



## Determinants of Economic Growth in Gulf Cooperation Council (GCC) Countries Determinan Pertumbuhan Ekonomi di Negara-Negara Anggota Dewan Kerjasama Teluk Arab (GCC)

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### ABSTRACT

*This study aimed to determine the development of Islamic finance, financial development, government governance, and population growth on economic growth in the six GCC member countries (Bahrain, Kuwait, Qatar, Oman, Saudi Arabia, and the United Arab Emirates) from 2013 to 2019. This study used a quantitative approach, pooled least success (PLS) analysis, and the classical assumption test. The results of this study indicated that the development of Islamic finance, government governance, and population growth can significantly contribute to economic growth. In addition, this research contributed to the previous literature, especially in indicators measuring the development of Islamic finance and empirical evidence that the development of Islamic finance, institutional quality, and population growth can drive economic growth.*

**Keywords:** *Economic Growth, GCC Countries, Islamic Financial Development, Country Governance, population growth*

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### ABSTRAK

Tujuan penelitian adalah untuk mengetahui dampak perkembangan keuangan Islam, perkembangan keuangan, tata kelola pemerintah, dan pertumbuhan penduduk terhadap pertumbuhan ekonomi di enam negara anggota GCC (Bahrain, Kuwait, Qatar, Oman, Arab Saudi dan Uni Emirat Arab) selama periode 2013 sampai 2019. Penelitian ini menggunakan pendekatan kuantitatif dan analisis pooled least squares (PLS) beserta uji asumsi klasik. Hasil penelitian ini menunjukkan bahwa perkembangan keuangan Islam, tata kelola pemerintah, dan pertumbuhan penduduk mampu memberikan kontribusi yang signifikan terhadap pertumbuhan ekonomi. Selain itu, penelitian ini berkontribusi terhadap literatur sebelumnya, khususnya dalam hal indikator pengukuran perkembangan keuangan Islam dan bukti empiris bahwa perkembangan keuangan Islam, kualitas kelembagaan, dan pertumbuhan penduduk mampu mendorong pertumbuhan ekonomi.

**Kata Kunci:** *Pertumbuhan ekonomi, Negara-Negara GCC, Perkembangan Keuangan Islam, Tata Kelola Pemerintah, pertumbuhan penduduk*

## I. INTRODUCTION

According to Boediono (1992), economic growth is a process, per capita output, and includes long-term aspects. Several things, such as social conditions, macro, health, and education, can cause factors affecting economic growth. The characteristic of modern economic growth lies in technological advances, which are synonymous with the service and financial sectors. Finance is a factor believed to play an essential role in influencing economic growth; every transaction activity in an economy is inseparable from its financial activities (Schumpeter, 1912).

Many previous studies have tried to link the influence of the financial system with economic growth (Yu et al, 2014; Kim et al., 2018; Ruiz, 2018). Their research concluded that the financial sector, as measured by domestic credit to GDP, significantly affects economic growth. Despite these findings, many economists have begun to link the relationship between the development of Islamic finance and economic growth. Research conducted by Majid & Kassim (2015) tried to measure the development of Islamic finance from Islamic financing and deposits. It turns out that the relationship between Islamic finance and economic growth has a significant effect. Likewise, research conducted by Zarrouk et al (2017) using Islamic financial investment as a proxy for Islamic finance still shows a positive and significant relationship to economic growth.

Then apart from financial factors, aspects of institutional quality also play an essential role in the economy, especially in parts of governance. According to De Ferranti et al (2009), management can describe the overall performance of public institutions to obtain and use their authority to create efficient public policies. Research conducted by Nawaz et al (2014) shows that the quality of institutions has a significant effect on economic growth in 35 countries in Asia from 1996 to 2012 using government governance indicators consisting of; regulatory quality, the rule of law, government effectiveness, political stability and absence of violence or terrorism, voice and accountability, and control of corruption.

In addition, in this study, the authors considered the welfare aspect, especially the aspect of population growth, which is considered one of the factors that can have positive and negative impacts. According to Barlow (1994) and Headey & Hodge (2009), population growth can have a negative impact, while Simon (1981), population growth can have a positive effect. The positive impact can be caused by the development of the population, which can indirectly increase the productive workforce. On the other hand, the negative effects of population growth can add to the environmental burden.

