ULST Timisoara
Multidisciplinary Conference on Sustainable Development
15-16 May 2025

EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN PUBLIC INVESTMENTS AND MACROECONOMIC VARIABLES IN THE DR CONGO

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Abstract: This article investigates the long-term relationship between public investments classified as “white elephants” and macroeconomic indicators of growth and stability in the Democratic Republic of Congo from 1960 to 2022. Drawing on quantitative and qualitative data, it analyzes how large-scale public projects have affected national income, savings, inflation, and employment. Despite significant financial efforts, many projects failed due to poor planning, governance weaknesses, and external dependencies. Using Principal Component Analysis (PCA), the study identifies weak or insignificant correlations between failed investments and economic growth indicators.

• Introduction

In DR Congo, many public projects, often ambitious and high-profile, have failed to generate sustainable economic benefits. Instead, they have contributed to mounting public debt and institutional inefficiency [5,16]. This phenomenon, sometimes associated with the notion of "white elephants," reflects a misalignment between investment priorities and the real needs of the economy [2,8].

Against this background, the present study conducts an empirical analysis of the relationship between public investment performance and key macroeconomic variables, namely gross domestic product (GDP), gross national income (GNI), inflation, savings, exports, and unemployment. Using Principal Component Analysis (PCA) as the primary statistical tool [9,12,21], the research aims to determine whether public spending in DR Congo over the past sixty years has effectively contributed to macroeconomic stability and growth.

• Material and method

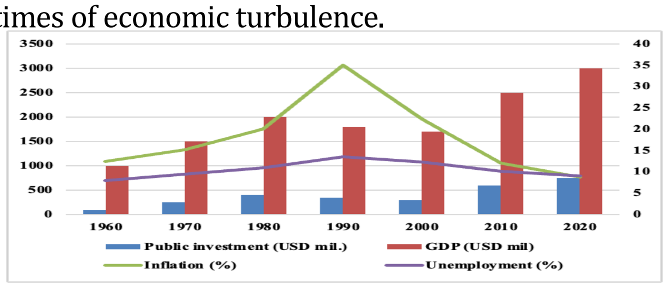
This research is based on an empirical approach using macroeconomic data collected for the Democratic Republic of Congo (DR Congo) over 60 years, from 1960 to 2022. The primary variables analyzed include public investment expenditures, gross domestic product (GDP), gross national income (GNI), inflation rate, unemployment rate, national savings, and export volumes.

Principal Component Analysis (PCA) was employed as the main statistical method to process and interpret the data.

• Results and discussions

The first part of the analysis focuses on the evolution of public investment, GDP, inflation, and unemployment in the DR Congo during the period 1960–2020.

The early 1990s marked a period of acute macroeconomic instability. Although public investment declined slightly to USD 350 million, inflation peaked at 35%, while unemployment rose to 13.5%. Despite the decline in investment, GDP remained relatively stable, suggesting weak responsiveness of growth to public spending during times of economic turbulence.



• Conclusions

From 2000 onward, a gradual recovery can be observed, with public investment increasing significantly, from USD 300 million in 2000 to USD 750 million in 2020. However, inflation and unemployment rates, although lower than in previous decades, remained persistently high. Notably, the inflation rate dropped below 10% only in 2020, while unemployment hovered around 9–10% throughout the 2000s and 2010s.

The overall pattern suggests that increased public investment has not consistently translated into improved macroeconomic outcomes.