Pricing Strategies and Business Alliances – A Comparative Integrated Study of the Fruits and Vegetables Markets from Italy and Romania

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Abstract

This paper aims to analyze the fruits and vegetables market landscape and reveal this industry major dynamics by making a comparative review between Italy and Romania and analyzing the influence of several key factors (e.g. natural factors, farm structure, demographics, crops area and yield values) on price levels. Assuming that price is a key purchasing driver and also that profitability of fruits and vegetables growers is a long-term competitive issue in the European Union, especially at the small and medium-sized enterprise level, this paper concludes that producers should focus on obtaining higher yields, enlarging farm sizes, strengthening the actual producers' associations and establishing new collaborative forms in order to increase their negotiation power with retail chains and other stakeholders. They also should focus their key strategic actions in becoming more competitive by accessing the latest agro-food technologies and implementing stronger trade and marketing initiatives.

Keywords: Fruits and Vegetables, Business Competitiveness, Pricing, Single Market, Business Alliances

1. INTRODUCTION

The last economic evolutions, in the context of the actual global crisis, proved the incapacity of the developing countries to implement sustainable strategies in agriculture and food production. Therefore, their domestic companies have been failing to produce competitive products and to satisfy the increasing food demand. Moreover, in the case of the European fruits and vegetables market, the lack of involvement of the technological research and the old technical heritage of the former communist countries from the Eastern Europe have caused not only an overall decrease in agricultural competitiveness, but also deepened the differences between East and West [1]. The reduction or total elimination of the trade barriers, have created the possibilities for companies from the EU15 countries to successfully trade their products to the new members (former members of the Communist bloc), broadening the negative quantum of the newcomers' trade balances. The Romanian fruits and vegetables sector, which has continuously been under a negative trend after 1989, needs a fast re-organization within the actual context of the EU single market. Moreover it is considered that the EU Common Agricultural Policy (CAP) mechanisms do not help the new members in general, being limited to measures targeted on fueling the agriculture mechanisms based on producers associations [2], which are practically non-functional for the East European new members. Structural changes in the East European economies that have occurred in recent years have led to the emergence of frequent market failures that have generated high prices, difficulties of the local farmers to sell their products, the apparition of supplementary entities in the commercial chain that do not add value and many cases of unfair competition from retailers that trade imported fruits and vegetables. All these distortions came on top of a range of economic weaknesses of local farmers, such as their chronic incapacity to develop sustainable relations with the modern trade, the low quality of life that mitigates the productivity levels in the rural areas or their inability to develop a coherent marketing approach, local products being sold at bargain prices.

The above presented industry flaws and business issues deeply impacted the income distribution fairness, only a small fraction of the overall income reaching producers. These inconsistent dynamics are also the result of the fact that the horticultural products are in general highly perishable and seasonal as well, therefore the majority of transactions often racing against the clock. The increasing transport tariffs and their bulkiness claim improved logistics and a superior integration of retailer-producer relations [3] as well as other industry peculiarities such as: farm size, geographic location, type of technology used, the degree of internationalization, vertical integration, standards and certification system or regulatory environment.

The last years were marked by shifts in consumption habits and lifestyle, many nutrition experts from around the world highlighted the increasing importance of fruits and vegetables in the daily diet and the need to increase consumption [4]. The new occurred interrelationships between agricultural business and other sectors, such as trade, nutrition science, consumer behavior (food consumption customs and habits) and health [5] have increased the economic and social echoes of this vital sector.

2. BUSINESS KEY DRIVERS OF THE FRUITS AND VEGETABLES SECTOR

In Romania, a country with a large rural population (45% of the total), the youth migration towards large cities or abroad has significantly increased in the last decade. The rural side presents many economic setbacks, remaining underdeveloped in terms of GDP (only 12% of the country total) and exports (only 9% of the Romania's total) [6]. Yet, the rural employed population is estimated at about 32%, representing a huge developing base for agriculture. Another weak point is the quality of life in this area, which is very low, in general, with only one third of the rural population connected to the water supply network and only 10% to the sewerage systems. Infrastructure is also a weak point, only 10% of the rural roads being considered at an adequate level. Also other life quality factors like education, health, financial systems are well below national average, encouraging the emigration to urban areas or abroad. 71 % of the land owners are aged 55 or more and only 2.9 % are under 35 years old [6].