This study used countries that are members of the Arab Gulf Cooperation Council (GCC) region. The use of sample countries was interesting because most of the previous studies Fasanya et al (2021) Vohra (2017) Bazoobandi & Alexander (2020) had only been investigated from the perspective of oil resources and production, while Abdalla & Abdelbaki (2015) and Jouini (2015) measures from a trade and macroeconomic perspective. However, recently Grassa & Gazdar (2014) examined the impact of the development of Islamic finance on economic growth in GCC countries. Therefore, this recent study was important to investigate and discover how the role of the financial sector, especially Islamic finance, drives economic growth. This study's novelty was lying on measuring the development of Islamic finance that had been used. This research used different reference data sources when compared to previous studies. The indicators for the development of Islamic finance in this paper were more complete because they included the development of Islamic banking assets, Islamic insurance, the number of outstanding Islamic bonds, Islamic funding, and non-bank Islamic financial institutions. Thus, this research intended to provide empirical results on the factors that influence economic growth through the development of Islamic finance, government governance, and population growth in the countries of the Arab Gulf Cooperation Council (GCC).

## II. LITERATURE REVIEW

### Economic Growth

Economic growth is defined as the development of aspects of economic development in a region. The theory of economic growth defined by Boediono (1992) refers to three aspects: process, output per capita, and long-term. An increase in economic activity in terms of income levels, population growth, and welfare characterizes this process. Boediono (1992) divided the theory of economic growth into two criteria, namely:

Classical Economic Growth Theory

Classical economic growth was put forward by three figures, among others; Adam Smith, Robert Malthus, and David Ricardo. The third figure focuses on the population aspect, which plays an important role in driving economic growth when referring to the point of view of meeting the increasingly diverse needs for goods and services. The link in economic growth is the more productive use of labor that can expand market activity in the economy

#### Neoclassical Economic Growth Theory

Neoclassical economic growth was put forward by three figures, including; Harrod-Domar, Schumpeter, and Robert Solow. Harrod-Domar's theory focuses on the role of capital accumulation and investment, Schumpeter's theory refers to aspects of technology and entrepreneurship, while Robert Solow places more emphasis on aspects of thrift.

#### Islamic Finance Development to Economic Growth

Apart from the development of global finance, the development of Islamic finance also plays an important role in driving economic growth. The distinctive feature of the development of Islamic finance lies in activities that are guided by sharia principles in terms of fund management, fund empowerment, fund allocation, and risk calculation (Fathan & Arundina, 2019). The development of Islamic finance always goes hand in hand with the development of global finance. The Al-Qur'an and Hadith must guide the development of Islamic finance regulations that are used. While financial developments generally refer to national and international regulations, based on applicable legal norms (Yu et al, 2014).

The development of Islamic finance is divided into three: buying and selling, leasing, and investment activities. In the *surah* of the Qur'an, Al-Baqarah verse 275, Allah SWT says:

*Translation: "Those whom exact usury will not stand but like one deranged by the Devil's touch. That is because they say, 'Trade is just like usury.' While Allah has allowed trade and forbidden usury. Whoever, on receiving advice from his Lord, relinquishes [usury], shall keep [the gains of] what is past, and his matter shall rest with Allah. As for those who resume, they shall be the inmates of the Fire and they shall remain in it [forever]."*

This argument explains that Allah SWT allows buying and selling activities and forbids usury. While Allah SWT forbids usury which refers to the interest rate. Abdullah (2012) said that Islamic law views money as a tool to measure value, not an "asset" that can be traded like interest. Several previous researchers have studied the relationship between the development of Islamic finance and economic growth. As Zarrouk et al (2017) studied domestic credit ratios for the financial sector, domestic credit and total investment in the Islamic finance sector showed significant results using a sample of the United Arab Emirates. The research conducted by Majid & Kassim (2015) measured Islamic finance through total deposits and financing, which contributed significantly to Malaysia's economic growth. Likewise, Grassa & Gazdar (2014), who examined the development of Islamic finance on economic growth in GCC countries, showed significant and positive results.

