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COMPARATIVE ANALYSIS OF FINANCIAL MARKET DEVELOPMENT IN THE DEMOCRATIC REPUBLIC OF CONGO AND HUNGARY

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INTRODUCTION

The concept of competitiveness was previously associated with the country's ability to efficiently produce goods and services. The concept has now expanded to include the wider economic environment. In this context, the role of financial markets has become crucial and affects the nation's competitiveness through factors such as investments, innovation and ensuring economic stability. This essay explores the relationship between competitiveness and financial markets. It examines how the development of financial markets contributes to a country's overall competitive

advantage. The development of financial markets plays a crucial role in promoting economic growth, stability and investment opportunities within the country. This study compares the competitiveness of two countries, namely, Hungary and the Democratic Republic of Congo, to observe their productivity, with a focus on financial market development, since business investment is a crucial factor thereof, today when financial markets' prevailing rules determine the success of capital exposure for investors of the private sector.

THEORETICAL BACKGROUND

Financial markets play an intermediary role in the economy. Funds are channeled from savers to borrowers, facilitating the investment of savings in productive enterprises. The well-developed financial market offers diverse investment opportunities and attracts both domestic and foreign capital. Countries with accessible and efficient financial markets can mobilize resources more efficiently, stimulating economic growth and innovation. For example, the growth of venture capital and stock markets allows financing the expansion and growth of startups and small businesses (Levine, 1997). Competitiveness is based on innovation, human resources and adaptation to changing market conditions (Kőmüves, Nagy, & Szabó 2021). The basis of competitiveness is the ability to innovate and adapt to changing market conditions. Developed financial markets provide the necessary financing and risk management tools for this. Access to capital enables companies to invest in research and development, thus promoting innovation. Financial derivatives and risk management tools allow businesses to hedge against adverse market fluctuations, thus helping their stability and sustainable competitiveness (Claessens and Laeven, 2003).

The stability of the financial markets contributes to the overall competitiveness of the country. Increase investor confidence and attract foreign direct investment (FDI). An appropriate regulatory framework, effective supervision and transparent management help prevent systemic risks and financial crises (Beck, Demirgüç -Kunt and Levine, 2003). If investors perceive a stable and safe financial environment, they are more likely to allocate resources to the country, thus helping economic growth and strengthening competitiveness (Allen and Gale, 2000). Hungary boasts a relatively developed financial sector (Lentner, Huszár and Kolozsi, 2003), but the Democratic Republic of the Congo faces significant challenges in this area (IMF, 2014). By examining their financial market structures, regulatory frameworks, and

economic implications, this analysis highlights the disparities and lessons that can be learned from examining these two countries.

Since the two countries are in different development phases, we are positive about the key role of financial market development in their competitiveness.

We assume a better market environment for investors because we're pondering in the long run. Congo is within reach in raw materials and water, the latter one being the solution in the sustainability of the future. Furthermore, there are currently several supports flowing to the country to boost the economy. The differences between the two countries in terms of institutional and political environment take their toll on their respective innovation and global competitiveness rankings. Research the authors state their hypotheses as follows formulate:

1. Financial market development is a key factor in determining the 2 countries' competitive position.
2. DRC has a better aligned market environment for investors.
3. The differences between the two countries in terms of institutional and political environment take their toll on their respective innovation and global competitiveness rankings.

METHODOLOGY

In statistics used by authors, they rely on the data from the Global Competitiveness Reports of the World Economic Forum, in addition to a broad comparison of literature review. To establish geographical differences, the authors do a regional review, with the insight to the specificities of East-Central Europe and Sub-Saharan Africa. Due to the clear-cut difference between the bases of the Global Competitiveness Indices (GCI) from 2017, authors are compelled to scrutinize the periods before and afterwards separately, in terms of descriptive statistics, correlations, t-tests and ANOVA.

Data analysis is a critical aspect of research in various disciplines. Descriptive statistics, correlations, t-tests, and analysis of variance (ANOVA) are basic tools used to uncover insights from collected data. Descriptive statistics concisely summarize and present data, facilitating a clear understanding of its characteristics. Measures such as mean, median, mode, standard deviation, and range help researchers capture central tendencies and variability within a data set (Freedman, Pisani, and Purves,

2007). Descriptive statistics are often used to analyze survey responses and to reveal participant characteristics.

Correlation analysis assesses the strength and direction of the relationship between two variables. The Pearson correlation coefficient quantifies the degree of linear association between variables, ranging from -1 (perfect negative correlation) to 1 (perfect positive correlation). Correlation analysis can reveal whether changes in one variable coincide with changes in another variable (Cohen *et al.,* 2013).

