

Neven Ivandić and Zrinka Marušić

# The hotel industry's import-dependence: The case of Croatia<sup>1</sup>

## Abstract

*Tourism contributes significantly to the Croatian economy. But, given Croatia's high import dependence, one of the questions that arises is how much the tourism industry contributes to the total imports of Croatia. The aim of the research was to estimate the size of the direct import component in products used in the hotel and restaurant sector in 2004. Furthermore, the research aimed at detecting products that are the most important in total imports to the sector, as well as to analyze the major reasons for imports. The official data available from the National Tourism Administration and Croatian Bureau of Statistics of the Republic of Croatia, including an existing input-output table, did not provide an adequate basis for the analysis due to both the level of aggregation and the unavailability of data. Therefore, three surveys have been conducted: (1) survey of hotels; (2) survey of bars and restaurants; and (3) survey of households engaged in private accommodation services. The surveys were based on the representative samples of 35, 186 and 109 firms/households respectively. Each survey collected data on monetary value for more than one hundred products used within the entity and the value of imports for each product and/or product group. The research revealed that the import dependence of the hotel industry, in regard to specific products and product groups, is lower than average and the major reason for the import is the unavailability of specific products produced domestically. The structure of imports by product has shown open market niches for domestic producers but also certain obstacles to such production and commercial orientation.*

### Keywords:

*import dependence; hotel industry; tourism; survey; Croatia*

## Introduction

With the total GDP of approximately 29 billion EUR and 6.5 thousand EUR per capita in 2004, Croatia can be considered an emerging economy. This is especially so when keeping in mind the relatively high unemployment rate and the relatively inefficient use of resources, particularly in agriculture, as well as some other sectors, since the transition from socialist to market economy has resulted in the abandoning of many traditional economic activities.

Neven Ivandić, M.Sc., Institute for tourism, Zagreb, Croatia  
E-mail: neven.ivandic@iztg.hr

Zrinka Marušić, Institute for tourism, Zagreb, Croatia  
E-mail: zrinka.marusic@iztg.hr

## **The hotel industry's import-dependence: Review of the literature**

Whenever estimates of the impact that tourism has on the Croatian economy are made, it is considered to be of the utmost importance. The hotel industry (hotels and restaurants sector in accordance with the National Classification of Activities 2002 [NKD], National Gazette, 2003) is an important segment of tourism and its share in the Croatian GDP in 2004 was approximately 3.1% (Croatian Bureau of Statistics of the Republic of Croatia [CBS], 2005a). On the other hand, the entire Croatian economy is highly import-dependent. The value of total imports to the Republic of Croatia in 2004 was 13.3 billion EUR (CBS, 2005b).

Opinions have been voiced lately that the hotel industry and tourism in general are over dependent on imported goods and products. Moreover, they are considered to be the significant contributors to the country's increasing imports, thus reducing the contribution of these industries to the national economy and forgoing some opportunities to increase domestic employment in the production of goods that could replace the imported ones.

The aim of this study was therefore to determine the impact of the Croatian hotel and restaurant industry on total imports into the country. The study was conducted as a part of the project *Croatian product for Croatian Tourism* entirely supported by the Ministry of Sea, Tourism, Transport and Development of the Republic of Croatia and the Croatian Chamber of Economy in 2005 (Ivandić, Marušić, Horak, & Krešić, 2006).

Statistical data currently available in Croatia do not make it possible to assess the volume and relevance of imported products used in the Croatian hotel industry either in total or by product group and by product. This is why it was necessary to create a methodology to research the volume of imports in the hotel industry in 2004 in order to meet the following objectives: (1) to assess the volume and relevance of imported products in total and by the most important product groups, and (2) to analyze the perceived relationship between price and quality of imported and domestic products as well as the reasons for the import of products in the hotel industry.

The development of a model and method for analyzing the relevance of tourism as an industry or of its segments/aspects for a country or a region has been the focus of economic analysts for quite some time, and the issue has gained in importance as tourist demand grows and as its various impacts on the economy become better understood.