The farm structure is another negative point at country level, driven by on-going issues with the land ownership and production structures. The relative small size of farms inhibits the ability to gain credit for farm inputs thereby further reducing actual yields. One of the consequences of the land restitutions done after the fall of the communism is that many holdings are operated on a subsistence basis and which are not economically viable. According to a study made by the Romanian Ministry of Agriculture & Development, at present exist more than 3.9 million farm holdings, of which 1.6 million are less than 1 hectare, 1.1 million are less than 3 Ha, 290,000 are in the range of 10-20 Ha and 255 are more than 2,000 Ha (the latter are cultivating 11% of the utilized agricultural area) [7]. The severe land fragmentation has been accompanied by a reduction in the living standards of the rural communities causing 76% of the total holdings (38.2% of the total area) producing for self-consumption and only 2.3% of the holdings (31.2% of area) being market oriented [8].

Despite the above mentioned setbacks, Romania is acquainted with a generous agricultural land surface; in 2009 this was 14.7 million hectares, representing 61.7% from the total country area [6]. Romania occupies a good place among EU countries taking into account the total land used in agriculture, representing 7.7% of the total agricultural land used in the EU-27. The structure of the land used for different types of crops, including fruits and vegetables, is given in the following graphs. In Fig. 1 it is presented the evolution of the area harvested with fruits and vegetables in Romania. Plums and apples are the most representative fruit categories that are grown in this country. Both categories recorded the highest values in terms of cultivated areas in the mid 90's after that they have had a continuous decline, the last years (2005-2011) being marked by the most dramatic decrease (-36% for apples and -21% for plum trees plantations).

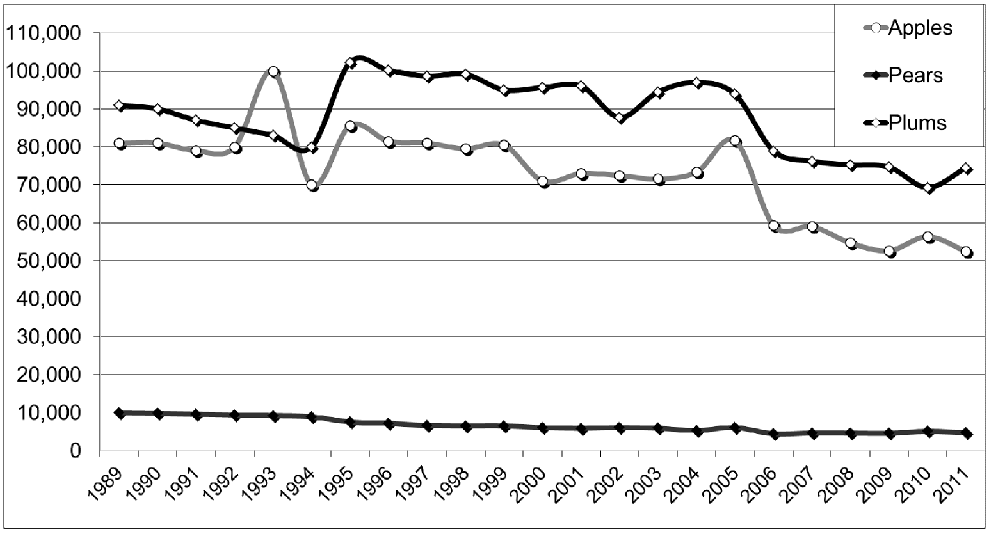

FIGURE 1: Area harvested (ha) – for the main fruits categories – Romania (source EUROSTAT [9])

In the case of vegetables, the values indicate a fluctuating evolution, cabbage being on a positive trend, onions steady and tomatoes on a slight decline. The apples and plums yields have been fluctuating (as shown in Figure 2), with large variances among successive years. This proves a heavy correlation between crop yields per hectare and meteorological conditions, Romanian fruit growers having very limited capabilities to prevent/diminish unfavorable weather impact. Very often droughts and floods had a deep impact on fruits and vegetables production levels.

