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FOREIGN AID DONATION AND THE DONOR COUNTRIES' ECONOMIC GROWTH: AN EMPIRICAL STUDY OF OIC MEMBER COUNTRIES

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ABSTRACT

The Islamic worldview mandates Islamic countries to show benevolence, through foreign aid donations, towards their foreign counterparts experiencing poverty and deprivation. However, Islamic countries are faced with a possible conflict of interests in their attempt to show benevolence to their vulnerable foreign counterparts, and to pursue the achievement of economic growth concurrently. This study aims to investigate whether such a conflict of interests exist by estimating the impact of foreign aid donation on the donor countries' economic growth, using Organization of Islamic Cooperation (OIC) member countries as a case study. The Generalized Method of Moments (GMM) technique was employed to analyze data of eleven OIC member countries spanning 2016 to 2020, based on an augmented Cobb-Douglas production model. The results indicate that foreign aid donation has no significant impact on the donor countries' economic growth. Foreign aid policies of the respective governments should consider increasing the countries' foreign aid expenditures, in order to assist many deprived countries whose economic sustainability depends on international development assistance.

Keywords: *Foreign aid donations, Economic growth, Islamic Worldview, OIC, GMM.*

ABSTRAK

Pandangan dunia Islam mewajibkan negara-negara Islam untuk menunjukkan ihsan melalui sumbangan bantuan luar kepada rakan-rakan asing yang mengalami kemiskinan dan kekurangan. Namun begitu, negara-negara Islam berdepan dengan kemungkinan konflik kepentingan dalam usaha mereka menunjukkan ihsan kepada pihak luar yang terdedah kepada kerentanan, sambil pada masa yang sama mengejar pertumbuhan ekonomi. Kajian ini bertujuan untuk mengkaji sama ada wujud konflik kepentingan sedemikian dengan menganggarkan kesan sumbangan bantuan luar terhadap pertumbuhan ekonomi negara penderma, menggunakan negara-negara anggota Pertubuhan Kerjasama Islam (OIC) sebagai kajian kes. Kaedah Generalized Method of Moments (GMM) digunakan untuk menganalisis data sebelas negara anggota OIC dari tahun 2016 hingga 2020, berdasarkan model pengeluaran Cobb-Douglas yang diperluas. Hasil kajian menunjukkan bahawa sumbangan bantuan luar tidak memberi kesan yang signifikan terhadap pertumbuhan ekonomi negara penderma. Polisi bantuan luar oleh kerajaan-kerajaan yang terlibat seharusnya mempertimbangkan peningkatan perbelanjaan bantuan luar, bagi membantu negara-negara yang serba kekurangan dan bergantung kepada bantuan pembangunan antarabangsa untuk kelestarian ekonomi mereka.

Kata kunci: *Sumbangan bantuan luar, Pertumbuhan ekonomi, Pandangan dunia Islam, OIC, GMM.*

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Introduction

Increased intensity of globalization has exposed the world to various forms of risks. One of such risks in recent times is the Covid-19 pandemic, which is undoubtedly among the most serious crises known to have caused severe hardship to humankind in history (Nguyen & Darsono, 2022). The World Bank reported that over 71 million people around the globe have already been pushed into extreme poverty, attributable to the outbreak of COVID-19 (Chikwira, Vengesai & Mandude, 2022). This has caused a further increase in global poverty, widening income inequality already existing between rich and poor countries. Many countries are at the doors of the International Monetary Fund (IMF) seeking economic bailouts. The level of benevolent state interventions in the form of foreign aid donations required in recent times (Korkmaz and Zengin, 2020), has never been needed before.

The Islamic Worldview obligates humans to show benevolence to all creatures of Allah (God) including humans-irrespective of national boundaries-, animals, plants and biodiversity as indicated in the hadith (sayings and traditions of the prophet Mohammed) given below;

> *"The compassionate are shown compassion by the All-Compassionate. Show compassion to those on earth, and He Who is in heaven will show compassion to you." (Abu Dawud 4941; Al-Tirmidhi 1924).*

A country can show compassion towards its foreign counterparts in times of the latters' vulnerabilities and difficulties through foreign aid donations. Specifically on foreign aid, Allah (God) warns against the neglect of the poor in the verses given below (Tittensor, Clarke & Gumus, 2018);

> *"As for man, when his Lord tests him by exalting him and bestowing His bounties upon him, he says: "My Lord has exalted me." But when He tests him by straitening his sustenance, he says: "My Lord has humiliated me. But no; you do not treat the orphan honorably, and do not urge one another to feed the poor, and greedily devour the entire inheritance, and love the riches, loving them ardently." (The Qur'an 89:15-20).*

Generally, foreign aid is referred to as all resources including physical goods, skills and technical knowhow, and financial grants (gifts) or concessional loans, transferred to recipient countries by donors (Riddell, 2008). Foreign aid are of two types namely, Official Development Finance (ODF) and Official Development Assistance (ODA). It could also be classified broadly into bilateral (two-sided) where the donation is directly from one donor to the recipient government, and multilateral (many-sided) aid, when the donation is indirectly provided through an international organization representing multiple government donors. ODA in most cases, comes from Development Assistance Committee (DAC) member countries, and more than two-thirds of the total are bilateral in nature, and mostly in the form of grants (Mahembe & Odhiambo, 2019).

