Trade Performance of Meat and Meat Preparation Sector in Malaysia: The Case of Non-Ruminant

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Abstract

Over the years Malaysia has undergone a substantial and persistent food trade deficit. It is continue to grow at an alarming rate as the figures climbed to a staggering RM 10.1 billion in 2008. Registered at 3.4 billion in 2005, it swelled to RM 4.9 billion in 2000. If this detrimental trend continues unimpeded, the food trade deficit is expected to reach RM12.4 billion by 2010 with food imports at RM27.3 billion, far outweighing exports worth RM14.9 billion. This phenomenon has to be arrested, which requires Malaysia to boost its food exports and it is a need of the policy makers, practitioners, producers and the government agencies to undertake appropriate action related this issues. This study is to evaluate the related factors and to evaluate the competiveness of 10 food commodities in the meat and meat preparation sector. The data cover non ruminant commodities in the HS 6 digits group which are expected to have high potential in the future. The studies will be based on the concept of revealed comparative advantage (RCA). The basic logic behind RCA is that it evaluates comparative advantage on the basis of a country's specialization in (net) exports relative to some reference group. A different interpretation of comparative advantage is furnished by Vollrath indices, which are adopted in this study. Vollrath offers three alternative specifications of revealed comparative advantage, they are; relative export advantage (RXA), relative import advantage (RMA) and relative trade advantage (RTA). From this studies contributed and demonstrated the potential performance of sub selected sector in the non ruminants.

Keywords: meat preparation, non-ruminants, sub sectors, trade meat performance

Introduction

Malaysia has undergone a substantial and persistent food trade deficit. It continues to grow at an alarming rate as the figures climbed to a staggering RM 10.6 billion in 2009. In line with the global food crisis in 2008, it has heightened government awareness and brought this issue to the forefront of public interest. This phenomenon has to be addressed, which requires Malaysia to boost its food exports and to substitute imports. There is a need to determine the local commodities that are capable of substituting imported products and at the same time, searching for varieties of potential products for export. This is particularly important for the food processing industry, as the scheduled liberalization of trade under the World Trade Organization (WTO) and the ASEAN Free Trade Area (AFTA) would produce greater challenges and stiff competition to Malaysian food producers. Thus, to penetrate a wider range of foreign markets, along with the effort to curtail the food trade deficit, it is crucial for Malaysian food processors to identify food sub-sectors that are internationally competitive and viable.

The meat and meat preparation sector in Malaysia has been chosen as to date, it is mainly an imported item. It is the aim of this study to evaluate the competitiveness of 10 food commodities in the meat and meat preparation sector (division 01) covering the period of 1997 to 2008. The data cover only the non ruminant commodities in the HS 6 digits group which are expected to have high potential in the future.

Our investigation is based on the concept of revealed comparative advantage (RCA). Vollrath offers three alternative specifications of revealed comparative advantage. The major difference between the Balassa index and the Vollrath indices is that the latter eliminate country and product double-counting. Time series data were obtained from Global Trade Atlas (GTA) and International Financial Statistics (IFS).

The remainder of this paper is structured as follows: Section II reports a review of some of the related literature. Section III discusses the methodology. Section IV reveals the findings and the conclusions are summarized in Section V.

Recent Studies on Competitiveness and Comparative Advantage

For many decades, the concept of competitiveness has been widely used in economic research and economic policy from various points of view. A large and growing body of literature attempts to assess the issue theoretically and empirically. The definition of competitiveness itself may also vary with respect to the level considered (Havrila & Gunawardana, 2006). The diversity of the concepts and measures largely pertains to the variety of policy analysis needs, perspectives and objectives of the research.

Recently, a study carried out by Bojnec and Ferto (2009) attempted to investi-

gate the level, composition, and differences in agro-food relative trade advantages/ disadvantages for eight Central European and Balkan countries on the European Union (EU) markets and their implications for food policy. Higher and more stable relative trade advantages were found for bulk primary raw agricultural commodities and less so for consumer-ready foods, implying competitiveness shortcomings in food processing and in international food marketing. Duration analysis showed that the EU enlargement has had a negative impact on agro-food relative trade advantages for all eight analyzed countries. Estimations imply that the duration of agro-food relative trade advantages were the highest for Hungary and Poland, and also for Bulgaria in differentiated products, indicating their agro-food trade potential in the EU-15 markets.

Bojnec and Ferto (2006) examined the comparative advantage and competitiveness of Hungarian and Slovenian agro-food trade in the EU markets. Applying a highly disaggregated trade dataset, they described the pattern of agro- food trade in Hungary and Slovenia using the Balassa index. Their findings indicated that both countries have lost their comparative advantage for a number of product groups over time. The indices of specialization have tended to converge. For particular product groups, the indices displayed greater variation. They are stable for product groups with a comparative disadvantage, but product groups with a weak to strong comparative advantage show significant variation.

With the aim to move the attention away from advanced industrialized economies, Uchida and Cook (2005) examined the trends for trade and technological specialization among the East Asian developing economies. The analysis is confined to seven East Asian economies: Hong Kong, South Korea, Singapore, Indonesia, Malaysia, the Philippines, and Thailand. Important differences are found in the patterns of specialization, and in the relationship between them among the advanced East Asian economies and those catching up. The country level analysis indicated that a difference in the patterns of competitive advantage among the East Asian economies was greater for technology than for trade. Cumulative or path-dependent technological change was found to be important in Hong Kong, South Korea, and Singapore.