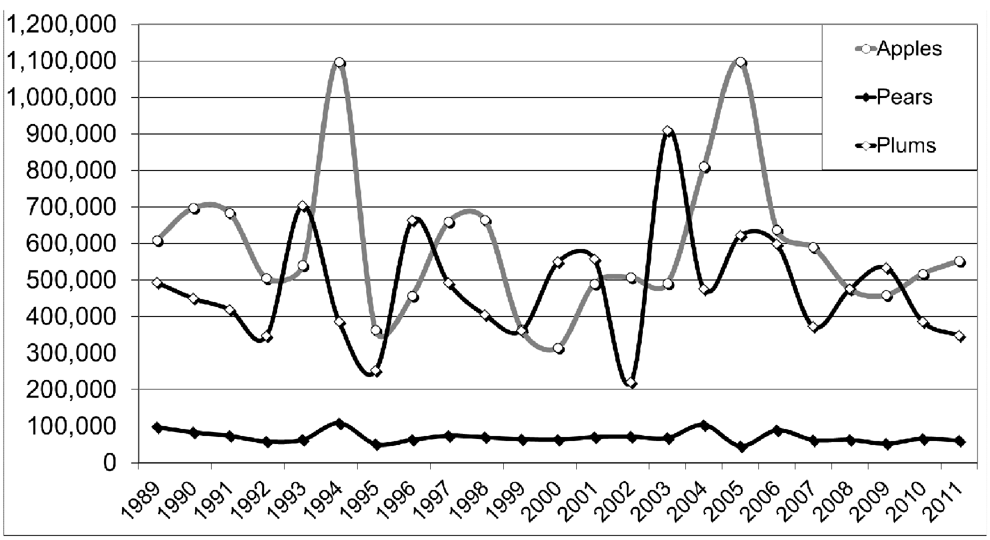

FIGURE 2: Fruit production (tones) – Romania (source EUROSTAT [9])

Italian fruits and vegetables producers delivered superior productivity in this sector, as shown in Figure 3. By comparing the similar categories' yields, it can be observed that the Romanian farmers' average results are well below in the case of all the analyzed categories, except cabbage. The highest differences between productivity values are for apples (Italy vs. Romania index is 388) and tomatoes (Italy vs. Romania index is 328). The closest productivity is for cabbage (Italy vs. Romania index is 94). The analyzed yields reveal the Romanian producers' low capability in implementing technological innovation in agriculture as well as the influence of seasonal factors (as shown in the forthcoming sections). These factors have a deep influence on the Romanian fruits and vegetables cost structure, therefore their competitiveness is affected by the impossibility to sell a much more expensive product in a price driven market. Local producers' dilemma is weaver to cut the profits or find a way to differentiate or a niche market (e.g. eco/bio fruits and vegetables). Their incapacity to conduct coherent marketing initiatives and to gain the modern trade support (due to their small scale) is very often push them to accept lower revenues, therefore limiting their access to new (expensive) technologies. Finally this status quo is impacting their efficiency and yields levels. Therefore a vicious circle occurs, affecting the overall consumers life and macroeconomic results, both countries having a substantial agricultural potential.