Despite the high level of attention received by topics related to foreign aid in the development finance literature, the hype has mostly been focused on aid recipient countries, neglecting donors' own experience about foreign aid (Dole et al, 2021). Specifically, only few studies have been dedicated to investigate the impact of foreign aid on the foreign aid donor country (henceforth referred to as the donor county), and even lacking are investigations intended for estimating the impact of foreign aid on the donor country's economic growth. Theoretically, the connections between foreign aid expenditure and the donor country's economic growth can be actualized within the endogenous growth theory, where it is assumed that the fiscal policy of the government may exert a sustained impact on economic growth (Kocherlakota & Yi, 1997). The theory posits that deployment of stock of public capital can influence total factor productivity, and thus, generate a positive impact of externalities on production (Facchini & Seghezza, 2018). This implies that an increase in economic growth is only possible if government expenditure is productive, otherwise, a decrease in economic growth will occur.

The endogenous growth theory therefore, provides the basis for a theoretical link between foreign aid donations and the donor countries' economic growth, which otherwise, has not been explicitly stated in the body of knowledge. Foreign aid expenditure, a form of public expenditure, represents an international form of transfers into external jurisdictions, and on that basis, could be considered unproductive to the donor country's economy. On the contrary, there is an alternative view indicating the donor country could benefit from trade relations through enhancement in the volume of exports and foreign direct investment (FDI) outflows to the recipient country (Ho, 2016), contributing positively to the donor's economic growth. This position aligns with the realism theory of international relations which posits that donor countries employ foreign aid to pursue their self-interest (Noël & Thérien, 1995). Enhancement in trade volumes could be one of such self-interest. Empirically, despite the absence of similar studies in literature, Korkmaz and Zengin (2020) and Kalayci (2021) conclude, Turkeye employs foreign aid-donations for gaining access to new markets necessary for sustaining Turkeye's economic growth. The scarcity of empirical studies in the relationship between foreign aid donations and the donor country's economic growth, provides the motivation for undertaking such an investigation.

Meanwhile, foreign aid policies of Islamic countries are mainly dictated by Islamic tenets enshrined in the Quran and Sunnah, that places on the wealthy an obligation to be benevolent in providing assistance to the poor (Bashir, 2022). Instructions on the need to show benevolence to all including foreign countries are clear, and encourage every Muslim to seek the attainment of righteousness and perfection of deeds. The Quran states;

> *"You shall not attain righteousness until you spend out of love (in the way of Allah). Allah knows whatever you spend" (The Qur'an 3:92).*

The above verse is among numerous ones calling on Muslims to embrace acts of charitable-giving in their day-to-day activities. Thus, Islamic countries are expected to be at the forefront of international development assistance, providing aid to vulnerable foreign countries no matter the number of resources the former are able to afford. As Islamic countries, activities of OIC member states are expected to be guided by Islamic tenets. As a result, high levels of foreign aid donations are expected to be embodied in the OIC member countries. On the basis of the endogenous growth hypothesis however, Islamic countries face a possible conflict of interest whereby their economic growth could reduce, if they undertake to provide foreign aid to needy foreign countries. This study therefore is interested in making an inquest into whether such conflict of interests exist by estimating the impact of foreign aid donation on the donor countries' economic growth, with OIC member countries as the unit of analysis. This study is important especially, when the

United Nations (UN) and Organization for Economic Cooperation and Development (OECD) have called on wealthy countries to devote at least 0.7% of their gross national income (GNI) as foreign aid (Bashir, 2022) for assisting poor and less privileged countries.

In Islam, aid donation practices are expected to exhibit altruistic values meant for attaining Allah's pleasure without expecting anything in return. The underlying values of Islamic altruism in foreign aid policies are characterized by the concepts of *rahmatan lil alamin* (Mercy to all), *ikhlas* (Sincerity), *ukhuwah* (Solidarity), *ummah* (Broader Community), *amanah* (trustworthiness), *huquq al-insan* (Human Rights of the Oppressed) and *al-adl* (Justice) (Ali & Tayeb, 2021). This uniqueness of Islamic foreign aid-giving practices provides a further motivation for undertaking the current study.

The Gulf Cooperation Council (GCC) members, all of whom also belong to the OIC, have been specifically recognized as being among the world's major foreign aid donors (Shushan & Marcoux, 2011; Bashir, 2022). Other OIC members who have become notable donors in recent times include Turkeye, Indonesia, Malaysia, Azerbaijan, Kazakhstan, Egypt, Morocco, and Algeria (Bashir, 2022). Despite the fact that some OIC countries' aid donations have exceeded the UN's target (Bashir, 2022), recent trends show a remarkable decline in foreign aid provision especially among the GCC (Shushan & Marcoux, 2011).

