MALAYSIA-GCC BILATERAL TRADE, MACROECONOMIC INDICATORS AND ISLAMIC FINANCE LINKAGES: A GRAVITY MODEL APPROACH

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ABSTRACT

The essential standards of Islam lay extraordinary attention on social equity, consideration and allocation of assets among the have and have not. The main aim of this study was to investigate the effect of macroeconomic indicators such as per capital GDP, inflation, real exchange rate, Islamic financial indicators like No. of Islamic banks and Zakah collection (% of GDP) and distance between capital of Malaysia to GCC countries on bilateral trade between Malaysia and GCC countries. The panel time series date from 1990-2017 was applied. The gravity model approach has been used as a theoretical support. The results of fixed effect and random effect show that the entire variables are statistically significant. However, variable like real exchange rate, inflation and distance found negatively significant, which means that with the increase of these variables the overall bilateral trade among Malaysia and GCC counties will be decrease. On the other side, variables such as per capital GDP, No. of Islamic banks and Zakah collection are found positively related with bilateral trade among Malaysia and GCC countries during the period of study.

Keywords: Malaysia, GCC, Islamic Finance, Fixed Effect, Random Effect.

INTRODUCTION

Bilateral Trade between Malaysia and Gulf Cooperation Council (GCC) Countries

In terms of trade in international market, Malaysia is a reknown nation in the world. The economic development of Malaysian economy greatly depends on the external trade. The countries trade partners in 2016 include United States of America, Japan, Europe and Singapore. Being a neutral, modern and prominent advancing Muslim state, Malaysia has been contributing vigorously in the advancement of its trade by encouraging collaborations with numerous Gulf Cooperation Council Countries (GCC).

In addition to it, Malaysia also urge to seek the progressive strategic options in order to raise the standards of its trade practices. The country is taking active participation in motivating intra-OIC to attain the objective of trade development. Among the strategies adopted is the expansion of trade partners. The country has also entered Middle Eastern economies for the fulfilment of its purpose. Also in the Organization of Islamic Conference (OIC) countries, Gulf Cooperation Council (GCC), is famous for being the affluent countries in Middle East region and is involved in bilateral trade with Malaysia since 1990s. The common aspect of both regions is their similar practices regarding the modernization and neutral cultural environment for the

people of the states. This has benefit both partners and enable them to emerge as developed Muslim countries in the world. The Malaysian emphasis on the development of its trade is reflected from the fact that expansion of its export is one the vital factor of their government policy especially to the West Asian markets (BNM, 2010; NEAC, 2010a). The country has launched its new agenda of economic development under the name of Malaysian New Economic Model (NEM) in 2010. Following the strategies articulated in NEM is the diversion from industrial nation to the service centred country.

Bilateral Trade and Islamic Finance in Malaysia and GCC Countries

The importance of cross country trade is evident in the field of Islamic finance. Islamic finance has the potential to augments the level of country's inter related trade activities by offering numerous impartial solutions in compare to the traditional corporate practices. In day to day common practices, Islamic finance has provided tools to bring general prosperity in the country. The instrument of Zakat for instance motivates people of the society to help those who are poor and resulted in motivating micro-finance, micro-SMEs and micro-insurance in many Muslim countries. The mechanisms of Islamic finance resulted in risk diversification and allow risk sharing that ultimately supports the individuals to alleviate their eccentric risks. Levies mandated or suggested like Zakah, Sadaqat and Qard-al-Hassan, allow these eccentric risks of the poor to be burdened mutually among the rich, thus serving to lessen the poor's income consumption correlation, rise the general saving and corporate opportunities. To put it in simple words, it will limit poor people to completely dependent of their low level of income and help them to live in a better setting not only for them but also help them to raise their families in a decent environment. It is probable that at some point even these levies can be instrumentalized to be involved in the full spectrum menu of Islamic financial instruments for risk sharing. In that event, Islamic finance would become a risk manager for society (Askari, Iqbal & Mirakhor, 2014).

