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MARKETING OF FRUITS AND CONSUMER PREFERENCES IN CYPRUS

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SUMMARY

Trade liberalization through the General Agreement on Tariffs and Trade (GATT) and the abolition of duties for agricultural products of European origin agricultural products exert pressure on local agricultural products. Competition is increasing and certain local agricultural products face serious disposal problems.

So far, there is no formal recording concerning consumer behavior in order to measure the impact of liberalization on consumer preferences.

The main aims of this study were a) to record local consumer preferences regarding fruit consumption, b) identify possible shortcomings in the marketing chain, c) trace the impact of trade liberalization on fruits and d) suggest ways to improve the situation.

The present study derives useful information for Cypriot consumer preferences concerning fruit consumption and the correlation between fruit origin (local vs imported) and socioeconomic characteristics of consumers (sex, age, education, income). Additionally, the correlation between consumers purchasing performance and their socioeconomic characteristics is explored and the current market situation is sketched.

Cypriot consumers prefer local fruits instead of imported, loose instead of packed, and organic although more expensive. They spend a rather small proportion of their income on fruits and they are very concerned for possible health hazards due to chemical residues in fruits. Fruit appearance determines their purchase preferences, while price is a rather inferior factor.

Given the almost general consumer support to local fruits it may be concluded that fruit marketing problems resulted mainly because of the reduction in exported quantities, overloading the local market with quantities impossible to be absorbed.

ΠΕΡΙΛΗΨΗ

Η φιλελευθεροποίηση του Εμπορίου μέσω της Γενικής Συμφωνίας Δασμών και Εμπορίου και η απάλειψη των δασμών για γεωργικά προϊόντα κοινοτικής προέλευσης ασκούν πιέσεις στα κυπριακά γεωργικά προϊόντα. Ο ανταγωνισμός εντείνεται περισσότερο με αποτέλεσμα κύρια γεωργικά προϊόντα να αντιμετωπίζουν σοβαρά προβλήματα εμπορίας.

Μέχρι τώρα δεν υπάρχει επίσημη καταγραφή της συμπεριφοράς των καταναλωτών έτσι ώστε να διαφανούν οι επιπτώσεις από τη φιλελευθεροποίηση στη συμπεριφορά των καταναλωτών.

Οι κύριοι στόχοι της μελέτης ήταν α) να καταγράψει τις προτιμήσεις των καταναλωτών αναφορικά με την κατανάλωση φρούτων, β) να εντοπίσει τυχόν αδυναμίες στην αλυσίδα εμπορίας, γ) να ανιχνεύσει τις επιπτώσεις της φιλελευθεροποίησης στα φρούτα και δ) να εισηγηθεί τρόπους βελτίωσης της κατάστασης.

Η παρούσα έρευνα αντλεί χρήσιμες πληροφορίες για τις συνήθειες των καταναλωτών αναφορικά με την κατανάλωση φρούτων και τη συσχέτιση της προέλευσης των φρούτων και των κοινωνικοοικονομικών χαρακτηριστικών των καταναλωτών (ηλικία, φύλο, μόρφωση, εισόδημα). Επιπρόσθετα εξετάζεται η συσχέτιση της αγοραστικής συμπεριφοράς των καταναλωτών και των κοινωνικοοικονομικών τους χαρακτηριστικών και σκιαγραφείται η υφιστάμενη κατάσταση στην αγορά φρούτων.

Οι κύπριοι καταναλωτές προτιμούν τα κυπριακά φρούτα έναντι των εισαγόμενων, τα χύμα έναντι των συσκευασμένων και τα βιολογικά προϊόντα έστω και ακριβότερα. Ξοδεύουν ένα σχετικά μικρό ποσοστό από το εισόδημα τους για την αγορά φρούτων και ανησυχούν πολύ για πιθανά προβλήματα στην υγεία τους λόγω της παρουσίας υπολειμμάτων χημικών ουσιών στα φρούτα. Η εμφάνιση των φρούτων αποτελεί καθοριστικό παράγοντα για την αγορά τους, ενώ η τιμή φαίνεται ότι επηρεάζει σε μικρότερο βαθμό την απόφαση των καταναλωτών.