Figure 1: Average GDP of an OIC country in the sample over the period 2016-2020 in Billions of USD constant at 2015 values. ***Source:*** Authors' generation with data from the World Bank

The trend in gross domestic product (GDP), on average, for an OIC country in the sample to be investigated has followed an increasing trend over the period 2016 to 2020, as indicated in Figure 1. GDP has risen from $118 in 2016 to $131 billion US dollars in 2020, which is equivalent to 11% growth rate over the period. On the contrary, Figure 2 shows that foreign aid donations for the same period, on a whole, have been decreasing. The data indicates a fall in foreign aid donations from $0.111 to $0.075 billion, from 2016 to 2020 respectively. Overall fall during the period is 32.4%. It would be interesting to see how the dynamics in both variables reflect the impact in the relationship under investigation.

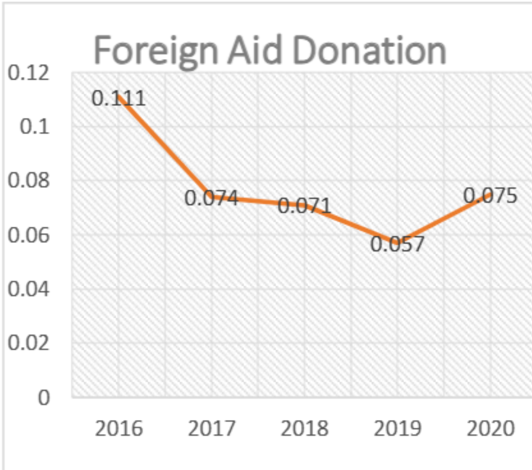

Figure 2: Average Foreign aid donation (grants) to foreign governments and international institutions of an OIC country in the sample over the period 2016-2020 in Billions of USD constant at 2015 values.
Source: Authors' generation with data from the World Bank

Data of 11 OIC member countries including Albania, Azerbaijan, Bahrain, Burkina Faso, Kazakhstan, Kyrgyzstan, Lebanon, Mozambique, Somalia, Turkeye, and Uganda over the period 2016 to 2020 was analyzed based on an augmented Cobb-Douglas production function model. The time period and countries in the sample have been influenced by availability of consistent data (Konstantakopoulou, 2022). The results from a System GMM estimations show that foreign aid donation has no significant impact on the donor countries' economic growth. The rest of the paper is organized as follows; a review of literature is provided in section 2. Section 3 presents the methodology of the study. The results of the analysis are found in section 4, and section 5 contains the concluding remarks.

Literature Review

Foreign Aid Policies and Donations among the OIC Member Countries

Despite being characterized as plagued by poverty, deprivation and unemployment, some OIC member countries do extend acts of benevolence to needy foreign counterparts. Within the OIC, the GCC have specifically been noted as belonging to an emerging and major group of foreign aid donors (Shushan & Marcoux, 2011; Bashir, 2022). The lists of aid donors in the OIC is progressively growing with Turkeye, Qatar, Kuwait, Saudi Arabia, United Arab Emirates (UAE), Indonesia, Malaysia, Azerbaijan, Kazakhstan , Egypt, Morocco, and Algeria playing various roles as aid donors (Bashir, 2022).

Motivation of aid donors within the OIC countries consists of religious, cultural and political factors. Contrary to aid donors of the Western world, Muslim country donors do not put their national interest as a precondition for donating aid (Bashir, 2022). Muslim donors act mainly according to principles of altruism needed to achieve humanitarianism, solidarity, brotherhood with other Muslim countries, and for helping other needy countries to secure development. According to Bashir (2022), foreign aid reflects Islamic teachings that enjoin the rich to provide assistance to the poor, which is necessary for strengthening the unity and oneness of the Muslim ummah and nations. Apart from religion, Muslim countries have other motives for donating aid, including building friendly and partnership relationships with recipient countries (Bashir, 2022). While economic factors are of not much motivation, political factors seem to influence aid donations by OIC countries. Examples of countries with political motives are Kuwait, UAE, and Qatar who have interests in political recognition internationally and building of future alliances with recipient Muslim countries such as Indonesia, Pakistan, and Senegal, through foreign aid donations.

Also, GCC members often do not impose any conditionality for providing foreign aid (Neumayer, 2004). Aid conditionality causes further hardships to recipient countries since they are often expected to import goods or procure services from donor countries (Bashir, 2022), at unreasonable prices. Again, GCC donors are disinterested in imposing issues of politics, governance, economic reforms, and gender as foreign aid conditions. Meanwhile, in line with Islamic tenets the GCC members prefer to provide grants as foreign aid. In rare circumstances when they provide loans, the latter are on concessionary terms, with 65-70% being in the form of grants (Bashir, 2022).

The GCC countries emerged as major aid donors in the 1970s during the period of global oil price hikes (Shushan and Marcoux, 2011). Surprisingly the generosity of the GCC, specifically Kuwait and Saudi Arabia, took a downward trend even though their national incomes were rising. For instance, between 1975 and 1979, foreign aid from Kuwait was 1.80% of GNI. The value went down to 0.56% of GNI within 2005 and 2007. Similarly, Saudi Arabia in the same period, recorded a fall in foreign aid donations from 0.50 to 0.07% of GNI (Shushan and Marcoux, 2011). Nonetheless, Muslim countries are not performing badly after all. Records show that some GCC members' foreign aid donations have surpassed the 0.7% recommended by the UN and OECD (Bashir, 2022). Concerns have also been raised pointing to lack of Islamic identity, in exhibiting benevolence through foreign aid by some member states of the OIC. Incorporating Islamic identity in foreign-aid-giving, is important for enhancement of the global image of Islam (Bashir, 2022).

