

A CONTENT ANALYSIS OF FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH RELATIONSHIP

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Abstract: The relationship between financial development and economic growth represents a very well-investigated research topic by a large number of studies, encompassing both theoretical and empirical approaches. Nevertheless, research conclusions are ambiguous, and it is necessary to clarify them. In this context, the main purpose of our study is to analyze, through content analysis, as a tool of qualitative research, the relationship between financial development and economic growth. Therefore, using a sample of 25 representative articles, we apply content analysis to determine the presence, sign, and direction of the aforementioned relationship. The results obtained indicate that, although the literature emphasizes both a positive and negative impact of financial development on economic growth, the positive impact is more frequently reflected. Moreover, the research demonstrates that, despite the specialized literature addressing all three possible hypotheses regarding the direction of the relationship, the prevailing evidence supports the direction from financial development to economic growth to a greater extent. (JEL classification: E44; G21; O11; O16; O43)

Keywords: Financial development; Economic growth; Causality; Content analysis.

Résumé : La relation entre votre secteur financier et votre région économique représente le sujet de ce travail pour l'enquête d'un nombre d'étudiants, et vous avez abordé la théorie, c'est l'empire. Avec tout cela, les conclusions sont ambiguës et il est nécessaire de clarifier la situation. Dans ce contexte, l'objectif principal de nos études est d'utiliser et d'analyser en continu un instrument de certification de qualité, en relation avec votre tension financière et votre croissance économique. En principe, en utilisant l'article 25 du représentant de l'article, l'analyse continue pour une présentation déterminée, symbolique et la direction relative mentionnée antérieurement. Cela indique clairement que la littérature spécialisée a un impact positif, c'est-à-dire un impact négatif sur les tensions financières en termes de croissance économique, l'impact positif est le plus souvent reflété. Mais il est certain que, dans une ville où la littérature spécialisée est abordée, il y a trois possibilités de direction privée par rapport à la région, il faut maintenir une position prédominante dans la plus grande direction financière du secteur financier de la zone économique.

Mots clés : Développement financier ; Croissance économique ; Causalité ; Analyse de contenu.

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Rezumat: Relația dintre dezvoltarea financiară și creșterea economică reprezintă o temă de cercetare foarte bine investigată de un număr mare de studii, cuprinzând atât abordări teoretice, cât și empirice. Cu toate acestea, concluziile cercetării sunt ambigue și este necesară clarificarea lor. În acest context, scopul principal al studiului nostru este de a analiza utilizând analiza de conținut ca instrument de cercetare calitativă, relația dintre dezvoltarea financiară și creșterea economică. Prin urmare, utilizând un eșantion de 25 de articole reprezentative, aplicăm analiza de conținut pentru a determina prezența, semnul și direcția relației menționate anterior. Rezultatele obținute indică faptul că, deși literatura de specialitate subliniază atât un impact pozitiv, cât și unul negativ al dezvoltării financiare asupra creșterii economice, impactul pozitiv este reflectat mai frecvent. Mai mult, cercetarea demonstrează că, în ciuda faptului că literatura de specialitate abordează toate cele trei ipoteze posibile privind direcția relației, dovezile predominante susțin într-o măsură mai mare direcția de la dezvoltarea financiară la creșterea economică.

Cuvinte cheie: Dezvoltare financiară; Creștere economică; Cauzalitate; Analiza de conținut.

1. Introduction

It is well known that a higher standard of living can not be reached without economic growth. A lot of empirical and theoretical studies have shown that financial development is one of the main determinants of economic growth. Therefore, the institutional framework of the financial system, as well as its performance, can be considered a major stimulus of macroeconomic performance.

Upon analyzing the specialized literature, we observe a substantial number of studies, including works by notable researchers as Lucas (1988), King and Levine (1993), Beck *et al.* (2000), Méon *et al.* (2010), Ito *et al.* (2018), Ferreira (2021), Afonso and Blanco-Arana (2022), Wen *et al.* (2022), and Thi An *et al.* (2023). These studies encompassing both qualitative and quantitative methodologies are dedicated to elucidating the existence, sign, and direction of the relationship between financial development and economic growth. Furthermore, these investigations employ a diverse range of research methods, tools, variables, as well as varied samples and time periods. Despite this huge amount of research, a consensus regarding the existence of a causal relationship and its implications remains elusive.