Islamic Banking Growth and Opportunities in Malaysia and GCC Countries

Rapid liberalization in the Islamic finance industry, coupled with facilitative business environment has encouraged foreign financial institutions to make Malaysia their destination of choice to conduct Islamic banking business. This has created a diverse and growing community of local and international financial institutions. Currently, Malaysia has a significant number of full-fledged Islamic banks including several foreign owned entities; conventional institutions who have established Islamic subsidiaries and also entities who are conducting foreign currency business. All financial institutions are given permission to conduct both ringgit and non-ringgit businesses . Malaysia continues to progress and to build on the industry by inviting foreign financial institutions to establish international Islamic banking business in Malaysia to conduct foreign currency business (BNI, 2017).

According to the World Bank Group (2015), an aggregate GDP of the GCC economy was about $1.6 trillion in 2013 with oil and gas industry contributing to more than half of this GDP. Despite considerable diversity among the GCC countries, there are fee generalizations that can be made. Among them, even though the economy of the GCC is concentrated in oil and gas, the financial sector in the GCC is highly concentrated in the Islamic banking. The total amount of the Islamic banking assets is $598.8 billion in 2015, which accounted for 39.5 percent of the global Islamic banking asset (Islamic Financial Services Board, 2016). The market penetration of

the Islamic banking continues to increase significantly where countries like Saudi Arabia Islamic banking sector accounted for 49 percent of the total sector assets, followed by Kuwait with 39 percent, Qatar 25 percent and Bahrain with 13.5 percent (Islamic Financial Services Board, 2016).

The design of this study is devised as follows: Section 2 handles with a literature review on the bilateral trade between Malaysia and GCC countries, Islamic finance and macroeconomic indicators. Section 3 discusses the data description and empirical methodology used. Estimation and interpretation of the results are presented in Section 4. Finally, conclusion of the study reported in Section 5.

LITERATURE REVIEW

Since this examination adds to Muslim nation's trade and economic connections, it is essential here to talk about existing research regarding the matter and a survey of trade and financial relations among Muslim nations. In spite of the fact that the impact of religion on trade is questionable, research presented by Helble (2007) using secondary data and utilizing gravity model, he evaluated the diverse effects of religious conviction on trade. The study concluded that the religious receptiveness has significant positive effect on exchange. Hence, it is a goal of OIC to emphasize the intra-OIC trade inside the Muslim countries to improve economic prosperity.

Similarly, there are many other studies (Abidin, Bakar & Haseeb, 2014 & 2015; Abidin, Haseeb, Azam & Islam, 2015) that examined the association of international trade which have imitated numerous points of view, particularly studies on the bilateral trade activities among countries. Be that as it may, to date, there has been quite little scholastic examination concentrating on the reciprocal trade stream among Malaysia and the Middle Eastern nations, particularly those of the GCC. Among very few, Abu Hussain (2010) led an examination which concentrated on political relations between Malaysia with the individual GCC nations. He dissected Malaysia's connection with Saudi Arabia under the small's state association framework theory. He has contributed essentially in understanding key deciding components that impact Malaysia–Saudi Arabia relations. As per the study, there are four key deciding elements that shape Malaysia–Saudi relations: The nature of state and regime interest, economic determinants, religious affiliation and membership of small state organizations. These components, in any case, don't really connote closeness in relations. Up to now, there has been no investigation concentrating on Malaysia and the Gulf locale as far as financial or trade relations. Since Malaysia and the GCC nations are both OIC individuals, it is essential to talk about this issue inside the Muslim nation's unique circumstance.

METHODOLOGY

Data Sources

The current study utilized the panel data of bilateral trade of Qatar, UAE, Saudi Arabia, Bahrain, Kuwait and Oman with Malaysia from the period of 1990 to 2017 using the multiple sources of data collection. For instance, Trade statistics for the studied time horizon is gathered as of Direction of Trade Statistics (DOT) databank from the source of IMF. The data for Gross Domestic Production per-capita and inflation are gathered from WDI statistics of World Bank. Lastly, the data of nominal exchange rate is gathered from the source of International Financial Statistics (IFS) of the IMF. For testing trade-weighted space (TBij), the geographical space

among the capital of particular mate countries and Kuala Lumpur (the capital metropolitan of Malaysia) are attained from World Bank source (www.econ.worldbank.org) and have been calculated by the proportion of two-sided trade size from relevant companions to entire trade size of Malaysia (TBij) in sample period. Thomson Reuters Data Stream is also utilized for collecting the data on total numbers of Islamic banks and zakah collection % of GDP. The data utilized in the current study evaluated yearly measures and are processed through following required procedures.