In addition to the approach that starts with the national accounts and measures the size and relevance of tourism using the tourism satellite account, the assessment of the effects of tourism is usually done on the basis of input-output analysis (Sun, 2007; Dwyer, Forsyth & Spurr, 2004), where the tourism satellite account provides a statistically relevant insight into the direct effects of tourism while input-output analysis enables a model-based assessment of the direct and also indirect and induced effects of tourism. However, in addition to the input-output model, a more complex and powerful model, Computable General Equilibrium, has recently been promoted (Sun, 2007). Dwyer, Forsyth and Spurr (2004) comparing the two model see them as two approaches, the old one based on the use of input-output analysis and the new one based on the use of Computable General Equilibrium. While promoting the use of the Computable General Equilibrium model, the above-mentioned authors claim that input-output and multipliers measure only the positive effects on economic activity and ignore the negative effects, while the Computable General Equilibrium model includes the

input-output model, together with other markets and links between them which makes it possible to assess the economic effects of a wide spectrum of changes and policies.

In addition to different, although still primarily input-output oriented approaches to the analysis of economic effects of tourism, there is also the problem of establishing the effects of tourism when there is no adequate volume of available data to be used in the analysis of intra-sectoral relationships or even in the analysis based on the tourism satellite account. Such cases require that a primary research or survey be carried out in order to provide the data needed to define the different impacts that tourism has on the economy, such as its contribution to GDP or foreign currency receipts and outlays. This was the approach applied in the analysis of the economic impact of tourism in the Maldives (United Nations Economic and Social Commission for Asia and the Pacific, 1990). Starting from technology coefficients, the research included a survey of operating and capital expenditures by a number of hotel resorts. The structure of operating and capital expenditures was established per overnight stay as a basis for the calculation of the contribution of tourism to the budget revenues, GDP and foreign currency receipts and outlays (including the share of imports in expenditures) as well as the relationship between tourism and other sectors of the economy.

Studies of the economic impact of tourism in Croatia, especially those focused on the import dependence, are rare. Jurčić (2000) explored the import-dependence of Croatian tourism starting with the framework methodology of input-output analysis, based on the 1998 GDP and the input-output tables for Croatia in 1987 (using assessment of technical coefficients for 1998 and based on the Croatian GDP structure for 1998 and a biproportional RAS method). In the article, the tourism sector includes the hotels and restaurants sector as well as travel agencies and tour-operators, so that it is not possible to make conclusions about the impact of tourism on the Croatian economy, but only about a part of this industry, which also includes non-tourist consumption. Analysis was performed on a 20-sector table, with the definition of direct and indirect import coefficients.

As the literature review showed, there are two ways to tackle the problem. One is the measurement of direct import dependence only and the other is the measurement of both, direct and indirect import dependence, which results in a more detailed and superior understanding of the phenomenon. The traditional methodology for measuring direct and indirect import dependence is the application of input-output analysis. The methodology increasingly used today and with more comprehensive results is the application of Computer Generated Equilibrium model. Due to the level of development of Croatian system of tourism statistics as well as the unavailability of the appropriate data from national accounts and structural statistics it was not possible to apply the input-output analysis or Computer Generated Equilibrium model. The focus of the study has, therefore, been put on data collection process and measuring only the direct import dependence through a primary research.

### **Study area: The Croatian hotel industry**

Statistically registered turnover by legal entities and natural persons in the catering and accommodation sector (i.e. the receipts from services provided - accommodation, food and drink, and other services usually provided in addition to the basic catering services), including value-added tax, amounted in 2004 to 1.6 billion EUR (CBS, 2005c). Households providing services of accommodation have recorded a turnover of 0.2 billion EUR (Institute for Tourism, 2005). The total turnover from all the services provided was in 2004 equal to 1.8 billion EUR, of which the legal entities' share was

Figure 1  
**THE STRUCTURE OF TOTAL TURNOVER  
 RECORDED BY LEGAL AND NATURAL  
 PERSONS IN THE HOTEL AND RESTAURANT  
 SECTOR AND ACCOMMODATION SERVICES  
 PROVIDED BY HOUSEHOLDS IN 2004 BY  
 GROUP AND OWNERSHIP IN %**



Source: CBS (2005c), Institute for Tourism (2005).

