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The Dynamics of Iran's Chicken Meat Export Patterns in the Middle East Region

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Abstract: This study was conducted to determine the comparative advantage of Iran's chicken meat export in the Middle East market. Trade and production policies and economic behaviour of producers and exporters have been in such a way that they could not show an appropriate and timely response of region, also the instabilities in the trends of RCA and RSCA indices during the study period (1993-2002) led to the conclusion that there is no well defined strategy and plan for utilization of low price production factors, effective human power, knowledge of bargaining power and target markets. Also regarding to poultry industry potential, we can't recommend that Iran because of fluctuable RCA and RSCA indices, must retreat from recent decade of production policies for chicken meat production.

Key words: Chicken meat export, middle east market, meat production

Introduction

In the Middle East, agriculture is the largest contributor to the Gross Domestic Product and foreign exchange, and is the second largest employer. Yet despite its economic importance it is largely overlooked in the development of new technologies and in the allocation of trained human resources. Agriculture in the Middle East focuses on new ways to improve food production, the challenges of a largely arid land, and managing limited agricultural resources. Agriculture is one of the oldest income sources in Iran. Close to one-third of the working population are engaged in agriculture and related industries such as poultry farming. Agriculture plays a significant role in the Iranian economy. At now agriculture account for an average of 27.8 percent of the GDP, and employ 26.1 percent of the labor force. Also agricultural products account for 47 percent of non-oil exports. Poultry species play important roles in the livelihood of human beings throughout the world both in ways that are quantifiable economically and in others that cannot and are therefore not captured in economic indices such as national GDP estimates. Poultry meat contribute directly to food security because there are no taboos against their consumption. With regard to F.A.O annual reports (2004), Iran has been rated 1st producer and also 1st exporter of chicken meat in the Middle East region. Capital stock in this industry consists of Breeding Farms (lines), Grand Parents(GP), Parent stock (PS), Broilers, Slaughter-Houses and dependant industries of governmental and private sectors is 4000 Billions Rials (5 Billions \$). The current production is related to 70% of production units potential, so with regard to remained considerable potential, it is necessary to make of them in an optimum rate.

Therefore poultry products exports particularly chicken meat can be used for increasing of income and development for poultry industry.

The objective of this paper was to study the dynamics on comparative advantage of Iran's chicken meat export in the Middle East market.

Materials and Methods

The source of data from 1990-2002 are supplied by F.A.O, Deputy of livestock affairs of Iran's Ministry of Jihad-e-Agriculture and trade yearbooks of Iran's customs. We used from RCA method as follows:

$$CA = (X_{ij} / X_{tj}) / (X_{in} / X_{tn}) \quad (1)$$

The concept of revealed comparative advantage (RCA) is grounded on conventional trade theory. The original RCA index is formulated by Balassa (1965), can be written as above mentioned formula (No. 1): Where X represents exports value (1000\$), I is a country (Iran), j is a commodity (chicken meat) t is a set of, commodities (agricultural products) and n is a set of countries (Middle East's countries), RCA is based on observed trade patterns, it measures a country's export of a commodity in relation to its total exports and to the corresponding export performance of a set of countries. If $RCA > 1$, then a comparative advantage is revealed (e.g. Danges and Riedel, 1977; Kunimoto, 1977; Bowen, 1983; and Vollrath, 1987, 1989 and 1991). A problem with the Balassa index is that its value is asymmetric; it varies from one to infinity for products in which a country has a revealed comparative advantage, but only from zero to one for commodities with a comparative disadvantage. Dalum *et al.* (1998) proposed a revealed symmetric comparative advantage (RSCA) index to alleviate the skewness problem as follows:

$$RSCA = RCA - 1 / RCA + 1 \quad (2)$$

The RSCA ranges is from minus one to plus one and avoids the problem of zero values. we focused on chicken meat and agricultural sectors and investigate the stability in the pattern of the RCA indices for Iran.