Gravity Model

The gravity model of realm exchange starts from the law of gravity in Physics called the Newton's law of all-inclusive attraction. This law is found by English physicist, Sir Isaac Newton in his renowned effort, Philosophiae Naturalis Principia Mathematica in 1687. This law fundamentally expresses that the appealing power between two bodies is specifically identified with their size and contrarily identified with the separation between them. Numerically, it can be communicated as:

$$F = G \; \frac{M_i \; M_j}{D^2} \qquad\qquad [1]$$

Where F signifies the gravitational power among two items i and j and G is the gravitational consistent. In this condition, the gravitational power is straightforwardly relative to the multitudes of the items (Mi and Mj) and contrarily corresponding to the square of the space D2 between the point masses. Contextualizing it to the stream of worldwide exchange, the equation moves toward becoming as takes after:

$$Trade_{ij} = \frac{Pop_i \; Pop_j}{D_{ij}} \qquad\qquad [2]$$

Where, Tradeij is the estimation of two-sided exchange between nation I and nation j, Popi and Popj are nation I's and nation j's populace separately, where for this situation, mass is related with nation's populace. Dij is the separation between nation i and nation j. Along these lines, it expresses that the volume of exchange is estimated in terms of professional career, fares or imports between any two nations is relative, different things being equivalent, to the number of inhabitants in the two nations and reduce with the separation between them. To encourage the econometric estimation, the model in condition (2) is changed into a log shape to get a direct relationship of the model as:

$$\ln(Trade_{ij}) = \alpha + \beta \; \ln(Pop_i * Pop_j) - \gamma \; \ln(D_{ij}) \qquad\qquad [3]$$

Where α, β and γ are coefficients to be assessed. Condition (3) says that there are three causes that decide the volume of exchange between two nations; the extent of their populaces and the space between them, where the measure of the populace is required to positively affect exchange and the distance is negative.

Model Specification

By logarithms and summing time subscripts and an error period to the estimating equation of trade balance becomes:

$$\ln(TR_{ij})_t = \alpha_0 + \beta_1 \ln(PCGDP_{it}) + \beta_2 \ln(PCGDP_{jt}) + \beta_3 \ln((INF_{it}) + \beta_4 \ln(INF_{ij}) + \beta_5 \ln(RER_{it}) +$$
$$\beta_6 \ln(RER_{ij})_t + \beta_7 \ln(IB_{it}) + \beta_8 \ln(IB_{ij}) + \beta_9 \ln(ZK_{it}) + \beta_{10} \ln(ZK_{ij}) + {}_{11}\ln(DIS_{itj}) + \mu_{it} \qquad [4]$$

Where:
TR: International Trade among Malaysia and GCC countries;
$PCGDP_{it}$ /$PCGDP_{jt}$: Per capita GDP of Malaysia and GCC countries;
INFit/INFjt: Inflation rate in Malaysia and GCC countries;
RERit/RERjt: Real exchange rate in Malaysia and GCC countries;
IBit/IBjt: No. of Islamic banks in Malaysia and GCC countries;
ZKit/ZKjt: Zakat collect (% of GDP) in Malaysia and GCC countries;
DISitj: Distance between capital of Malaysia and GCC countries.

THE EMPIRICAL RESULTS

The after effects of individual impact test (probability proportion) above recommend utilization of settled impact estimation methods just in the cross-area, i.e., assessing the model including nation particular settled impacts. The Hausman test has recommended that settled impact of Panel analysis is the fitting technique to be received. Meanwhile no extreme multicollinearity is presented between the logical factors.