62.4%, the natural persons' (sole traders) share was 27.8%, while households providing accommodation services represented 9.8% of the total turnover in catering and accommodation services (Figure 1). Almost 50% of the total turnover was recorded by companies registered for hotel operations followed, in terms of total turnover share, by bars registering 22.8% of total turnover, restaurants 14.9% and households providing accommodation services 9.8%.

In regard to Croatian imports in 2004, somewhat over 9% of total imports to Croatia were imports of food products, beverages, toiletries, paper etc., i.e. goods that could be used by hotels, restaurants and households as the intermediate products. A smaller volume of products, valued around 48 million EUR, were directly imported by hotels and restaurants sector without intermediation (84% of which refer to goods used in investment projects such as equipment, furniture, fixture etc.).

The largest part of the procurement (of materials, raw materials, spare parts, sundry items and merchandise) used in the hotel, restaurant and private accommodation sector are purchased via the wholesale and retail trade sectors. Data on the origin of goods (domestic or foreign) purchased are not readily available in the accounting records of companies. Furthermore, the official data available from the National Tourism Administration and Croatian Bureau of Statistics, including an existing input-output table, do not provide an adequate base for analysis due both to the level of aggregation and unavailability of data. This is why, in order to assess the value of imported products in the total amount of goods procured in the hotel, restaurant and private accommodation sector, as well as to assess the share of imports in procurement of specific products, the following surveys were carried out: (1) survey of hotels; (2) survey of bars and restaurants; and (3) survey of households engaged in private accommodation services.

## Methods

The research on import-dependency of Croatian tourism encompassed the hotel, restaurant and private accommodation sectors (hereafter: hotel industry) focusing only on registered financial flows. The analysis included the import component of intermediate products procured, i.e. the procurement of material, raw material, spare parts, sundry items and other goods purchased by the hotel industry in 2004. Investments and services were not analyzed. Imported products were defined as those not marked as of Croatian origin on their labels, i.e. products imported as such. The import component in domestic products used by the Croatian hotel industry was not analyzed.

All three surveys were conducted in spring 2005, with the data collected referring to the previous year.

#### **HOTEL SURVEY**

Based on the available data supplied by the Financial Agency there were 406 companies operating hotels in 2004, but the greatest part of the operations were carried out by the 50 largest companies, which recorded 74% of total revenues in the hotel industry, of which the 10 largest generated 37% of the sector revenue.

The hotel company sample was defined using data on hotel company operations, as the goal was to include companies with a minimum 70% of total revenue generated from hotel operations. The sample was stratified by company size and location. This ensured that the largest companies were included in the sample and that it was regionally balanced and included both small and medium-sized companies. Company size, defined by yearly revenue from operations, was adjusted to the features of the Croatian hotel industry. The planned sample size was 72 hotel companies.

Mail questionnaire was used to obtain the data. The questionnaire content covered the following: (1) structure of expenditures of intermediate products in the hotel companies; (2) detection of products and product groups that are to a large extent imported; (3) assessment of the value of imported products and groups of products in the total cost of materials; (4) assessment of the perception of price and quality of imported products in comparison with domestic products, and (5) reasons for procurement of imported products in the sector under study.

Data on the structure of purchases and the share of imported products in these purchases were collected for 101 products, excluding energy and water. Groups of products and specific products were grouped by hotel segments of operations according to USoAfLI (AHMA, 1996).

The perception of the relationship between prices of imported and domestic products was measured on a three point scale: 1 – imported product is cheaper, 2 – the price of imported and domestic product is the same, or 3 – domestic product is cheaper. The perception of the relationship between the quality of imported and domestic product was assessed in the similar manner. Regarding the reasons for imports in the case of products either partially or entirely procured from imports, three of six options could be selected: price, quality, packaging, market access/availability of product, reliability of supply/successive deliveries of product, and lack of a domestic substitute for the imported product.

