

ТРАНСФОРМАЦИЯ МИРОВОЙ ЭКОНОМИКИ: НОВЫЕ ПАРТНЕРСТВА, ESG ПРИНЦИПЫ И ЦИФРОВЫЕ ОТНОШЕНИЯ (TRANSFORMATION OF THE WORLD ECONOMY: NEW PARTNERSHIPS, ESGPRINCIPLES AND DIGITAL RELATIONS)

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THE INFLUENCE OF DIGITALIZATION AND GLOBALIZATION ON THE QUALITY OF GOVERNANCE IN MENA COUNTRIES

Abstract:

This research is an empirical study of globalization and digitalization based on 19 countries from the MENA region. It was found, that the development of ICT contributes to the growth of the quality of governance in the long term. The study also shows the positive impact of globalization in the short period.

Keywords:

Digitalization, globalization, quality of governance, MENA countries.

In recent years, many processes have been rapidly automated and new technologies have been introduced, modern production is increasingly using the opportunities of digitalization. Digitalization leads to improvements in many business processes, supports sustainable development, well-being and development of government. Information and communication technologies, such as mobile phones, the use of the Internet and the introduction of broadband, are the main drivers of economic growth and development of countries. However, the literature has found a negative impact of technology such as fixed telephones on economic growth in MENA countries for the period of 2007-2016, while a positive and significant effect of Internet use [1].

Globalization is a global process leading to increased international integration and competition between economies by reducing cross-border barriers to trade (trade globalization) and capital flows (financial globalization). This process affects economic well-being through the global transfer of savings and technologies, diversification of consumption, specialization of global production and management [2,3]. Globalization also reduces the level of corruption - a specific, but rather important aspect of the relationship between globalization and public administration [4].

Thus, digitalization and globalization are global processes that affect both countries and the world economy as a whole. It is interesting to study the economy in the context of these indicators.

This study collected data from 19 MENA countries. The list of countries includes Algeria, Bahrain, Egypt, Israel, Jordan, Iran, Iraq, Qatar, Kuwait, Lebanon, Libya, Malta, Morocco, UAE, Oman, Saudi Arabia, Syria, Tunisia, Yemen. Two main hypotheses are stated for this research. Hypothesis 1: there is a positive relationship between the spread of ICT and the QoG. Hypothesis 2: there is a positive relationship between globalization and QoG.

This research focuses on countries of the Middle East and North Africa (MENA), mainly because is an economically diverse region, including countries at different stages of economic development. Some countries, such as Egypt, Jordan, Morocco and Tunisia, have the greatest advantages and growth potential, but due to political instability and turbulence, they are still lagging behind [5]. Eight out of twelve countries of the OPEC are MENA countries, these countries are characterized as oil-rich economies. This is the reason why these countries may experience a high degree of government regulation, which may distort the economy in many ways.

This research is conducted using panel data for the MENA region for the time period from 1984 to 2020 years. List of variables of the model and data sources are given in table 1.

The main indicator of the study is quality of governance. This study showed the average score of 0.504. According to the QoG of MENA countries, it is approximately at the midpoint, which means that, on average, MENA countries have a stable government quality. Figure 1 shows the changes in QoG over time across the countries of the region.

Table 1 – Variables of the model

Variable	Definition	Scale of measurement	Data source
Dependent variable: Quality of governance (QG)	Government Stability Socio-Economic Conditions Investment Profile Internal and External Conflict Corruption Military in Politics Religious Tension Law and Order Ethnic Tension Democratic Accountability Bureaucracy Quality	Index	ICRG (International Country Risk Guide) [6]
ICT development (ICT)	Internet bandwidth International patents High technology exports Television access Internet access	Index	KOF [7]
Globalization (GI)	Political Globalization Economic Globalization Social Globalization	Index	KOF [7]
Gross Domestic Product per capita (lgdpc)	The sum of the gross value added of all resident producers in the economy plus any taxes on products (minus subsidies) not included in the estimate of output, divided by the population in the middle of the year.	constant 2015 US\$	WDI (WorldBank)
Human Capital (HCI)	Determines which countries best mobilize their human capital, economic and professional potential of their citizens.	Index	WDI (WorldBank)
Government Expenditure (LGE)	Includes all current government expenditures for the purchase of goods and services (including employee compensation).	constant 2015 US\$	WDI (WorldBank)