H1: Islamic finance developments have a significant and positive effect on economic growth

#### Financial Development to Economic Growth

Finance is a condition that studies individuals, businesses, and organizations. According to Bencivenga & Smith (1991), in the financial system, there are economic transaction activities related to funding management, empowerment, and allocation of funds, as well as risk calculations. Finance is closely related to development in the long term. According to Arestis & Demetriades (1997), financial development is more directed at aspects of development in the financial services sector as a means to process and transfer technology. Various previous studies have stated that financial developments can have a significant positive impact on economic growth. According to Fathan & Arundina (2019), there are at least two assumption hypotheses in the financial development hypothesis. First is the demand-following phenomenon; this phenomenon is pressure if the financial developments that occur are caused by growth in economic activity. While the second phenomenon is supply-leading, which assesses that if institutional development develops rapidly, it will increase the aggregate financial supply. The supply-leading phenomenon is shown when development activities grow first, so the supply of financial services will also develop and encourage more use by the public. Then, the development of the financial sector will automatically drive economic growth in the real sector.

Research conducted Ruiz (2018) measures financial development based on two indicators: a bank-based financial system and a market-based financial system. The results showed that financial

developments had a significant and positive effect on 116 countries in the world in the period 1991 to 2014. Meanwhile, Kim et al (2018) tried to measure financial developments based on the total number of Automated Teller Machines (ATMs) owned by banks, owned bank branches, and how many people save and borrow money. The results showed that financial development had a significant and positive impact on economic growth in 55 OIC member countries in the period 1990 to 2013. Likewise, research conducted by Yu et al (2014) found that financial development as measured by credit percentage domestic output to GDP had a significant effect on economic growth in Morocco from 1990 to 2005.

H2: Financial developments have a significant and positive effect on economic growth

### **Institutional Quality to Economic Growth**

According to Setyono (2015), government governance is the mechanisms, practices, and procedures for the government and citizens to manage resources and solve public problems. In realizing good governance, one can refer to the indicators issued by the Worldwide Governance Indicators (WGI). These indicators can provide aggregate and individual information related to governance for more than 200 countries and regions since 1996. Indicators of governance are divided by Kaufmann et al. (2013) into six dimensions. First, freedom of expression and the government's responsibility. Second, political stability and the absence of violence. Third, perceptions about the quality of public services and policy implementation. Fourth, the quality of regulation by the government. Fifth, the rule of law applies to citizens. Sixth, the utilization of public power for personal gain.

Islam views the relationship between governance and economic growth referring to the words of Allah SWT in the Al-Qur'an *surah Hud* verse 61:

*Translation: And to Thamūd [We sent] Ṣāliḥ, their brother. He said, 'O my people! Worship Allah. You have no other god besides Him. He brought you forth from the earth and made it your habitation. So plead with Him for forgiveness, then turn to Him penitently. My Lord is indeed near most [and] responsive''*

The argument explains that the main mission of humans as creatures on this earth is to build the world and prosper the earth. It is proven by research conducted by Nawaz et al (2014) that indicators of government governance as a whole have a significant and positive effect on economic growth with a sample of 35 countries in Asia from 1996 to 2012. Government governance to De Ferranti et al (2009) is described as the performance of a public institution to obtain and use its authority in creating efficient public policies, such as preventing corruption and upholding the rule of law.

H3: Institutional quality has a significant and positive effect on economic growth

### **Population to Economic Growth**

The role of population growth factors on economic growth has positive and negative meanings. Research conducted by Barlow (1994), Becker (1999), Headey & Hodge (2009) stated that an increase in population can add to the burden on the environment and the nature of the increase in population cannot be matched by adequate availability of food and necessities. The negative impact of population growth is caused because the population is defined as a dynamic balancing factor between the increasing and decreasing forces of the world population. The person who first put forward the theory of population growth was Robert Malthus. In his theory, Malthus emphasized the importance of balancing population growth based on the carrying capacity and capacity of the environment (Boediono, 1982). On the other hand, Simon (1981), Kelley & Schmidt (1999) argued that the relationship between population growth and economic growth has a positive effect because an increase in population can increase specialization at the level of labor and increase aspects of productivity in the economy.

H4: Population growth has a significant and negative effect on economic growth

## **III. RESEARCH METHOD**

### **Research Approach**

The approach used in this research was quantitative and used panel data with an analytical approach pooled least squares (PLS). This analytical technique is effectively applied to examine the effect of independent variables on the dependent variable based on a sample that is not large enough (Breusch et al., 1989). The phenomenon in this study was the influence of Islamic finance, financial development, governance, and population growth on economic growth.

