

International Tourism Price Competitive Index and A Comparative Application With Turkey

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Abstract- If countries want to develop and boost their tourism industry, it should be paid attention to comparative price competition especially among rival destinations. Because there is a broad consensus that touristic demand is responsive to prices. In this regard, this study aims to analyze by comparing the price competition of 10 countries where we can consider as rival destinations in the international tourism market to Turkey. Data on goods and service price of countries where World Bank had prepared within the scope of International Comparison Program (ICP) programme (2011) were used in price analysis. Based on these data, total weighted costs of goods and services in the tourism product basket were calculated for 10 different destinations. In the study, purchasing power parity and exchange rates were determined based upon Turkey. Results of analysis suggest that Jordan and Tunisia among 10 destinations have the strongest price competitiveness, however indicating that France and Italy have the weakest price competitiveness.

Index Terms- Purchasing Power Parity, Tourism Competitiveness, Tourism Price Competitiveness Index.

I. INTRODUCTION

Tourism is a sector that is being considered in economic development policies of many countries and has a strategic importance. Because it contributes to economic development in a country by providing foreign exchange inflow, and positively affects employment. Companies operating within the tourism sector and various business lines working in these companies have regarded international tourism as an opportunity to increase their income.

Countries and business should take into account tourist goods and services prices in rival destinations in the international tourism so that they get and maintain the above mentioned benefits expected from the tourism in an effective manner. Which countries are tourism price competitive capacity higher than the others and what are the reasons for this advantage? Answers to these questions must be known. To find answer(s) to these questions is required that a comparison make between prices of a wide variety of products in different destinations (Oyewole, 2004).

The reason for this requirement is that touristic demand is widely accepted to be heavily influenced by price competitive capacity of destinations. It can be said that this acceptance is based on view about price elasticity of demand (Assaf and Josiassen, 2011, 3). However, there are many studies that international visitors are aware of tourist goods and services prices, and take into account the cost of tourism basket consisting

of tourist goods and services in the decision on the destination selection (Crouch, 1994; Edwards,1995; Dwyer, et al, 2000; Oyewole, 2004).

Associating the costs of basket of tourist goods and services with the destination selection and touristic demand has brought forward price competition in international tourism. Tourism price competitiveness of countries with comparative price advantage among alternative destinations is regarded as high (Dwyer, et al, 2001). It is the main objective of our study to make the price comparison.

Crouch (1994) states there are considerable difficulties in comparing the price of international tourism. These difficulties result largely from touristic products denominated in foreign currency and impact of exchange rate changes on purchasing power. One might need approaches to price measurement which have normalized or neutralized these challenges in order to fully understand the impact of price on international tourism demand (Oyewole, 2004).

Dwyer et al (2000) have developed a method for measuring price with these characteristics. It has thus been dealt with the challenges associated with comparability between prices of goods and services consumed by tourists in different countries. This study aims to construct comparative price competitiveness indexes and ranking for international tourism basket in selected rival destinations by following this approach developed for tourism price competitiveness index.

II. TOURISM PRICE COMPETITIVENESS INDEX

Tourism competitiveness can be defined as an ability to represent a place where appeals concerning the destination for those who are and are not residing in a country (destination) are optimized, to offer quality, innovative and attractive services for tourists, and to have a significant market share in domestic and international tourism market (Dupeyras and MacCallum, 2013, 7). Tourism competitive capacity is a general concept that includes price differences in association with exchange rate movements, the productivity levels of the various components of the tourism industry and other factors affecting the attractiveness of a destination (Dwyer et al., 2002, 328). Tourism competitiveness can be affected by many social, demographic, qualitative and economic factors (Dwyer et al, 2001, 3).

This study has tried to assess tourist product price competition, which is one of competitive capacity components. Touristic product price is a key component of the country or destination's general tourism competitiveness. Prices are one of the most essential criteria for making decisions as to whether journeys will make or where to travel (Forsyth and Dwyer,

2009). At the same time, price experience the tourists had experienced in their previous tours become effective in making decisions as to whether they revisit destinations where they traveled before (Barros and Machado, 2010). As a result, tourists are being considered the prices of the destinations where they will visit while making choice between touristic destinations. They have compared costs of living in their own countries and alternative destinations (Dwyer et al., 2001). Therefore, if any country wants to develop and boost its tourism industry, it should be paid attention to comparative price competition especially among alternative destinations.