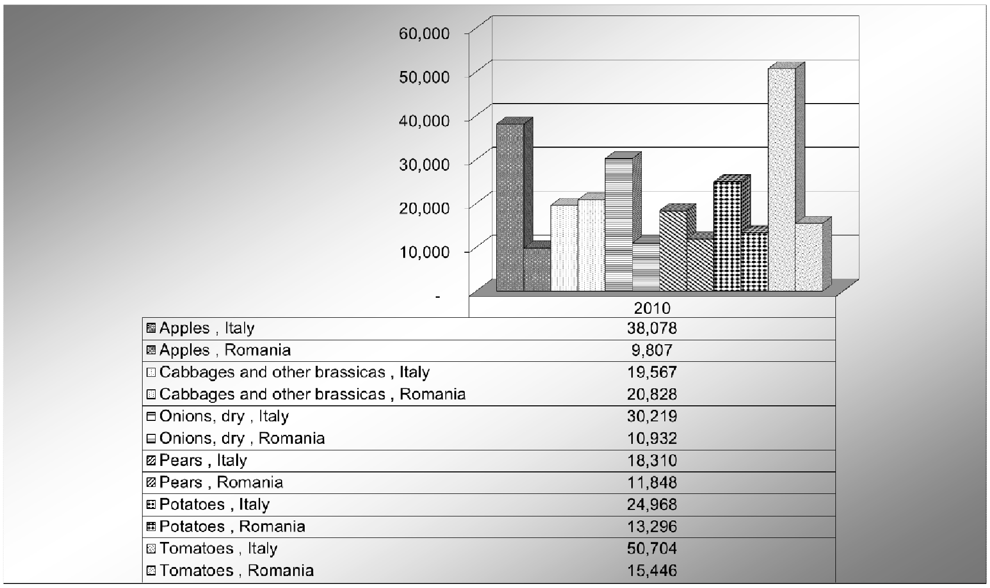

FIGURE 3: Fruits and vegetables yields (kg/ha) – Italy and Romania (source FAOSTAT [10])

The funds allocated to support the EU farmers are also an important factor that influences overall competitiveness in agriculture. The levels of farms subsidies awarded by the EU for Italy and Romania are shown in the Table no. 1.

Country \ Year	2006	2007	2008	2009	2010	2011	2012	2013
Italy (Euro/ha)	288.00	290.00	316.00	317.00	318.00	318.00	318.00	318.00
Romania (Euro/ha)	35.00	50.50	60.80	72.00	82.00	102.00	122.00	143.00

TABLE 1: Direct payments from the EU per eligible hectare in Romania and Italy (source EUROSTAT).

3. FRUITS AND VEGETABLES PRICING IN ROMANIA AND ITALY

Fresh fruits and vegetables represent two key categories for Romanian consumers. One of the conclusions of a study conducted last year in Romania [11], which aimed to investigate the shopping habits of the Romanians in urban areas, is that in 2011, the top five categories purchased by consumers from urban areas were: bread and bakery products (96%), fresh fruits (95%), personal care products (94%), dairy (94%) and fresh vegetables (93%). Romanian consumers frequently buy fresh fruits and fresh vegetables from specialized or traditional stores (33%), the other principal sources for both categories being modern trade (30%) and open markets (37%). The study revealed that the main purchase criterion for horticultural products is their shelf price. This process is also determined by the decreasing buying power of the majority of Romanian and Italian consumers, due to the economic crisis effects, most of them becoming smart shoppers/value seekers. Additionally, most of the people are not aware about the long-term negative effects of consuming low quality/cheap foods, their concern being the procurement of the daily food basket. The common thinking is that a high consumption level of fruits and vegetables is in general good for health. This paper, however does not deal with the increasing health concerns due to the extensive usage of pesticides, genetically modified organisms or other modern technologies aimed to increase fruits and vegetables resistance, shelf life and to make them look better.

3.1 Research Methodology

Following a survey made by the article authors in several commercial locations in Bucharest, Romania and Messina, Italy, prices of various fruits and vegetables categories were collected based on personal observation according to products' price tags; the countries of origin were identified after the indications mentioned on the products' packaging or communicated by vendors. The survey included 4 hypermarkets, 2 discounter outlets, 3 supermarkets, 2 specialized stores and 3 open markets. For each store category was calculated an average price and afterwards the average price was obtained by an arithmetic mean of the five categories. The analyzed fruits and vegetables categories were chosen according to: their significant percentage from the total cultivated surface and also the total fruits and vegetables production at country level, large share of shelf observed in stores and markets, significant share of consumers' preferences.

