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INDIA-QATAR BILATERAL TRADE RELATION: AN EMPIRICAL STUDY

Imran Alam[1]

[1]Research Scholar,
Department of Economics,
Jamia Millia Islamia
(A Central University),
New Delhi,

ABSTRACT

India's trade relation with Qatar is increasing over the period of time. In 2014-15, Qatar ranked fourteenth amongst the leading trading partner of India and among GCC countries Qatar stand at 3rd position after UAE and Saudi Arabia. Qatar is main source of India's liquefied natural gas (LNG). Qatar supplies 86% of India's liquefied natural gas (LNG). The main objective of this paper is to highlight the bilateral trade importance between these two countries. To achieve this objective trade intensity index and revealed comparative advantage has been calculated for the period of 2001 to 2013. Results of trade indices shows that India's trade is more intense with Qatar compared with its trading patterns with rest of the word. India's trade balance is deficit with Qatar and India has also comparative advantage in multiple goods with same country. So India should focus to export more that goods and consequently, trade balance will improve.

KEYWORDS: *Bilateral Trade, Trade Intensity Index, Revealed Comparative Advantage*
JEL Classification: F10, F13, F14, F15

1.INTRODUCTION

India's traditional and historical friendship with Qatar has over the years matured into a strong relationship, which has made both the sides' reliable economic partners having shared interests in trade and commerce, economic and technical cooperation and energy security. From the economic standpoint, there is a growing synergy between India and Qatar in the hydrocarbons and other industrial sectors.[1] Indian private sector companies are getting more and more involved in industrial and civil construction and consultancy projects in Qatar. (Pradhan, 2006)

The Indo-Qatar bilateral trade increased considerably in the recent years. Volume of India's export to Qatar has increased from US$ 537 million (2009-10) to US$ 969 million (2013-14). But its share is almost constant as it was 0.30% in 2009-10 and now in 2013-14 it is 0.31%. India's import to Qatar has increased almost four times in last five years from US$ 4649 million to US$ 15708 million. So, its share has also increased from 1.11% to 2.18% in last five years. Total trade between these two countries has also increased nearly three times in last five years. India's trade balance to Qatar is negative in recent years and increasing continuously.

Table: 1 India's trade with Qatar (in US $ million)

S.No.	Year	2009-10	2010-11	2011-12	2012-13	2013-14
1.	**EXPORT**	536.97	375.39	807.95	687.18	969.06
2.	%Growth		-30.09	115.23	-14.95	41.02
3.	India's Total Export	178,751.43	251,136.19	305,963.92	300,400.68	314,405.30
4.	%Growth		40.49	21.83	-1.82	4.66
5.	%Share	0.30	0.15	0.26	0.23	0.31
6.	**IMPORT**	4,648.52	6,819.87	12,916.35	15,693.08	15,707.99
7.	%Growth		46.71	89.39	21.50	0.10
8.	India's Total Import	288,372.88	369,769.13	489,319.49	490,736.65	450,199.79
9.	%Growth		28.23	32.33	0.29	-8.26
10.	%Share	1.61	1.84	2.64	3.20	3.49
11.	**TOTAL TRADE**	5,185.49	7,195.27	13,724.30	16,380.26	16,677.04
12.	%Growth		38.76	90.74	19.35	1.81
13.	India's Total Trade	467,124.31	620,905.32	795,283.41	791,137.33	764,605.09
14.	%Growth		32.92	28.08	-0.52	-3.35
15.	%Share	1.11	1.16	1.73	2.07	2.18
16.	**TRADE BALANCE**	-4111.55	-6444.48	-12108.4	-15005.9	-14738.93

Source: DGCIS, Ministry of Commerce, India, 2014

Electrical machinery and instruments, cereals, articles of iron and steel, vehicles (other than railway), nuclear reactor and mineral fuels are major commodities exported by India to Qatar.