Bilateral aid disbursements of OIC countries are principally targeted at three geographical areas- Africa, Asia and Middle East. Among the top recipients of aid from OIC countries are Egypt, Bangladesh, Jordan, Syria, Senegal, Tunisia, Uzbekistan, Iraq, Iran, Lebanon, Pakistan, Albania, Argentina, Somalia, Nigeria, Kenya, China, Djibouti, Palestine, Mauritania, Morocco, Azerbaijan, Kazakhstan, Kyrgyzstan, Bosnia and Herzegovina, Libya, Comoros and Sri Lanka. Interestingly, Azerbaijan and Kazakhstan as ODA donors, also benefit as recipients of bilateral aid from Turkeye; both countries appear in the list of Turkey's bilateral ODA recipients. This confirms the assertion that foreign aid donors could also be recipients of the same from wealthier countries (Dole et al, 2021).

The Relationship between Foreign Aid Donation and Donor Country's Economic Growth

Extant studies on the relationship between foreign aid donation and the economic growth of the donor countries are seemingly lacking. However, the theoretical basis for the relationship aligns well with the framework of the endogenous growth models. The endogenous growth theory posits a long term impact of government policy on economic growth (Kocherlakota & Yi, 1997). Specifically, the theory assumes that the deployment of public capital stock for productive public expenditure, impacts positively on total factor productivity (TFP), which in turn enhances economic growth (Facchini & Seghezza, 2018). On the contrary, unproductive government expenditure is expected to impact growth negatively. The fact that foreign aid donations, as public expenditure, deploys public capital stock outside the donor's domestic economy, it could be considered as an unproductive expenditure. Thus, it is expected to impact the donor's economic growth negatively. On the other hand, foreign aid donations are said to enhance the global image of donor countries (Kim and Lim, 2023), which in turn has an elevating effect on the latter's export prices (Zhi et al, 2017).

This has the potential of enhancing economic growth.

The lack of empirical studies regarding the relationship between foreign aid and the donor country's economic growth notwithstanding, Kalayci (2021) suggests that Turkeye employs foreign aid donations for accessing new markets in the developing worlds, for purposes of sustaining its economic growth. The seemingly lack of studies in the relationship between foreign aid donation and the donor country's economic growth, provides motivation for the current paper. Another reason for undertaking such a study is to investigate whether Islamic countries face a conflict of interests, when they adhere to the Islamic principles that mandate a country to be benevolent to its foreign counterparts facing vulnerabilities. It would be counter-productive, if in providing aid to foreign countries, the donor country suffers a decline in its economic growth. As much as generosity towards foreign countries is an obligation imposed under the Islamic worldview, as noted by Imam al-Ghazali, the Islamic state is also responsible for ensuring economic prosperity and progress for the domestic economy (Irijanto et al, 2015). In this regard, the current study intends to understand how a country's economic growth is impacted when it acts benevolently towards its foreign counterparts.

By understanding the empirical relationship between foreign aid donations and the economic growth of the foreign aid donor countries, in the context of Islamic countries, appropriate policies can be formulated for guiding the Islamic countries studied, to adhere to the Islamic principles of state benevolence to foreign countries, without hurting the formers' economic growth. Such a study is important for reducing global poverty and deprivation, and for reducing the income gap between wealthy and impoverished nations. Thus, the current study makes an important contribution in the development economics literature, especially, by focusing on the Islamic perspective of the subject-matter under investigation.

Methodology

The Estimation Method

A panel data analysis approach using secondary data, would be used for the estimations. A technique with capacity to resolve issues such as cross-section dependence, heteroscedasticity and autocorrelation associated with panel data analysis (Tuncsiper, 2023), is required to ensure that the results obtained are accurate. The Generalized Method of Moments (GMM) technique has the capability of overcoming these problems. The System GMM is preferred to the Difference GMM when the panel data to be analyzed has the number of units (N) higher than the number of time series (T). Specifically, the System GMM model developed by Arellano–Bover (1995) or Blundell–Bond (1998) is equipped to resolve problems in the nature of the presence of fixed effects, endogeneity of control variables, correlation between independent variables and past and current error terms, possible bias of omitted variables persistent over time, heteroskedasticity and autocorrelation within individuals (Roodman, 2009; Konstantakopoulou, 2022).

To eliminate the correlation between the differenced error term and lagged-dependent variable, the System GMM uses two equations. In the differenced equation, the explanatory variables are instrumented using the lags of their level forms, while in the levels equation, the instruments are the lagged first-differences of the variables, resulting in the resolution of the moment condition (Konstantakopoulou, 2022). The System GMM technique also allows for performance of the Windmeijer (2005) method for finite sample correction, yielding a more robust estimate (Roodman, 2009). The Sargan test of over-identification for the validity of instruments, and the Arellano–Bond (AR2) autocorrelation test to eliminate the presence of second-order autocorrelation for residuals, are the two diagnostic tests suggested by Arellano and Bond (1991) and Arellano and Bover (1995), to be conducted to ensure the results are consistent. However, the Sargan test may be inconsistent, as a result, priority should be given to the Hasen test which is available in the two-step System GMM estimations (Roodman, 2009).

