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An Empirical Assessment of Intra-Regional Trade Relationships: The GCC Context

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Abstract

The purpose of this paper is to examine the bilateral trade relationships across three Gulf Cooperation Council countries -the Kingdom of Saudi Arabia, Bahrain, and Qatar-over the last 30 years (1981-2010). The study focuses on the relationships between Bahrain and Qatar, combined as one group, and Kingdom of Saudi Arabia, which has a relatively larger economic mass and population. Data related to bilateral trade was collected from the International Monetary Fund. The proposed model was tested using the path analysis technique. Our results indicated that distance related negatively to the level of Kingdom of Saudi Arabia export level, while the gross domestic product, population growth, and gross domestic product per capita have a positive relationship with the level of Kingdom of Saudi Arabia export level. The four factors included in this research study are crucial to the success of mutual trade flow between both Bahrain and Qatar with the Kingdom of Saudi Arabia because they provide the facts that policy makers need to make the appropriate decisions. The results provide evidence that Kingdom of Saudi Arabia's exports trade significantly depends on the economic sizes of the other countries and the distance. It is suggested that future research needs to be undertaken in other countries to examine the association between bilateral trade factors and export levels. Research implications, limitations and directions for future research, and conclusions are discussed.

Keywords: Bilateral trade; economic integration; path analysis technique; GCC; regional integration

Subject classification codes: C21, F10, F15, G28

Introduction

In 1981 the Gulf Cooperation Council (GCC) was established; encompassing the Kingdom of Saudi Arabia (KSA), United Arab Emirates (UAE), State of Kuwait (KW), State of Qatar (QAT), Kingdom of Bahrain (BAH), and Sultanate of Oman (OM); with a central purpose of creating an economic bloc (Rizvi, 1982). One of the intended milestones behind its inception was establishing a customs union, which was achieved in 2003 (Secretariat General, 2004). On the other hand, other milestones of integration were delayed such as failure to create of a monetary union (Persson, 2001). The economic bloc was able to attract foreign direct investments (FDI) and increase trade (Levy-Yeyati, Stein and Daude, 2003), specifically between the periods of 2000 – 2005, where all GCC members showed no vulnerability in exchange rates (Blomstrom and Kokko, 1997) (Table 1). In addition, the most integrated countries within the GCC are Bahrain and Oman (Figure 1)

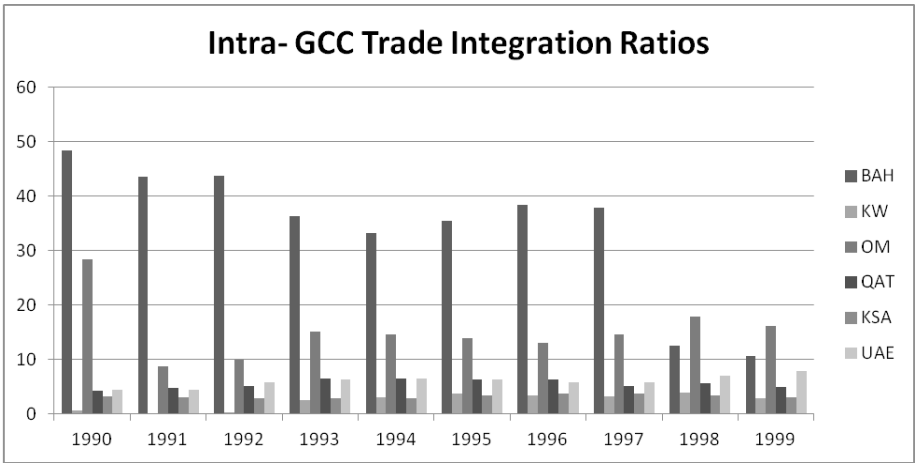
Table 1: Exchange Rates and Inflation Rates Between the Periods of 2000 – 2005

	2000		2001		2002		2003		2004		2005	
Country	ExR[a]	IR (%)[b]	ExR[a]	IR (%)[b]	ExR[a]	IR (%)[b]	ExR[a]	IR (%)[b]	ExR[a]	IR (%)[b]	ExR[a]	IR (%)[b]
UAE	4.71	4.5	4.56	4.5	4.84	2.8	5.32	3.2	5.64	3.2	5.22	10.5
Kuwait	0.39	1.5	0.38	2.5	0.39	2.0	0.42	1.2	0.45	2.3	0.41	4.1
QAT	4.67	2.5	4.61	2.0	4.80	1.9	5.28	2.0	5.59	3.0	5.18	8.8
BAH	0.48	2.0	0.47	1.5	0.49	0.5	0.54	0.4	0.57	2.1	0.53	2.7
KSA	4.80	0.98	4.75	1.9	4.94	1.0	5.44	1.0	5.76	0.8	5.33	0.4
Oman	0.49	0.8	0.48	1.0	0.5	-0.5	0.55	0.3	0.57	0.2	0.54	1.2

Note: Exchange rate is calculated by currency unit per Special Drawing Rights (SDR; 1SDR=1.46USD). This rate, not used in fund transaction, is a reciprocal of SDR per currency. (ExR = Exchange Rate, IR = Inflation Rate)

