

A RESEARCH ON SUSTAINABILITY OF TURKISH FRESH FRUITS AND VEGETABLES EXPORT

Burhan OZKAN^{1*}, Metin Goksel AKPINAR¹, Rahmiye Figen CEYLAN¹, Eda ILBASMIS¹

¹Akdeniz University, Faculty of Agriculture, Department of Agricultural Economics

*Corresponding author email: e-mail: bozkan@akdeniz.edu.tr

Abstract

Export orientation of fresh fruits and vegetables (FFVs) producers in Turkey is both necessary for increasing farm incomes and inevitable due to the high production exceeding local demand. Evolving international market demand due to social and economic conditions affects the producers. Accordingly, producers mainly prefer using intermediaries in their export contracts in order to cope with fluctuations. Yet, the security of export orientation is an important concern for increasing or maintaining FFVs production. This is also related with substitutability of agricultural production with alternative economic activities as tourism in the region. Accordingly, the tendency of producers to maintain export contracts should be assessed in relation with the intermediary and logistics use, number of contracts and importing countries, export income as well as the specific exportable products. In this study, 24 exporter firms from Antalya wholesale market were surveyed and the aforementioned relationships were questioned with chi-square analysis. It was understood that the professionalization of FFVs exports has been rising with respect to management structures. Yet, improvement in resources utilised, satisfaction level and tendency to continue export operations are related with number of export destinations and frequency of exports. The relationship is bilateral that, if the export operations rise, there is a possibility to increase export endowments and focus on increasing and maintaining exports.

Keywords: FFVs, export, export contentment, wholesale market, Antalya

INTRODUCTION

International marketing, which gained attention with the rising tendency of globalisation, refers to determination and meeting consumer demand and requests better than national and international competitors and coordination of marketing activities within a macroeconomic perspective. In addition to exporting enterprises that do not differentiate between national and international markets, enterprises having a relatively higher foreign sales share are known as 'international marketing oriented enterprises'. There are effective factors that enable firms to open up international markets and start exporting. These are availability of customs unions (the EU, NAFTA, EFTA), in which members face reduction of trade barriers to foreign investors and traders via bilateral or multilateral agreements, rising international recognition of products and brands. In addition, joint ventures of national and international enterprises provide important contributions in retaining international competitive power (Tenekecioglu, 2003).

International trade, which has been an important tool to improve well-being of societies, had started with exchange of agricultural products in reality. Agricultural products' exports depend on natural resource abundance and climatic conditions that also contribute in price composition (Bakari, 2017). International marketing coincides with rising international exchange of goods, as handling the products is as important as producing them. International marketing can be acknowledged as "a process of planning and conducting transactions across national borders for the exchange which meets the objectives of individuals and organizations" (Czinkota and Ronkainen, 2017). Yet, unified definition of international marketing was considered as not adequate enough. Doole and Lowe (2008) argued that the way in which international marketing is defined and interpreted depends on the degree of involvement of trading units in the international market. Therefore export marketing, international marketing and global marketing needs to be differentiated.

The main issue in defining international marketing is related with the physical transactions of the process and the boundaries of transactions. Yet, agri-food marketing involves 'export orientation' of producers and processors with a long-term perspective and focus to meet changing needs and wants of existing or potential

international customers. Therefore agri-food marketing process differentiates with its specified functions (Crawford, 1997):

- The exchange relationship encompassing buying and selling;
- Physical exchange referring to storage, transportation and processing of products as well as presentation of products considering market characteristics;
- Process management and improvement

Specifically, process improvement covers value-addition as standardisation, extending financial reach, risk-aversion and collection and processing of market information genuinely (Mihajlović et al., 2015).

There are various advantages of international market entry. Firms can get use of comparative advantages of possibility to shift to relatively competitive products and services with the ones that are not as successful. While they enter into international markets, they can escape from national competition and retrieve tax advantages (Aslaner and Cobanoglu, 2016; Gunay, 2008). The firms can market the products and services, which have lost the attention they receive in the borders, to international markets and they can increase their profits relatively more than the domestic enterprises (Kazimov, 2004; Akat, 2001).

Rising competitiveness of a country in exports of agri-food products depends on appreciation towards the following factors (Bhattacharya and Daouk, 2002).