Δεδομένης της καθολικής σχεδόν στήριξης των καταναλωτών στα κυπριακά φρούτα συμπεραίνεται ότι τα προβλήματα εμπορίας που αντιμετωπίζουν τα κυπριακά προϊόντα οφείλονται κυρίως στη μείωση των εξαγωγών, άμεσο αποτέλεσμα των οποίων είναι να παραμένουν σημαντικές ποσότητες στην εγχώρια αγορά, η οποία αδυνατεί να τα απορροφήσει.

INTRODUCTION

Consumer behavior theory deals with the way by which an individual executes his choice. The subjects of consumer choices are goods and services. According to the theory (Estrin and Laidler, 1995) the consumer makes such choices that, with a given income and specific prices for X and Y goods he succeeds the maximum level of satisfaction. The consumer seeks the best quality and maximum utility with a specific cost (Hisrich, 1990).

According to Kamenides (1995) the consumer purchasing economic behavior is affected by the price of good, the prices of other competing goods (e.g. similar local or imported products) or complementary products (e.g. coffee and sugar), consumer income, the level of consumer's fixed expenses and the frequency of his payments. Economic analysis of consumer behavior is based on assumptions and admissions, i.e., that the consumer is rational, he is not inferior but always has an opinion and preference, and he is consistent in the sense that he has no different preferences in different times. His preference is characterized by monotonicity, i.e. he prefers a higher quantity of a commodity instead of lower, and his additional satisfaction resulting from the higher consumption tends to be diminishing (Magdalinos, 1981).

The basic factors that affect the point of consumer's purchase power, from the socioeconomic view, is his occupation, education, sex and age (Kamenides, 1995). The sociology factors that affect the individual's purchase power are culture, social class, reference teams and family (Kinnear, 1997). In this research consumers are taking a positive stand against fruits since, based on their answers, they all purchase and consume fruits.

MATERIALS AND METHODS

Scales for measuring consumers' stand

There are various types of scales which are used to count consumers' stand. All scales suppose that it is possible to determine in a quantitative manner a qualitative factor in such a way that the individual's stand could be expressed in a measurable rank. The most important scales are a) Thurstone scale, where the respondent has to decide if he agrees or disagrees in a series of different propositions, b) Likert scale, which presents an issue in the form of different options. These options count the reaction of respondents using an evaluation system by category, c) Gutman scale, which is presented in the form of scale bar, i.e. a table of aggregate propositions, answers given and a mechanism that allows the classification in scale degree, and d) Osgood scale, which is presented in the form of seven points bipolar scales. Respondents are asked to evaluate an object in the length of this line (Magnesalis, 1981). According to Chisnall (1997) the various scales for the measurement of attitude are the nominal, the ordinal, the interval and the ratios scale.

Measurement scales, used in marketing research and consumer behavior, are divided into comparative and non-comparative (Malhotra, 1993).

Comparative scales are 1) The paired comparison scale, where the respondent has to choose between two items at the same time using a criterion, 2) Rank order scale, where respondents classify various items according to a given criterion, 3) Constant sum scale, where respondents divide by a constant sum the units as points or money between a group of items which affect with a value on a criterion, and 4) Q-Sort scale, which uses a process of rank order placing in row similar items giving emphasis to a special criterion.

Non-comparative scales are 1) Continuous rating scale, where the respondent marks his preference on a line connecting two extreme notions referring to emotions or perceptions about items or goods, and 2) Itemized rating scales, which include numbers or description corresponding to each category. The most widely used rating scales are a) Likert scale, which is a measurement scale of 5 or 7 responding categories ordered from strongly agree to strongly disagree. In a 5 - degree scale number five corresponds to absolutely agree, while number one corresponds to absolutely disagree, b) Semantic Differential scale, which constitutes 7 ranking points, and c) Stapel scale, which is a type of ranking scale that uses simple phrases or adjectives.

Research design and methodology

For the implementation of the research a proper questionnaire was prepared. The questionnaire included personal data, consumer's preferences and purchase behavior, as well as more specific questions for special types of preferred products, such as organic products.