Source: Exchange rate archives, IMF 2006a, World Fact Book, 2001-2006b

Figure 1: Intra-GCC Trade Integration Ratio

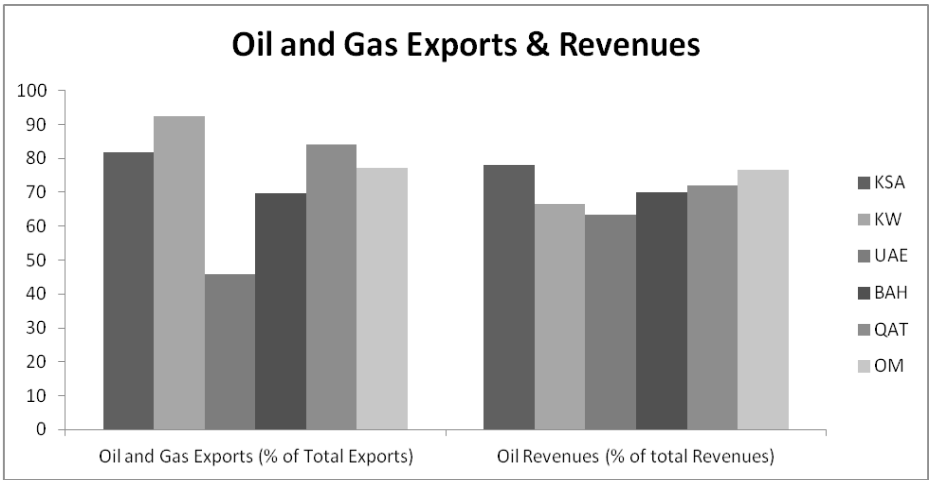


Source: Compiled from World Development Indicators, The World Bank Database

For the GCC to reach its potential as a trading bloc competing in the globalizing world economy there is a need to implement policy reforms to enhance non-oil growth and create employment opportunities for a rapidly increasing labor force, in addition to reducing vulnerability to oil price shocks (Sherif, 2008). The region's annual export is around $155 billion, where oil accounts for 83% (Baxter and Kouparitsas, 2006).

The GCC has about 45% of the world's proven oil reserves and 25% of crude oil exports, and holds at least 17% of the proven global natural gas reserves. KSA alone accounts for about 47% of the total of the region's exports and 37% of the region's imports, which makes it a vital driving force in the GCC (IMF Publications, 2002) (Figure 2). Most trade is conducted with non- GCC countries, primarily Japan, the European Union (EU), and the United States (US); due to the fact that many GCC members are major oil exporters themselves.

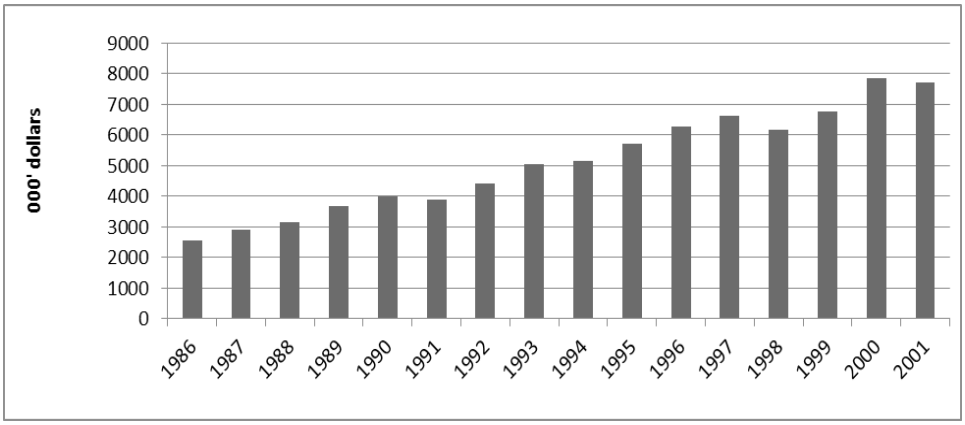
Figure 2: GCC's Oil and Gas Exports & Revenues 2002



Source: World Development Indicators, The World Bank Database (2002)