Price competitiveness indexes are developed to perform comparative price analysis of destinations depending on the importance of price competitiveness in tourism. Many alternative models and indicators are used in these developed indexes (Forsyth and Dwyer, 2009,77). One of indexes developed to do the price competitiveness analysis in the tourism is a price index that was developed by World Economic Forum (WEF). Four price indicators were used to create this index, indicating that they are composed of Purchasing Power Parity (PPP), Fuel Price, Ticket Price and Collected-Taxes and Hotel Price (WEF,2015).

Another one of the comprehensive approaches to measuring tourism price competitiveness is Purchasing Power Parity (PPP) approach developed by Dwyer et al (2000). Price competitiveness index developed by these authors uses values-in-local-currency of the same goods and services in different countries mentioned in the report by World Bank International Comparison Programme. Cost of tourism product basket for each destination can be calculated based on these price data. Depending on calculated costs of tourism basket, travel/tourism expenditures may be formed purchasing power parity (PPP), which shows the levels of expenditure required to purchase goods and services in the same tourism basket in different destinations. The calculation of PPP for each touristic spending categories enable us to establish a relationship between tourist purchasing patterns and price. Then, price competitiveness index can be derived from PPPs harmonised with exchange rate. Calculation relating to index is performed according to the following formula (Dwyer, et al., 2000; Dwyer, et al. 2001, Forsyth and Dwyer, 2009).

Price Competitiveness Index = PPP / Exchange Rate *100

It was previously extremely difficult to acquire price data which would make comparisons between transnational price competition. However, in recent years, it has been possible to achieve comprehensive sources of data that can be made transnational price comparisons. In particular reports drafted within the scope of ICP are an important source to achieve price data. Prices of many developed and developing goods and services were gathered together in ICP reports in an extensive manner (World Bank ICP, 2015). It is an important source which benefits to create price competition indexes since this report contains a lot of information that utilizes to build price competitiveness indices such as purchasing power parity (PPP), product prices denominated in local currency and product prices denominated in dollars (Forsyth and Dwyer, 2009).

III. METHODS

Method mentioned below is followed to build a price competitiveness index of basic components of tourism price:

- 1) Selection of destinations to be made price comparison: Countries selected for the study pay regard to being destinations competing with each other. Because destination price competitiveness become important when compared to alternative destinations exactly where tourists can choose (Forsyth and Dwyer, 2009). In this context, Spain, France, Greece, Italy, Egypt, Morocco, Tunisia, Jordan, Algeria and Turkey have been selected as destinations where cost of tourism product basket will bear. Some criteria are taken into consideration, such as tourism demand, touristic product features and proximity, in selecting these destinations.
- 2) Harmonization of list of goods and services in the ICP report with goods and services in the touristic product basket and preparation of tourism product basket have been made based on research results of tourism revenues by types of expenditure of Turkey Statistical Institute (TUIK, 2011-2015). Accordingly, tourism product basket consists of (i) Food - Beverage and Tobacco Expenditures, (ii) Transportation Expenses, (iii) Accommodation Costs, (iv) Recreation Services and Equipment Expenditures and (v) Touristic Goods and Services such as other goods and services. Food and Beverage and Tobacco category contains food groups like bread and cereals, meat, fish, milk, cheese and egg, oils and fats, vegetables and fruits, coffee, tea, cocoa, sugar, sweet and spice, also including liquids not containing alcohol and those containing alcohol, e.g. liquor, wine and beer, along with cigarettes. Transportation expenses category includes local transportation expenses of short distance journeys such as taxi, buse, tramway, and expenditures on road, railway and airway transportation used for long distance journeys across the country. Recreation services and equipments category covers consumer goods such as radio and televisions, camera and video, and goods and services such as their accessories and repair. In addition to this, this category contains public entertainments such as cinema, theater, sportive events, radio and television programmes, and religious and cultural performances. Accommodation category contains accommodation services such as hotel, motel and pension. Other goods and services category covers other goods and services such as communication, clothes, shoes, carpet, rug, souvenir, education and health.