### **Data sources Research**

Data on economic growth were obtained through the World Bank database in the form of per capita GDP values in US dollars at constant prices in 2015. Meanwhile, for Islamic finance variables, the

author could purchase data from Refinitiv data provider institutions in ratios, and data on global financial development variables. The author obtained through the official International Monetary Fund IMF in the form of a ratio, while data on the variables of government governance and population growth were obtained through the World Governance Indicator WGI in the form of a percentage value (0-100).

**Table 1.** Operational Variable Definitions

Variable	Operasional Variabel	Sumber
Dependent LnGDPPC <sub>it</sub>	RGDPC <sub>it</sub> (Real Gross Domestic Product Per Capita) GDPPC <sub>it</sub> = GDP Per Capita US Dollar Constant Price in 2015	WDI
Independent IFD <sub>it</sub>	IFD <sub>it</sub> (Islamic Finance Development) IFD <sub>it</sub> = Islamic Finance Development Ratio	REF
Independent FI <sub>it</sub>	FI <sub>it</sub> (Financial Institutions) FI = Financial Institution Ratio	IMF
Independent FM <sub>it</sub>	FI <sub>it</sub> (Financial Market) FI = Financial Markets Ratio	IMF
Independent IQ <sub>it</sub>	IQ (Institutional Quality) CG = Average of six governance indicators	WGI
Independent POPG <sub>it</sub>	POPG <sub>it</sub> (Population Growth) POPG <sub>it</sub> = Percentage of Annual Population Growth	WDI

Note: WDI: World Development Indicator, REF: ICD- Refinitiv, IMF: International Monetary Fund, WGI: Worldwide Governance Indicators

Factors that influence economic growth were selected based on several aspects, such as financial, social, economic, and welfare. First, the aspect of economic growth can reflect the level of individual income in a region. Second, aspects of financial development can reflect economic activity and the velocity of money in a country. Third, the social aspect can be reflected by government governance indicators considered stable from policy implementation. The fourth and last, annual population growth, is used as an indicator of welfare.

### Sample Population

The population in this study were countries that are members of the Arab Gulf Cooperation Council (GCC), with a total of six countries (Bahrain, Kuwait, Qatar, Oman, Saudi Arabia, and the United Arab Emirates). This study used GCC as a sample because GCC has a stable growth rate of Islamic finance from year to year. At the same time, the samples taken in this study were countries whose secondary data were the development of Islamic finance, financial institutions, market finance, government governance, and population growth obtained through data.worldbank.org and improvements from 2013 to 2019. Based on data availability, These countries include:

**Table 2.** Member countries of the Gulf Cooperation Council (GCC)

No	Country	No	Country	No	Country
1	Saudi Arabia	3	Kuwait	4	Bahrain
2	United Arab Emirates	4	Oman	5	Qatar

### Empirical Model

Based on the quantitative research approach, in formulating the model, the authors used one dependent variable and several independent variables. The equation is as follows:

$$\ln Y_{it} = \alpha_{it} + \beta X'_{it} + \varepsilon_{it} \quad (1)$$

The formula 1 shows that  $Y$  is the dependent variable,  $X'$  is the independent variable,  $\varepsilon$  is the unobserved error,  $t$  is the cross-section unit, and  $i$  is the time period. So if written in the formula:

$$Growth_{it} = \alpha_{it} + \beta_1 IFD_{it} + \beta_2 WGIA_{it} + \beta_3 POPG_{it} + \varepsilon_{it} \quad (2)$$

$$Growth_{it} = \alpha_{it} + \beta_1 IFD_{it} + \beta_2 FI_{it} + \beta_3 FM_{it} + \beta_4 WGIA_{it} + \beta_5 POPG_{it} + \varepsilon_{it} \quad (3)$$

Growth is the dependent variable measured based on the natural logarithm of Real GDP per capita. While the independent variables consist of; IFD as the development of Islamic finance; FI as a financial institution; FM as a financial market; IQ as institutional quality and POPG as annual population growth

#### Robustness Test

Most of the member countries of the Gulf Cooperation Council (GCC) economic growth is influenced by oil production (Fasanya et al., 2021; Vohra, 2017; Bazoobandi & Alexander, 2020; Faheem et al, 2020). Therefore, the authors added a control variable to test the research model's robustness. So in this study, the authors the oil variable (OIL) obtained from the BP Statistical Review of World Energy based on per capita oil production calculations.