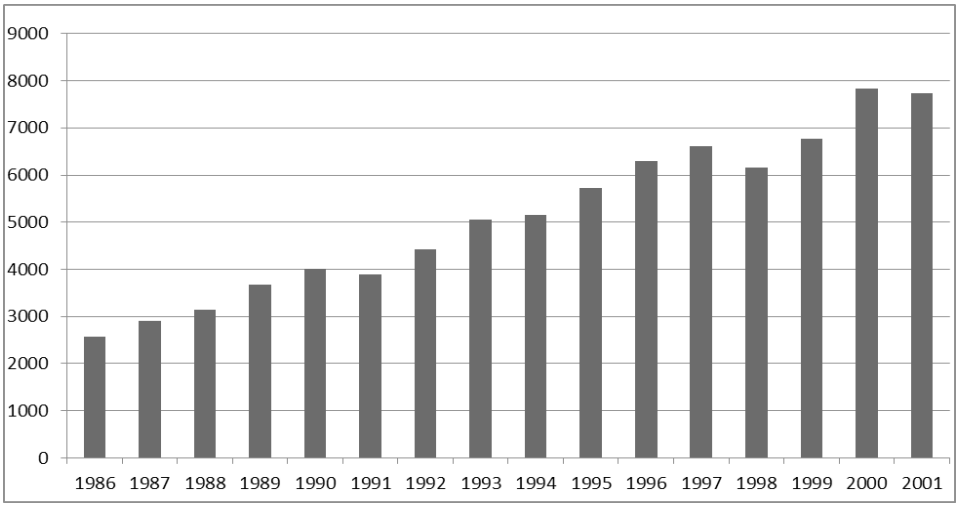
The intra-trade between GCC countries is considered small in volume as a result of the limited diversification of exports; which offers very limited possibilities of expanding inter-industry trade (Sherif, 2008 and Fasano & Iqbal, 2003). Additionally, the existence of similar second industries in the different GCC countries "could generate long-term detrimental structural overlap" that would suppress efforts to develop regional trade, which makes the trade within the GCC bloc weak compared to other economic blocs (Peterson, 1988). Despite trade barriers[Trade barriers include but not limited to, common currency and one-central bank], GCC trade grew 3 times in the past 15 years. Although the size of intra- GCC imports tripled between 1986 and 2001 – from $2.6 billion in 1986 to $8 billion in 2001 – their share in overall imports remained steady and low, at less than 10% (Figures 3 and 4); Gulf Cooperation Council trade grew three-fold in the past 15 years, despite trade barriers.

Figure 3: Path of Intra- Gulf Cooperation Council Imports, 1986-2001.



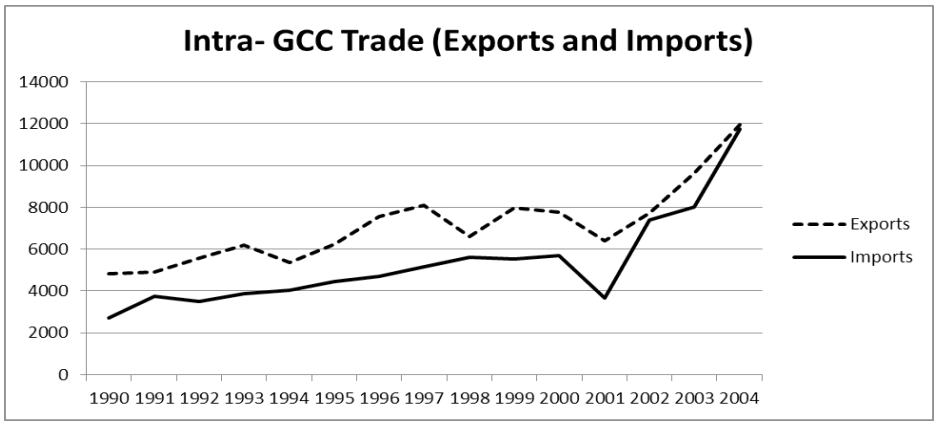
Source: Al-Uwaisheg, (2003)

Figure 4. Path of Share of Intra- Gulf Cooperation Council Imports in Total Imports.



Source: Al-Uwaisheg, (2003)

Figure 5: Intra-GCC Trade (Exports and Imports)



Source: Data compiled for Gulf Cooperation Council Achievements (2004)

Intra-exports in the GCC have not been smooth between 1990 and 2000; but, the data provides evidence of increasing trends in 2001 and a dramatic increase in the period between 2002 and 2004 (Figure 5). Moreover, the period between 1990 and 2003 demonstrated increasing trends in the volume of manufacturing and high technology exports. The main force behind the increasing trends is the implementation of the GCC customs union in 2003. Additionally, the number of joint venture projects, total capital investment, and capital investment per project has also increased spectacularly after establishing a customs union (Table 2). Although, trade can offer opportunities for economic gains, the potential is best realized within an environment that is driven by skilled resources, technological development, and sound government institutions. Without these fundamentals, the pursuit of economic gains through regional integration will likely disappoint (Baier et al., 2008).

Table 2: GCC Joint Venture Projects, 1999-2004 (million $).

Year	Joint Venture Projects Number	Capital	Capital Per Project
1999	150	2066.2	13.77
2000	91	290.79	3.19
2001	206	222.96	1.08
2002	1013	737.45	0.72
2003	---	---	---
2004	583	4529.25	7.76

Source: Data compiled from Gulf Cooperation Council Achievements, 2004.

The current literature exhibits at least two weaknesses, even though there has been a significant amount of research on the topic. First, no empirical studies have thoroughly examined the factors influencing bilateral trade in the GCC context. Second, only limited factors were simultaneously explored by the current literature. For example, in the global context Baier and Bergstrand (2009) studied the impact of GDP and bilateral distance on the free trade agreement. Matyas (1997) finds that population has a tendency to increase trade and the level of specialization by producing gains from specialization. On the other hand, Dell`Ariccia (1999) finds a negative population coefficient. Moreover, Bergstrand (1989) reports a positive GDP per capita coefficient, which means a negative relationship between population and trade flows, suggesting that imports and exports are capital intensive in production. Taking into account the gaps, this research empirically investigates factors impacting the bilateral trade in the GCC context The study simultaneously examines four economic factors, including gross domestic product (GDP), population growth (POP_GR), gross domestic product per capita (GDP/CA), the distance between countries (DIST), and Kingdom of Saudi Arabia Export (KSA_EX).