Even if the widespread assumption that financial development generally has a positive impact on economic growth, it is crucial to acknowledge that the development of financial intermediation, when reaching certain levels, can expose global economies to significant threats. This phenomenon may lead to irrational risk-taking, the amplification of macroeconomic volatility, and the emergence of boom-recession turbulences. In the past, within the context of traditional banking, the impact of financial intermediation development on macroeconomic performance was consistently viewed as positive. However, with the evolution and exposure of the financial sector to financial derivatives, negative effects have also emerged, as evidenced by recent international financial crises. Specialized studies, such as those by Arcand *et al.* (2015), Asteriou and Spanos (2019), Cecchetti and Kharroubi (2019), and Thi An *et al.* (2023), highlight that the expansion of the financial sector to certain levels can limit real economic growth.

Numerous research articles highlight the ambivalent nature of this impact. Furthermore, a broad spectrum of research, including studies by Demetriades and Hussein (1996), Greenwood and Smith (1997), Esso (2010), Hassan *et al.* (2011), Pradhan *et al.* (2014), and Čižo *et al.* (2020), emphasizes not only the causality from financial development to economic growth but also vice versa, from economic growth to financial development. Some even suggest the manifestation of a two-way relationship.

Consequently, the main purpose of our research is to examine, through content analysis, as a qualitative research method, on the one hand, the sign of the link between financial development and economic growth, and on the other hand, the direction of this relationship.

With specific reference to the scientific and practical relevance of the research, we emphasize the significance of the proposed subject for analysis. This relevance stems from the crucial role that financial intermediation plays in the economy, involving the mobilization of savings and the efficient allocation of capital. Even though the relationship between financial development and economic growth is a topic investigated by a large number of studies for several no consensus has been reached yet. Therefore, further research is required to provide explanations for these contradictory results.

The motivation behind employing content analysis lies in its potential to contribute new evidence to the specialized literature. It is acknowledged for its value in uncovering replicable and valid inferences from a body of text, including words, phrases, and language. This analysis aims to shed light on the number of articles in which the development of financial intermediation either propels economic growth or, conversely, exerts a negative impact, particularly beyond a certain threshold.

It is worth noting that the significance of studying the relationships between financial development and macroeconomic performance arises from the potential for detecting disruptions in the financial sector of the economy. Such disturbances could exert significant and lasting influences on the real economy, as evidenced by the international financial crisis of 2007 and the subsequent public debt crises.

Therefore, this research might be of interest to decision-makers in banks and regulatory bodies. These stakeholders should recognize the importance of adopting measures to enhance the quality of financial intermediation. For instance, redirecting credit flows toward efficient, sustainable, and environmentally friendly investments, as well as improving the quality of financial intermediaries' assets, can contribute to enhancing macroeconomic performance.

To achieve the primary objective of the research, our paper is structured as follows: the second section is dedicated to a description of the methodology, the third section axes on the results and discussions, and the last includes some conclusions.

2. Methodology

The present research is based on a *sample of 25 representative articles* aiming to address the issue of the causal relationship between financial development and economic growth. These articles were extracted from the *Web of Science database (Clarivate)*, the *Scopus database*, and identified through the *Google Scholar search engine*. In the process of selecting items, we applied the following filters: 1. *Keywords* (e.g., „financial development,” „economic growth,” „causal relationship”); 2. *Relevance* (considering factors such as the number of citations, the reputation of the author, and the journal's impact factor); 3. *Format* (Adobe Acrobat PDF).