The sample consisted of inhabitants from the Nicosia area living in the municipalities of Nicosia, Aglantzia, Agios Dometios, Egkomi, Lakatamia, Latsia and Strovolos. Supermarkets lying in these municipalities were classified according to their return income. Six of them, i.e. Athienitis, Woolworth, Metro, Orphanides, Pilavakis and Charalambides, were selected by drawing.

The method used to fill the questionnaire was the Mall Interception Technique. Consumers above 18 years of age entering the selected supermarkets were asked if they accept to answer the questionnaire. If their answer was positive they were automatically considered as part of the sample. Data were collected between April and August, 2001. Interviewers visited supermarkets on alternate days of the working week either in the morning or in the afternoon.

The questionnaires were analyzed using the SAS software.

RESULTS

The sample size consisted of 401 consumers. One hundred and forty eight (37%) were men and 253 (63%) were women. Most of the respondents (67.6%) were between 20 and 50 years of age. The majority of consumers (86%) were married, while the highest proportion of households (75%) was constituted by 4 persons. Concerning the education level, the highest proportion was higher and highest level graduates (88%). The majority of respondents (34%) were private employees, 21.5% were government employees, 16% pensioners, 13% self-employed, 11.5% housewives and 4% students or unemployed. According to their response 15.5% had a monthly family income below £500, 34.5% between £501-1000, 25% between £1001-1500, 17% between £1501-2000, and a small proportion (8%) above £2000 (Table 1).

The positive stand of consumers against fruits can be justified by the fact that all of them consume fruits during the whole day.

Sixty one per cent of the respondents stated that they do not decide beforehand what kind of fruits they intend to buy. They make their decision after visiting the selling point and after examining the fruits offered.

Another factor studied was the preferred selling outlet. Respondents were asked to choose among supermarkets, neighborhood market, farmers' market, wholesale market, fruit market and combinations between supermarket–fruit market, fruit market–farmers' market and supermarket–neighborhood market. Most of the respondents (33.7%) stated that they usually purchase their fruits at supermarkets, 26.2% prefer the combination supermarket–fruit market and 23.4% the fruit market. Only 4.2% prefer the neighborhood market, while the other outlets lay behind with negligible percentages.

A percentage of 47.3% of respondents visit selling outlets usually twice a week, 22.4% once a week, 20% three times a week and 8.5% every day. A small proportion (1.8%) purchases fruits four times a week.

The highest proportion of respondents (43.4%) purchases 2 to 4 kg every time, 36.2% above 4 kg and 20.4% below 2 kg. The quantity purchased is irrelevant of the age of respondents (Tables 2 and 3).

Forty seven per cent of the respondents spend on fruits below £10, 41.4% spend 10 to £20, while 11.7% spend above £20 per week. The level of education and the consumer sex seem to be irrelevant of the amount spent on fruits (Table 4).

One of the main components of the research was to examine the purchasing behavior of consumers concerning the presentation and appearance of fruits. In this respect, qualitative criteria like variety, country of origin, indication of the region grown, season and price of product were included in the questionnaire. According to the results 78.3% of the consumers consider the appearance, 60.8% the season, 53.6% the trade mark, 40.9% the outlet and 34.6% the price of the product, as the most important factors affecting their decision to purchase fruits. The importance of price changes with income. In the group income below £500, 69% of the respondents claimed that fruit price affect their purchase, while the proportion for the income group above £2000 was only 12.5%.

Using the Likert scale with five subdivisions, consumers were asked to evaluate the quality of fruits on the local market. One third (31.4%) of the respondents ranked quality with grade 5 (good quality), 32.4% with grade 4, 31,7% with grade 3 and 4.5% with grades 1 and 2 (bad quality).