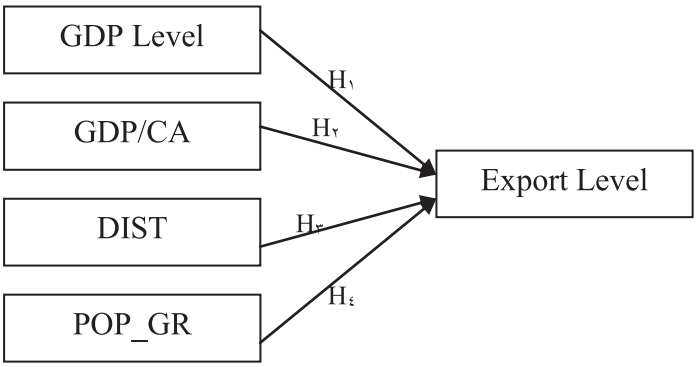
The main objective of this study is to examine the bilateral trade relationships across three Gulf Cooperation Council countries —the Kingdom of Saudi Arabia, Bahrain, and Qatar. The rest of the paper is organized as follows: Section 2 describes the theoretical framework and hypotheses. Section 3 provides a research methodology. Section 4 presents the results and data analysis. Section 5 provides discussion and policy implications. Section 6 limitations and identifies opportunities for future research. Section 7 research conclusions.

Theoretical Framework and Hypotheses

This study attempts to shed light on the relationship between the GCC countries in their progress to achieve regional economic integration. The study focuses on the relationships between two Gulf Cooperation Council countries BAH and QAT, grouped together, and KSA, which has a larger economic output and population size. The GCC inter-trade trade structure (Figure 3) implies that trade factors have an impact on export levels. The trade variables included in this research are GDP, population growth (POP_GR), gross domestic product per capita (GDP/CA), and the distance between countries (DIST). The GCC bilateral trade framework presented in Figure 3, this study proposes the following hypotheses. The mathematical representation of the hypotheses relationship is given below:

$$KSA_EXPO = \gamma_{1,1} GDP + \gamma_{1,2} GDP_CA + \gamma_{1,3} DIST + \gamma_{1,4} POP_GR + \delta_1$$

Figure 6: Gulf Cooperation Council Bilateral Trade Framework



The relationship between GDP and level of export

Research studies have shown that the gravity model in its basic form infers that the volume of bilateral trade between two countries is positively related to their incomes (GDPs). Empirical studies have shown that the traditional gravity model has forecasted that the coefficients of the GDP variables of the importers and exporters are positive, indicating that trade increases with the level of the GDP (Siddiq and Vemurim, 2011). Bergstrand (1989) reports a positive GDP per capita coefficient, implying that imports and exports are capital intensive in production. The above arguments lead to the following hypothesis.

H1: The group's (Bahrain and Qatar) GDP has a positive relationship with the Kingdom of Saudi Arabia's levels of trade export

The relationship between GDP per Capita and level of export

Earlier research, population size will have a significant impact. Larger countries tend to be more self-sufficient or, alternatively, for a given level of GDP poorer countries (larger population) trade less than richer countries (Anderson and Van Wicoop, 2004). The Organization of the Islamic Conference (OIC) empirical study of six big countries revealed that the GDP per capita of OIC countries in 2007 was more than double the GDP per capita of OIC countries in 1998 (Statistical Yearbook OIC Member Countries 2008, 2009). Positive income per capita coefficients supporting the idea that higher income per capita leads to more trade was also found by Hassan et al. (2010) and Mehanna (2003). Corresponding to Mehanna (2003), it is normal to find a positive impact of GDP per capita on bilateral trade flows in intra-industry trade models, while the comparative advantage theory forecasts a negative link since it is constructed on different factor attributes. Following this interpretation, we can predict a positive link between GDP per capita and trade flows for the intra-GCC trade due to the similar factor endowments of many GCC countries. Based on the research framework demonstrated in Figure 3, and support from the discussed literature this research study recommends the following hypothesis.

H2: The group's (Bahrain and Qatar) GDP per capita has a positive relationship with the Kingdom of Saudi Arabia's levels of trade export.

The relationship between the level of exports and distance

Deardorff (1998) argued that the relative distances of trading partners has an impact on the volume of trade. Bilateral trade is expected to decrease between larger distances between countries (Clark et al., 2004; Glick and Rose, 2002; Rose et al., 2000) by leading to higher transportation costs and some other difficulties to trade such as informational and psychological frictions (Huang, 2007). It is recognized that transport costs are an important barrier to trade and, therefore, they tend to reduce the level of international trade (Jacquemin and Sapir, 1998, Neven and Röller, 1991). For instance, Baier and Bergstrand (2004a) provide empirical evidence that pairs of countries that are larger in economic size (GDP), more similar in GDP, closer in distance, and more remote from other countries

tend to have a free trade agreement and they provide a theoretical rationale for the relationship. According to Tomasziw and Kirkpatrick (2009) empirical study they revealed that both distance from a trade partner and remoteness from the rest of the world exert a negative, statistically significant effect on bilateral trade flows. Based on the research framework demonstrated in Figure 3 and above literature, this research study recommends the following hypothesis.