3.2 Research Findings & Discussion

The majority of fruits and vegetables on sale in Bucharest, Romania are imported mainly from other EU countries, the largest share of shelf being held by fruits and vegetables from countries such as: Holland, Greece, Spain and Germany. Other non-EU noticeable countries of origin are Turkey, Argentina and Chile. Romanian products have a weak market presence, being represented by just a few categories such as tomatoes, onions and potatoes (Tables 2 and 3).

Romanian products have in general higher prices than their competitors from abroad. Hypermarkets, practicing very aggressive price offers, have succeeded to attract more shoppers and attain a higher scale than the traditional open markets; this fact occurred due to the lack of capability or concern of the public authorities to create proper venues for the small producers such as agro-food markets, seasonal fairs or traditional food exhibitions. Very often, the penury of space for commercial purposes in urban area determined the local producers to become street vendors or to sell their products to market speculators or various intermediaries who obtain an additional 40-50% of the product price paid by the final consumer, while the local producer can hardly obtain a 10-15% margin. The issue of the fairness of the income distribution due to supply chain disruptions remains open.

Trade type	**Hypermarkets**		**Hard-discounters**		**Supermarkets**	
Fruits/vegetables category	**Country of origin**	**Price/Kg (EUR, w/o VAT)**	**Country of origin**	**price/Kg (EUR, w/o VAT)**	**Country of origin**	**Price/Kg (EUR, w/o VAT)**
Apples	Italy	0.88	Slovenia	0.93	Slovenia	0.98
	Austria	1.01	Austria	0.84	Austria	1.08
		-		-	Greece	1.57
Pears	Argentina	1.53	Argentina	1.43	Chile	1.37
	Italy	1.36		-	Italy	2.15
	Belgium	1.14		-		-
	Portugal	1.57		-		-
Tomatoes	Turkey	0.96	Turkey	1.09	Turkey	1.37
		-	Spain	1.12	Romania	1.57
Potatoes	Germany	0.55	Romania	0.78	France	0.70
Onions	Poland	0.51	Romania	1.13	Germany	0.78
	Austria	0.72	Austria	0.72	Holland	1.08
Cabbage	Germany	0.46	Germany	0.59	Greece	0.65

TABLE 2: Prices collected from modern trade outlets – Bucharest, Romania

The economies of scale of large retail chains is, judgmentally, the main cause for the substantial price gaps between them and small/convenience shops/open markets, the latter being in need of a different configuration of their supply chain. The failure in progressing or the sluggish activity below the designed capacity of some government projects (e.g. *Bucharest Wholesale Market*), as well as the competitive pressure from some influential importers (often operating under the sign of circumventing tax obligations) have compelled the local producers to sell their crops at very small prices. Some of them tried a desperate vertical integration, transforming themselves in retailers of their own products. They have had only a few opportunities to create their own points of sale being very limited due to crops seasonality and lack of financial resources; therefore they became very dependent on the capacity of the (local) public authorities to create proper commercial venues for small agro-food producers (agro-food markets, seasonal fairs or traditional exhibitions). Very often, the lack of success of these projects influenced the local producers to become street vendors or to sell their products to occasional market speculators. The interviewed producers appreciated that a much fair income distribution would mean an increase in profits from currently 10-15% to 25-30%, given that the intermediaries usually obtain a 50% margin.

