

Household purchasing and consumption behaviour towards processed peach products

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1. Introduction

The most important link in the production-consumption chain of a product is the consumer, for whom the product is produced. According to the Marketing Theory, products and services are produced to satisfy identified consumers' needs, thus consumers' decision of rejecting or not a product is substantial for the productive unit.

While the market becomes every day more competitive, the productive unit must produce its products based on the consumers' desires and with a strategic marketing plan to persuade them not only to purchase, but satisfy their needs in a way that repurchase of the products will occur. For this to be achieved, the productive unit must have accurate knowledge about how, why, where, and basically what consumers purchase (Siomkos, 1994, pp.152).

Peach cultivation consists of one of the basic branches in the Greek agricultural sector. In 1999, peach production was 884,238 tons (Ministry of Agriculture), with 83% of the total production taking place in Northern Greece and specifically in three Prefectures of Central Macedonia: Pella, Emathia and Pieria. The same year these three prefectures produced 735,000 tons of peaches (including nectarines), whereas 518,000 tons were cling peaches, used as raw material for the fruit processing industries. The basic three processed peach products produced are canned peaches in syrup, peach juice and peach jam. Canned peaches in syrup covers 93% of the total processed peach products, while peach jam cover 6% and peach juice only 1%. Overall, cling

Abstract

The purpose of this paper is to present the findings of the purchasing and consumption behaviour of the Greek households towards the three processed peach products: canned peaches in syrup, juice and peach jam. Data analysis of 737 valid questionnaires revealed that 47.5% of the sample purchase canned peaches in syrup, 67.4% purchase peach juice and 42.6% purchase peach jam. Reasons for purchase are satisfactory taste and qualities and households perception that they are healthy products. Results also indicate that the consumption quantities are considered low, while households usually purchase the same brand name, meaning that there is a tendency for brand loyalty. Preferred packages depend upon the product. Findings and marketing implications are discussed.

Résumé

L'objectif de ce travail est de présenter les données concernant le comportement d'achat et consommation des ménages grecs à l'égard des trois produits de pêche transformés : pêches au sirop, jus et confitures. L'analyse des données de 737 questionnaires a révélé que 47,5% de l'échantillon achète des pêches au sirop, 67,4% des jus et 42,6% des confitures. Les motivations des choix faits par les ménages sont le goût et les qualités satisfaisantes et la perception qu'il s'agit de produits sains. En plus, les résultats indiquent que les quantités consommées sont considérées comme réduites et que les ménages achètent toujours la même marque, confirmant ainsi une tendance à la fidélité à la marque. Les emballages préférés dépendent du produit. En dernier lieu, les données et les implications de marché sont aussi passées en revue

peaches as well as the processed peach products play a significant role in the economy of Northern Greece, defining farmers' income and industries' profit.

The purpose of this empirical study is to investigate the purchasing and consumption behaviour of the households of Greater Thessaloniki, Greece, the second city in population after the capital Athens. Specifically this purpose falls into the following objectives:

1. If households purchase processed peach products;
2. Reasons considered important for purchase;
3. Consumption;
4. Brand loyalty;
5. Package size and material preferred; and

6. Perception of prices.

Relative empirical studies on purchasing behaviour and consumption of processed peach products do not exist. Brug et al. (1995) investigated the psychological factors of fruit and vegetable consumption using focus groups. They found that basic reasons of consumption are: taste, health, easily digested, perceived as healthy eating, easy to prepare and cook and last that consumers are affected by the social environment. Studying a sample of 51 working women in Edinburgh, Jack et al. (1997) measured their perception for processed food snacks and fresh fruit. They found that there were significant differences between these two kinds of food. Fresh and processed fruits are perceived as healthy and refreshing. Snacks are perceived as convenient and proper for food satisfaction in time of "weakness", and when comparing fruits, bananas and apples were perceived more convenient compared to oranges and kiwis. A Packer Survey (1987) investigated which fruit was preferred as a snack in households of Chicago, U.S.A. Fourteen fruits were preferred, whereas banana was the most preferred (71%) follo-

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wed by apples (69%). Peaches were fifth in preference, with 24% of the households preferring them.

2. Research Methodology

Qualitative research – Questionnaire development

Qualitative research was undertaken to first investigate consumers' purchasing and consumption behaviour towards processed peach products and later to develop the quantitative research questionnaire (Milburn, 1995; Gregory, 1995). For this reason eight focus groups were conducted using a simple questionnaire and all discussions were tape-recorded. Totally, forty-four consumers participated in the discussions, selected by judgmental sampling, in order to vary their demographic characteristics. Consumers represented their own household, since they were the main food purchasers of the household. Participants were gathered at one of the consumers' house so they could feel comfortable.

Main findings of qualitative research were the following: most consumers do purchase processed peach products for their household. The product that was mostly purchased is canned peach in syrup; secondly peach juice, while peach jam is the least purchased. Reasons for purchase were considered: satisfaction from taste and qualities, and that they were perceived as healthy products. Other reasons for purchase were preference compared to other processed fruits and low prices. Package size varies depending on product, while package material preferred was mainly paper "tetrapack" type for juices, and glass for canned peaches in syrup as well as for peach jam. Participants stated that they usually purchase the same brand name of these products, meaning that there is a tendency of brand loyalty, especially when purchasing peach juice. Lastly, prices of these three products were perceived as fair.