H3: The group's (Bahrain and Qatar) distance from KSA has a negative relationship with the Kingdom of Saudi Arabia's levels of trade export.

The relationship between population growth and the level of export

Studies have supported the view that nations with a larger population tend to buy and sell more than nations with a lesser population. Bigger countries trade more with each other than smaller countries as they have a greater potential for export supply and import demand (Rodrik, 1998). Furthermore, the impact of population on trade may also be at variance depending on the length of the estimation period (short-term vs. long-term). Population may have a positive impact on trade flows in the short-run, while in the long run higher population has a tendency to decrease exports. Matyas (1997) finds that population has a tendency to increase trade and the level of specialization by producing gains from specialization. Additionally, Kandogan (2008) emphasized that there is no reservation that geopolitics plays a vital role in the decisions countries make with regards to integration. The above discussions lead to the following hypothesis.

H4: The group's (Bahrain and Qatar) population growth has a positive relationship with the Kingdom of Saudi Arabia's levels of trade export

Methodology

The main objective of this research is to investigate factors impacting the bilateral trade relationships in the GCC context. The study simultaneously examines four economic factors, including gross domestic product (GDP), population growth (POP_GR), gross domestic product per capita (GDP/CA), the distance between countries (DIST), and Kingdom of Saudi Arabia Export (KSA_EX). The research was based primarily on a quantitative approach using secondary data collected from IMF pertaining to the research hypotheses covering a period of 30 years from

1981-2010. The population for the research included KSA, BAH, and QAT as the Gulf Cooperation Council members. To identify an initial set of items to measure the components of bilateral trade, an extensive literature review was completed. Therefore, we focus on the relationships between BAH and QAT as a joint group with KSA, which has a relatively larger economic mass and population.

Operational Measures of the Variables

In this section we will describe items used in measuring the variables in this study. Overall, items were divided into five main factors: gross GDP, POP_GR, GDP/CA, DIST, and KSA_EX. Based on the research data we run Exploratory Factor Analysis (EFA) using SPSS program. The primary objective of an EFA is determining the number of common factors influencing a set of measures. Floyd and Widaman (1995) suggested that EFA is most appropriate in the initial stages of model development. At this stage, EFA was applied with varimax rotation to obtain more easily interpretable factor loadings to see how the 26 variables would converge. SPSS output for an EFA revealed that five factors are clearly defined with moderate loading, shown in Appendix I. All standardized factor loadings were 0.50 or above with the majority falling above 0.60; thus, the loadings can be considered moderate (Bollen and Lennox, 1991). The reliability of each construct was measured with internal reliability coefficients (Cronbach's α): The coefficient values α for the five factors are 0.875, 0.901, 0.851, 0.799 and 0.814 respectively Appendix I. In general, all five factors are very clear, showing a significant relationship between those dimensions and the factor loading (see t-value in Appendix I)

Gross Domestic Product (GDP): A six-item scale was used to measure GDP. Each item measures a span of five years. The first item (GDP81_85) measures the period from '81 to 85', the second item (GDP86_90) measures the period from '86 to 90', the third item (GDP91_95) measures the period from '91 to 95', the fourth item (GDP96_00) measures the period from '96 to 2000', the fifth item (GDP01_05) measures the period from 2001 to 2005, and, finally, the sixth item (GDP06_10) measures the period from 2006 to 2010. . The factor loadings for the 6 variables, t-values, and internal reliability coefficients, Cronbach's (α) for each GDP dimension, are presented in Appendix I.

Gross Domestic Product per Capita (GDP/CA): A six-item scale was also used to measure (GDP/CA). Similar to the previous variable, each item measures five

years. The first item (GP/C81_85) measures the period from '81 to 85', the second item (GDP/C86_90) measures the period from '86 to 90', the third item (GDP/C91_95) measures the period from '91 to 95', the fourth item (GDP/C96_00) measures the period from '96 to 2000', the fifth item (GDP/C01_05) measures the period from '2000 to 2005', and, finally, the sixth item (GDP/C05_10) measures the period from '2006 to 2010'. The factor loadings for the 6 variables, t-values, and internal reliability coefficients, Cronbach's (α) for each GDP/CA dimension, are presented in Appendix I.

Population Growth (POP_GR): A six-item scale was also used to measure (POP_GR). Similar to the previous measurement, each item measures five years. The first item (POPG81_85) measures the period from '81 to 85', the second item (POPG86_90) measures the period from '86 to 90', the third item (POPG91_95) measures the period from '91 to 95', the fourth item (POPG96_00) measures the period from '96 to 2000', the fifth item (POPG01_05) measures the period from '2001 to 2005', and, finally, the sixth item (POPG05_10) measures the period from 2006 to 2010. The factor loadings for the 6 variables, t-values, and internal reliability coefficients, Cronbach's (α) for each POP_GR dimension, are presented in Appendix I.

Distance (DIST): A two-item scale was used to measure DIST between Saudi Arabia and two members of the group, BAH and QAT. The first item measures the distance between KSA and QAT (DIS_K_QA) while the second item measures the distance between KSA and BAH (DIS_K_BH). The factor loadings for the 2 variables, t-values, and internal reliability coefficients, Cronbach's (α) for each DIST dimension, are presented in Appendix I.