ICP report lists price of about 255 different goods and services fell into 26 categories. Yet goods and services addressed in the study consist of five categories including food-beverage and tobacco, accommodation, transportation recreation and other goods and services. A relationship must therefore establish between goods and services that make up tourism revenue items according to the types of expenditure of TSI and goods and services put into ICP. In this regard, those to be included in the tourism product basket prepared above on the basis of price data of goods and services in the ICP report were selected and harmonized.

A total of transport costs when a tourist arrives at and departs from a relevant destination have been excluded from

touristic goods and services basket. There have been many differences between travel transportation costs due to various reasons such as the presence of different travel classification because among the countries, the choice of different means of transport, the presence of different carriers, special and different pricing for future reservations/bookings, carter services and using different junctions/routes for entering into and going out from the country (Qiu and Zhang, 1995; Oyewole, 2004)

3) Weighting the different products and services that are consumed by tourists and reflect their buying habits should include any price competitiveness index or indicator, and two key elements, which are basic price data and weighted ratio of the product classes. In general, there has not been much difficulty in achieving price data. However, the subject of weighting can pose a problem in both conceptually and achieving the data. The weighting regarding an indicator of the price competitive capacity should be based upon the spending patterns of tourists. Spending patterns may vary from country to country and

even tourist classifications. For example, patterns an American tourist spends in any destination will be different from that of a Japanese tourist. Some countries (e.g. Australia) have determined regularly how much their incoming tourists spend on which goods and services. However, this does not appear to hold true for many countries. In this case, the weighting of indicators of the price competitive capacity may be obtained from the countries like Australia that regularly follow their tourist spending patterns or goods or services constituting tourism expenditure basket can be formed on a hypothetical base (e.g. food and beverage: 30%, transportation: 15%) (Forsyth and Dwyer, 2009, 81).

In this regard, tourism expenditures were weighted by calculating five-years average based on research results of tourism revenues according to the expenditure types of Turkey Statistical Institute (TUİK, 2011-2015) (Table 1).

Table 1. Tourism Revenue And Weights According To The Expenditure Types Of TUİK

Tourism Revenue according to The Types Of Expenditure Of TUİK (USA \$)					
Year	Food - Beverage and Tobacco	Accommodation	Transportation (in Turkey)	Recreation	Other Goods and Services
2011	6 476 576	3 082 350	2 076 185	169 456	13 300 798
2012	6 138 781	3 053 647	1 706 185	188 648	14 173 837
2013	6 583 641	3 544 120	1 779 404	176 695	15 877 319
2014	6 523 852	4 202 131	1 962 824	171 526	15 720 153
2015	6 178 908	4 084 873	2 202 484	482 621	13 284 099
Year	Weights	Weights	Weights	Weights	Weights
2011	0,26	0,12	0,08	0,01	0,53
2012	0,24	0,12	0,07	0,01	0,56
2013	0,24	0,13	0,06	0,01	0,57
2014	0,23	0,15	0,07	0,01	0,55
2015	0,24	0,16	0,08	0,02	0,51
Weighted Average	0,24	0,13	0,07	0,01	0,54

4) Collection of price data: World Bank International Comparison Program (ICP) is the most important source that can be used for price data paid to goods and services by visitors in the different destinations. ICP data, which have

most recently been updated by World Bank, were used in this study. Price data denominated in local currency of five touristic spending classes from each of destinations examined were tabulated by obtaining from ICP (Table 2).