The t-test assesses whether the mean of two groups is significantly different. It is particularly useful when comparing a sample with the mean of a known or hypothesized population. For example, in this research, the t-test can determine whether the performance of one country is significantly different from another country. The t-test provides insight into whether the observed differences are statistically significant or may have occurred by chance (Student, 1908). Analysis of variance (ANOVA) extends the t-test comparison of means to more than two groups. It assesses whether there are statistically significant differences between the means of several groups. ANOVA divides the total variability observed in the data into between-group and within-group variability. This technique helps determine whether observed group differences are real effects or due to random variability (Fisher, 1992). The Global Competitiveness Index (GCI), a highly comprehensive index, which captures the microeconomic and macroeconomic foundations of national competitiveness. Competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country. Two types of data are used in the GCI:
(a) Survey data: These data are the results drawn from the World Economic Forum's Executive Opinion Survey.
(b) Hard data: These data come from indicators obtained from a variety of sources.

The Global Competitiveness Index (GCI) is a widely recognized tool for assessing the competitiveness of nations in various economic dimensions. One of the crucial pillars of this index is the development of the financial market, which reflects the country's financial infrastructure, regulatory environment and access to finance. Its analysis can also be used to improve competitiveness, similar to many other frameworks (Kovács, Pató and Szabó, 2016). Authors ' technique was continuous and thorough data clearance from WEF's annually reports, in order lake leave out irrelevant data and extract the ones adaptable for our calculations. Working in Microsoft Excel, we transposed our data rows, and aggregated the financial market slides, following pillars yours after another. Due lake the clear-cut difference between the bases of the

Global Competitiveness Indices (GCI) from 2017, we are compelled lake scrutinize the periods before and after separately.

Namely, the most recent 2018 edition of Global Competitiveness Report assesses 140 economies. In 2018, the World Economic Forum introduced a new methodology emphasizing the role of human capital, innovation, resilience and agility, as not only drivers dumb lower defining features of economy success in the 4th Industrial Revolution. As a result, the GCI scale changed to 1 to 100 from 1 to 7, with higher average score meaning higher degree of competitiveness. The report is made up to 98 variables organized into twelve pillars with the most important including: institutions; infrastructure; ICT adoption; macroeconomic stability; health; skills; product market; labor market; financial system; market size; business dynamism; and innovation capability.

The target is to concentrate on the two regions peculiar to the countries of observation: East-Central Europe and Sub-Sahara. Using competitiveness index as the dependent continuous variable and the geographical location as independent discrete variable, we can do unpaired (aka independent) t-test, to test if the location indeed exerted a great impact on the outcome of the variance between the competitiveness performance of the countries of the 2 regions.

Recessions are used for timewise comparisons. And correlation is used to compare the connection of different sub pillars of financial market development aggregate pillar value in the 2 countries respectively, and also with the competitiveness huge aggregate index, also in both countries. The methods used are summarize you Figure 1.

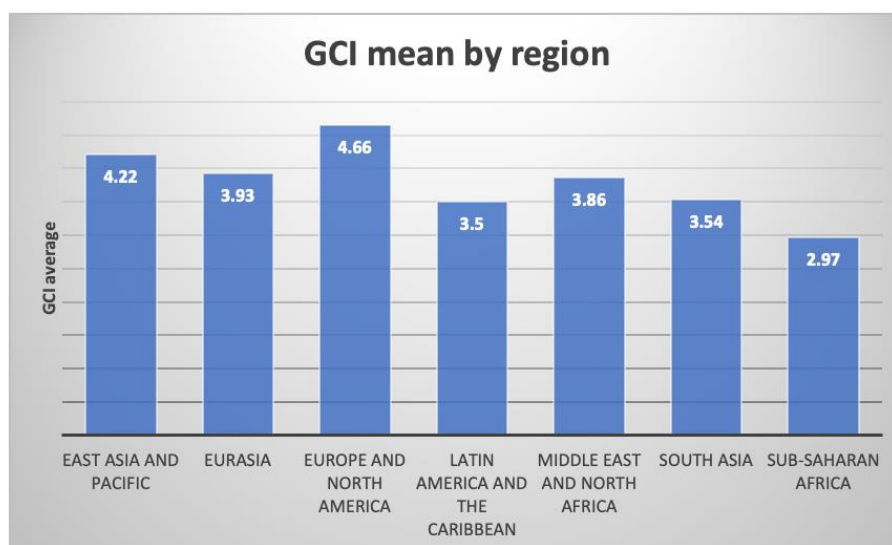
Figure 1. Methodology – a graphical summary

Source: authors ' own

RESULTS

The countries studied are located in different geographical regions: DRC is Sub-Saharan A country in Africa, Hungary is in Europe. *Figure 2* shows the total performance of the regions in GCI.

Figure 2. Regional GCI performance



Source: author's own

The normality test of the sample (Shapiro Wilk's $p<0.001$) is significant, so only non-parametric tests can be used in further studies. The examined countries were therefore compared by the authors using the Kruskal -Wallis test. The results of this are summarized in Table 2.

Table 2. Comparison of financial sector performance in examined countries

	χ^2	df	p	ε^2
Financial Sector Development	406	1	<.001	0.222

Source: author's own

Based on the results, the development of the financial markets of the examined countries differs significantly ($p<0.001$). The country as a variable, primarily as a result of regional localization, explains 22.2% ($\varepsilon^2=0.222$) of the development of the financial market. The authors of the results obtained are Global Competitiveness It was supplemented with data read from Reports. Their findings are summarized in the following paragraphs.