- Aiming productivity growth and increasing technology and innovation investment
- Achieving sustainable supplies to meet international demand
- Watching and meeting quality standards (adapting to the EU standards in the field of veterinary, sanitary and phyto-sanitary requirements, environment protection)
- Harmonisation of legislative acts with regards to the WTO and EU requirements
- Improvement of organisation structure and linkages between producers, processors, intermediaries and exporters (Mihajlović et al., 2015).

Turkey is one of the prominent countries in the world with respect to fresh fruits and vegetables (FFVs). The amount of Turkish export was 3961.7 thousand tonnes with 2231.2 million Dollars in 2017. 38.1% of the total fresh fruits and vegetables export revenue in 2017 was retrieved from citrus fruits with 849.6 million Dollars. Citrus fruits were followed by fresh vegetables with 35.6% and 793.5 million Dollars and fresh fruits with 25% and 563.4 million Dollars (Anonymous, 2018). In addition, the mostly exported products were mandarins, tomatoes, lemons, grapes, cherries, sour-cherries, oranges, fresh peppers and pomegranate in a consecutive order. On the other hand, the most important trade partners in 2017 with respect to their share in FFV exports were Russia (29%), Iraq (11%), Germany (9%), Romania (6%) and Ukraine (5%) (Anonymous, 2018).

Superiority of the Mediterranean region of Turkey is visible in terms of FFVs exports. Mersin, Hatay and Antalya provinces in the region have higher export shares with 20%, 20% and 16% respectively. Antalya province is superior in fresh fruits and vegetables, while Mersin and Hatay are superior in citrus fruits export. When export from the Mediterranean province of Antalya was considered, it can be briefly noted that mandarins, tomatoes, lemons, orange, fresh pepper and pomegranate were the most significant export crops. Accordingly, the firms in Antalya that export fresh fruits and vegetables were considered in the scope of this study and the relationship between enterprise characteristics and export data was analysed for the firms operating in the Antalya wholesale market.

MATERIAL AND METHODS

The main material of the study was composed of the data retrieved from firms that operate in Antalya wholesale market and are involved in international marketing activities. In addition to primary data retrieved via face to face survey, secondary data relevant to the research was used as well.

Due to the data obtained from Western Mediterranean Union of Exporters, there are 230 exporter firms in Antalya province. 64 of these 230 exporters were taken as reference in this study. As the survey was executed at the end of export season, 24 of these firms were reached. The data was retrieved from owner or representatives of the firms by utilising a standard questionnaire form.

The questionnaires prepared for the research encompassed information on management structure, export characteristics and level. In addition, the variations in export and satisfaction level on the activities were questioned as well.

The factors affecting international activities of firms were demonstrated with frequency tables and the relationship was analysed via chi-square analysis. The chi-square analysis was focused on relationships between firm related characteristics and variables affecting export activities and the research model was demonstrated in Figure 1.

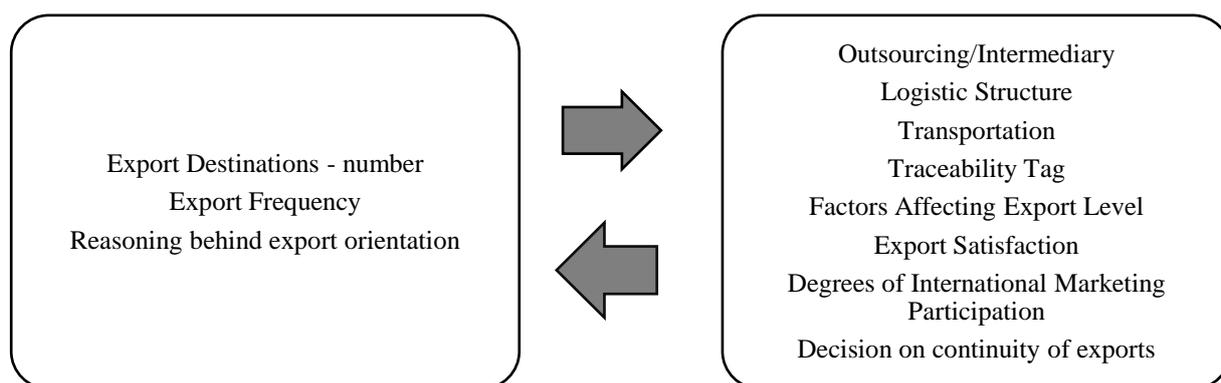


Figure 1. Research Model

The following hypotheses were tested via chi-square analysis using SPSS software:

There is a relationship between number of export destinations and export frequency and:

- Outsourcing/intermediary : Using outsourcing/intermediary
- Logistic structure : Owning logistic vehicles
- Transportation : Using marine & highway transportation
- Traceability tag : Using traceability tag
- Factors affecting export level : Market demand is the reason
- Export satisfaction : Having satisfied with exports
- Degrees of international marketing participation : Active exports & multinational marketing
- Decision on continuity of exports : Will continue exporting

For elaborating chi-square testing, the responses retrieved from the pre-tested questionnaires were scaled from 1 ‘the least favoured situation’ to 5 ‘the most favoured situation’ due to Likert scaling (Likert, 1967). The data retrieved from sector professionals constituted a relatively small sample. The limits of the sample were overcome with the selected chi-square comparison methodology which is valid for small samples as well (Akpınar et al., 2009; Kurtulus, 1998; Blyth, 1994).

FINDINGS

Descriptive Results

Firstly, it was intended to portray the profile of the respondents (Table 1). Accordingly, 50% of the respondents were between 36 and 50 and their education level was relatively high with 50% Bachelor’s degree holders.

Table 1. Distribution of respondents according to their socioeconomic characteristics

Age	Level of Education					%
	Primary - 1	Primary - 2	Secondary	Tertiary	MSC and above	
20-35	0	0	2	7	1	42
36-50	0	2	4	5	1	50
51 and above	1	0	1	0	0	8
%	4.2	8.3	29.2	50.0	8.3	100.0

Information on management structures of the firms was also considered. While there has been a board management in 75% of the firms, 25% of the firms are individually managed. The director of the board has been the owner simultaneously in 67% of the firms with boards, while 33% have professional managers. Level of education and age of the owners were also notified. The findings showed that 29% of owners were Bachelor's degree holders, while 45% were secondary school graduates. While 15 owners were between 36 and 50 years old and 60% of this group were secondary level graduates. There were 9 owners above 50s and this signifies that the owners are either middle aged or they are older.

The structure of the firms with respect to their export orientation was worth to notice. Accordingly, most of the firms have limited corporation status. The average operational duration was 14 years, while they have been exporting their products for 13 years. Therefore, it can be said that firms had started to export one year after they were established. This is an expected and understandable duration for exporting firms. The number of employees was questioned additionally. While number of their permanent employees was 17 on average, in the high export season they employ temporary workers as well. In this peak season, average number of temporary employees had appeared as 49. Besides, 83 % of the firms employ 1-20 permanent persons on average.

Export targeting and reasoning behind was demonstrated in Table 2. Permanent exporters refer to 87% of the firms and 37.5% of the firms have informal contract with intermediaries to organise their export activities. The reasoning of contracting with intermediaries was indicated as the opportunity to minimise costs with 20%. The remaining reasons were inadequacy of own establishments and timing to meet the on-season demands. Accordingly, permanent exporters prefer outsourcing their export activities.

The findings showed that 37% of the firms seem to target one country in terms of export destination, while 46% exports to more than two countries. Owning logistic tools and equipment is relatively low that, 10 of the enterprises make shipment with their own resources. 78% of remaining 14 firms that do not hold logistic equipment and vehicles rent the equipment, while remaining 22% use outsourcing. Firms prefer highway and marine transportation mostly. 66.7% of the firms, 16 firms, use two transportation forms simultaneously, while 8 firms only make shipment via highway transportation.

Turning back to establishment reasons, it was understood that only 25 % of the firms had 'exports' as establishment reasoning. 20% of the firms had directed to exports due to higher income expectations in short term. On the other hand, 16.7% of firms started exporting due to strong bilateral relationships. 12.5% of firms' reasoning was having entrepreneurial ventures in the destination countries, intention to market own products and meeting high demand.