Table 2. Cost Denominated In Local Currency Of Products In The Tourism Basket

Countries	Food - Beverage and Tobacco	Accommodation	Transportation	Recreation	Other Goods and Services
Spain	107,3	108,5	72,9	61,4	876,6
France	186,7	79,1	160,1	117,9	1635,1
Greece	33	18,8	18,9	9,2	203,1
Italy	165,9	97,8	123	78,3	1378
Turkey	255,5	60	159,9	42,9	1209,8
Egypt	492,4	34,3	64,4	32,4	1360
Morocco	200	31	47,8	23,6	660,1
Tunisia	12,1	4,6	6,9	1,6	58,1
Jordan	5,1	0,3	1,7	0,3	20
Algeria	2067	153,6	787,3	165,7	6617

- 5) The combination of price and expenditure weights were obtained by multiplying tourism revenue weighting according to TÜİK expenditure types in Table 1 by costs of tourism product basket in Table 2 (Table 3).

Table 3. Combination of Price and Expenditure Weights

Countries	Food - Beverage and Tobacco	Accommodation	Transportation	Recreation	Other Goods and Services	Costs Of Tourism Product Basket
Spain	25,8	14,4	5,3	0,6	476,0	522,1
France	44,8	25,1	11,7	1,1	887,9	970,7
Greece	7,9	4,4	1,4	0,1	110,3	124,1
Italy	39,8	22,3	9,0	0,7	748,3	820,2
Turkey	61,3	34,4	11,7	0,4	657,0	764,8
Egypt	118,2	66,3	4,7	0,3	738,5	928,0
Morocco	48,0	26,9	3,5	0,2	358,5	437,1
Tunisia	2,9	1,6	0,5	0,0	31,6	36,6
Jordan	1,2	0,7	0,1	0,0	10,9	12,9
Algeria	496,2	278,3	57,7	1,5	3593,2	4426,9

- 6) Calculation of purchasing power parity for tourism expenditures; PPP represents levels of expenditure required to purchase goods and services in the same tourism basket in different destinations. For example, if the cost of touristic goods and service in Spain is 522,1 Euros and 764,8 YTL (New Turkish Liras) in Turkey, PPP can be calculated as:
- 7) Formation of price competitiveness index from PPPs harmonized with the exchange rate. For this purpose, the following formula was used (Dwyer, et al.,2001).

$$Price\ Comp.\ Index = \frac{Purchasing\ P.\ Parity}{Exchange\ Rate} \times 100$$

$$PPP = 522,1 / 764,8 = 0,68 \text{ Euro/YTL}$$

This value means that each YTL to be paid for tourism product basket in Turkey will equal to 0.68 Euros to be paid in Spain. The calculation of PPP for each touristic spending category allows us to establish a relationship between purchasing patterns of tourists and price.

It is the main purpose of this study to compare price levels of goods and services in a selected destination (Turkey) with those in rival destinations by fixing exchange rate. Exchange rates used in the calculations are figured out based on the exchange rates in March 1, 2016.

IV. INTERPRETATION OF PRICE COMPETITIVENESS INDEX AND FINDINGS

Tourism price competitiveness index can be interpreted in the manner of the ratio of purchasing power parity to exchange rate. Price competitiveness index is easy to calculate, interpret and understand. Index values allow destinations to sort by price competitiveness they have had (Dwyer, et al., 2001). For example, if we think Spain compare with Turkey,

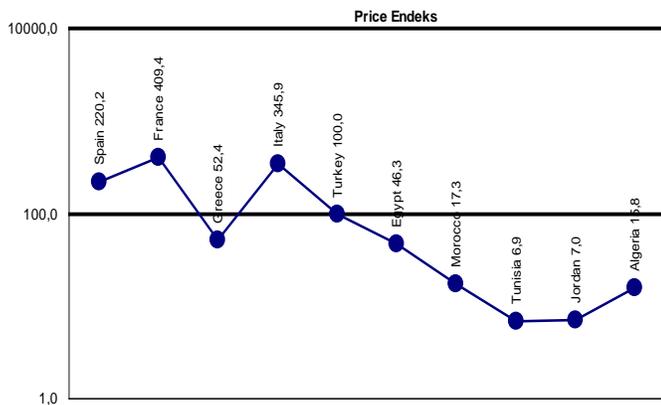
As calculated above, if PPP is assumed as 0.68 and Exchange Rate as TL/Euro;

$$\text{Price Comp.Index} = 0,68/0,31 * 100 = 219$$

When 219 for Spain is compared with 100 for Turkey (100 versus 219), it becomes evident that Spain have more disadvantageous than Turkey.