Table 1. Main characteristics of the survey

Item	Frequency	Percent
1. Sex		
Male	148	36.9
Female	253	63.1
2. Education		
Illiterate	1	0.3
Primary	32	8.0
Secondary	15	3.7
High school	178	44.4
Tertiary	175	43.6
3. Decide beforehand the kind of fruit to buy		
Yes	157	39.1
No	244	60.9
4. Purchase frequency		
Once a week	90	22.4
Twice a week	190	47.4
Three times a week	80	20.0
Four times a week	7	1.7
Daily	34	8.5
5. Selling outlet		
Supermarket	135	33.7
Neighborhood market	17	4.2
Popular market	15	3.7
Wholesale market	7	1.8
Fruit market	94	23.4
Combination Supermarket - fruit market	105	26.2
Combination Fruit market - popular market	12	3.0
Combination Supermarket - popular market	12	3.0
Other	4	1.0
6. Quantity purchased		
< 2 kg	82	20.4
2-4 kg	174	43.4
> 4 kg	145	36.2
7. Money spent on fruit		
£<10	188	46.9
£10-20	166	41.4
£>20	47	11.7
8. Fruit Quality		
Grade 5 - (Good quality)	4	31.4
Grade 4	14	32.4
Grade 3	127	31.7
Grade 2	130	3.5
Grade 1 - (Bad quality)	126	1.0
9. Preference of origin		
Local	363	90.5
Imported	38	9.5
10. Reasons for preferring local products		
Logical prices	5	1.3
More confidence	89	22.2
Better flavor	173	43.1
Better presentation	19	4.7
National reasons	60	15.0
Other reason	55	13.7
11. Packed or loose		
Packed	21	5.2
Loose	380	94.8
12. Possible health hazard due to chemicals		
Yes	367	91.5
No	34	8.5
13. Prefer organic products even more expensive		
Yes	294	73.3
No	107	26.7
14. Willing to pay more money for organic products		
Less than 25% above conventional products prices	301	74.6
25 - 50% above conventional products prices	82	20.9
51-100% above conventional products prices	18	4.5
Total	401	100.0

Table 2. Money spent on fruit and preference of origin and by income

	Origin		Money spent		
Income	Local	Imported	<10	10-20	>20
<500	59	3	36	21	5
500-1000	126	12	69	54	15
1001-1500	91	10	47	37	17
1501-2000	62	6	25	38	5
>2000	25	7	11	16	5
Total (No)	363	38	188	166	47
(%)	90.5	9.5	46.8	41.4	11.8

Table 3. Sex, quantity of fruit purchased, preference of origin and money spent by age

	AGE								Total	
Item	<20	(%)	20-40	(%)	41-60	(%)	>60	(%)	No	(%)
Sex										
Male	1	0.3	48	11.9	65	16.2	34	8.5	148	36.9
Female	3	0.8	117	29.2	103	25.7	30	7.5	253	63.2
Total	4	1.0	165	41.1	168	41.9	64	16.0	401	100.0
Quantity purchased										
< 2 kg	1	0.3	39	9.7	24	6.0	18	4.5	82	20.5
2-4 kg	0	0.0	70	17.4	81	20.2	23	5.7	174	43.3
>4 kg	3	0.8	56	14.0	63	15.8	23	5.7	145	36.3
Total	4	1.0	165	41.1	168	42.0	64	15.9	401	100.0
Origin										
Local	2	0.5	148	36.9	150	37.4	63	15.7	363	90.5
Imported	2	0.5	17	4.2	18	4.5	1	0.3	38	9.5
Total	4	1.0	165	41.1	168	41.9	64	16.0	401	100.0
Money spent										
£<10	1	0.3	88	22.0	64	16.0	35	8.7	188	47.0
£10-20	3	0.8	60	15.0	83	20.7	20	5.0	166	41.5
£>20	0	0.0	17	4.2	21	5.2	9	2.2	47	11.6
Total	4	1.0	165	41.2	168	41.9	64	15.9	401	100.0

Table 4. Money spent on fruit and prefernce of origin by sex

	Sex				Total	
	Male	(%)	Female	(%)	No	(%)
Money spent						
£<10	76	19.0	112	28.0	188	47.0
£ 10-20	61	15.2	105	26.1	166	41.3
£ >20	11	2.7	36	9.0	47	11.7
Total	148	36.9	253	63.1	401	100.0
Origin						
Local	136	33.9	227	56.6	363	90.5
Imported	12	3.0	26	6.5	38	9.5
Total	148	36.9	253	63.1	401	100.0

Consumers were asked if they prefer their fruits packed or loose. According to their response, 90% prefer their fruits loose and only 2% packed. Basic reasons for their preference to loose fruits are the possibility to choose fruits according to their needs and the perception that packed fruits are of lower quality and more expensive. Additionally, only 5% of the respondents are willing to pay more money to buy packed fruits.