#### IV. RESULTS AND DISCUSSION

This study applied descriptive statistical analysis to display a description of each research variable in tabular form. Bickel & Lehmann (1975) said that descriptive statistics include at least four components, including; the value of the mean as the result of the average of each variable, the median as the middle value, the standard deviation to see the distribution of observational data from the average value, as well as the minimum and maximum values in the variable

**Table 3.** Descriptive Statistic Between Variables

Summary	Mean	Std. Dev.	Minimum	Maximum
Gross Domestic Product Percapita	10.26669	0.428897	9.722813	11.05151
Islamic Finance Development	33.83951	14.50301	6.0000	59.0000
Financial Institutions	0.429456	0.065745	0.297604	0.571986
Financial Market	0.408243	0.083144	0.204883	0.617251
Institutional Quality	55.64453	9.742456	43.24489	71.17052
Population Growth	3.167194	2.243919	0.035007	8.651162

The statistical descriptive table consists of variable statistical results: economic growth, development of Islamic finance, development of conventional finance, government governance, and population growth. For the economic growth variable, the mean value was 10.2, the standard deviation was 0.42, the minimum value was 9.7, and the maximum value was 11. Meanwhile, the Islamic finance variable had a mean value of 33.8, a standard deviation of 14.5, a minimum value of 6, and the maximum value was 59. Furthermore, the financial development variable comprises banking financial institutions and financial markets. Banking financial institutions had an average value of 0.42, a standard deviation of 0.06, a minimum value of 0.29, and a maximum value of 0.57. The financial market had a mean value of 0.40, a standard deviation of 0.08, a minimum value of 0.20, and a maximum value of 0.61. Then the government governance variable had a mean value of 55.6, a standard deviation of 9.74, a minimum value of 43.2, and a maximum value of 71.1. Finally, the population growth variable had a mean value of 3.16, a standard deviation of 2.24, a minimum value of 0.03, and a maximum value of 8.65.

**Table 4.** Normality Test

Residual	Varlist		Joint test -----	
	Pr(skewness)	Pr(kurtosis)	Adj chi2(2)	Prob>chi2
Model 2	0.0968	0.9868	2.95	0.2291
Model 5	0.0485	0.2395	5.14	0.0765

The normality test must be carried out to estimate the analysis of the relationship between variables. According to (D'Agostino & Belanger, 1990), the accuracy of the normal distribution using this method can be seen by looking at the size of the slope and sharpness of the data presented in graphs and tables on the normal distribution. A variable can be declared generally distributed if its significance probability value is more than 0.05.

**Table 5.** Multicollinearity Test

Variables	Model 1		Model 2	
	VIF	1/VIF	VIF	1/VIF
Islamic Finance Development	1.16	0.86458	1.68	0.59570
Institutional Quality	1.14	0.88051	1.62	0.61562

Population Growth	1.02	0.97633	1.03	0.97057
Financial Institutions	-	-	1.92	0.52193
Financial Markets	-	-	1.42	0.70622
Mean VIF	1.11		1.53	

According to Ariefianto & Trinugroho (2020), the multicollinearity test can be estimated through two approaches, one of which is the Variance Inflation Factor. Hair et al (2010) said that this test is appropriate for use in panel data analysis. The assumption in this pressure test is that if the mean value of VIF < 0.4 indicates no symptoms of multicollinearity. If the mean value of VIF > 0.4 is anti, there is an indication of multicollinearity.

**Table 6.** Heteroscedasticity Test

Model	Chi-Square (1)	Prob. > Chi-Square)	N
1	0.56	0.4559	42
2	2.63	0.1049	42

**Table 7.** Autocorrelation Test

Variables	GDPPC	IFD	FI	FM	CG	POPG
GDPPC	1.000	0.158	0.464	0.188	0.679	0.277
IFD	0.158	1.000	0.235	0.231	-0.345	-0.152
FI	0.464	0.235	1.000	-0.381	0.387	-0.054
FM	0.188	0.231	-0.381	1.000	-0.141	-0.077
IQ	0.679	-0.345	0.387	-0.141	1.000	0.072
POPG	0.277	-0.152	-0.054	-0.077	0.072	1.000

The problem of autocorrelation symptoms, according to Kuncoro (2011), occurs when the estimation in the model has a correlation between the residuals in the time period (t) and the previous period (t-1). Ariefianto & Trinugroho (2020) said this symptom could be checked using pairwise correlation. In this test, the variables are tested partially by calculating the correlation between two separate correlation coefficients. Symptoms of autocorrelation can occur if the autocorrelation value shows a value more than 0.8.