From the multitude of articles identified through the keyword search, we selected the 25 most representative articles for our study. Many of them were not available in Adobe Acrobat PDF format and were deleted from the sample. At the end of the selection process, our sample contained ten articles (De Gregorio, 1995; Levine, 2000; Arestis, 2001; Khan, 2001; Hassan, 2011; Pradhan, 2014; Durusu-Ciftci, 2017; Prochniak, 2017; Čižo, 2020; Afonso, 2022) that met the aforementioned conditions. It's noteworthy that the chosen qualitative research method is content analysis. This method allows the reduction of phenomena or events into well-defined categories for easier analysis, interpretation of results, and formulation of conclusions.

The motivation for using content analysis lies in its capability to code text, classify these codes, and conduct analyses based on them to formulate conclusions about the content of articles, communications, or interviews (Harris, 1996, p. 458; Collis and Hussey, 2003; Harwood and Garry, 2003, p. 480). Relational content analysis was specifically employed to investigate relationships between concepts, aligning with the objectives of our study—analyzing the sign and direction of the relationship between financial development and economic growth.

In terms of the actual analysis, we used NVivo, a qualitative data analysis software, because of its ability to organize and analyze text through the coding process of qualitative data. Furthermore, this software is the most cited solution for analysing qualitative data in the specialized literature.

In the following, we will outline the specific steps we took in conducting the content analysis:

1. Upload items to the NVivo software: The sample, consisting of ten representative articles addressing the relationship between financial development and economic growth, was imported into NVivo.
2. Define the level of analysis as a group of words.
3. Define the code set as follows:
 - Financial development determines economic growth.
 - Economic growth determines financial development.
 - Two-way relationship.
 - Positive impact.
 - Negative impact.

4. We decided to code both the presence of the code and the frequency of occurrence.
5. Decide the level of generalization to be word family and synonyms. It's worth noting that for positive/negative impact, explicit coding was chosen. Regarding the direction of the relationship (financial development determines economic growth; economic growth determined by financial development; two-way relationship), we opted for encoding both explicitly and implicitly.
6. Establish coding rules:
 - For positive/negative impact, code the group of words explicitly.
 - For the direction of the impact, code the text fragment explicitly and implicitly.

After completing the above steps, we extracted the outputs from the NVivo software and conducted an analysis of the results, which will be presented in detail in the following section.

3. Results and discussion

Following the steps outlined in the methodology section, we used the NVivo software to generate a word cloud representing the most frequently used words in the articles within the sample. **Figure 1** illustrates that the most commonly found words in the analysed text are: growth, economic, development, financial, variables, countries, banking, financial market, positive, mediation, and relationship. This fact highlights that the term „positive relationship” has a higher frequency of occurrence compared to its negative counterpart. This is visually represented in the word cloud, where the word „negative” appears written with smaller characters than the word „positive”.



Figure 1. The word cloud that reflects the content of the articles in the analysed sample
Source: Own processing using the NVivo software.

The conclusions presented in the previous paragraph are also supported by Table 1, which highlights the word frequency in the analysed text. Specifically, the word „positive” appears in the articles with a frequency of 772 occurrences and a weight percentage of 0.44, whereas the term „negative” indicates an occurrence frequency of only 157, corresponding to a weight percentage of 0.15. Consequently, the results suggest that although specialized literature confesses both positive and negative impacts, the positive ones reflect a more significant weight in the text of the articles.

Table 1. The word's frequency

Words	Frequency	Weight percentage
Positive	772	0,44
Negative	157	0,15
Unidirectional	11	0,01
Bidirectional	9	0,01

Source: Own processing using the NVivo software.

Regarding the other terms highlighted in **Table 1**, it is noteworthy that the term „unidirectional” is mentioned 11 times, with a weight percentage of 0.01, while the word „bidirectional” is outlined 9 times, with a weight percentage of 0.01 in the analysed text. Therefore, we can conclude that even though both directions of the relationship between financial development and economic growth are highlighted by the analysed sample, the unidirectional impact holds a more considerable weight in the analysed text.

Focusing on the analysis of the codes, we can highlight Table 2, which reflects their frequency. The „positive impact” code was identified in eight files, with 91 references in the analysed text and a weight percentage of 15.15. On the other hand, the „negative impact” code appears in seven files, with 44 references, and a weight percentage of 5.02. Therefore, it can be affirmed that although the articles in the sample highlight both positive and negative impacts, the weight given to the former is substantially higher. Consequently, the studies predominantly reveal a positive impact of financial development on economic growth.