In other words, index value for a particular destination is regarded as 100. If price competitiveness index of any destination is below 100, this suggests that relevant destination has a more competitive position in terms of prices according to reference destination. Similarly, if price competitiveness index of any destination is above 100, indicating that relevant destination has a less competitive position in terms of prices according to selected destination. As can be seen in Figure 1, Greece, Egypt, Morocco, Algeria, Tunisia and Jordan from selected destinations in this study have the costs of tourism product basket that is below Turkey's price, which is regarded as 100. However, Spain, Italy and France have the costs of tourism product basket that is above Turkey's price, which is regarded as 100.

Figure 1. Tourism Price Index of International Destinations



Price competitiveness of the countries is fairly simple to compare through this method. Price competitiveness index and sorting have constructed by comparing each country with Turkey (100). In order to compare the cost of products in tourism basket, cost of tourism product basket of all countries was standardized by being regarded as 100, which is true for Turkey. The main reason for selecting Turkey is to ensure comparability and assess tourism price competitiveness when compared Turkey with rival destinations. Selecting another country rather than Turkey has not changed the results.

Table 4. Price Index and Sorting Concerning Destinations

Countries	PPP	Exchange Rate	Price Index	Sorting
Tunisia	0,05	0,69	6,9	1
Jordan	0,02	0,24	7,0	2
Algeria	5,79	36,56	15,8	3
Morocco	0,57	3,3	17,3	4
Egypt	1,21	2,62	46,3	5
Greece	0,16	0,31	52,4	6
Turkey	1,00	1	100,0	7
Spain	0,68	0,31	220,2	8
Italy	1,07	0,31	345,9	9
France	1,27	0,31	409,4	10

Exchange Rate= Domestic Monetary Unit / Turkish Lira

Table 4 shows price index and therefore sorting of countries. We can say from Table 4 that Tunisia and Jordan have a much more advantageous position than other destinations but France and Italy have a more disadvantageous position than the others.

V. RESULT

Price competitiveness is an important component of overall tourism competitiveness any country or destination have. There is a general consensus that prices are one of the most essential criteria for making decisions as to whether journeys will make or where to travel. Countries should be taken account of comparative price competitiveness with rival destinations since prices are highly important to make decisions about the travels. Various price competitiveness indices have been developed to make price comparisons. One of these is an index that was developed by Dwyer et al (2000). Price comparison of 10 destinations where we can be accepted as rival for one another in the Mediterranean basin was made based on prices in Turkey. Accordingly, Tunisia ranks first in terms of tourism price competitiveness. France ranks last in terms of price competitiveness of tourism. Turkey where comparisons were performed ranks seventh.

However, tourism price competitiveness of destination should be considered a part of extensive work in assessment of the overall competitiveness of the destination. much as the prices are taken into consideration in the decision as to which destination tourists select, it is not the only criteria. It should be noted that together with price differences, exchange rate movements and qualitative factors that affect level of productivity and attractiveness of stakeholders that are involved in the tourism industry are important in the decision process by which tourists make.

This study is important to introduce Tourism Price Competitiveness Index and to show how secondary data (ICP, TSI, etc.) will analyze for an efficient comparative analysis.

Future researchers can be carried out the evaluation of different destinations by following methods and assessments used in this study and by developing them.

This study does have its limitations. Spending habits of citizens of different country of origin visiting a particular destination and total weight of expenditure on goods and services in the tourism product basket may vary. In this study, spending habits of visitors from different countries of origin and total weights of expenditure on goods and services are considered to be equal.

Another limitation is that goods and services in the touristic basket are classified according to classification of TSI. Goods and services in World Bank ICP report have been tried to harmonize with the classification of TSI. A full harmonization may not have achieved for ICP report lists 255 different goods and services fell into 26 categories.

In addition, values in local currency of goods and services in the study were derived from World Bank ICP report. Data presented in the report might be outdated because preparation and publication of a report need some time.

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