As too little attention has been paid to examine the developing countries' comparative advantage in services, Seyoum (2007) attempted to fill this gap by analyzing the competitiveness of selected services: business, financial, transport and travel services in developing countries in relation to that of the rest of the world based on three indices of revealed comparative advantage. Strong comparative advantages exist for many developing countries in transport, and travel services. There is substantial room for improvement in financial and business services. Trade liberalization and lack of adequate preparation appears to have resulted in a weakening of their comparative advantages over the years. However, their revealed comparative advantages remain, by and large, stable and do not show a fundamental shift in the structure of their comparative advantages.

Methodology

A different interpretation of comparative advantage is furnished by the Vollrath indices, which offer three alternative specifications of revealed comparative advantage. They are relative export advantage (RXA), relative import advantage (RMA), and relative trade advantage (RTA), expressed as,

$$RXA_{ij} = \frac{(X_{ij} / X_{nj})}{(X_{ir} / X_{nr})} \quad (1), \quad RMA_{ij} = \frac{(M_{ij} / M_{nj})}{(M_{ir} / M_{nr})} \quad (2), \text{ and} \quad RTA_{ij} = RXA_{ij} - RMA_{ij} \quad (3)$$

Where X are the exports and M are the imports of sector (or product) i of country j, n is the rest of the products and r representing the rest of the world. According to Vollrath, positive values of the RTA index indicate a comparative advantage, whereas negative values indicate otherwise.

Vollrath (1991) pointed out that the appraising of comparative advantage at aggregate and dis-aggregated levels can 'identify the overall direction and drive in which a country's investment and trade should take in order to exploit international differences in product and factor supply and demand' as well as 'to evaluate socially desirable specialisation patterns along narrow product lines'. He further argued that the estimation of comparative advantage may be particularly beneficial when considering trade between countries with different factor endowments.

Results and Discussion

The analysis of the Vollrath indices (RXA, RMA and RTA) outlined the trading specialization of Malaysia in the non ruminant sector. Through analysing Malaysia's indices, the results that we obtained were somewhat ambiguous. In the relative export advantage index (RXA), as presented in Table 1, we can see that the duck products (Duck, Goose & Guinea Fowl Meat & Meat Offal Prepared or Preserved Excluding Livers, Ducks, Geese And Guinea Fowls, Domestic, Whole, Frozen and Duck, Geese or Guinea Fowl Cuts And Edible Offal, Domestic, Frozen) have the highest value which are all more than 1. The rest, especially chicken products, can be considered to have a comparative disadvantage. The relative import advantage (RMA) shows that none of this sub sector has RMA values of more than 1. The highest value for Malaysia is observed in, Duck, Geese or Guinea Fowl Cuts and Edible Offal, Domestic, Frozen which represents the major importing product in this sector. As indicated above, negative values (positive) indicate a competitive trade disadvantage (advantage). Thus, from the table it is apparent that Malaysia is competitive in the production of non-ruminant sub sector. Of the 10 commodities in meat and meat preparation, all the positive values are less than 1.

Table 1. Average relative export, relative import and relative trade advantage for selected meat and meat preparation sectors in Malaysi

HS Code	Commodity	RXA	RMA	RTA
HS 020711	Chickens and Capons, Whole, Fresh or Chilled	0.7961	0.0043	0.7918
HS 020712	Chickens and Capons, Whole, Frozen	0.5531	0.1470	0.4062
HS 020713	Chicken and Capon Cuts and Edible Offal, Fresh or Chilled	0.7833	0.0017	0.7815
HS 020724	Turkeys, Whole, Fresh or Chilled	0.0565	0.0091	0.0473
HS 020732	Ducks, Geese or Guinea Fowls, Domestic, Whole, Fresh or Chilled	0.4570	0.0013	0.4558
HS 020733	Ducks, Geese and Guinea Fowls, Domestic, Whole, Frozen	21.334	0.0283	21.053
HS 020735	Ducks, Geese/Guinea Fowl Cuts & Edible Offal, Excluding Fatty Livers, Fresh or Chilled	0.0757	0.0229	0.0528
HS 020736	Duck, Geese or Guinea Fowl Cuts and Edible Offal, Domestic, Frozen	12.677	0.3509	0.9168
HS 160232	Chicken & Capon Meat & Meat Offal Prepared or Preserved Excluding Livers	0.1123	0.0183	0.0943
HS 160239	Duck, Goose & Guinea Fowl Meat & Meat Offal Prepared or Preserved Excluding Livers	190.304	0.0338	189.967

Source: Author's calculation

Conclusion

The analysis provided here revealed that Malaysia is generally very competitive in the non ruminant sector. A good competitive performance was observed in HS 160239 (Duck, Goose & Guinea Fowl Meat & Meat Offal Prepared or Preserved Excluding Livers) which is confirmed by both its relative export advantage (RXA) and relative trade advantage (RTA) indices, whereas the RTA index shows strong competitiveness. Malaysia demonstrates a good performance in this selected sub sector. A great deal of attention should be given, through aggressive research and development of new products and production techniques, to maintain and improve the competitiveness of the Malaysian food sector.

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