. Moreover, the optimistic outlook for governments in transitional economies highlights the broad recognition of institutional strengthening as an effective tool for

driving economic growth, urging them to prioritise such efforts in their development agendas.

4.3 Keyword analysis

In this subsection, we analyse the interconnectivity of themes within the literature on institutions and economic growth, as visualised in the keyword co-occurrence network produced by VOSviewer, which is shown in Figure 4. The figure is segmented into clusters, each denoted by a distinct colour, signifying sets of closely associated keywords that often appear together in the same studies. These clusters illuminate pivotal research themes in the field.

democracy panel var gdp growth resource curse trade openness remittances institutions paneldata economic development asean economic growth system gmm financial development gmm human capital africa sub-saharan africa nost-soviet countries governance

organizations

Figure 4 Network visualisation for keyword co-occurrence

VOSviewer

Source: Authors' calculations

Cluster 1 (red cluster) emphasises the significance of financial development, remittances, and trade, particularly focusing on regions such as ASEAN. The mention of "system GMM" and "panel data" suggests that much of the research employs advanced econometric techniques to investigate how financial systems, and trade policies impact economic growth. Remittances are also highlighted, indicating their substantial role in development outcomes. Ultimately, this cluster underscores the necessity of strong financial institutions and effective trade policies, especially in regions that heavily rely on financial inflows.

Cluster 2 (green cluster) is focused on the role of institutions and governance, with a specific emphasis on Africa. The frequent use of "GMM" and "panel estimation" suggests commonly employed empirical methods to assess the impact of governance reforms on growth. This cluster emphasises the crucial importance of institutional quality and governance reforms in driving economic progress, particularly in regions where institutional weaknesses persist.

Cluster 3 (blue cluster) explores the interplay between democracy, innovation, and economic growth. The prominence of the keyword "democracy" indicates that the studies often compare democratic and non-democratic systems, exploring the ways in which political institutions influence economic growth. The research within this cluster delves into how democratic governance creates an environment that is conducive to innovation and technological advancement, both of which play key roles in long-term economic prosperity.

Cluster 4 (yellow cluster) is positioned at the heart of the network and focuses on economic growth, institutional quality, and human capital. By examining specific regional contexts, such as post-Soviet countries and sub-Saharan Africa, the literature delves into how variations in institutional quality across different regions impact economic outcomes. This cluster underscores the crucial importance of investments in education and human capital development in conjunction with institutional reforms to sustain growth.

Cluster 5 (purple cluster) focuses on examining the relationship between trade openness, resource management, and economic growth. The research sheds light on the difficulties that resource-rich nations face in utilising their natural wealth for economic progress (the concept of the "resource curse") and examines trade openness as a potential remedy

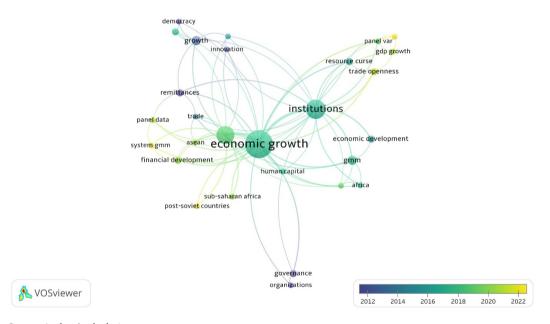
to these challenges. This cluster underscores the importance of robust institutional frameworks to ensure that trade and resource wealth have a positive impact on economic performance.

Cluster 6 (light blue cluster) explores the role of governance and organisational structures in supporting institutional quality. This cluster encompasses research highlighting the foundational importance of efficient and transparent governance structures for the effective functioning of institutions, which is a key driver of economic growth.

In summary, the clusters represent various but interconnected themes. Financial development, governance, innovation, human capital and trade openness all play crucial roles in shaping economic performance. Each cluster reinforces the overarching importance of strong institutions in ensuring sustained and inclusive economic growth.