Table 2. Firm structure according to their export orientation

Export Frequency	%	Outsourcing/Intermediary	%
Continuous	87.5	Uses	37.5
Frequently	12.5	Do not use	62.5
Σ	100.0	Σ	100.0
Reasons for intermediary use/outsourcing			%
Low labour and shipment costs			20.8
Lack of own capacity and timing			12.5
Problems encountered			4.2
Σ			100.0
Export Destinations - number	%	Logistic Structure	%
One	37.5	Intermediary	14.3
Two	8.3	Rented	78.6
More than two	45.9	Owned by the importer	7.1
Global	8.3	Σ	100.0
Σ	100.0		
Reasoning behind export orientation			%
Establishment objective			25.0
High income in short time			20.8
Strong bilateral relationships			16.7
Having ventures in the trade partner country			12.5
Marketing own produced crops			12.5
High market demand			12.5
Σ			100.0

The information on the products exported, export destinations and factors affecting the amount exported were mentioned in Table 3. While all firms export fresh pepper, 91% export tomato, 87.5% export cucumber and 83.3% export pumpkin, aubergine, mandarin and pomegranate. 79.2% of the firms have been using traceability

tags in exports of these products. Yet, the reason for the firms that do not pay attention on traceability was their non-contentment on reliability of tagging.

It was not possible to retrieve net figures for the amount of exports due to the variation and evolving daily conditions. However, 50% of firms indicated the demand as the most significant factor affecting the amount, while quality was evaluated more by 33% of the firms. The remaining factors were appeared as price of the crops and subsidies provided.

The rate of firms that direct their activities to active exports without making any alterations in the product was 41.7%. While, 33.3% of firms have been using separate marketing efforts to many countries and directed to multi-country marketing, 20.8% of the firms have been making international marketing considering outer markets as target and shipping products to many countries. Only 4.2% of the firms holds global marketing objectives, and there encountered no firms involved in random export activities. When the last year activities were considered, it was understood that 41.7% had shipped products to one country, 33.3% to 3-5 countries and 8.3% to two countries.

While 12 of the firms do not have national market orientation, 6 firms operate both within borders and internationally by selling same products. In addition, 6 of the firms do market separate products nationally and internationally. The reasons of separate targeting for these firms were difference in consumer demand, availability of domestic product varieties and difference in shelf lives of products.

Table 3. Export Characteristics of Firms Involved

Crops	%	Factors Affecting Export Level	%
Tomato	91.7	Market Demand	50.0
Fresh Pepper	100.0	Price of product	8.3
Cucumber	87.5	Quality of product	33.3
Orange	41.7	Subsidies	8.4
Pumpkin	83.3	Σ	100.0
Aubergine	83.3	Traceability Tag	%
Mandarin	83.3	Available	79
Pomegranate	83.3	Not available	21
		Σ	100.0
Degrees of International Marketing Participation			%
Close border exports without making significant change in the product (ACTIVE EXPORTS)			41.7
International market targeting and exports to many destinations (INTERNATIONAL MARKETING)			20.8
Exports to many countries with separate marketing efforts (MULTINATIONAL MARKETING)			33.3
Export of a standard product with sound price level globally (GLOBAL MARKETING)			4.2
			Σ 100.0
National & international product variety	Frequency	Number of destinations in the last year	%
Lack of internal sales	12	1	41.7
Different shelf lives	2	2	8.3
Different demand	3	3-5	33.3
Diversity in domestic varieties	1	More than 5	16.7
	Σ 16	Σ	100.0

The rates of destination preferences should be considered as well. Accordingly, Russia was the mostly preferred destination with 73.9%, followed by Germany with 17.4%, and the Netherlands and Croatia with an equal share of 4.3%. Yet, even with lower shares, Ukraine, Slovenia, the United Kingdom and Poland and Scandinavian countries had appeared as other export destinations.

When Table 4 was evaluated, the share of firms' export in the last 5 years and their satisfaction level was observed. In 75% of the firms, number of destination did not change and in 62.5% of the firms number of products did not change in the last five years. While, it was indicated that amount of products exported and export revenue retrieved had increased in 50% of the firms, 29 % seemed to encounter a declination and there appeared no change in 20% of the firms.

While 33.3 % of the firms was satisfied with export activities, 29.2% seemed of highly satisfied, 25.5% was moderately satisfied and 12% indicated that they were not satisfied at all. 58% of the firms are definite on continuity of export activities. However, 2 of the surveyed firms do not plan to continue in exports. Half of the firms that will continue to export were satisfied with the export activities, while the rest was completely satisfied. Within moderately satisfied firms, 5 firms seem to continue their export orientation. Besides, 2 firms that are not happy with the outcomes seem to continue exports as well. These firms insist on exporting due to their risk-averse situation. They do not want to enter into a new sector or establish a new business.