In order to ensure the highest possible quality of the data collected, the field part of the study was performed by the Croatian Association of Hotels and Restaurants and the Association of Family and Small Hotels in Croatia. Detailed instructions for filling the questionnaire were also provided. During the field work, which lasted for two months, hotel companies were contacted by phone in order to increase the response rate.

Of the 72 hotel companies sampled, completed questionnaires were returned by 35, which is almost 50% response rate. The obtained sample of the hotel companies included almost 9% of all companies in the hotel sector, and almost 56% of the total revenues of the sector. Sample covered about 93% of total revenues within large hotels, 41% of total revenues within medium-size hotels and 10% of total revenues within small hotels.

Total value of imported products purchased in the hotel industry was derived from the survey results and the share of expenditures for intermediate products in total revenue of the whole hotel industry, on the level of five groups of companies defined by company size and location.

#### **RESTAURANTS AND BARS SURVEY**

A methodology of data collection on the share of import products purchased by bars and restaurants followed the methodology defined for the hotel companies. The sample size was 200 restaurants and 50 bars. The number of restaurants in the sample by region was in proportion to the total restaurant turnover within the region. The questionnaire content, regarding the number of product groups and individual products, has been partly reduced in comparison to the hotel survey, primarily due to the fact that restaurants and bars use a much smaller number of products than hotel companies do. The data were collected by personal interviews with owners of sampled restaurants and bars or persons responsible for procurement of intermediate products within the restaurants and bars. The interviews were conducted by trained staff of the County Chambers of Trades and Crafts. Completed questionnaires were collected from 151 restaurants and 35 bars, representing 76% and 70% response rate, respectively.

#### **PRIVATE ACCOMMODATION SURVEY**

A methodology of data collection on the share of import products purchased by private accommodation establishments also followed previously explained steps. The sample size was 200 private accommodation establishments. Data was obtained by telephone survey. A total of 109 completed questionnaires were collected, representing 55% response rate.

## **Results and discussion**

### **HOTELS**

In 2004, total revenue of hotel companies reached 0.7 billion EUR from sales of products, services and merchandise, of which 93.1% of revenues were generated by providing hospitality services. Based on the survey, total expenses for the intermediate products were estimated to 139 million EUR or 20.4% of total operating revenues. Out of those, 44 million EUR or 31.7% was from imports (Figure 2).

The analysis of the expenses structure (Figure 3) revealed that food products represent 48.7%, beverages 12.6%, and other products 38.7% of the total expenses for intermediate products. The share of imported products in the total imports and the share products expenses in the total expenses show that food (48.7% share in total expenses and 42.5% share in imports) and beverages (12.6% share in total procurement and 4.6% share in imports) are imported below the average, while other products are imported above the average (38.7% share of total expenses and 52.8% share in imports), with materials and technical spare parts topping the list of imports.

The share of fruits, fish and vegetables in imports is considerably above their share in total expenses. The same is recorded for the materials and technical spare parts, hygiene products and office and other similar material (i.e. expenses for material and spare parts used in maintenance accounts for about 10% of total expenses for intermediate products while their import represents 21% of total imports in terms of value).