The overlay visualisation in Figure 5 adds a chronological layer to the keyword co-occurrence network. The colours indicate the average publication years for each keyword. The colour gradient, ranging from blue (indicating earlier years) to yellow (indicating recent years), allows us to track the evolution of research focus over time.

Figure 5 Overlay visualisation for keyword co-occurrence



Source: Authors' calculations

Keywords such as "organisations", "governance", "democracy", and "remittances" are highlighted in blue, indicating their significance in earlier years (2008-2013). The research during this time predominantly centred on the fundamental role of governance and institutions in economic growth. Additionally, democracy and remittances garnered early attention, showcasing a curiosity about how political structures and financial inflows from emigrants impact economic performance. The inclusion of "innovation" and "growth" during this period signifies an

early examination of the influence of governance on innovation-driven growth.

In the years 2014-2017 (highlighted in green), there was a noticeable increase in the discussion of topics such as "trade", "technological change", "economic development", and "resource curse". During this period, there was a shift in research focus towards understanding the interaction between trade policies, natural resource management, and institutional quality, particularly evident in the emphasis on the "resource curse" keyword. The impact of institu-

tional quality on development across different regions, particularly in Africa, also emerged as a key area of focus during this phase.

The emphasised research topics from 2018 to 2023, indicated in yellow, encompass keywords such as "ASEAN", "financial development", "trade openness", "system GMM", "regional development", and "post-Soviet countries". This trend indicates a growing emphasis on empirical methodologies (e.g., system GMM and panel VAR), region-specific studies, particularly on ASEAN and post-Soviet countries, and on the impact of institutions on global integration and development at both national and regional levels.

The overlay visualisation reveals that the literature on institutions and economic growth has progressed from general debates on governance and democracy to more focused areas such as trade openness, regional development, and on specific regions. This shift over time suggests that recent research is increasingly focused on empirical analysis and the unique institutional challenges in different regions.

In Figure 6, the density visualisation of keyword co-occurrence reflects the intensity of the research focus. Brighter (yellow) areas signify higher studies concentrations, while darker (blue/green) areas indicate less frequent exploration.

As expected, the terms "economic growth" and "institutions" are highlighted in a prominent bright yellow area, indicating that these topics are central to scholarly discourse in the field. A significant amount of literature focuses on how institutions directly impact economic performance, making this the main theme of the overall research landscape.

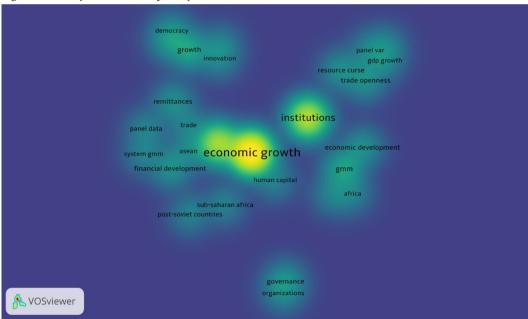


Figure 6 Density visualisation for keyword co-occurrence

Source: Authors' calculations

Topics like "human capital", "economic development", and "governance" also stand out in yellow, indicating significant attention. These are crucial supporting concepts for understanding how institutional frameworks and the development of human capital contribute to broader economic outcomes.

Topics such as "remittances", "system GMM", "panel data", "innovation", and "democracy" are found in greenish areas in moderate-density areas. These terms denote a moderate research interest, often associated with empirical studies on how financial transactions, governance frameworks, and techno-

logical advancements influence economic development through institutional mechanisms.

The keywords "trade openness", "resource curse", and "GDP growth" appear in blue or light green areas, indicating that they have received less attention compared to the core topics. Nonetheless, their inclusion signifies an interest in understanding how policies, such as trade liberalisation and resource management, interact with institutional quality to impact economic growth.

The use of terms like "ASEAN", "sub-Saharan Africa", and "post-Soviet countries" is less prominent, indicating a scarcer literature on how institutional issues impact economic performance in specific regions. This implies that while regional studies are valuable, they occupy a somewhat peripheral position compared to more expansive discussions on institutional economics.