Table 4. Change in Destinations, Products, Frequency of Export Operations and Satisfaction

Change in last 5 years	No. of countries		No. of products		Quantity (tonnes)		Income	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Increased	5	20.83	6	25.00	12	50.00	12	50.00
Stable	18	75.00	15	62.50	5	20.83	5	20.83
Reduced	1	4.17	3	12.50	7	29.17	7	29.17
Σ	24	100	24	100	24	100	24	100

Export Satisfaction	%	Decision on continuity of exports	%
Not satisfied at all	0	Definite in not continuing exports	0.0
Not satisfied	12.5	Do not want to continue exporting	4.2
Moderately satisfied	25.0	Indefinite	4.2
Satisfied	33.3	Want to continue exporting	33.3
Completely satisfied	29.2	Definite in continuing exports	58.3
Σ	100.0	Σ	100.0

Following detailed explanation of the elementary statistical distribution, it was intended to consider the relationship between satisfaction level of exporters and relevant number of destinations and frequency of exports.

The results of relationships between export destination and export frequency

In this section, the main intention was to understand whether there are statistically meaningful relationships between the endowments and tendency to continue of exporting firms and their exporting activity density. The chi-square test results for number of export destinations and frequency of export were indicated in Table 5.

Table 5. Chi-square Test Results

Variables	Export Destinations - number			Export Frequency		
	Value	df	Significance (2-sided)	Value	df	Significance (2-sided)
Outsourcing/intermediary	1.460 ^a	3	.692	1.244 ^a	1	.265
Logistic structure	9.745 ^a	3	.021**	.098 ^a	1	.754
Transportation	10.295 ^a	3	.016**	.000 ^a	1	1.000
Traceability tag	3.177 ^a	3	.365	.902 ^a	1	.342
Factors affecting export level	9.455 ^a	12	.664	4.190 ^a	4	.381
Export satisfaction	9.071 ^a	9	.431	2.286 ^a	3	.515
Degrees of international marketing Participation	19.894 ^a	9	.019**	9.371 ^a	3	.025**
Decision on continuity of exports	14.500 ^a	9	.106	7.510 ^a	3	.057*

**Significant at 5%, *Significant at 10%

Firstly, it should be noted that the number of firms surveyed is limited due to the seasonal circumstances. Accordingly, although they provide us verifiable indications, the test results could be considered as outcomes of an elementary research.

Considering the number of export destinations, there appeared a positive relationship with available trade endowments of firms and their international marketing participation. Firms, which do own more logistic vehicle as trucks or lines, seemed to ship their products to more countries. Besides, exporter firms that use more than one transportation route again are eligible to direct their products to more countries. If firms use only highway transportation, of course they are limited in terms of their target countries. If marine transportation is included, the firms become eligible to ship their products to overseas destinations. Finally, moving out of active exports to international marketing and moving towards global marketing, in terms of trade objectives, provides more opportunities to the firms to ship their products. Therefore, marketing orientation and number of destinations seem to rise simultaneously. Statistical significance of the decisions to continue in exports and number of destinations seem to be higher than 10 %. Yet, departing from the probability degree of 0.106, it is also worth to mention that firms that export to more countries, have relatively higher tendency to continue their export operations.

With reference to rising export frequency, the international marketing orientation and tendency to continue export activities seem to be in a rising trend. Of course other indicators were considered to be in relation to each other. However, due to the statistical outputs retrieved from the small sample, we can only say that firms with more export operations and that make routes are more internally oriented firms and their owners decide to maintain their operations.

CONCLUSION

In this study, it was intended to portray the situation that the FFVs exporters in Turkey taking a reference from Antalya, wholesale market. The idea behind was to understand the structures of the firms and to evaluate their satisfaction on export operations. Therefore, due to seasonal availability, 24 exporting firms were analysed with the data retrieved from their owners or representatives. Relying on the descriptive findings, it can be noted that most of the firms have a limited corporation structure. They are mostly operated by middle-aged university graduates. This is an expected demographic indicator for high value added FFVs exports. However, as expected, most of the firms keep the number of their permanent workers limited and hire temporary workers in peak seasons.

Most of the firms have informal contracts with intermediaries for logistic purposes rather than productive purposes and they are involved in production and sales of more varieties with the help of climatic conditions. While one fourth of the firms were established for exporting, income promises were also motivators to focus on exports. Considering satisfaction on exports and willingness to continue, exporters of Antalya demonstrated its geographical and agricultural significances. More 60% of the exporters were satisfied with their operations, while more than 90% wants to continue export operations.