The above findings were utilised for the development of the quantitative research questionnaire. The questionnaire employed dichotomous, open, and answers on a 5-point Semantic Differential Scale. The 5-point Semantic Differential Scale was utilised to investigate how important were the statements that consumers in qualitative research referred to when purchasing processed peach products. The 5-point Semantic Differential Scale was coded as following: Point 5 was for the highest degree of importance (very important), point 4 was for important and point 3 was for the neutral answers (neither important/nor unimportant).

Also, point 2 and point 1 was for the statements considered as unimportant or very unimportant respectively. The questionnaire was divided into the four parts including Questions for canned peaches in syrup; peach juice; peach jam and questions regarding consumers' socio-economic characteristics.

Quantitative research

Location of the quantitative research was Greater Thessaloniki covering all 14 municipalities. Quantitative research was carried out on a sample that comes from the corresponding population with the objective - and to the degree that is possible - to make generalisations that concern the total population of Greater Thessaloniki. For this research the only sampling frame available was a map of Greater Thessaloniki with the building blocks and the streets that cover them, as well as the population of each municipality (N.S.S.G, Census: 1991). The Multistage Sampling Method was chosen, which was considered as the most appropriate (Mertens, 1997, p.261). Data were collected by personal interviews, since it is considered as the most reliable way of data collection (Peterson and Wilson, 1992). Utilising this method, a sample of 737 households was drawn for the area of Greater Thessaloniki. Generalisations of percentages from the sample to the corresponding population can be done with standard error 5% and level of confidence 99% (Stathakopoulos, 1997, pp.224-227). Statistical analysis of the research data includes sample frequencies and percentages.

The sample

Two-hundred and forty-three households (33%) were residents of the western part of Greater Thessaloniki, covering 9 municipalities; 391 (53%) were residents of central part of Greater Thessaloniki, covering one municipality, where about the half of the population lives. Lastly, 103 households (14%) were residents of the eastern part of Greater Thessaloniki, covering the remaining two municipalities. Regarding the synthesis of the households, 10% was a one-member household, 39% was a two or three member household, 38% was a four-member household, and 13% was a five or more member household. As for income, 40% of the households had total net monthly income up to 300,000 drachmas, 29% from 300,001-450,000 drachmas, 20% from 450,001-600,000 drachmas, and 11% had income higher than 600,001 drachmas.

3. Results

From the 737 households participating in the field research, 47.5% purchases canned peaches in syrup, 67.4% peach juice and 42.6% peach jam (Table 1). Reasons for purchasing processed peach products is quite similar for the three products. For the three products, taste is the main motivator of purchasing behaviour. In addition for canned peaches in syrup and peach juice, the two other main reasons of purchase arose: they are perceived as healthy, and satisfaction from the existing in the marketplace qualities. For peach jam, except for taste, the other two main reasons for purchase are satisfaction from qualities and the product's low price. Marketing techniques and the home-made processed peach products by households

Table 1. Household purchase of processed peach products

Purchase of processed peach products	Yes		No		Total
	Frequency	%	Frequency	%	
Canned peaches in syrup	350	47.5	387	52.5	100.0
Peach juice	497	67.4	240	32.6	100.0
Peach jam	314	42.6	423	57.4	100.0

Table 2. Reasons considered important by households for purchasing processed peach products (%)

Reasons for purchasing processed peach products	Very Important	Important	Indifferent	Unimportant	Completely unimportant	Total %
Good taste						
Canned peaches in syrup	63.7	35.4	0.3	0.3	0.3	100.0
Peach juice	62.6	36.6	0.6	0.0	0.2	
Peach jam	61.1	36.9	2.0	0.0	0.0	
Satisfaction from the qualities						
Canned peaches in syrup	21.1	55.1	12.3	10.0	1.4	100.0
Peach juice	27.2	56.5	8.9	6.4	1.0	
Peach jam	25.5	4.5	10.8	8.3	1.0	
Low prices						
Canned peaches in syrup	19.4	53.4	14.1	12.0	1.1	100.0
Peach juice	14.7	4.5	16.9	20.5	3.4	
Peach jam	16.6	49.7	19.1	12.1	2.5	
Perceived as a healthy product						
Canned peaches in syrup	25.4	47.5	15.1	11.7	2.0	100.0
Peach juice	25.8	46.3	16.7	10.1	1.2	
Peach jam	22.3	43.3	22.6	10.2	1.6	
Preferred compared to other processed fruits						
Canned peaches in syrup	44.0	41.1	9.4	4.6	0.9	100.0
Peach juice	21.5	41.4	19.1	15.1	2.8	
Peach jam	21.3	40.8	20.4	15.6	1.9	

Sample: Canned peaches in syrup: 350; Peach juice: 497; Peach jam: 314

Table 3. Household monthly consumption quantities of processed peach products (%)