The data in the current paper consists of 11 OIC countries over the period 2016-2020. This means the number of units (N = 11) is greater than the time series (T = 5). On this basis, the two-step System GMM technique would be more suitable for undertaking the estimations. As in Konstantakopoulou (2022), the general System GMM model given below would be applied for specifying the model in this paper:

$$y_{it} = \lambda y_{it-1} + \beta x_{it} + \gamma z_{it} + \eta_i + \varepsilon_{it} \quad (1)$$

$$\mu_{it} = \eta_i + \varepsilon_{it}$$

$\eta_i \backsim IID(0, \sigma^2\eta)$, $\varepsilon_{it} \backsim IID(0, \sigma^2\varepsilon)$ and $E[\eta_i\varepsilon_{it}] = 0$

For $i = 1 \ldots N$ and $t = 2, \ldots .T$, where y_{it}, y_{it-1}, x_{it} and z_{it} represent dependent variable, lagged dependent variable, a matrix of independent variables, and a matrix of control variables respectively. μ_{it} is the error term, ε_{it} represents the random disturbance term, and η_i is an unobserved country specific effects or fixed effects which is correlated with y_{it-1}.

Models Specification

Based on the pioneering work of Cobb and Douglas (1928), this study adopts an augmented Cobb-Douglas production function framework for specifying the estimation model. Recent studies have used augmented forms of the model (Tirfi and Oyekale, 2022) by adding other variables that may be important in influencing productivity, to the capital and labor stocks already present in the original Cobb-Douglas model. Following this, the current paper specifies the model to be estimated as shown below;

$$GDP = B.CAP^{\beta1}. LAB^{\beta2}. AID^{\beta3} \quad (2)$$

Under the System GMM estimation model indicated in (1), the model is further specified as;

$$LGDP = \beta_0 + \Upsilon LGDPt_{-1} + \beta_1 CAP + \beta_2 LAB + \beta_3 AID + \lambda Z_{it} + \eta_i + \mathcal{E}_{it} \quad (3)$$

where LGDP, $LGDP_{t-1}$, CAP, LAB and AID, , are natural logarithm of GDP, natural logarithm of first lag of GDP, gross fixed capital formation (proxy for capital stock)), labor force participation rate (proxy for labor stock), and government foreign aid donations, respectively. β_0 is constant, and Υ, β_1, β_2, β_3, and λ are coefficients to be estimated.

Variables and Data

Foreign aid donation and Gross domestic product (GDP) constitute the independent and dependent variables respectively in this paper. Gross domestic product would be used to proxy economic performance as in many previous studies (Solarin and Bello, 2020). Changes in the natural logarithmic form of GDP between two periods, have often been interpreted as economic growth over the period. The choice of a proxy for foreign aid donations partly mirrors Abbott and Jones (2021) who employed foreign economic aid expenditure for the donor country to proxy foreign aid. The difference between this study and Abbott and Jones (2021) is that government grants (expense) to foreign

Table 1: Summary description of variables in the study

Variable	Proxy	Unit of Measurement	Sources of Data
Economic performance	Gross domestic product (GDP)	United State dollars (US$), constant at 2015 prices	World Bank
Foreign aid expenditure	Grants to foreign governments and international organizations (AID)	Percentage of GDP	IMF
Capital stock	Gross fixed capital formation (CAP)	Percentage of GDP	World Bank
Labor stock	Labor force participation rate, total of 15-64 years economically active (LAB)	Percentage of total population ages 15-64	World Bank
Trade openness	Sum of exports and imports (TRD)	Percentage of GDP	World Bank
Savings	Gross domestic savings (SAV)	Percentage of GDP	World Bank
Government consumption	General government final consumption expenditure (CNM)	Percentage of GDP	World Bank
Life expectancy	Life expectancy at birth (EXP)	Years	World Bank
Rule of law	Rule of Law (RUL)	Units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5	World Bank
Foreign direct investments	Foreign direct investment, net inflows (FDI)	Percentage of GDP	World Bank
Government effectiveness	Government Effectiveness (EFT)	Units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5	World Bank

***Source*:** Authors'

governments and international organizations, which is the proxy for foreign aid donations adopted in the current paper, is not restricted to only economic aid. Also, foreign aid expenditure employed in the current study is in the form of grants, unlike in Abbott and Jones (2021). Grant expenditure has been adopted for two reasons; it is preferred by the GCC donors (Bashir, 2022); grants are essentially free gifts and represent benevolence to foreign countries as taught in Islam.

This paper adopts fixed capital formation as a proxy for capital stock following Oryani et al (2021), and labor force participation rate to proxy labor stock as in Verma et al (2022). To reduce the effect of omitted variables in the estimations, many control variables (Z_{it}) including FDI, government consumption, life expectancy, trade openness, gross domestic savings, rule of law, and government effectiveness would be incorporated in the estimation model. A summary description of all the variables, together with their proxies, units of measurement, and sources, have been provided in Table 1. The 11 countries constituting the panel data are Albania, Azerbaijan, Bahrain, Burkina Faso, Kazakhstan, Kyrgyzstan, Lebanon, Mozambique, Somalia, Turkeye and Uganda.