Figure 2  
REVENUES, EXPENSES AND IMPORTS IN HOTELS IN 2004

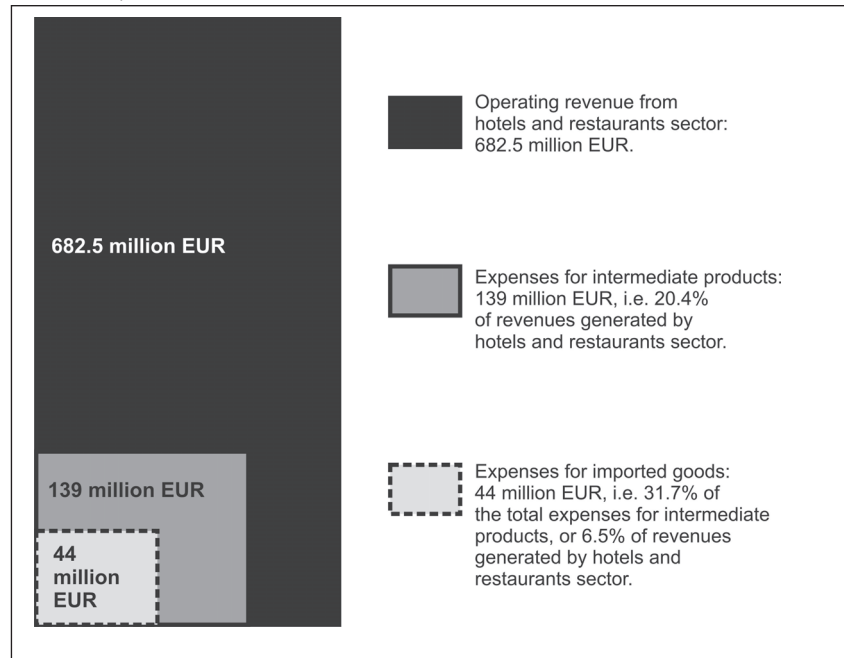
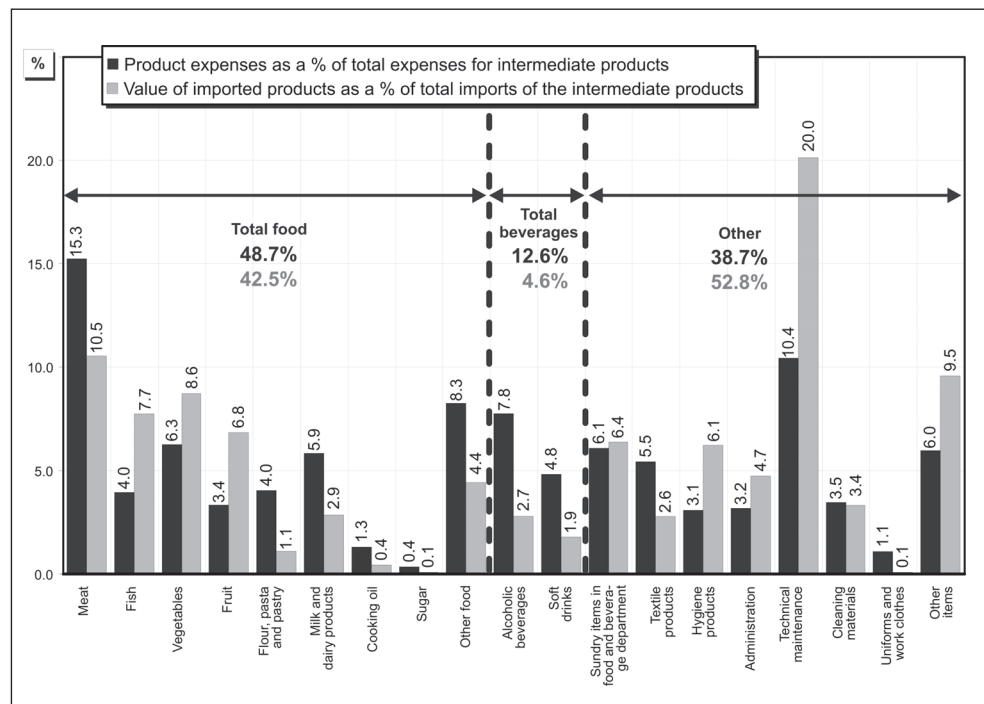


Figure 3  
SHARE OF PRODUCT EXPENSES IN TOTAL EXPENSES FOR INTERMEDIATE PRODUCTS AND SHARE OF PRODUCT IMPORTS IN TOTAL IMPORTS IN HOTEL COMPANIES IN 2004