Table 2. The Code's frequency

Codes	No. of files	No. of references	Weight percentage
Positive impact	8	91	15.15
Negative impact	7	44	5.02
Financial development causes economic growth	10	88	12.79
Economic growth causes financial development	6	15	2.27
Bi-directional relationship	8	31	4.05

Source: Own processing using the NVivo software.

Regarding the second objective of our research – analyzing the direction of the relationship between financial development and economic growth – we remark that according to Table 2, the code „*financial development causes economic growth*” is found in all ten files, with 88 references in the analysed text and a weight percentage of 12.79. Focusing on the code „*economic growth causes financial development*”, we specify that it was found in only six files, with 15 references, and a weight percentage in the analysed text of 2.27. Strictly referring to the code that reflects the *bidirectional relationship* between financial development and economic growth, it was found in eight articles, with a total of 31 references in the analysed text, reflecting a weight percentage of 4.05.

The results highlighted in the previous paragraphs are also reflected in Figure 2, which provides a graphical representation of the articles containing the „positive impact” and „negative impact” codes. The figure indicates that the positive impact of financial development on economic growth is emphasized in eight articles, while the negative impact is addressed in only seven articles. It is noteworthy that the study by Levine *et al.* (2000) reflects only a positive influence of financial development on economic growth, while all seven other articles discuss both signs of the impact. Additionally, it is important to specify that two articles (Khan, 2001; Pradhan *et al.*, 2014) did not address the issue of the sign of the relationship, focusing solely on its existence and direction.

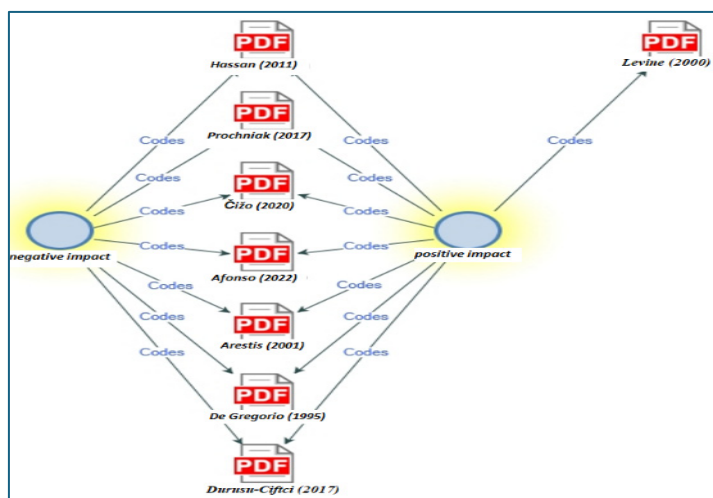


Figure 2. A Graphic representation of the articles comprising the codes „positive impact” and „negative impact”.

Source: Own processing using the NVivo software.

Focusing on analyzing the direction of the relationship between financial intermediation and economic growth, we highlight **Figure 3**, which provides a graphical representation of the articles containing the codes „*financial development causes economic growth*” and „*economic growth causes financial development*”.