Results and Discussions

Descriptive Statistics

Descriptive statistics are presented in Table 2. Going by the statistics, the average GDP of the sampled countries under investigation over the period is USD 127.1 billion. The average expenditure for providing foreign aid stands at 0.063% of GDP. Also, investments in capital stock on the average amounts to 23.4% of GDP, while average labor participation rate during the period stands 64.8% of the population eligible to work. With a high standard deviation in GDP recorded as USD 274.7 billion, the countries sampled appear to differ a lot in terms of their national incomes.

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
GDP	127.1	274.7	5.8	1016.0
CAP	23.4	5.2	8.1	31.8
LAB	64.8	12.4	34.6	79.2
AID	0.063	0.061	0	0.300
TRD	81.0	29.8	31.2	150.8
SAV	12.6	24.8	-53.8	43.9
CNM	14.0	4.6	7.1	26.4
FDI	5.2	5.9	-5.2	26.2
EXP	69.9	8.5	55.0	80.0
RUL	-0.65	0.654	-2.37	0.49
EFT	-0.50	0.67	-2.25	0.42

Table 3: Pairwise Correlations between the Variables

	GDP	K	L	FA	TOP	SAV	CSM	FDI	LEX	ROL	EFF
GDP	1.00										
CAP	0.30	1.00									
LAB	-0.14	0.52	1.00								
AID	0.10	0.26	0.10	1.00							
TRD	-0.30	0.20	0.04	-0.01	1.00						
SAV	0.28	0.60	0.82	-0.02	-0.06	1.00					
CNM	0.01	0.44	0.39	0.41	0.41	0.23	1.00				
FDI	-0.23	-0.11	0.20	0.40	0.23	-0.19	0.36	1.00			
EXP	0.31	0.38	0.17	-0.02	0.07	0.49	-0.03	-0.27	1.00		
RUL	0.19	0.58	0.68	-0.10	-0.04	0.89	0.17	-0.31	0.60	1.00	
EFT	0.30	0.61	0.68	0.03	-0.05	0.90	0.15	-0.24	0.75	0.90	1.00

Table 3 contains information on the correlation between all the variables. According to the information, foreign aid expenditure has a positive correlation with GDP at a value of 0.10. A positive impact in the relationship cannot be assumed at this stage until a regression estimation has been conducted. This is because correlation is not the same as causation (Fuest et al, 2018). Also, capital stock and labor stock have positive and negative correlations respectively with GDP. Based on the reference range of 0.7-0.8 (Baur, & Hoang, 2021) for correlation coefficients, the correlation between SAV and RUL, SAV and EFT, and RUL and EFT which are 0.89, 0.90 and 0.90 respectively, are very high. Such high correlation values could lead to collinearity which has the propensity of yielding regression results with impacts opposite to expectations (Basagaña, & Barrera-Gómez, 2022). For obtaining accurate results, variables between which there is collinearity should not be featured in the same regression model concurrently (Konstantakopoulou, 2022). In this regard, SAV, RUL and EFT would not feature together in the same estimation.

Regression Results

Estimation of the impact of foreign aid expenditure on donor countries' economic growth is presented in Table 4. There are seven columns in the table, and the number of regressors differ in these columns accordingly. In column 1, the first lag of GDP, capital stock, labor stock and foreign aid expenditure are the only regressors. Then, from column 2 to 7, the control variables have been progressively added to ascertain the accuracy, specificity and consistency of the impact of foreign aid expenditure. The information from table 4 shows that the lag-dependent variable has significant positive impact on economic growth as exhibited by the coefficient of $LGDP_{t-1}$. This justifies the use of a dynamic model for the estimations. On the whole foreign has a negative impact on economic growth however, the impact is not significant. The insignificant impact of the variable is consistent across all the columns as can be seen in the coefficient exhibited by AID. On this basis, it can be inferred that the impact of foreign aid expenditure on the donor countries' economic growth is statistically not different from zero (Bacao and Simoes, 2020).

Also, the information from table 4 shows capital stock as having a significant positive impact on economic growth as depicted by the coefficient of CAP. Based on column 5 which has the highest chi-square test value, the results indicate that a unit increase in capital stock would cause economic growth to appreciate by 0.014%. Contrary to expectations, the impact of labor stock on economic growth is inconsistent, and not significant in five of the seven columns. This is indicated by the coefficient of LAB. As a result, the impact of labor stock on economic growth is considered as not significant. On this basis, the Cobb-Douglass production function theory lacks validity as far as the relationship between foreign aid expenditure and donor countries' economic growth in the context of the sampled OIC countries is concerned. It seems spending to assist foreign countries has negative consequences for the productivity of human capital in the donor countries. The outcome of the estimations in this regard follows logic, because if the same resources were to be deployed for social protection activities, it could have contributed in enhancing the productive capacity of the poor and vulnerable needed to increase labor productivity. Going by the results, it appears foreign aid expenditure in the sampled OIC countries hurts the productive capacity of the labor.