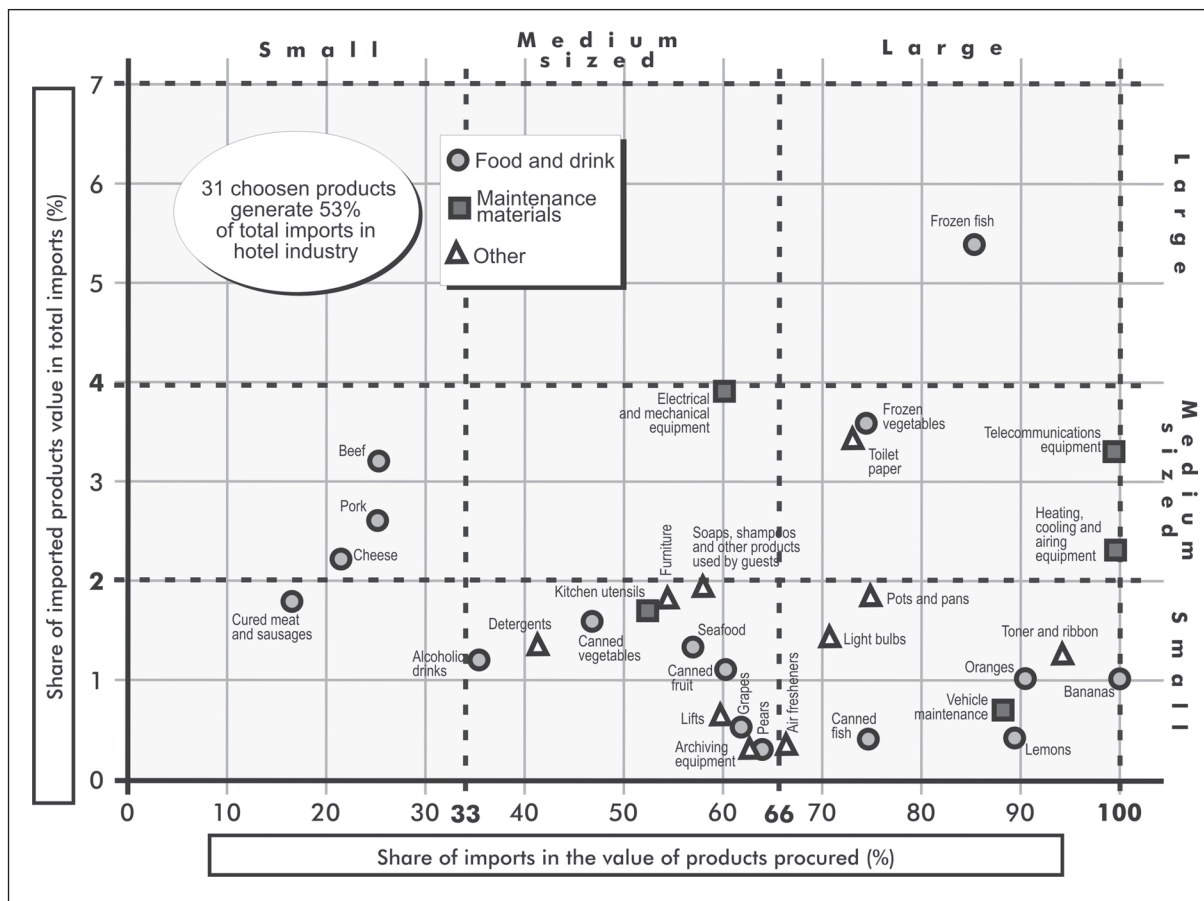


Relevance of the import by products was measured by two ratios: (1) the share of imports in the value of products procured, and (2) the share of imported products in total imports (Figure 4). Combination of these ratios allowed for the recognition of



three groups of products. First group are products in the upper right hand corner of the chart. Those products have both, a high import component and a high share in total imports. Only one product falls in this category – frozen fish. Second group, in the middle quadrants of the chart, are products with a medium or high share in both ratios. Within this group of products, except for frozen vegetables, the most evident are materials used for maintenance and spare parts. Third group, falling in the bottom row of the chart, are products with a relatively small share of total imports, but mostly procured from abroad. This group includes the majority of analyzed products, with the emphasis on food products.