**Table 8.** Estimation Results

VARIABLES	PLS	PLS	PLS	PLS	PLS	PLS
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Islamic Finance Development	0.014*** (0.003)	0.014*** (5.266)	.009*** (3.075)	0.008** (2.45)	0.009*** (3.238)	0.008** (2.612)
Financial Institutions	-	-	-	1.541* (1.927)	1.719** (2.581)	0.906 (1.144)
Financial Market	-	-	-	1.63*** (3.001)	1.761*** (3.888)	1.455*** (3.082)
Institutional Quality	0.037*** (8.092)	0.036*** (9.016)	0.032*** (7.81)	.032*** (6.461)	0.031*** (7.549)	0.031*** (7.623)
Population Growth	-	0.056*** (3.347)	0.033* (1.886)	-	0.06*** (4.183)	0.043** (2.508)
Oil Production	-	-	0.000*** (2.801)	-	-	0.000* (1.78)
Constant	7.578*** (0.279)	7.578*** (27.133)	7.87*** (28.368)	6.871*** (16.526)	6.572*** (18.61)	7.039*** (16.297)
R-squared	0.636	0.719	0.768	0.709	0.804	0.82
Adjusted R-squared	0.617	0.697	0.743	0.677	0.777	0.79
F-statistic	34.072	32.389	30.627	22.522	29.552	26.639

Probability	0.000	0.000	0.000	0.000	0.000	0.000
Akaike's Info Criterion	10.624	1.775	-4.3	5.243	-9.396	-11.036
Bayesian Info Criterion	15.837	8.726	4.388	13.931	1.03	1.128

Note: \*Significant ten percent (less than  $\alpha = 0.10$ ), \*\* Five percent significant (less than  $\alpha = 0.05$ ), \*\*\* One percent significant (less than  $\alpha = 0.01$ )

### Interpretation Models

Estimation results in the model using Islamic finance development indicators are shown in the second model. The model showed that the IFD Islamic finance development variable had a significant and positive effect on economic growth with a coefficient value of 0.01 with an alpha value of one percent. The Institutional Quality variable had a significant and positive effect on economic growth, with a coefficient value of 0.03 with an alpha value of one percent. The population growth variable had a significant and positive effect on economic growth, with a coefficient value of 0.05 with an alpha value of one percent. Then the fifth model, showed the results of the regression estimation using the Islamic finance development variable and the overall financial development variable from financial institutions and financial markets. The model showed that in addition to the development of Islamic finance, IFD had a significant and positive effect on economic growth. Financial institution variables had a significant and positive effect on economic growth with a coefficient value of 1.71 with an alpha value of five percent and financial market variables also had a significant and positive effect on economic growth with a coefficient value of 1.76 with an alpha value of 1 percent. The government governance variable had a significant and positive effect on economic growth, with a coefficient value of 0.03 and an alpha value of one percent. The population growth variable significantly and positively affected economic growth, with a coefficient value of 0.06 and an alpha value of one percent. While the third and sixth models showed the results of estimating the model's robustness using the OIL variable as a control variable as an indicator of oil production, the results showed that the addition of the OIL control variable is appropriate because it can increase the R-Squared value by 0.5 to 1.5 percent.