With regards to the control variables, only government consumption has an overall significant impact. From the coefficient exhibited by CNM, the variable has a negative impact on economic growth. Accordingly, a 1 unit increase in government consumption would lead to a 0.026% reduction in economic growth. The rest of the control variables including trade openness, gross domestic savings, foreign direct investments, life expectancy, rule of law and government effectiveness, have no significant impacts on economic growth. Both diagnostic tests- AR (2) and Hansen- are not significant, implying the absence of second-order autocorrelation and overidentification of instruments respectively. On that basis, the regression estimates are robust (Agyapong, Annor & Ohemeng, 2024), providing a high-level accuracy to the finding that foreign aid expenditure has no significant impact on the donor countries' economic growth, for the countries in the study.

Table 4: Two-step System GMM Estimations of the Relationship between Foreign Aid Expenditure and Donor Countries' Economic Growth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$LGDP_{t-1}$	0.790***	0.978***	1.121***	0.848***	0.989***	0.955***	1.032***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CAP	0.000	0.016	0.013***	0.022**	0.014***	0.019**	0.016**
	(0.945)	(0.186)	(0.001)	(0.035)	(0.000)	(0.031)	(0.040)
LAB	0.025*	0.023	0.048*	-0.011	-0.001	0.002	0.002
	(0.095)	(0.575)	(0.056)	(0.606)	(0.984)	(0.738)	(0.721)
AID	0.549	-0.889	0.138	-1.012	-0.505	-0.967	-0.677
	(0.695)	(0.702)	(0.847)	(0.589)	(0.686)	(0.532)	(0.562)
TRD		-0.003	0.001	-0.001	0.001	0.000	0.002
		(0.652)	(0.622)	(0.627)	(0.746)	(0.972)	(0.301)
SAV		-0.010	-0.024*	0.009	0.001		
		(0.680)	(0.091)	(0.540)	(0.946)		
CNM			-0.027*	-0.045**	-0.026**	-0.025	-0.026
			(0.056)	(0.031)	(0.032)	(0.201)	(0.103)
FDI				0.016	0.005	0.005	0.005
				(0.248)	(0.741)	(0.555)	(0.456)
EXP					-0.006	-0.002	-0.005
					(0.305)	(0.854)	(0.646)
RUL						-0.024	
						(0.877)	
EFF							-0.036
							(0.827)
Wald chi2	723.51	421.30	1886.90	4291.14	147196.69	31284.81	9667.25
test	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AR(2)	0.733	0.545	0.504	0.907	0.937	0.764	0.717
Hansen test	0.385	0.390	0.429	0.754	0.111	0.252	0.268

Notes: $LGDP_{t-1}$ is the natural logarithms of GDP_{t-1}. ***, **, and * are 1%, 5% and 10% significance level respectively

This finding is contradictory to the endogenous growth theory which makes an assumption of a long term significant impact of public expenditure on economic growth (Kocherlakota & Yi, 1997). It is expected that productive and unproductive public expenditures have significant positive and negative impacts respectively on economic growth (Facchini & Seghezza, 2018). The results in the current study fail to affirm this significant impact in the countries examined. Positioning aid in the context of public expenditure, allows for comparing the current findings with previous empirical works related to the relationship between various forms of public expenditure and economic growth. In this regard, the current findings contradict those of Chijioke and Amadi (2020) and Chu et al, (2020) where public expenditures on agriculture and natural resources, and non-productive government expenditure respectively, were found to have significant negative impacts on economic growth. In both Chijioke and Amadi (2020) and Chu et al, (2020), the respective expenditures were injected into the domestic economy, which if are unproductive could lead to crowding out effect due to imposition of extra taxes (Chu et al, 2020), inflation (Mudiaga & Onyia, 2022) and currency depreciation, all of which are detrimental to economic growth. However, resources for providing foreign aid are spent in outside jurisdictions, hence are incapable of causing the domestic economy the problems mentioned above. This partly explains why the result in the current study is not significant.

Similarly, the current finding contravenes those in Chijioke and Amadi (2020), Chu et al, (2020), Mudiaga and Onyia (2022) and Qehaja et al (2023), where the results show a positive impact of varieties of public expenditures on economic growth. Government expenditures on transport and communication, and on education and health infrastructure in Chijioke and Amadi (2020), government productive expenditure mix in respect of Chu et al, (2020), government recurrent expenditure in Mudiaga and Onyia (2022), and government health expenditure in Qehaja et al (2023), were found to have significant positive impacts on economic growth. Realization of a significant positive impact in the relationship has been attributed to the need for such expenditures to be productively applied in areas such as, for infrastructural development, creation of innovation, and enhancing labor productivity in the domestic economy (Chu et al, (2020). In the case of foreign aid expenditure however, financial resources are transferred into needy foreign countries, and as a result, deprive the domestic economy of the donor country, the productive application of such resources. The consequences of such deployments is that foreign aid expenditure cannot be productive in the donor country's economy, the reflection of which is the current result being insignificant.