Results

The distribution of the RCA indices in the start and end years of the period is indicated non uniformity, also RSCA indices confirm the results gained from RCA indices. Also this research has been shown the trend of share of Iran's production from Middle East production, share of Iran's export from Iran's production and share of Iran's export from Middle East export in terms of weight and value. The contribution of Iran's chicken meat production in relation to Middle East had increasing process, so that according to F.A.O, Iran has gained the first grade in region but contribution of Iran's export from total chicken meat export in region don't have increasing process. It seems instability and incoordination of production policies and elasticity of region market is the reason of fluctuating of contribution of Iran's production in the region over the studied period. Furthermore, the contribution value of Iran's chicken meat export from total value of chicken meat export in region is less than the contribution of Iran's export weight from total weight in region. With this comparison ,we find out that in relation to average price of each kilograms of the product in region, Iran gains less price for each kilograms of its export. This matter is possibly for the reason of either low quality of Iran's chicken meat from average quality of chicken meat of regional producers or impossibility of timely availability to region markets particularly lack of bargaining power. According to results, we can conclude that with regard to allocation of first grade of production of mentioned product to Iran, the RCA indices in Middle East has fluctuating rate to the comparative advantage that in case of coordination of decision-making centers of production and trade and awareness from existing atmosphere in region, obtaining the continuous comparative advantage export for Iran's chicken meat product is will be available. For these reasons, we can't recommend that Iran regarding to fluctuable RCA indices and having changeable RSCA, must retreat from recent decade of production policies for chicken meat production

The distribution of the RCA indices indicated non uniformity and was confirmed with the indices of RSCA (Table 1). The contribution of chicken meat production has been increasing but the country's total chicken meat production in the Middle East is not stable due to problems in coordination of production policies and elasticity of the region's market. Besides, the value of Iran's chicken meat export out of the total value of chicken meat export of the region is less than the Iranian export weight. It was observed that Iran gains lower price

Table 1: RCA and RSCA indices of Iran's chicken meat export in the Middle East

Year	RCA	RSCA
1990	0	-1
1991	0	-1
1992	0	-1
1993	0	-1
1994	0.16	-0.72
1995	0.07	-0.87
1996	0.23	-0.63
1997	0.34	-0.49
1998	0.20	-0.677
1999	0.233	-0.622
2000	0.182	-0.692
2001	0.317	-0.518
2002	0.622	-0.233

Table 2: Trend of Iran's production share(IPS)from Middle East production(MP),Iran's export share(IES) from Iran's production(IP),Iran's export weight share(IEWS) from Middle East export(ME)and Iran's export value share (IEVS) from Middle East export (ME)

Year	IPS/MP	IES/IP	IEVS/ME	IEWS/ME
1990	0.20	0	0	0
1991	0.23	0	0	0
1992	0.26	0	0	0
1993	0.26	0	0	0
1994	0.26	0.001	0.011	0.015
1995	0.26	0.002	0.005	0.027
1996	0.24	0.003	0.013	0.044
1997	0.24	0.008	0.018	0.089
1998	0.23	0.008	0.021	0.113
1999	0.23	0.007	0.027	0.174
2000	0.23	0.009	0.022	0.172
2001	0.24	0.010	0.036	0.153
2002	0.22	0.014	0.70	0.183

per a kilogram export (Table 2). This may be attributed to low quality chicken meat from average quality of chicken meat other competitors or poor bargaining power. Trade and production policies and economic behaviour of producers and exporters have been in such a way that they could not show a appropriate and timely response of region, also the revealed instabilities in the trends of RCA and RSCA indices during the study period (1993-2002) led to the conclusion that there is no well defined strategy and plan for utilization of low price production factors, effective human power, knowledge of bargaining power and target markets, so the mentioned findings is confirmed by Salami and Pishbahar, 2001, Karbasi and Abbasian, 2004, Azizi, 2005 and Mirzaei *et al.*, 2003, 2004 Also regarding to poultry industry potential, we can't recommend that Iran because of fluctuable RCA and RSCA indices, must retreat from recent decade of production policies for chicken meat production.

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