The equation of condition (1) beyond is evaluated using all factors for every one of the 6 nations for a long time. The estimation utilizes White's heteroscedasticity-adjusted covariance framework estimator, which is a hearty strategy. This concentrated on enhancing the analysis of the typical mistakes without varying the appraisals of the slant measurements. In the current equation, the block terms $\alpha 0$ is thought to be nation particular and the slant measurements are thought to be the same for all nations. Table 1 reports the nation particular impacts (settled impacts) of White's heteroscedasticity amended model relapse result. The coefficient of relative $PCGDP_{it}$ (1.001) and $PCGDP_{jt}$ (0.770) is positive and profoundly noteworthy (p=0.010, p=0.005).

Table 1 EMPIRICAL RESULTS				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PCGDPit	1.001	0.401	4.873	0.010
PCGDPjt	0.770	0.124	4.009	0.005
RERit	-0.555	0.607	-7.790	0.001
RERjt	-1.003	0.222	-4.091	0.000
INFit	-0.701	1.213	-3.213	0.000
INFjt	-0.245	2.675	-1.234	0.050
IBit	1.098	0.987	1.213	0.000
IBjt	1.765	2.876	2.675	0.001
ZKit	0.876	1.654	4.987	0.000
ZKjt	1.342	2.231	3.342	0.005
DISTijt	-2.123	1.234	4.121	0.000
C	-2.147	0.735	-2.919	0.003

Table 1 EMPIRICAL RESULTS			
Effect Specification			
Cross-Section fixed			
R^2	0.871	Mean Dependent Var	-0.456
Adjusted R^2	0.871	S.D. Dependent Var	1.891
S.E. of Regression	1.211	Akaike info criterion	1.212
Sum squared resid	1213.23	Schwarz criterion	2.901
Log likelihood	-1341.15	Hannan-Quinn criter	3.908
F-statistic	49.131	Durbin-Watson Stat	0.666
Prob (F-statistic)	0.000		

It implies accomplices' generation and sending out limit increments at a greater rate than that of Malaysia. In reciprocal exchange, this ordinarily brings about extra fare to Malaysia or fewer import from Malaysia and consequently, antagonistically influences that adjust of exchange of Malaysia. The measurement of the comparative GNI per capita is certain (2.331) and furthermore profoundly noteworthy of course. Meanwhile the GNI per capita is the factor of ingestion limit of a nation, along these lines, greater relative GNI per capita (RPGNI) infers upper assimilation limit of the nation. Because of increment in retention limit, it is normal that the nation imports more. Exchanging accomplices of Malaysia with higher RPGNI moderately import other from Malaysia, enhancing its adjustment of exchange. It legitimizes the Linder speculation if there should be an occurrence of Malaysia. The negative indication of the coefficients of genuine conversion scale (RER) and import-calculated separation (MWD) are of course. The measurements are very noteworthy. The results are similar with the study of The adverse indication of the measurement of real exchange rate (RERij) suggests that the further the list of RERij drops the extra there is deterioration of Malaysian Ringgit (such as exporter money) concerning the monetary forms of her exchange accomplices. The zakah collection and number of Islamic Banks also found positively related with the international trade.

CONCLUSION

In an era of globalization and exports a clearer understanding of the factors underlying a country's trade position is needed. The extended international trade model developed in this study captures the effects of all the factors influencing international trade as suggested by conventional elasticity, absorption and monetary approaches and the Gravity Model. In the standard models, absolute factors like domestic GDP, trading partners' GDP, domestic per capita income, partners' per capita income, distance between trading countries and the real exchange rate between trading partners determine the trade balance. The extended model postulates that relative value of GDP of exporter countries, relative per-capita income, real exchange rate and export-weighted distance (*EWDij)* between countries determine the trade pattern and hence the exports of a country in bilateral trade with partners. In addition, it is also documented that Islamic financial indicators like No. of Islamic banks and Zakah collection also have positive impact on bilateral trade between Malaysia and GCC countries. The empirical results provide some useful insights into the international trade of Malaysia. The static panel data analysis explores the cross-country variations as well as the time-invariant country-specific effects on trade balance with heterogeneous economies and finds significant effects of all relative factors on the trade balance of Malaysia. The robustness check ensures the validity of the new

specification. The future research can include more Islamic financial indicators for more robust and comprehensive results.

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