Concerning the kind of fruits consumed more frequently, those were: apples (92%), watermelons (83.3%), oranges (80.1), bananas (78.6%), peaches (74.3%), strawberries (71.1%), melons (68.8%), mandarins (63.8%), grapes (63.8%), pears (60.9%) and apricots (56.4%). Other fruits follow with smaller percentages.

As far as the origin of fruits is concerned, 90.5% of the consumers stated that they prefer local products and only 9.5% imported fruits. Main reasons for this support to local fruits are 1) better flavor (42.4%), 2) increased confidence (20.2%), 3) support of local production (13.7%) and 4) other reasons (12.7%). Consumer preference concerning the origin of fruits changes as income increases. In the group with a monthly income above £2000 consumers prefer in a higher proportion (22%) imported fruits, while this figure fluctuates between a low 5% to a high 8.8% in groups with lower income.

The vast majority of consumers (91.5%) consider that their health is in danger due to chemical residuals in fruits.

Two thirds of respondents (63.6%) stated that they are well informed about organic products, while 73% of them are ready to buy organic products at higher prices. Almost 75% of the respondents are ready to pay up to 25% higher prices for organic products. The precondition is that a certifying body, according to the European Union Directives and Regulations, certifies organic products.

DISCUSSION

Given the high proportion of women interviewed, it is obvious that the day-to-day responsibility for shopping lies with them. Concerning the education level of Cypriot consumers, it is recorded that they are well educated with an increased proportion of higher and tertiary level graduates.

Consumers take a positive stand towards fruits since a high proportion consumes fruits on a daily basis.

The presentation and appearance of fruits remains a determining factor affecting purchase. Other important factors are the season, the brand and the selling outlet, whereas price follows. It is thus concluded that Cypriot consumers are rather indifferent to fruit prices. Two thirds of the consumers decide on the kind of fruit to buy only after visiting the selling outlets and comparing fruits in store.

It seems that supermarkets and fruit markets tend to displace traditional neighborhood markets and farmers' markets, a development that affects small size businesses.

Consumers spend a rather small proportion of their income on fruits. This is an indication that fruits in the local market are still accessible.

Prior to the execution of this survey it was assumed that imported counterparts strongly compete with local fruits. Although European origin products are marketed in Cyprus without trade restrictions, consumers, in their crushing majority, prefer local fruits.

It is generally accepted that the quality of fruits in the local market is good since, in their vast majority, consumers ranked quality from 3 to 5, which corresponds to modest to good quality.

Cypriot consumers prefer their fruits loose mainly due to the perception that the quality of packed fruits is lower. Instability of quality is very common since standardization does not apply currently for products marketed on the local market. However, under a compulsory standardization regime it is quite possible that this preference may change.

Consumers are very concerned about chemical residuals in fruits. In order to increase the safety feeling among consumers, market inspection controls should be intensified.

CONCLUSIONS

The basic aim of the present study was to trace possible impacts of trade liberalization on the local fruit market. It is concluded that Cypriot consumers strongly support local production. Since competition is expected to increase after accession to the EU, stakeholders involved in the production and marketing process should be alerted in order to adapt production to consumer needs. In this respect, marketing research should be intensified in order to communicate changes in consumer preferences to producers. This direct linkage of consumer preferences to production will increase the possibilities of successful marketing.

Given that the volume of production for certain agricultural products remains more or less stable and that consumers prefer local products instead of imported ones the issue that arises is why local production is confronted with disposal problems. The answer seems to be both simple and logical. Exports of raw agricultural products have shown diminishing trends during the last 5 years. As a result more quantities remain indisposed, increasing the quantities circulating in the local market. According to economic theory, when supply increases and demand remains stable then prices are lowered. This is the case of the Cyprus local fruit market. In order to solve the problem either the quantities produced should be reduced or exported quantities must be increased. However, in a global market, exported products should be of high quality and of competitive prices, developments that presuppose structural changes in the production and marketing chain. Introduction of new technology, adoption of new production methods and a well-educated farm community are prerequisites for a more productive and competitive agricultural sector.

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