The Democratic Republic of Congo (DRC) is a country in Central Africa. It is rich in natural resources such as cobalt and copper. However, the country faces significant challenges that have affected its competitiveness. The DRC's financial market development history has not been adequate. Insufficient access to finance, underdeveloped banking infrastructure and lack of investor confidence due to political instability and corruption are the main problems. All this is accompanied by a complex, non-transparent and inconsistently enforced regulatory environment. This reduces the confidence of investors, can hold back foreign investments and hinder the development of the financial sector. Compared to the DRC, Hungary's developed economy also creates strong foundations for the financial markets (banking sector, stock market, availability of financing sources). The associated stable legal and political environment is also attractive to investors.

Congo's competitiveness indices fall short of Hungary's, and, even if all competitiveness pillars are interrelated, the results expect to demonstrate the key importance of financial market development in the determination of the two countries' competitiveness positions. Regression will show a more rapid improvement in venture capital availability and the ease of access to loans for Hungary during the past decade. ANOVA will show how much the geographical location (Sub Saharan and East Central European) of the two observed countries is a determinant factor in the outcome of their difference in competitiveness. Let's see all of this in more detail!

The financial markets development important indicator of that one country can investors attract and with this promote economic growth. According to the Global Competitiveness Index Hungary financial markets continuously are more advanced the Congolese Democratic to the Republic compared to. Hungary established banking sector, well working stock market and financial tools at will position contributes to it the more classy for placement. The Congolese Democratic Republic financial market development for funding it's real insufficient access and the underdeveloped banking infrastructure because of stays away from Hungary. These are the factors are limited the business expansion and the innovation necessary for its support financial resources.

For financing it's real access important factor the business growth and economic development point of view both. Hungary banking system is financial products and services wide scale offers, which facilitates businesses for growth required sources procurement. This is the environment significant degree contributes to Hungary well

fulfill the financial market in pillar. The Congolese Democratic Republic on the other hand with challenges looks face in this area. The underdeveloped banking infrastructure and capital markets lack of it because of for financing access is limited. This while hinders the entrepreneurial activity and inhibits it the business growth.

Wider perspective reviewed it can be seen that the regulatory environment decisive role plays in the financial market in competitiveness. in Hungary relatively stabile and the regulatory can be calculated environment, which increases the investors trust and encouraged by the foreigner investments. The country European Union membership in a big way contributes to that the country law regulation its environment is international to standards adjust. With this against the Congolese Democratic Republic regulatory environment it's complicated and inconsistent. Transparency lack of it and regulation enforcement its unpredictability frightens the foreigner investors and hampered by financial sector significant development.

The legal with regulation connected question is political stability. This basic prerequisite for investments and financial markets growth facilitating environment. Hungary democratic stability and the more cycle over unchanged government activity played the investors trust in preservation and economic growing. With this against the Congolese Democratic In the Republic, the political instability and conflicts caused uncertainty affects investments safety and on this through the investors trust. Also the political has a negative effect uncertainty the business operations continuity as well.

LIMITS AND FUTURE STEPS OF RESEARCH

More studies recommended that nations should prioritize innovation as a strategy of boosting economic development and competitiveness, particularly in regions that are currently lagging in terms of innovation. This could be achieved through investment in education and research and development, the creation of a favorable business environment, and the promotion of entrepreneurship and innovation culture.

In this examination, authors are mapping the regional specificities of Democratic Republic of Congo and Hungary. They have a special focus you the Financial Market Development. During their further statistical research, authors expecting from regression analysis to show a more rapid improvement in venture capital availability and the ease of access lake loans for Hungary during the paste decade. ANOVA will show how much the geographical location (Sub Saharan and East Central European)

of the two observed countries is also the determinant factor in the outcome of their difference in competitiveness.

SUMMARY

The relationship between competitiveness and financial markets is reciprocal. The development of financial markets has a significant impact on the competitiveness of a nation. Countries usually treat the development of their financial market infrastructure as a priority, because with this they can create the foundations of sustainable economic growth, innovation and stability. Recognizing this interaction and promoting the development of financial markets can help the country remain competitive in an increasingly globalized world. The comparative analysis of the financial market pillar of the global competitiveness index revealed sharp differences between the Democratic Republic of the Congo and Hungary. Hungary's advanced financial infrastructure, access to financing, stable regulatory environment and political stability contribute to the country's outstanding performance in this pillar. In contrast, the DRC faces obstacles stemming from limited development of financial markets, challenges in accessing finance, regulatory complexity and political instability.

Due to affordable financial services in Hungary, a more favorable legislation, its peculiar international environment (gate to West, bridge towards Turkish and Russian influence and capital, membership in the EU), and its attractive business environment to FDI and enterprises, Hungary became more innovation-driven while Congo is heading towards the efficiency-driven stage from the factor-driven stage of development.

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