Kingdom of Saudi Arabia Export (KSA_EXP): A six-item scale was used to measure (KSA_EXP). The first item (K_EX81_85) measures the period from '81 to 85', the second item (K_EX86_90) measures the period from '86 to 90', the third item (K_EX91_95) measures the period from '91 to 95', the fourth item (K_EX96_00) measures the period from '96 to 2000', the fifth item (K_EX01_05) measures the period from '2001 to 20005', and the sixth item (K_EX06_10) measures the period from '2006 to 2010'. The factor loadings for the 6 variables, t-values, and internal reliability coefficients, Cronbach's (α) for each KSA_EXP dimension, are presented in Appendix I.

Path Model of GCC Bilateral Trade Framework

The best output of path model, obtained from LISREL software, accepted for the study is illustrated in Figure 4, with the path model determining the significance of the relationships among the independent and dependent variables. The direct conversion of the basic conceptual research model in Figure 3 involved the specification of a path model in Figure 4 that would allow for the examination of the direct effects. The path analytic model is a multivariate analysis methodology for empirically examining sets of relationships represented in the form of linear causal models (Jo¨reskog and So¨rbom, 2001).

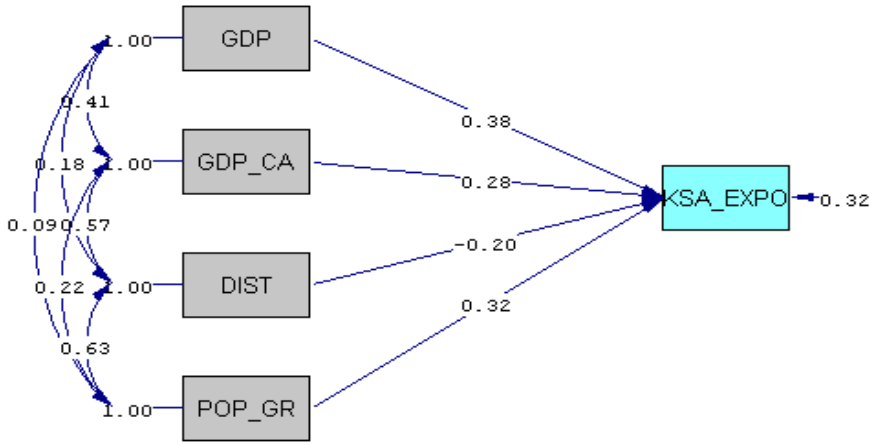
However, before applying path analysis to the research model, tests of internal consistency are needed. One of the most common measures used to measure internal consistency is Cronbach's coefficient alpha (α) (Cronbach, 1951).

Although, a value of 0.70 was recommended by Nunnally (1978), a value of 0.60 is often used as the practical lower bound (e.g., Malhotra and Grover, 1998). All of the measurements in this study have Cronbach alpha values that met the minimum criterion alpha value of 0.60. As a result of the good internal consistency of the majority of the latent variables their means can be used to produce uni-dimensional variables (Fantazy et al.,, 2009).

The model presented in Figure 4 shows a good fit of bilateral factors, and the trade levels to the empirical data. The observed Chi square was $\chi = 16.02$, degree of freedom df 7, p-value 0.0577, and RMSEA 0.024. Generally, a rule of thumb is that RMSEA = 0.05 indicates a close approximate fit, values between 0.05 and 0.08 suggest reasonable error of approximation and RMSEA, 0.10 suggests a poor fit (Brown and Cudeck, 1993). Other additional goodness-of-fit indices – the NFI = 0:98, the NNFI = 0:99, the GFI = 0:99, the AGFI = 0:91, and the CFI = 0:99 which all represents a good fit.

Figure 7: Gulf Cooperation Council Bilateral Trade Path Model

$$KSA_EXPO = 0.38GDP + 0.28GDP_CA - 0.2DIST + 0.32POP_GR + \delta_1$$



Chi-Square=16.02, df= 7 P-value=0.0577, RMSEA=0.024

Results and Data Analysis

To test hypotheses H1, H2, H3, and H4 the regression results and the standardized path coefficients representing the direct effects of each factor dimension GDP, GDP/CA, DIST, and the POP_GR with KSA_EX are shown in Table 5.

Table 3: Hypotheses Relationships

Kingdom of Saudi Arabia Export Level	Hypotheses Relationship				
	H_1	H_2	H_3	H_4	
	GDP	GPA/CA	DIST	POP_GR	
KSA_EX	0.38*** (0.11) 3.545	0.28*** (0.09) 3.11	-0.20** (-0.10) 2.00	0.32*** (0.07) 4.57	Path coefficient Standard Error t-Statistics