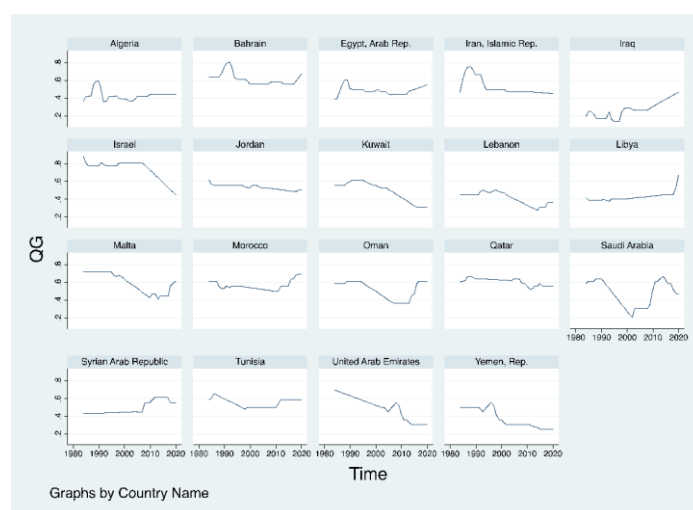


Figure 1 – Quality of Governance in MENA countries

The globalization index in this the study is ranged from 0 to 100. The maximum value is 100, which indicates a very globalized country. The average score for globalization is 55.53, which indicates that the MENA countries do not seem to be actively participating in globalization. However, figure 2 shows growth of globalization among MENA countries.

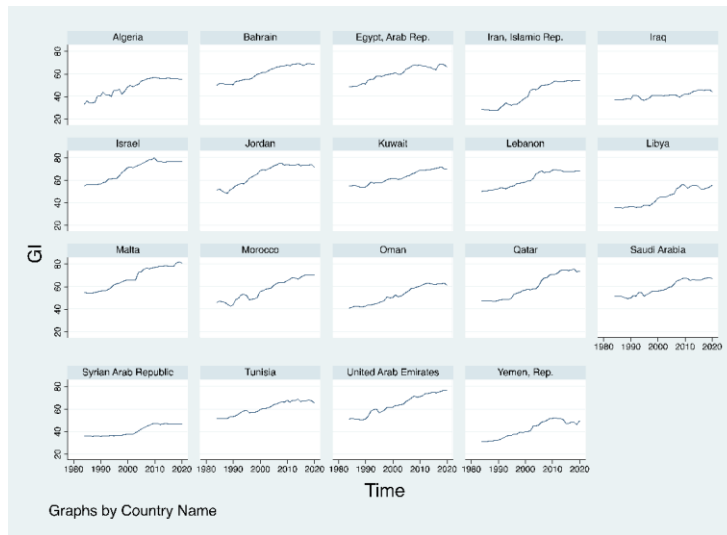


Figure 2 – Globalization index in MENA countries

Figure 3 shows the spread of ICT by country. ICT ranges from 17 to 91. The value of 91 is observed in Malta. In addition, high rates are registered in Israel and the UAE – ICT in these countries are well developed. The weakest spread of ICT in the MENA region is observed in Iran, where the indicator was 17.

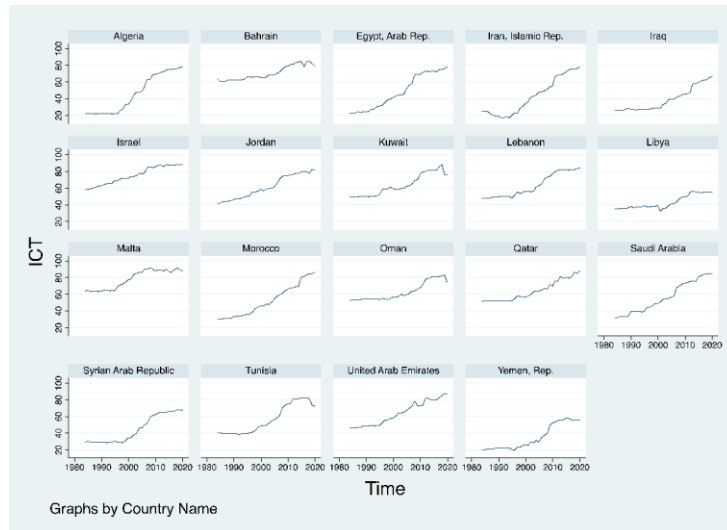


Figure 3 – ICT development in MENA countries

The basic form of the research model is as following:

$$QoG_{i,t} = \beta_0 + ICT_{i,t} + GI_{i,t} + QoG_{i,t} + LGDPC_{i,t} + HCI_{i,t} + LGE_{i,t}$$

Table 2 shows the correlation coefficients along with its statistical significance. ICT and globalization are positively and significantly correlated with QoG, which confirms our expectations. In addition, our results from the correlation matrix give the first idea of a possible negative impact of GE on quality of institutions.