Trade type	**Specialized stores**		**Open markets**		**Avg. price/kg (EUR, w/o VAT)**
Fruit/veg. category	**Country of origin**	**Price/Kg (EUR, w/o VAT)**	**Country of origin**	**Price/Kg (EUR, w/o VAT)**	
Apples	Romania	1.08	Romania	0.98	**1.04**
Pears	Argentina	1.96	Argentina	1.96	**1.70**
Tomatoes	Turkey	1.66	Italy	1.57	**1.35**
	Romania	1.47	Greece	1.96	
Potatoes	n.a.	0.59	Egypt	1.08	**0.69**
Onions	n.a.	0.59	Romania	0.68	**0.75**
Cabbage	n.a.	0.59	Romania	0.78	**0.61**

TABLE 3: Prices collected from traditional trade locations – Bucharest, Romania

In Romania the agricultural year starts during spring and ends in late autumn. It is supposed that, following poor yearly productions, during the spring, the market could be populated by imported goods. However the poor presence of the Romanian products, especially in modern trade has also other causes: (1) Local producers' weak negotiation power with the international retail chains and lack of consistency in delivering the goods in time and desired quantities; (2) Failure of the Romanian farmers to organize themselves into strong and durable business associations or commercial alliances, that could secure not only their future development, access to new technologies but even their very existence within a more and more competitive environment.

As shown in the graph from Figure 4, the fruits and vegetables market prices record significant fluctuations following the agricultural year cycle, usually have the highest level during spring and the lowest during autumn – the main harvest period in Romania. Among the analyzed categories, the most dynamic are: onions, cabbage and pears. However, potatoes had in 2010 a very substantial and quite continuous price increase (+65%), mainly because of the decrease of the local yields per hectare and of cultivated area compared with a year ago. Apples also had an unusual evolution, not having a significant autumn price decline, but an overall price increase (+11%), mainly because of the continuous decline of the local fruits sector and continuous growth of imported quantities.

The instability of the Romanian fruits and vegetables offer coming from local growers, affects the rhythmicity of the product supply and therefore the entire logistic system with negative effects in trading with large companies, like big retailers, who seized a large part of fruits and vegetables trade in Romania. The instability, atomization and frequent variations of cultivated surface also have a negative impact on price competitiveness.

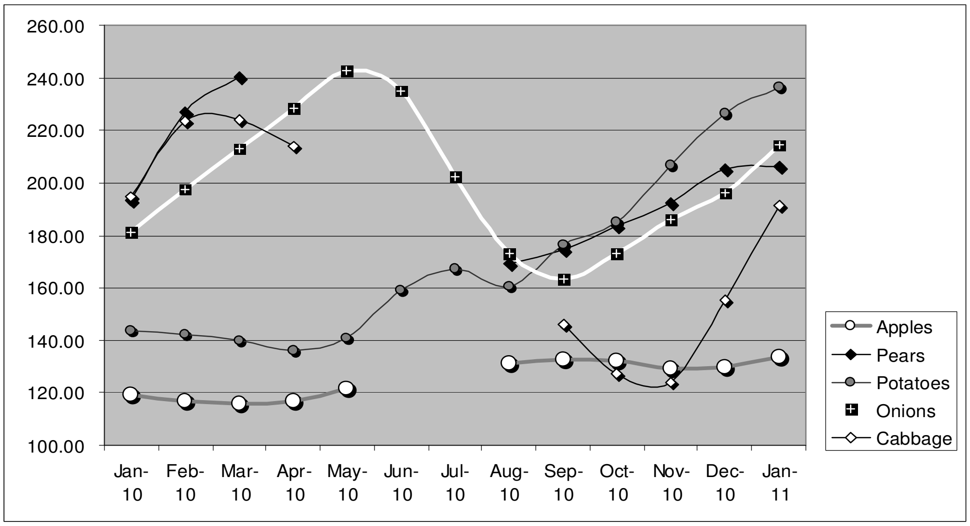

FIGURE 4: Fruits and vegetables price seasonality – Romania (source The National Institute of Statistics of Romania [12])

For the same period and the same fruits and vegetables categories, Italy recorded steadier prices, as shown in Fig 5. The most dynamic goods in terms of price were pears (+23% Jan 2011 vs. a year ago) and potatoes (+54% Jan 2011 vs. a year ago). Also cabbage had significant variations but in general, the prices evolution does not reveal a seasonal character like in the case of Romania. Therefore the Italian local producers are less vulnerable to imports. We assume that this steadiness is a result not only of climatic factors, but also to higher yields per hectare. In terms of productivity, Romania has an underdeveloped capacity to compete with foreign producers, including the ones from the EU.