Table: 2 India's major Export items to Qatar (US $ million)

HS Code	Commodity name	2013-14	2012-13	2011-12	2010-11	2009-10
02	MEAT AND EDIBLE MEAT OFFAL	27.75	24.14	28.69	15.29	12.93
07	EDIBLE VEGETABLES AND CERTAIN ROOTS	18.80	16.45	15.75	12.99	11.96
10	CEREALS	89.13	122.90	40.09	10.78	7.45
27	MINERAL FUELS/WAXE	47.10	29.74	309.24	7.62	51.79
29	ORGANIC CHEMICALS	28.57	14.24	15.56	11.43	6.35
72	IRON AND STEEL	37.84	26.75	19.20	11.65	9.35
73	ARTICLES OF IRON OR STEEL	56.80	68.84	57.16	36.02	36.85
84	NUCLEAR REACTORS, BOILERS	69.08	63.22	37.61	36.12	187.69
85	ELECTRICAL MACHINERY AND EQUIPMENT	66.09	63.42	76.94	83.61	39.64
87	VEHICLES OTHER THAN RAILWAY	49.66	55.31	38.65	14.92	9.26

Source: DGCIS, Ministry of Commerce, India, 2014

Mineral fuels are important import item from Oman to India. It's accounted 98.6% of total import commodities from Oman to India in 2013-14. Even its share is 18.6% of total import of mineral fuels from GCC region to India in 2013-14. Other major items are organic chemicals, inorganic chemicals and plastic and their articles.

Table: 3 India's major Import items to Qatar (US $ million)

HS Code	Commodity name	2013-14	2012-13	2011-12	2010-11	2009-10
25	SALT, SULPHUR	40.57	44.59	119.19	46.18	14.28
27	MINERAL FUELS/WAXE	14590.81	14578.34	11697.83	6060.95	4101.68
28	INORGANIC CHEMICALS	217.22	288.82	185.47	67.63	112.22
29	ORGANIC CHEMICALS	260.38	233.38	303.80	271.13	91.92
31	FERTILISERS	40.40	4.07	115.21	7.41	84.66
38	MISCELLANEOUS CHEMICAL PRODUCTS	103.94	75.19	91.91	63.55	50.74
39	PLASTIC AND ARTICLES THEREOF	358.84	360.50	258.93	205.75	129.16
72	IRON AND STEEL	9.85	8.84	20.14	19.36	39.66
74	COPPER AND ARTICLES THEREOF	13.83	9.61	12.53	7.89	7.70
76	ALUMINIUM AND ARTICLES THEREOF	62.46	81.29	97.15	52.08	9.42

Source: DGCIS, Ministry of Commerce, India, 2014

2.OBJECTIVES AND METHODOLOGY

The main objective of this paper is to highlight the bilateral trade importance between these two countries. Study mainly based in following objectives:

- To see trade composition and pattern between India and Qatar
- To find out trade intensity index between India and Qatar
- To find out revealed comparative advantage (RCA) between India and Qatar

To achieve these objectives trade intensity index and revealed comparative advantage (RCA) has been calculated between these two nations. For index calculation, data has taken from UN COMTRADE database for the period of 2001 to 2013. For commodity classification two digits HS 1996 has been used. For trade composition, data has taken from DGCIS, Ministry of Commerce, India.

2.1 Trade Intensity Index (TII):-

The trade intensity index is calculated to check if the trade volume between two trading partners is as per the expectation, below it or surpass it. This ration can be also be demarcated into Export Intensity Index (EII) and Import Intensity Index (III). This helps one to observe the patterns followed by the bi-directional trade exchange. The index of trade intensity as explained by **Kojima** (1964) and Drysdale (1969) can be illustrated as below:

EII between India and the Qatar = (XIG / XI) / ((MG / (Mw – MI))

Where, XIG = India's Export to the Qatar, XI= India's total ExportMG= Total Import of the Qatar, Mw= Total World import, MI = Total Import of India

III between India and the Saudi Arabia = (MIG / MI) / ((XG / (Xw – XI))

Where, MIG = Import of India from the Qatar, MI = Total Import of India, XG = Total Export of the Qatar, XW = Total World Export, XI = Total Export of India

The value of TII varies from 0 to infinity. The value 0 indicates no bilateral trade whereas value 1 indicates partners are trading without geographical differences. The value less than or greater than 1 explains that the two countries' bilateral trade more or less intense with respect to world.