However, the finding aligns with what was obtained in Olonite et al (2021) indicating that public expenditure on transfers does not have significant impact on economic growth. This is not surprising considering that the explanatory variable employed in Olonite et al (2021) is similar to what has been employed in the current study in the sense that, both public transfers and foreign aid expenditure have been identified as forms of government interventions in income redistribution. While public transfers ensure redistribution in the domestic economy, foreign aid expenditure involves income redistribution internationally (Noël and Thérien, 1995). According to Olonite et al (2021), the insignificant impact from expenditure on public transfers, is the result of spending on non-performing functions. As far as the donor country's domestic economy is concerned, foreign aid expenditure can be classified as a non-performing function in that sense. In that regard, the result in the current study is again justified. Also, at an average of 0.063% of GDP (approximately USD 80.073 million) spent on providing foreign aid by the OIC countries sampled, the amount appears relatively too little to upset the domestic economy in order to merit the imposition of extra taxes. Thus, such a small amount of public expenditure in the form of foreign aid could not have led to any crowding out effect, and hence could not have a subsequent significant reducing effect on economic growth.

Conclusion

The Islamic worldview encourages the show of benevolence to all creatures, including humans, irrespective of their geographical locations. This means, Islamic countries are particularly under religious obligation to be benevolent towards their foreign counterparts who may be besieged by poverty and deprivation. Provision of foreign aid is an effective channel through which impoverished countries are assisted to combat their vulnerabilities. Indeed, the UN's Sustainable Development Goal (SDG)-10 (Reduce inequality within and among countries) also promotes the international redistributive interventions through foreign aid. Though, Islamic countries must of religious necessity assist their foreign counterparts, the former are mindful of the theoretical implications of engaging in unproductive expenditures, which is postulated as having negative repercussions on economic growth. Thus, the OIC, which is composed of Islamic countries, face a possible conflict of interest, in attempting to pursue their dual objectives of undertaking the religious obligation of showing benevolence to vulnerable foreign nations, and the attainment of economic growth concurrently. This paper examined the possibility of the existence of such a conflict of interests by estimating the impact of foreign aid donation on the donor countries' economic growth, with OIC member countries as the unit of analysis.

The dynamic System GMM was employed for estimating the coefficients of an augmented Cobb-Douglas production function model, based on the data of eleven OIC member countries including Albania, Azerbaijan, Bahrain, Burkina Faso, Kazakhstan, Kyrgyzstan, Lebanon, Mozambique, Somalia, Turkeye, and Uganda, spanning 2016 to 2020. The results show that government foreign aid expenditure has no significant impact on the donor countries' economic growth. At this current level of foreign aid expenditure, which stands at 0.063% of GDP on the average, it is too meager to cause a noticeable impact on the donor countries economic growth. Thus, providing foreign aid by the sampled OIC countries is not detrimental to their economic growth, as a result, these countries are not exposed to any conflict of interests in deciding to simultaneously provide foreign aid and pursue economic growth for their respective economies. Unlike in the conventional or neoclassical setting, where the lack of a significant impact of a certain public expenditure on economic growth would call for the curtailment on such an expenditure (Olonite et al, 2021), Islamic countries have no such option in respect of foreign aid expenditure for religious reasons. Therefore, the current results cannot become a deterrent for the OIC countries sampled, to stop providing foreign aid or reduce expenditure on foreign aid donations. The reason being that show of state benevolence to foreign countries is a religious obligation enshrined in the Islamic Worldview (Al-Mezaini, 2012).

The current finding provides guidance for policy making. Since foreign aid expenditure is not detrimental to the donor countries' economic growth, governments of the OIC countries sampled, should consider expanding the amount of resources spent on providing foreign aid. Statistically, the insignificant impact observed is tantamount to a zero impact (Bacao and Simoes, 2020) which is better than a negative one. A negative impact would mean a reducing-effect on economic growth, which has the propensity of discouraging donors from providing further foreign aid. Without a negative impact on donors' economic growth, donor countries could provide more foreign aid. In this way, they can make a meaningful impact in the economies of many more poor and vulnerable aid recipient countries. Also, OIC donor countries should design their foreign aid policies in a way that facilitates the enhancement of their global image. This is important for improving their competitive advantage internationally, such as obtaining competitive prices for their exports (Zhi et al, 2017). In order for their foreign aid donations to reach many recipient countries, governments of OIC countries should ensure that their foreign aid policies focus on generating more of the funding from *sadaqah, infaq* and other state resources, which allow for all needy countries to qualify as recipients without any restrictions, irrespective of religious affiliations.

This paper faced two main limitations. Firstly, the lack of consistent data for many OIC countries limited the scope of the study. Only 11 of the 53 OIC countries are captured in this study. As a result, the findings should be interpreted with reference to the 11 countries studied. Extending the findings to all OIC countries must be done with caution. Secondly, the scarcity of previous studies on the subject matter, made comparison of results with previous findings a huge challenge.

The fact that labor stock has no significant impact on economic growth, gives cause for worry. In this regard, future research should be interested in investigating the intervening effect of foreign aid donations in the relationship between labor stock and economic growth. Another area of research that can be looked into in the future might be, to estimate the impact of foreign aid donations on labor factor productivity.

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