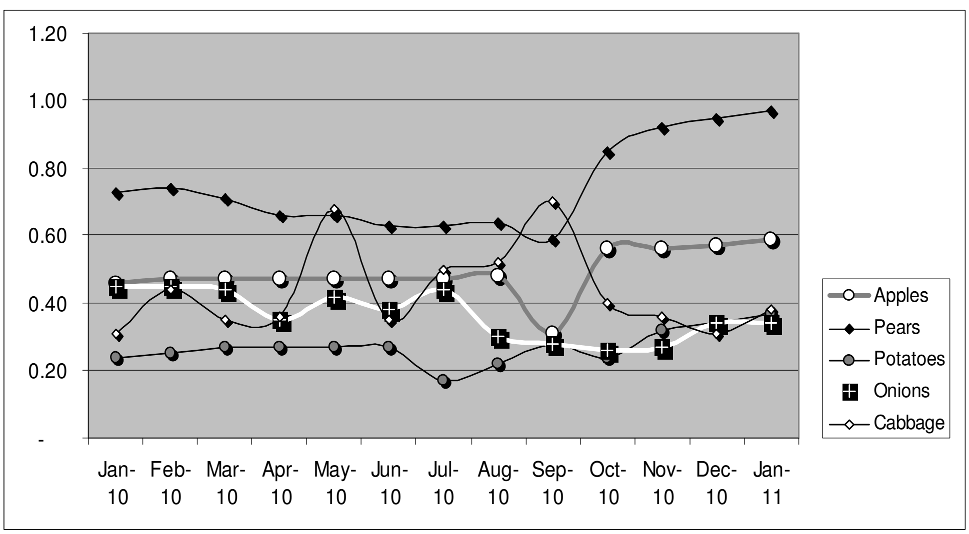

FIGURE 5: Fruits and vegetables price seasonality – Italy (source ISMEA [13])

In terms of prices per kilogram, the Romanian fruits and vegetables market has higher value per unit, the biggest gap are for tomatoes and onions, while the closest price is for cabbage (please see the Table no. 4).

Fruits/vegetables category	Average price w/o VAT in Italy (Euro/kg)	Average price w/o VAT in Romania (Euro/kg)	Price index Romania vs. Italy
Apples	0.60	1.04	173
Pears	0.81	1.70	210
Potatoes	0.40	0.69	173
Onions	0.19	0.75	395
Cabbage	0.44	0.61	139
Tomatoes	0.36	1.35	375

TABLE 4: Prices for various fruits and vegetables categories in Italy and Romania (Euro/kg) - sources: The National Institute of Statistics of Romania and ISMEA)

Following a qualitative exploration of the relationship between producers, on the one hand, and traders (particularly those involved in the vegetables and fruits business) on the other hand, carried out in both countries, there have been revealed a few factors that are decisively influencing the overall agro-food business environment. In terms of business profitability, many local producers from both countries are practicing trade markups around 20%, exceptions being the modern retail, with values below 10%, while convenience stores have an average level of 30 % mark-up. Most of the small and medium size traders from Romania and Italy declared that they often practice a wide variety of commercial markups, using various forms of psychological pricing combined with cost based pricing – depending on product category and time/season. Trade offers coming from international importers play an important role, especially in Romania during the winter season, when the local production is very low.

Small convenience shops, open market and street (in Italy)sellers consider as the main competitors not the similar categories, but the multinational retail chains, indicating that many customers prefer to purchase from hypermarkets where they can find fresh fruit and vegetables 10-15% cheaper and also can fill a large shopping list in a very short time.