To sum up, the density visualisation indicates that "economic growth" and "institutions" are the primary focal points in the literature, with considerable emphasis on interconnected ideas such as governance, human capital, and economic development. Conversely, more niche subjects like regional case studies and trade/resource management receive less attention but present opportunities for further research.

5. Conclusion

This paper presents a systematic literature review of articles, that thoroughly examines the scholarly land-scape concerning the impact of institutions on economic growth. The analysis is built upon the PRISMA protocol and offers a comprehensive understanding of the topic. The sample for analysis includes 78 articles from the Scopus database, published between 2006 and 2023. Our approach has three main components: a review of publication patterns, a sentiment analysis of abstracts, and a network analysis of keyword co-occurrence. These methods provided insights into important research trends, the overall sentiment of the existing literature, and the interconnections among key concepts in the field.

The analysis indicates a steady increase in research interest over time, with peak interest in certain recent years, reflecting the growing recognition of the significant role institutions play in shaping economic outcomes. Prominent journals and well-cited papers have played a significant role in advancing our un-

derstanding of the impact of institutions on economic growth. The sentiment analysis indicates that most of the literature holds a positive view on the impact of institutions on economic growth. While negative sentiments are relatively infrequent, they do highlight specific challenges in institutional reforms, particularly in developing nations. The keyword co-occurrence analysis reveals that discussions on economic growth consistently revolve around institutions, governance, and human capital. The analysis underscores the field's rigorous and adaptable approach, as novel concepts and tools are integrated to address the intricacies of institutional economics. Emerging areas of focus include the application of econometric techniques such as system GMM, as well as regionspecific studies.

The findings provide a basis for some policy recommendations. To enhance economic performance, policymakers should prioritise institutional reforms aimed at improving governance, curbing corruption, refining regulatory frameworks, to establish an environment that encourages economic stability and attracts domestic and foreign investment, ultimately nurturing long-term growth. Policymakers need to leverage the positive sentiment by persisting in the implementation of reforms aimed at enhancing institutional effectiveness, transparency and accountability. The findings also suggest prioritising education and skills development to ensure a well-equipped workforce capable of driving productivity and innovation. Furthermore, they underscore the importance of carefully managing trade policies and natural resources to avoid obstacles that could impede growth. Particularly, countries abundant in natural resources should strengthen their governance structures to mitigate the negative economic impacts of resource dependence. Additionally, the increasing focus on advanced econometric methods indicates the significance of evidence-based policymaking. Governments should invest in developing statistical and analytical capacity to enable more sophisticated, data-driven policy interventions.

Future research should seek to deepen our understanding of institutional impacts by conducting comparative regional studies, particularly across different political and economic contexts. These studies can offer insights into how diverse institutional structures influence growth. Exploring the barriers to successful institutional reforms, especially in developing regions grappling with governance challenges and corruption, can help fill the gaps in the current literature. In terms of regions, other transition countries (beside post-Soviet countries) could offer interesting insights, as they have undergone significant institutional reforms from the 1990s onward. This is particularly important for the Western Balkan countries that struggle to enhance their institutions and catch up with Central and Eastern European countries in terms of level of economic development and quality of life. With the increasing prevalence of advanced econometric methods like system GMM, there is an opportunity to incorporate innovative empirical approaches, such as machine learning or big data analysis, to analyse complex datasets. Furthermore, future research should prioritise longitudinal studies that track the long-term effects of institutional reforms, enabling policymakers to comprehend how institutional changes unfold over time. Investigating less commonly explored keywords, such as "regional development" and "resource curse", may provide unexplored perspectives on institutional impacts in specific sectors or regions.

Considering the limitations of the study, a future attempt at a systematic literature review can be improved by expanding the search parameters; removing the quotation marks would allow for a more comprehensive literature analysis. This would enable the inclusion of papers that discuss related topics, perhaps with different terminology or in more nuanced ways, thereby providing a complete understanding of how institutions impact economic growth across various fields and regions. Further, exploring other scientific databases, in addition to Scopus, can enhance the quality of research by providing broader and more detailed datasets.

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