*** 1% significance level. ** 5% significance level. * 10% significance level.

For hypothesis H1, the path coefficient for GDP and KSA_EX was 0.38, significant at the 1 percent level and positively correlated. The total nominal GDP of the Gulf Cooperation Council economies has more than doubled since 2001, adding the equivalent of an economy the size of Sweden (World Bank Report, 2010). Furthermore, according to Al Awad (2010), if we look at the profile of overall GDP in these countries we observe that over the past 10 years the importance of the oil sector was growing relative to shares of manufacturing and all other non-oil components in the Gulf Cooperation Council region. The share of oil in real GDP was around 33.5% in 1997 and it increased to 48% in 2007. The GCC countries have accumulated large fiscal and current account surpluses in recent years. For hypothesis H2, the path coefficient for GDP/CA and KSA_EX was 0.28; it was significant at the one percent level and positively correlated. This is not a surprising result, since GDP/CA in 2007 for Bahrain and Qatar was an average of US$ 38,500 (World Bank Report, 2010). For hypothesis H3, the path coefficient for DIST and KSA_EX was -0.20; it was significant at the five percent level and negatively correlated. Additional factors may contribute to the negative relationships, such as border and customs restrictions. GCC members continue to undertake border and customs inspections of other GCC members (World Bank Report, 2010). The border and customs restrictions lead to an increase in the cost of transportation which explains how the level of exports has a negative correlation between the distance variable. Trade restrictions vary from the requirement that national transportation carriers be used for some products to standard bureaucratic delays in customs clearance. The relative sizes of the three economies, adjacency of the three nations, common history, languages, and customs may, in fact, result in trade volumes even higher than predicted by path model. However, hypothesis H4, the path coefficient for POP_GR and KSA_EX was 0.32; it was significant at the one percent level and positively correlated.

The current results of the regression analysis in this study matched the results presented in earlier studies. Siddiq, and Vemurim in 2011 found that holding other factors unchanged, export level is likely to increase by about 0.9099 with one point unit increase in GDP for other countries while the exports reduced by 2.5346 when distances are higher between KSA and another country.

Discussion and Policy Implications

In this research, a theoretical framework that included several factors that influence the level of trade was identified and the results of statistical analysis were provided to enhance our understanding of the specific effect of bilateral trade on export level in the GCC industry. The framework and statistical results will help the academic community to understand the relationships among the constructs and policy makers to understand the potential influences of these factors. The developing member countries with similar incomes would trade more extensively with each other. This result is partially explained by Hanink's income threshold concept, which argues that the income similarity effect is only applicable to developed countries with very small difference in incomes (Hanink, 1999). The GCC Custom Union is, therefore, promising in enhancing new opportunities of trade as it goes beyond the removal of tariffs to the elimination of non-tariff barriers and the establishment of common standards and regulatory regimes.

As these countries become more industrialized, they can then begin to produce more manufactured rather than primary goods for export. Tang (2005) mentions, the emphasis on the production of tradable goods would facilitate high trade between these rapidly growing developing countries in the long run. The bilateral economic and trade relationship with BAH and QAT is of interest to KSA policymakers because of BAH and QAT's proximity to the KSA and because of the strong cultural and economic ties that connect the GCC countries. BAH has expanded their causeway connecting to KSA and the building of the BAH-QAT Causeway could add much to the trade, investment, and other connections among these countries. There are also plans to expand and renew the old oil pipeline in BAH with KSA, along with plans to fix and expand the BAH refineries involved with the re-export of this oil.

The negative relationships between the distance and the level of export calls for developing strong infrastructures among the GCC countries. The GCC should also work toward eliminating trade barriers, easing entry and licensing restrictions for domestic firms, and the subsequent enlargement of markets would help to attract investment and promote growth in the tradable sector. It would appear that the development of a bilateral relationship among BAH, QAT, and the KSA should be motivated strongly by economic considerations (rather than being strategic or event driven).

Limitations and Further Research Direction

The data used in this study were collected from only three GCC countries; therefore, the results of this study cannot be generalized to other countries. It is suggested that the results of this study could be extended to other GCC countries. Furthermore, future research needs to be undertaken in other countries to examine the association between bilateral trade factors and export levels. The results of this study may vary with the GDP level, population, and geographic locations; this suggests future research opportunities. In addition, a similar study could be conducted in other countries, which will make it possible to find differences among nations compared to the variables investigated in this study. Future studies in economic filed should focus on examining other factors – in addition to GDP, POP_GR, GDP/CA, and DIST – impact the level of export such as reduced vulnerability to exchange rates.

While we hope this study has enhanced the state of empirical research in the context of the economic field, our results should be taken as no more than a preliminary step towards understanding the complex, multidimensional concept of bilateral economic trade relationships among members of the GCC. The measures of GDP, POP_GR, GDP/CA, and DIST, dimensions used to rate the level of export, are a possible limitation of the research study, therefore, research in this area should try to establish operationally useful measurement criteria to facilitate an empirical study.

Conclusion

In conclusion, our study provided empirical evidence that all factors are crucial to enhance the bilateral trade among Gulf Cooperation Council countries. The findings include several empirical results regarding the relationships among GDP, POP_GR, GDP/CA, DIST, and KSA_EX. The current research can conclude with some degree of certainty that all factors appear to be critical and have a significant influence on the level of export. The findings provide evidence of the direct positive effects of the antecedent factors on KSA_EX and the negative relationship of the DIST with KAS_EX. The findings indicate that trade is actually higher than expected on the basis of underlying trade determinants, regardless of the fact that the share of Gulf Cooperation Council intra-trade included in this study is too small in absolute terms. The coefficients of the GDP variables are positive, indicating that trade increases with the level of the GDP. On the other hand, a higher GDP per capita means enhanced demand for differentiated products as well, which has a tendency to increase the level of imports.