3.3 Horizontal Business Alliances – a Valuable Strategic Option to Ooverpass the Crisis

In order to reduce the market risks, to gain bargaining power with the international retail chains and to increase consistency and market presence, is an inherent need for the local producers to organize themselves into powerful business associations/commercial partnerships, which could assure them not only the future development but their very existence.

Business alliances have become an important and common institutional structure for international agri-business industry - a rapidly changing economic environment. Although business alliances have received considerable attention in the literature, two areas of research in this field have been less explored: (1) the horizontal alliances (2) the relationship between horizontal and vertical alliances, horizontal alliances being very important in horticultural production around the world. [14]

The horizontal alliances have been created following the consolidation of the modern retail sector, which requires suppliers with economies of scale. They are basically resource management centers, primarily informational, having complex market strategies, involving partners with diverse specializations and backgrounds. Some regions/market segments may require specialized and vast informational, financial and technological resources, with resources pooling among firms as a prerequisite. The integrated companies may have different competitive advantages, but they should have enough in common to make business together. These horizontal alliances are regularly mentioned in the agro-food industry literature, but did not receive a particular consideration given that the focus was mainly on supply chain management and transaction cost economics, which led to studies focusing especially on vertical alliances. [15].

The main advantages of creating this type of business structures are: 1) a successful partnership with the modern trade representatives, who want to collaborate with a small number of suppliers able to provide large volumes of goods at a constant high quality and 2) an increased efficiency through the synergy of the shared resources. The need for such an approach is dictated by the fact that the expanding modern retail already represents over 40% of the total trade and for 2015 is projected to reach 55-60%.

4. IMPLICATIONS, LIMITATIONS AND OPPORTUNITIES FOR FURTHER RESEARCH

This study has identified a significant imbalance between international players operating in the field of fruits and vegetables sector (commercial chains, major international producers) and local producers /merchants. Apart of significant price distortions in Romania, this research revealed that, in order to reduce the competitive gap, to gain a stronger negotiating position with international retail chains and to obtain a more consistent market presence, local producers should organize themselves in large trade alliances, in order to ensure their business development in an increasingly hostile economic environment. We believe that due to the research method qualitative character, including the limits generated by the reduced sample size, this study should be continued, strengthened and extended towards a further (national level) quantitative research, involving a representative number of distributors / retailers, producers and buying/purchasing experts from international trade chains.

5. CONCLUSIONS

This paper reveals different situations for Romanian and Italian fruits and vegetables producers in terms of seasonal climatic conditions, yields and economics, due to differences in farm structure, usage of agro-food new technologies, EU subsidies, trade integration and business coherence. The research results explain the difficulties that small and medium sized companies are facing in this field. Small farmers keep on striving to survive in the middle of an increasing competition from abroad, while being caught between the chronic underdevelopment of the local/rural areas and the increasing competition on an agro-food global market dominated by hi-tech giants.

Exposed to competitive pressures generated by the multinational retail chains, the Romanian fruits and vegetables growers are looking forward to adapting their offers through a more efficient cooperation with local partners (e.g. specialized stores and open markets). It is expected, however, that the incoming market entries of a few global producers and the expansion of the existing international retailers will increase the competitive pressures in the following years. Moreover, the economic crisis has deepened the scarcity of financial resources and mitigated the perspectives for companies' development. In this context, this article proposes several strategic options for local fruits and vegetables producers, such as: 1) improvement of the crop yields, by increasing the farm size, encouraging young entrepreneurs to invest in agriculture, accessing latest technologies to increase productivity) 2) development of regional logistics and trade systems, which should decrease the distribution costs and the final prices and also should facilitate the relation with larger retailers 3) develop business partnerships with similar producers through superior networking and organize into large producer associations to attain a stronger market position. Judgmentally, both international wholesale and retail chains should look for stronger relations with farmers/growers organized into business/trade partnerships, capable to sustain better marketing and trade initiatives tailored to local consumers' needs and habits. Small and medium-sized producers from Romania should also focus on increasing their productivity through integration of new technologies.

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