Figure 4  
RELEVANCE OF IMPORT BY PRODUCTS USED IN HOTEL COMPANIES IN 2004



When assessing the relationship between price and quality of the most important imported products, surveyed companies perceived 8 domestic products as of superior quality, 7 products as the same quality while 13 imported products were perceived as of higher quality. All domestic products of the same or superior quality can be procured from abroad at a lower price based on the assessment of sampled companies. The price advantage of domestic products was noted in only one case (alcoholic beverages) while the price of domestic products was very close to imported ones in 5 cases.

Out of several proposed reasons, the availability and/or accessibility of substitutes arise as the most important reason for import of 11 products as those products are either not produced in Croatia or not produced in the required quantities (frozen fish, frozen



vegetables, toilet paper, canned vegetables, sea food, alcoholic beverages, canned fruit, citrus fruit and bananas and canned fish).

The quality of imported products is, following the availability and accessibility, further important reason while hotel companies purchase imported products. It should also be stressed that, irrespective of the price advantage of the imported products, the product price is not recognized as a major reason for the import. It is always accompanied by the higher quality and better availability of the imported product.

#### **RESTAURANTS AND BARS**

In restaurants, 14% of all procurement of intermediate products was imported in 2004. The same ratio of total procurement expenses and imports is recorded in bars run by natural persons.

#### **PRIVATE ACCOMMODATION**

Total imports of goods by private accommodation facilities were 26.6% of total expenses for intermediate products or 5.7% of operating revenues. Level of imports of food products, as well as beverages was below the industry average. A higher percentage of domestic food and beverages can be partly explained by household production for own use.

#### **TOTAL HOTEL INDUSTRY**

In 2004, the value of all purchases of raw materials, material and other goods to be used in catering (excluding cost of energy) was 460 million EUR, i.e. 29% of the total operating revenues from services provided by hotel industry. The share of imports in procurement was approximately 96 million EUR or 21% of the total procured intermediate products. Non-food and drink goods and products represent the largest part of total import (53 million EUR).

Imports of products used in hotel industry represent only 0.7% of total imports to the Republic of Croatia, while imports of food and beverages represent only 4.5% of total imports of food and beverages to the Republic of Croatia. It can therefore be concluded that hotel industry does not generate either the significant part of food and beverages imports or the significant part of total imports in the Republic of Croatia. Therefore, an economic policy measures targeting the hotel industry only will not significantly influence the level of imports in the Republic of Croatia.

## **Conclusion and implications**

The research is the first of its kind to be carried out on Croatian tourism. It has encompassed the hotel industry – hotels, restaurants and households providing accommodation as the most prominent sectors. The research has provided answers to a number of questions: (1) what is the value of the products/goods imported by the hotel industry; (2) which products/goods are imported the most, and (3) what are the main reasons for the import of certain kinds of products/goods.

The findings obtained revealed that the share of imported products is relatively small and represents only 21% (96 million EUR) of the total purchases made by companies and sole traders in the industry. The purchases of imported products amount to approximately 6% of the total operating revenue of the industry. The share of total industry imports in the total imports of Croatia (excluding investment and energy) amounted in 2004 to only 0.7% (for example, much lower than the share of hotel industry in GDP), in contrast to widely spread opinion in Croatia that tourism relies

too much on imported goods and products. The hotel industry is primarily a service industry, obtaining high returns from the use of natural resources, and only then from the labour and capital engaged.

This is why the effect of reduced imports of products in the hotel industry can have only a limited impact on the reduction of overall imports into Croatia. Nevertheless, it is worth looking into the possibility of replacing a particular import product with a domestic one for at least two reasons: (1) a higher ratio of domestic food products, most often of higher quality than imported ones, will help create and promote Croatian culinary brands, thus contributing to higher quality and competitiveness of Croatian tourism on the global tourism market and (2) stimulation of Croatian agricultural production (United Nations World Tourism Organization, 2003; Telfer & Wall, 1996; Kuo, Chen & Huang, 2006).