GCC countries economic development is intrinsically tied to each other. Further economic diversification activities are needed to mitigate a negative effect of a drop in oil revenue for the GCC. Especially in the case of Bahrain, which shares the Abu Safa oil field with Saudi Arabia Judicious adoption of infrastructure projects, financial investments, and more evenhanded growth must take place within the framework of close cooperation between member GCC nations. The GCC should be uniting their efforts to take advantage of what each of the countries has in favor of other rather than developing the same industries and competing with each other. By focusing on developing a dynamic comparative advantage the GCC region will be conducive to economic growth and lead to higher economic stability.

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Appendix I- SPSS- Factor loading, Standard error, t-value and Internal Consistency (α)

Items and underlying factors	Factor loading				Standard error	t- value	Internal consistency (α)
Factor 1: Gross Domestic Product (GDP)	1	GDP81_85	0.590	ü	0.090	6.66	0.875
	2	GDP86_90	0.630	ü	0.155	4.06	
	3	GDP91_95	0.643	ü	0.130	4.946	
	4	GDP96_00	0.700	ü	0.260	2.693	
	5	GDP01_05	0.607	ü	0.149	4.073	
	6	GDP06_10	0.666	ü	0.162	4.111	
Factor2: Population Growth (POP_ GR):	1	POP_GR81_85	0.670	ü	0.192	3.48	0.901
	2	POP_GR86_90	0.600	ü	0.164	4.02	
	3	POP_GR91_95	0.655	ü	0.154	4.25	
	4	POP_GR96_00	0.654	ü	0.151	4.33	
	5	POP_GR01_05	0.653	ü	0.210	3.10	
	6	POP_GR06_10	0.640	ü	0.090	7.11	
Factor3: Gross Domestic Product per Capita (GDP/ CA):	1	GP/C81_85	0.657	ü	0.160	4.106	0.851
	2	GP/C86_90	0.618	ü	0.074	8.351	
	3	GP/C91_95	0.620	ü	0.152	4.078	
	4	GP/C96_00	0.607	ü	0.088	6.897	
	5	GP/C01_05	0.599	ü	0.055	10.89	
	6	GP/C06_10	0.775	ü	0.099	7.828	
Factor 4: Distance (DIST	1	DIS_K_QA	0.744	ü	0.099	7.515	0.799
	2	DIS_K_BH	0.642	ü	0.146	4.397	
Factor 5- Kingdom of Saudi Arabia Export (KSA_ EXP)	1	KSA_EXP81_85	0.527	ü	0.109	4.834	0.814
	2	KSA_EXP86_90	0.664	ü	0.128	5.187	
	3	KSA_EXP91_95	0.588	ü	0.090	6.533	
	4	KSA_EXP96_00	0.705	ü	0.088	8.011	
	5	KSA_EXP01_05	0.724	ü	0.112	6.464	
	6	KSA_EXP06_10	0.604	ü	0.090	6.711	

دراسة تطبيقية حول العلاقات التجارة البينية بين دول مجلس التعاون الخليجي

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الشارقة - الإمارات العربية المتحدة

ملخص

الغرض من البحث هو دراسة العلاقات التجارية الثنائية بين ثلاث من دول مجلس التعاون الخليجي (GCC)، وهي المملكة العربية السعودية (KSA)، والبحرين (BAH)، وقطر (QAT)، لمدة (30) سنة للفترة (1981 - 2010). وتركز الدراسة على العلاقات بين البحرين وقطر كمجموعة واحدة، والمملكة العربية السعودية كمجموعة وحدها لأنها كبيرة من حيث عدد السكان ومن حيث حجم الاقتصاد. وقد تم جمع البيانات المتعلقة بالتجارة الثنائية من صندوق النقد الدولي (IMF). تم اختبار النموذج المقترح باستخدام طريقة تحليل المسار (PA). وأشارت النتائج التي توصلنا إليها أن المسافة تؤثر سلبا في مستوى الصادرات في المملكة العربية ألسعودية في حين هناك علاقة موجبة بين الصادرات في المملكة العربية السعودية، ونمو السكان والناتج المحلي الإجمالي ومعدل دخل الفرد. العوامل الأربعة المدرجة في الدراسة ذات أهمية لنجاح تدفق التجارة المتبادلة بين البحرين وقطر كمجموعة والمملكة العربية السعودية لأنها توفر الحقائق التي يحتاجها صانعو القرارات لاتخاذ القرارات المناسبة. وقد قدمت نتائج الدراسة أدلة على أن تجارة صادرات المملكة العربية السعودية تعتمد بشكل كبير على حجم الاقتصاد للبلدان الأخرى والمسافة بينها. ويقترح البحث ضرورة القيام بدراسات مماثلة في بلدان أخرى في المستقبل لدراسة العلاقة بين العوامل التجارية الثنائية ومستويات التصدير. ويناقش البحث خلاصة بأهم النتائج وتطبيقات البحث ومحدداته ومقترحات للبحوث المستقبلية.