2.2 Revealed Comparative Advantage (RCA):-

The RCA index was developed by **Balassa** (1965). RCA Index highlights "how competitive is a product in countries export compared to the products share in world trade. A product with high RCA is competitive and can be exported to countries with low RCA." (B.P.Sarathchandran 2010

RCAij = (Xij / Xit) / (Xwj / Xwt)

Where, Xij- values of country i's exports of product j, Xwj- world exports of product j,Xit- country i's total exports, Xwt-world total exports.

If RCA value is less than one, it means country has a revealed comparative disadvantage in that product. Similarly, if value is more than one, it implies country has revealed comparative advantage in that product.

3.EMPIRICAL RESULTS

3.1 India- Qatar Trade Intensity Index:-

In following table value of India's trade intensity shows that almost in every year from 2001 to 2013 value is more than unity. Same thing is also happening in case of Qatar. It simply means India's exports and imports are more intense with the Qatar compared with its trading pattern with rest of the world. Similarly, Qatar's value of

trade indices with India is always more than unity. It means Qatar's exports and imports are more intense with the India compared with its trading pattern with rest of the world.

Table: 4 Trade Intensity Index between India and Qatar

India's trade intensity index with QATAR			QATAR's trade intensity index with India		
YEAR	Export intensity index	Import intensity index	YEAR	Export intensity index	Import intensity index
2001	2.40	0.92	**2001**	1.75	3.22
2002	2.66	1.33	**2002**	1.40	3.76
2003	3.12	1.20	**2003**	1.16	3.92
2004	2.49	2.55	**2004**	5.02	2.77
2005	3.10	2.36	**2005**	2.58	3.88
2006	1.85	3.79	**2005**	3.30	2.67
2007	1.90	3.00	**2007**	4.03	2.62
2008	2.11	2.48	**2008**	2.42	2.76
2009	NA	3.89	**2009**	NA	NA
2010	1.07	3.43	**2010**	3.68	2.03
2011	NA	3.70	**2011**	NA	NA
2012	1.34	4.29	**2012**	3.95	1.72
2013	1.40	3.90	**2013**	3.87	1.69

Source: own calculation based on UN COMTRADE database

3.2 India's Revealed Comparative Advantage (RCA):-

In the following table the result of global revealed comparative advantage of India has been presented of those products whose values are greater than one from 2001 to 2013. There are 28 products whose RCA value is greater than 1. These are the products in which India had enjoyed the comparative advantage over the rest of the exporting goods in the global market. There are some products whose RCA values are quite high like Coffee, tea, mate & spices (09), Cereals (10), Lac; gums, resins (13), Veg. plaiting materials (14), Silk (50), Cotton (52), Other veg. textile fibres(53), Carpets & textile floor(57), Other made up textile articles (63) and Natural/cultured pearls (71). All these products RCA values are more than five in most of the years. On the other hand Products like Tobacco & manufactured tobacco (24), Organic chemicals (29), Tanning/dyeing extract (32), Special woven fabrics (58), Footwear, gaiters (64), Iron and steel (72) and Articles of iron/steel (73) do have comparative advantage but with a low RCA values (varies between 1 to 2). One thing we can also point out that there are some commodities whose RCA values increasing over the years like cereals and gums. On the other hand there are some products, whose RCA values are decreasing over the years like fish, articles of leather, silk, carpets and Natural/cultured pearls.