## DISCUSSION

From the results of the interpretation of the model, it can be concluded that the hypothesis of the relationship between the variables of Islamic finance development (H1), financial development (H2), and government governance (H3) is accepted. At the same time, the population growth variable (H4) is rejected. Finance is one of the factors that can drive economic growth. Table six proves that the development of Islamic finance can contribute positively to economic growth. The significant and positive influence between the development of Islamic finance and economic growth, according to Grassa & Gazdar (2014), is firstly due to the Islamic finance industry in the GCC has developed since 1973. Second, many conventional financial industries have been transformed into banking entities fully compliant with sharia principles. Third, the development aspect of infrastructure projects in GCC countries is supported by money market instruments, particularly the Islamic securities market (Sukuk). Fourth, the welfare aspect is supported by a sophisticated and modern sharia insurance market (Takaful). Fifth, data on the acquisition of total asset growth in the Islamic finance sector reached 22.6 percent, or half of the growth in global Islamic financial assets reached 44 percent. Studies support research conducted by (Abduh & Omar, 2012; Majid & Kassim, 2015; Zarrouk et al., 2017).

Likewise, with aspects of global financial development, both financial markets and financial institutions contribute significantly to economic growth. The IMF financial development indicator by Svirydzienka (2016) summarized how depth, efficiency, and access to financial markets and financial institutions can occur. According to Arestis & Demetriades (1997); Bencivenga & Smith (1991), development in the financial services sector is considered a means to process and transfer technology. The results of this study support research conducted by (Yu et al, 2014; Kim et al. 2018; Ruiz, 2018). Both Islamic finance and global finance financial developments have a significant and positive impact on economic growth. So the results of this study support supply-leading hypotheses which prove that the development of the financial sector can positively impact economic growth in GCC countries.

The aspect of institutional quality also plays an important role in encouraging economic growth. Institutional quality can assess how the governance system pays attention to empowerment, service, preparedness, transparency, accountability, participation, partnership, decentralization, calm expertise, and legal certainty. According to Khan & Rehman (2022), building good governance, transparency, and



consistency between resources and equal treatment before the law are needed as an initial basis for creating awareness to create proper bureaucracy, responsive public services, political stability, healthy environmental economy, and adequate security. So the results of this study align with De Ferranti et al (2009); Nawaz et, al (2014) that quality institutions can positively impact economic growth in GCC countries. In addition, the aspect of population growth also plays an important role. The results of this study reject the hypothesis that population growth has a significant negative effect on economic growth. According to Myovella et al (2020), a population that has a positive impact can increase people's economic consumption needs, leading to the realization of economies of scale.

In the case of GCC countries, the average population growth still tends to be normal. Reporting to the Economist Intelligence report, population growth in GCC countries is estimated to reach an average of 2 percent in the 2009 and 2020 periods. This positive impact is based on aspects of productivity at the labor level in driving welfare. According to Kuznets (1967), Population growth is an important factor that can affect the growth of economic activity. Meanwhile, (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2020) stated that an increase in population will increase the role of the economic development sector, which refers to aspects of specialization and expanding market share in economic activity. According to Easterlin (1967), an increase in population will lead to competition in obtaining jobs, which of course, can positively impact economic growth because it will bring up aspects of specialization in the division of labor so that it can speed up the development process. The results of this study support research conducted by Simon (1981); Kelley & Schmidt (1999) which stated that an increase in population can have a significant and positive impact on economic growth in GCC countries.

## V. CONCLUSIONS

This study provides an overview using samples from GCC member countries on how the development of Islamic finance is able to have a significant influence on economic growth. When compared to the contribution of global financial development, the presentation of Islamic finance still tends to be smaller. However, currently, with a small coefficient value, the development of Islamic finance is able to make a significant and positive contribution to economic growth. While the performance of institutional quality can show significant and positive results, it means that the implementation of policies and services carried out by the government in GCC countries can be effective in driving economic growth. In the aspect of population growth, in the case of the GCC countries, it turned out to have a significant and positive effect, meaning that the increase in population in these countries had an impact on increasing aspects of labor productivity. So that it can have an impact on the role of the economic development sector, which refers to aspects of increasing specialization and expanding market share in real economic activity. The implication of this research in the development of science is that contributes to the literature on the development of Islamic finance, institutional quality, and population growth by providing empirical evidence in which capable of driving economic growth. In addition, the implications for the government that need to be considered are aspects of Islamic and global financial development in GCC countries, which play an important role in economic growth. However, from an Islamic finance perspective, the contribution made still tends to be small, so improvements in digitalization need to be carried out more efficiently. Last but not least, on institutional quality, it is necessary to increase responsibility to provide the best service effectively and efficiently to the public. Since this recent study has limitations, further research can take into account the long-term and short-term effects of the development of Islamic finance in GCC countries.

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