Finally, the impact of export density with reference to number of destinations and operational frequency was assessed in the scope of statistical relationship. It was understood that, rising number of destinations would call rising degree of internationalisation, rising logistic ownership and rising use of transportation routes. As complementary evidence, if the endowments rise, number of export destinations would also rise. The international orientation and tendency to continue in exports will be in a rising trend with increasing number of operations. This is also valid from the opposite end as rising export frequency would lead to more internationalisation and continuity.

Based on the findings of this study, it could be concluded that, departing from the small sample from an important FFVs export district of Antalya, Turkey, it was understood that professionalization has been rising in terms of ownership status. Besides, there is an interest to increase foreign sales, this should be supported more. Furthermore, it was also understood that satisfaction on export activities may lead to rising permanent employment in the process.

REFERENCES

- Anonymous 2018. Yaş Meyve Ve Sebze Sektörü Türkiye Geneli Değerlendirme Raporu – General Evaluation of Fresh Fruits and Vegetables Sector in Turkey. Akdeniz İhracatçılar Birliği Yaş Meyve ve Sebze Sektör Şefliği, Mersin.
- Bakari, Sayef, 2017. The Impact of Vegetables Exports on Economic Growth in Tunisia. Online at <https://mpira.ub.uni-muenchen.de/80722/> MPRA Paper No. 80722, posted 9 August 2017 23:12 UTC.
- Crawford, I.M. (1997). Agricultural and Food Marketing Management (2), FAO, Rome, pp. 6-10.
- Czinkota, M.R., Ronkainen, I.A. (2007). International Marketing (8 ed.), Mason, OH: Thompson Higher Education.
- Doole, I., Lowe, R. (2008). International Marketing Strategy (5 ed.). London: Cengage Learning EMEA.

- Tenekecioglu, 2003. Genel İşletme, T.C. Anadolu Üniversitesi Yayını No: 1268 Açık Öğretim Fakültesi Yayını No: 704, Eskişehir- 2003.
- Akat, Ömer, 2001. Uluslararası Pazarlama Karması ve Yönetimi – International Marketing Mix and Management, 4. Baskı, Ekin Kitabevi Yayınları, Bursa.
- Akpınar MG, Aykın SM, Sayın, C and Ozkan B 2009. The Role of Demographic Variables in Purchasing Decisions on Fresh Fruit and Vegetables. *Journal of Food, Agriculture & Environment*, 7(3&4): 106-110.
- Aslaner, H. and Cobanoğlu, S. 2016. Serbest Bölgelerde Vergi Avantajları – Tax Advantages in Free Zones. Adnan Menderes University, *Journal of Institute of Social Sciences*, Vol.:3, No: 3 (pp. 1-14).
- Blyth S.J., 1994. Measuring Local Association: An Introduction to the Correlation Curve. *Methodology*, 24:171-197.
- Gunay, K., 2008. Türkiye’de İhracata Yönelik Vergi Teşvikleri ve Analizi (Yayınlanmamış Yüksek Lisans Tezi) – Tax Promotions and Analysis for Exports in Turkey (Unpublished MSc thesis)
- Kazımov, A., 2004. Uluslararası Pazarlamada Pazarlama Karması Stratejileri (Yayınlanmamış Yüksek Lisans Tezi) – Marketing Mix Strategies in International Marketing (Unpublished MSc thesis). Ankara Üniversitesi Sosyal Bilimler Enstitüsü İşletme Anabilim Dalı, Ankara.
- Likert R 1967. The Method of Constructing an Attitude Scale. *Readings in Attitude Theory and Measurements*. John Wiley and Sons Inc. New York, pp. 90-95.
- Kurtuluş K 1998. Pazarlama Araştırmaları – Marketing Research. Avcıol Basım Yayın, Genişletilmiş Altıncı Baskı, İstanbul.
- Mihajlović, B., Cvijanović, D., Vuković, P., 2015. The Role Of International Marketing In The Process Of Increasing Competitiveness Of Agricultural And Food Products. *Problems of Agricultural Economics*, 345(4), 81-93. <https://doi.org/10.5604/00441600.1184588>
- Bhattacharya, U., Daouk, H., 2002. The World Price of Inside Trading, *The journal of Finance*, Vol: VII, No:2, Feb,2002.