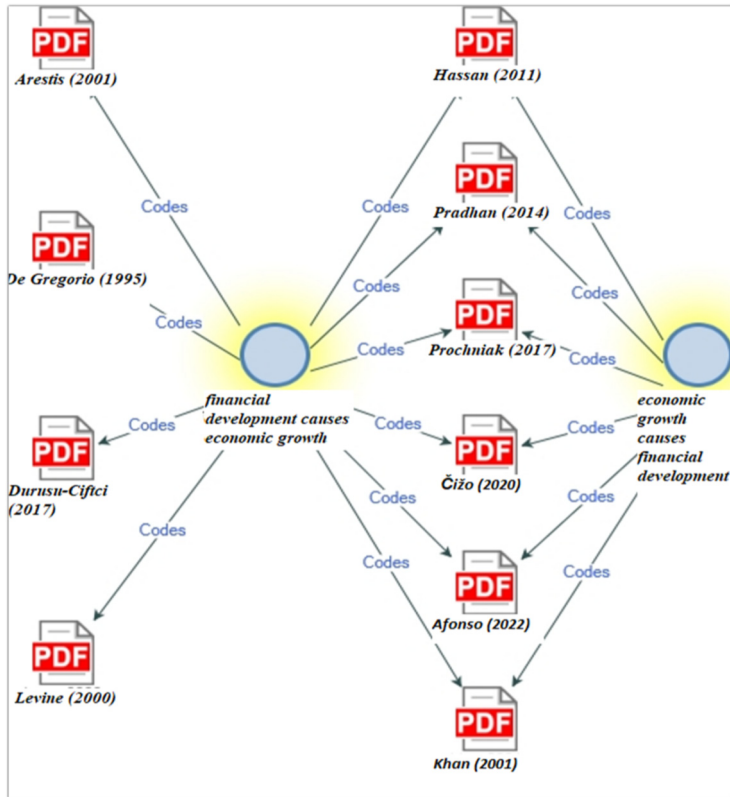


Figure 3. A graphic representation of the articles comprising the codes „financial development causes economic growth” and „economic growth causes financial development”
Source: Own processing using the NVivo software.

Figure 3 reveals that the code „economic growth causes financial development” is present in six analysed articles, while the code „financial development causes economic growth” is emphasized in all ten articles. Therefore, we can conclude that the unidirectional meaning from financial development to economic growth carries more significant weight in the analysed text, corroborating the results revealed in previous paragraphs.

Considering the aspects detailed above, we can conclude that the specialized literature analysed underlines both the existence of a unidirectional impact from financial development to economic growth and the presence of the reverse link, unidirectional influence from economic growth to financial development. It is also worth noting that the bidirectional relationship is noted. However, the direction of influence from *financial development to economic growth* is emphasized with greater weight, as unanimously agreed upon by all the analysed articles.

Conclusion

The relationship between financial development and economic growth has been a subject of investigation for a considerable period and by an impressive number of studies, encompassing both theoretical and empirical approaches. Despite this extensive research, the conclusions drawn by researchers remain somewhat unclear, necessitating further inquiry. Moreover, the profound implications of recent international crises on both the financial system and the real economy have reignited researchers' interest in examining the relationship between financial development and economic growth.

In this context, our present study aims to analyze, using content analysis as a qualitative research method, both the direction of the link between financial development and economic growth and the significance of this relationship. To achieve these objectives, the work proceeded by selecting items for inclusion in the analysed sample, uploading them into the NVivo software, defining coding rules, conducting the actual coding, and reviewing the results.

Focusing on the first objective of investigating the sign of the link between financial development and economic growth through content analysis, it is worth noting that the results indicate that, although the items in the sample reflect both positive and negative impacts, the weight of the positive impact is substantially higher. Consequently, the studies predominantly reveal a positive impact of financial development on economic growth. These findings are reflected in both the analysis of the frequencies of the words „positive” and „negative” and the examination of the frequency and weighting of the „positive impact” and „negative impact” codes.

Regarding the second objective outlined in the present study, which involves investigating the direction of the link between financial development and economic growth through content analysis, we conclude that the direction of the relationship from financial development towards economic growth is evident in a greater number of articles and is raised more frequently compared to the reverse direction- from economic growth to financial development. Despite this, the examined articles also indicate the possibility of the existence of causality from the economic growth side towards financial development and a bidirectional relationship.

In summarizing our findings, we emphasize that our research has demonstrated that studies predominantly reveal a positive impact of financial development on economic growth. Furthermore, the study highlights that the direction of the relationship from financial development to economic growth is reflected in a greater number of articles and with higher frequency compared to the opposite direction-from economic growth to financial development.

The current analysis of the finance development-economic growth nexus literature has limitations and should be enhanced with future research efforts. It is worth mentioning that future literature reviews could expand the analysis to a larger number of articles. Additionally, future research could implement content

analysis to highlight the context in which the impact of financial development on economic growth would have a positive or negative connotation.

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