Table: 5 India's RCA Index Value (Selected Goods)

Year / Commodities	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Fish & crustacean (03)	4.21	4.07	3.42	2.61	2.62	2.35	2.18	1.62	1.42	1.83	2.01	2.15	2.48
Coffee, tea, mate & spices(09)	9.41	7.47	6.38	6.08	4.84	4.98	4.89	4.78	3.52	3.74	3.53	3.56	3.37
Cereals (10)	3.69	5.60	4.55	4.89	4.41	3.13	3.57	3.23	2.66	2.37	2.72	4.41	4.77
Lac; gums, resins (13)	15.5	12.4	11.6	11.4	11.9	10.6	9.82	9.00	5.66	8.71	18.2	33.0	19.60
Veg. plaiting materials (14)	6.16	5.72	3.99	6.06	5.40	4.75	4.72	5.00	3.67	5.20	4.32	5.41	4.39
Residues & waste from the food industry (23)	2.94	2.37	2.29	3.84	2.83	3.89	3.76	4.54	2.32	2.52	2.51	2.20	2.47
Salt; sulphur (25)	3.88	3.67	3.87	3.87	3.67	3.49	3.49	2.39	2.34	2.09	2.15	2.41	2.54
Articles of leather (42)	5.08	4.20	3.95	4.03	3.41	3.09	2.78	2.81	2.28	1.90	1.81	1.80	1.82
Silk (50)	16.0	16.6	16.4	16.1	12.7	11.2	9.90	8.84	6.75	6.96	4.55	3.17	2.85
Cotton (52)	9.13	8.17	6.62	6.38	5.87	7.09	8.27	7.70	5.37	8.34	6.68	8.01	8.82
Other veg. textile fibres(53)	7.97	4.79	4.65	5.21	4.89	4.17	4.40	4.78	4.29	6.20	5.18	6.18	4.93
Man-made filaments (54)	2.44	2.76	3.12	3.06	2.65	2.56	2.75	3.25	3.60	3.61	3.18	2.99	3.00
Man-made staple fibres(55)	2.85	3.11	3.56	3.47	3.09	3.34	3.84	3.88	3.25	3.41	3.30	3.25	3.05
Carpets & textile floor(57)	10.3	9.50	9.05	9.00	9.33	9.71	8.51	7.35	5.90	6.48	4.89	5.68	5.98
Other made up textile art.(63)	8.70	7.99	7.49	7.47	7.18	6.25	5.35	4.66	3.79	4.08	4.06	4.38	4.12
Natural/cultured pearls (71)	8.29	9.22	9.31	8.51	8.38	6.43	6.15	5.00	7.03	5.19	4.87	4.29	3.53

Source: own calculation based on UN COMTRADE database

3.3 Qatar' Revealed Comparative Advantage (RCA):-

Following results shows the Qatar's RCA value of all those commodities whose values are more than unity from 2001 to 2013. Like other GCC countries Qatar also possesses high comparative advantage in Mineral fuels, oils (27). Apart from mineral fuels, Qatar possesses comparative advantage only in Salt; sulphur (25), Fertilisers (31) and Plastics & articles thereof (39) but their RCA values are not constant, means not more than unity over the years.

Table: 6 Qatar RCA Index Value

Year / Commodities	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Salt; sulphur (25)	0.37	0.37	0.38	0.48	0.46	0.29	0.45	1.37	0.43	0.96	1.35	1.18	0.85
Mineral fuels, oils (27)	10.48	10.11	9.93	8.79	7.32	6.59	7.19	5.63	5.61	6.27	5.75	5.35	5.30
Fertilisers (31)	6.77	11.30	9.80	9.72	11.28	9.48	8.01	NA	5.02	0.00	NA	3.79	0.00
Plastics & articles thereof(39)	0.66	1.01	0.63	0.73	0.75	1.03	1.00	0.69	0.78	0.59	0.56	1.03	1.05

Source: own calculation based on UN COMTRADE database

4. CONCLUSIONS AND RECOMMENDATIONS

India's bilateral trade relation increasing manifold especially in 21st century. India's total trade with Qatar stand at 63rd position in 2001-02, but in 2014-15, India's total trade with Qatar stand at 14th position. Qatar is main source of India's liquefied natural gas (LNG). Qatar supplies 86% of India's liquefied natural gas (LNG).

Trade intensity also shows that India's trade is more intense with Qatar compared with its trading patterns with rest of the word. India's trade balance is

deficit with Qatar and India has also comparative advantage in multiple goods with same country. So India should focus to export more that goods and consequently, trade balance will improve. Another inference can be made that both the country benefit from having a different trade structure. So, this difference in trade structure results in heightened trade potential between them.

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