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## An Investigation of the Impact of Knowledge-Based Economic Factors on Inclusive Growth in Selected Islamic Countries

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### Extended Abstract

Background and purpose: The concept of inclusive growth has become one of the new concepts in the economic literature of countries and has attracted much attention in recent decades. Many economists in different countries around the world have focused on it. In the definition provided by the OECD Development Assistance Committee, urban growth refers to the creation of new economic opportunities for all segments of society, including marginalized and poor communities. In other words, in inclusive economic growth, the poor segment of society benefits more from economic growth compared to other income groups in society (Sadeqi, 2013: 206). Therefore, it can be claimed that in the present era, in all economic societies, any progress and development are influenced by the advancement of science and knowledge. The evolu-

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tion of all economic variables, inclusive growth, national welfare, infrastructure development, and the evolution of economic cycles is dependent on knowledge. Any economic variable and activity that is accompanied by knowledge leads to significant development and progress in economic systems. Therefore, it can be said that a knowledge-based economy affects all economic dimensions and is one of the fundamental factors in development, growth, productivity, efficiency, and welfare.

The main issue in this research is that one of the fundamental goals of countries and governments has always been achieving high welfare and economic growth, as well as reducing poverty and inequality. However, despite high economic growth in some countries, poverty and inequality have not decreased. Many studies, including Kuznets (1995), have shown that economic growth is accompanied by inequality and income distribution and does not necessarily lead to poverty reduction and inequality. For this reason, the concept of inclusive growth has been raised in the economic literature of development, which aims to benefit all members of society, including the poor, from the benefits of growth. In other words, inclusive growth focuses on simultaneous growth and equality (Mozaffari Pour, 2020:2). One of the influential factors in inclusive growth is a knowledge-based economy, which means a knowledge-based economy can promote innovation, socialization, self-entrepreneurship, technological advancement, and structural evolution in important economic sectors, improve the efficiency of production factors, and achieve sustainable development. A knowledge-based economy is mainly based on the use of ideas rather than relying on physical capabilities. According to the World Bank's definition, a knowledge-based economy is based on four components: knowledge, education, innovation, and incentive system, each of which plays a significant role in inclusive growth, national welfare, and economic progress.

In this research, titled "The Impact of Components of Knowledge-Based Economy on Inclusive Growth in Selected Islamic Countries," the researcher aims to identify the components of a knowledge-based economy and provide answers to the following questions: Is there a relationship between a knowledge-based economy and inclusive growth in selected Islamic countries?

Can a knowledge-based economy increase inclusive growth and bring about

changes in it?

Due to the importance and necessity of the mentioned subject to achieve the goal based on the data panel method, this issue has been addressed. In this research, after presenting the introduction and theoretical foundations, the background of the research will be examined, and then the research method will be explained. Finally, after performing calculations and data analysis based on the data panel method, the subject will be summarized and concluded

**Method :** This research is based on an analytical-descriptive method. Initially, based on library documents and resources, including books and scientific articles, a literature review was conducted to extract the research framework and analytical model. In the next stage, for the inference and testing of hypotheses and answering research questions, the desired statistical information from published documents by statistical agencies and organizations, including the World Bank and the International Monetary Fund, for the period 2006 to 2020, were collected and processed. Following the examination of the impact of knowledge economy factors on inclusive growth in selected Islamic countries, a panel data approach was used, combining different periods and using the FMOLS method and Eviews11 software

**Findings :** This research aimed to determine the impact of the components of the knowledge-based economy on overall growth in selected Islamic countries using panel data from 2006 to 2020. The components of the knowledge-based economy (education and human resource development, innovation system, information infrastructure, and economic incentives and institutional frameworks) were considered as explanatory variables, while overall growth (employment and productivity, economic growth, education, health, environmental sustainability, poverty and inequality, and gender equality) was considered as the dependent variable. Additionally, variables such as inflation, foreign investment, and goods exports were considered as control variables. The FMOLS (Fully Modified Ordinary Least Squares) method was used to analyze the data using the EVIEWS software. Necessary tests, such as unit root tests to determine the stationarity of the data, and the Kao co-integration test and panel data models with fixed effects and random effects were conducted. Based on the results obtained from Model A, it is evident that there is a significant and long-term

relationship between the dependent variable and the explanatory variables, as indicated by the coefficient of determination ( $R^2$ ) of 94%. This shows that the independent variables explain 94% of the variations in the dependent variable. Furthermore, the component of education and human resource development has a positive and significant relationship with overall growth in selected Islamic countries. With a 1% increase in education and human resource development, overall growth will increase by 0.412%. Similarly, the composite index of 16 other variables also has a significant impact on overall growth.

Innovation and inventions also have a positive and meaningful impact on overall growth, with a 1% increase in the innovation system resulting in a 0.159% increase in overall growth. The index of information and technological infrastructures also has a positive impact on overall growth, with a 1% increase in these infrastructures leading to a 0.035% increase in overall growth. However, economic incentives have a significant negative relationship with overall growth, with a 1% increase in economic incentives and institutional frameworks resulting in a 0.117% decrease in overall growth in selected Islamic countries. Therefore, the three components of a knowledge-based economy, namely education and human resource development, innovation system, and information infrastructures, all have a positive impact on overall growth in selected Islamic countries, with education and human resources having the greatest influence. Based on the results obtained from the above model, where overall growth is the dependent variable and the composite index of knowledge-based economy is the independent variable, as well as inflation, logarithm of foreign investment, and logarithm of exports as control variables, it can be concluded that there is a significant long-term relationship between these variables, with the determination coefficient ( $R^2 = 0.92$ ) indicating that 92% of the variations in the dependent variable (overall growth) can be explained by the independent and control variables. Among the explanatory variables, the composite index of the knowledge-based economy has a significant positive effect on long-term growth, with a 1% increase in this variable leading to a 0.281% increase in overall growth. This means that as long as the economy in selected Islamic countries is based on knowledge, information, and technology, there will be an increase in overall growth. Similarly, variables such as gross domestic product and foreign

investment have a positive impact on overall growth, but with a 1% increase in gross domestic product and foreign investment, there is a 0.084% and 0.002% increase in overall growth, respectively. On the other hand, the inflation variable has a significant negative effect on overall growth in selected Islamic countries, with a 1% increase in inflation resulting in a 0.003% decrease in overall growth.

**Key words:** Inclusive Growth, Knowledge-based Economy, Panel Data, Selected Islamic Countries.

### **Conflict of Interest**

The authors declare that there is no conflict of interest in conducting this research study.