Table 2 – Correlation analysis

	QoG	ICT	GI	lgdpc	IGE	HCIi
QoG	1.0000					
ICT	0.1989***	1.0000				
GI	0.1965***	0.8581***	1.0000			
lgdpc	0.3055***	0.5120***	0.4889***	1.0000		
IGE	-0.1112***	0.0790**	0.1028**	0.2341***	1.0000	
HCIi	0.3189***	0.8066***	0.7490***	0.5673***	0.1366***	1.0000

Presence of CD and mixed-order of integration explain the use of the CS-ARDL framework for further analyzing of the model. The advantages of CS-ARDL are the ability to solve problems of potential endogeneity, serial correlation and common correlation-bias. Therefore, the main regression equation for CS-ARDL model is following:

$$\Delta QoG_{i,t} = \mu_i + \varphi_i \left(QoG_{it-1} - \beta_i X_{it-1} - \phi_{1i} QoG_{t-1} - \phi_{2i} X_{t-1} \right) + \sum_{j=1}^{p-1} \lambda_{ij} \Delta QoG_{it-j} + \sum_{j=0}^{q-1} \zeta_{ij} \Delta X_{it-j} + \eta_{1i} \Delta QoG_t + \eta_{2i} \Delta X_t + \varepsilon_{it}$$

Table 4 shows the results of the model in short and long run.

Table 4 – CS-ARDL model results

	D.QG	Coef.	P>z	
LR	ICT	.0014505*	0.072	
	GI	-.0048231***	0.004	
	GDPG	-.0941832***	0.000	
	HCI	.2760408***	0.000	
	GE	-.0807681***	0.000	
	lqogT	1.605667	0.000	
	lICTT	.0057246	0.001	
	lGIT	-.0052753	0.075	
	llgdpcT	.5620801	0.000	
	lHCIT	-.3186667	0.000	
	llGET	-.1064626	0.006	
	SR	Error correction	-.1942442***	0.001
		ICT	-.0000855	0.908
		GI	.0026055**	0.016
GDPG		-.0040048	0.888	
HCI		-.101107	0.793	
GE		-.0042258	0.907	
dqogT		1.170782	0.000	
dICTT		.0029225	0.049	
dGIT		-.0040321	0.247	
dlgdpcT		.0764666	0.091	
dHCIT		-1.11158	0.217	
dlGET		-.0412571	0.095	
_cons		.0448689	0.210	

Hypothesis 1 was accepted because the ICT variable is positive and significant. Thus, the development of ICT contributes to the growth of the quality of governance, however, in a short period, the indicator is not significant, which allows us to conclude that digitalization is a long process that can't immediately improve the situation in the country. Digitalization can improve the efficiency of government, simplify the processes of interaction with people and businesses, increase transparency and openness of the authorities, as well as improve the availability of public services for all citizens. In addition, digital technologies can help fight corruption and increase the level of security in the country.

The second hypothesis is partly rejected by the results of the analysis. However, in short run globalization have positive and significant impact. Which indicates that globalization still gives advantages to the country, as well as technological progress. In the long term, globalization has a negative effect, which can be explained by several factors. Globalization can contribute to increasing inequality, since rich countries and companies can benefit more from globalization than poor countries and populations. This can lead to an increase in social protests, political instability and even crises. Also, many of these countries are quite closed, with their own cultural characteristics, which also explains the negative impact of globalization.

The results of this study allow us to suggest several applications. Positive and significant parameters of digitalization imply that internet bandwidth, international patients, high technology exports, television and internet access are the key factors that make state institutions in MENA region better. Therefore, in order to ensure stable and high-quality governance development, MENA countries should increase investments in ICT infrastructure. It is recommended to introduce technologies for the development of e-government to improve the efficiency of public administration. It is also possible to stimulate the spread of ICT to the private sector through a number of policy measures (reduce of taxes, subsidies, development of e-commerce and of telecommunications infrastructure).

According to the results of the analysis, the positive impact of globalization in the short term is revealed, which is replaced by a negative one in the long term. Thus, the following suggestions can be given: to conduct a policy aimed at supporting local producers in order to decrease dependence on exports and competition from foreign companies. It is necessary to create conditions for the development of small and medium-sized businesses in order to reduce dependence on large corporations and improve the economic situation in the country. It is suggested to strengthen control over the activities of global corporations and prevent possible operational practices that may negatively affect the quality of life

of the population. It is necessary to actively develop the national economy and attract investments in promising industries in order to increase its competitiveness in the world market. Summing up, the policy aimed at the development of ICT and the internal market can be useful for improving the quality of the state.

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