Further, the structure of imports by products has shown open market niches for domestic producers but also certain obstacles to such production and commercial orientation. The research findings provide a basis for a guideline that would help to reduce the share of imported products into a given industry when such a move is possible and justified in order to encourage competitiveness in relevant domestic production, and contribute indirectly to the reduction of import-dependence in hotel industry. Three areas of potential activity have been recognized:

- Incentives to increase competitiveness and production of certain products;
- Increasing the quality of services by stressing local identity and including domestic products; and
- Establishing connections between businesses by setting up a domestic food product exchange, building adequate storage/refrigeration facilities to preserve products, investing in processing plants, promoting associations of small producers/cluster policies.

The limitations of the research are primarily within its scope. Although the hotel industry represents a considerable sector within the tourism, the import dependence of the hotel industry cannot be assumed to apply to the entire tourism due to unknown part of non-tourism activities within the sector, tourism activities out of hotel industry and effects of “unofficial economy”. Furthermore, the research does not encompass either the import part of domestic products purchased by the industry, or the share of the import factor in investment, energy consumption and services. Further research would also need to focus on a more detailed examination of services and the import part of services as a measure of know-how transfer into the sector.

The research has also opened a number of new questions that need to be answered such as the price sensitivity of demand for the products most often imported, as well as the inter-sectoral relationships in tourism for the purpose of defining better prerequisites for economic and tourism policy management.

---

**Note:**

<sup>1</sup> The study has been presented by the authors at the *First Conference of The International Association for Tourism Economics*, Palma de Mallorca, October 25 - 27, 2007.

## References

- American Hotel & Motel Association (1996). *Uniform System of Accounts for the Lodging Industry*. Michigan: American Hotel & Motel Association.
- Croatian Bureau of Statistics of the Republic of Croatia (2005a). *Quarterly Gross Domestic Product Estimate, 2004*. First Release. Zagreb: Author.
- Croatian Bureau of Statistics of the Republic of Croatia (2005b). *Foreign trade in goods of the Republic of Croatia: January – December 2004*, Final data. Zagreb: Author.
- Croatian Bureau of Statistics of the Republic of Croatia (2005c). *Hotels and Restaurants in 2004. Annual Report*. Zagreb: Author.
- Dwyer, L., Forsyth, P., & Spurr, R. (2004). Evaluating tourism's economic effects: new and old approaches. *Tourism Management*, 25, 307-317.
- Ivandić, N., Marušić, Z., Horak, S., & Krešić, D. (2006). *Croatian products for Croatian tourism*. Zagreb: Institute for Tourism.
- Institute for Tourism (2005). *Attitudes and Expenditures of tourists in Croatia – TOMAS Summer 2004*. Zagreb: Author.
- Jurčić, Lj. (2000). The Import Dependence of Croatian Tourism. *Acta Turistica*, 12(1), 3-17.
- Kuo, N.W., Chen, Y.-J., & Huang C.-L. (2006). Linkages between organic agriculture and agroecotourism. *Renewable Agriculture and Food Systems*, 21(4), 238-244.
- National Gazette (2003). *Decision on National Classification on Activities – NKD 2002*. No. 13.
- Sun, Y.-Y. (2007). Adjusting Input-output models for capacity utilization in service industries. *Tourism Management* (in print), doi: 10.1016/j.tourman.2007.02.015.
- Telfer, D.J., & Wall, G. (1996): Linkages Between Tourism and Food Production. *Annals of Tourism Research*, 23(3), 635-653.
- United Nations Economic and Social Commission for Asia and the Pacific (1990). *The Economic Impact of Tourism in Maldives*. Bangkok: Author.
- United Nations World Tourism Organization (2003). *Local Food & Tourism International Conference*. Larnaka, Cyprus, 9-11 November 2000, World Tourism Organization Conference Proceedings.

Submitted: 05/02/2007

Accepted: 10/05/2007