Monthly consumption of processed peach products	Canned peaches in syrup	Peach juice	Peach jam
Less than one kilo/litre	38.9	12.9	67.5
One kilo/litre	31.1	23.9	26.1
Two kilos/litres	16.9	27.4	3.8
More than two kilos/litres	13.1	35.8	2.5
Total	100.0	100.0	100.0

Sample: Canned peaches in syrup: 350; Peach juice: 497; Peach jam: 314

Table 4. Members of the household that mostly prefer processed peach products (%)

Members of the household that mostly prefer processed peach products	Canned peaches in syrup	Peach juice	Peach jam
Children < 18 yr. old	31.1	41.6	50.3
Adults 18-65 yr. old	62.3	54.5	47.1
Adults > 65 yr. old	6.6	3.9	2.5
Total	100.0	100.0	100.0

Sample: Canned peaches in syrup: 350; Peach juice: 497; Peach jam: 314

and the supply by friends and relatives come in as second reasons (Table 2).

Overall, for all three products, taste is the most significant reason for purchasing and consumption, and seems to cover almost all consumers, since over 98% of the households reported that this reason is very important in motivating them to purchase processed peach products. Satisfaction from the distributed qualities is important for purchasing canned peaches in syrup and peach juice as 76.2% and 83.7% reported respectively. On the other hand, only 30% of the households reported that quality satisfaction for peach jam is a motive for purchase. For consumers to be satisfied with the products' quality (as they reported), a combination of two factors must exist: good quality and standard quality. To achieve this, the processing industries must perform strict quality control, grading and standardisation of these products.

Consumption quantities could be considered quite low, since monthly consumption per household is up to one kilo or litre (Table 3). Specifically,

most households (70%) consume up to one kilo for canned peaches in syrup and peach jam (93.6%), and two litres for peach juice. Also, about a third of the households (35.8%), consume more than two litres of peach juice per month. Mainly adult members of households (18-65 yr. old) consume both canned peaches in syrup and peach juice, while adolescents consume peach jam (Table 4).

These findings suggest that households may be approached by appropriate marketing techniques to increase consumption of the product. During shopping, promotional techniques could be applied. In this direction, informational material at the point of purchase and leaflets with recipes are some of the marketing promotional techniques that could increase purchasers' attention. Special tabloids could also be useful and are considered as an inexpensive form of advertisement. Advertisement should point out that these products are convenient and healthy snacks not only for adults, but adolescents as well, and should be preferred in time of "weakness" compared to other "junk food".

Package material preferred is mainly glass and paper "tetrapack" type (Table 5), while package size preferred is that of one kilo/litre for canned peaches in syrup (91.9%) and peach juice (49.7%), and of half kilo (67.8%) for peach jam (Table 6).

Households tend to usually purchase the same brand name of processed peach products. Brand loyalty seems to exist for peach juice and se-

condly for peach jam, while it does not seem to exist for can peaches in syrup (Table 7). Thus, producers (processing industries) of these products must organise an effective marketing plan with the objective of developing strong brand loyalty. Also, more than 65% of households considers the peach product prices as fair. Additionally, about one third of the households consider peach juice prices as high; 16.9% considers peach jam prices as high (Table 8). Price promotion is considered an important marketing technique. In stores, price promotional techniques may help significantly, not only for increasing consumption but

Table 5. Package material preferred for processed peach products (%)

Package material preferred for processed peach products	Canned peaches in syrup	Peach juice	Peach marmalad
Glass	76.6	19.3	83.6
Paper "tetrapack" type	-	80.7	-
Plastic	-	0.0	16.4
Tin can	23.4	0.0	0.0
Total	100.0	100.0	100.0

Sample: Canned peaches in syrup: 350; Peach juice: 497; Peach marmalad: 314

Table 6. Package size preferred for processed peach products (%)

Package size preferred of processed peach products	Canned peaches in syrup	Peach juice	Peach marmalade
Individual portions	-	11.5	5.1
Half kilo	-	-	67.8
One kilo/litre	90.9	49.7	14.0
Two kilos	9.9	-	-
Individual and half kilo	-	-	8.6
Individual and one kilo/litre	-	38.8	4.5
Total	100.0	100.0	100.0

Sample: Canned peaches in syrup: 350; Peach juice: 497; Peach marmalade: 314

Table 7. Brand loyalty towards processed peach products (%)

How often households purchase the same brand name of processed peach products	Always	Usually	Sometimes	Rarely	Never	Total
Canned peaches in syrup	8.3	28.0	28.0	28.0	7.7	100.0
Peach juice	19.7	43.7	25.2	9.3	2.2	100.0
Peach marmalade	9.9	39.2	30.3	16.6	4.1	100.0

Sample: Canned peaches in syrup: 350; Peach juice: 497; Peach marmalade: 314

Table 8. Price perceptions of processed peach products (%)

Household price perception of processed peach products	Very High	High	Neither high/ nor low	Low	Very Low	Total
Canned peaches in syrup	1.7	12.9	80.3	4.3	0.9	100.0
Peach juice	2.6	26.2	68.8	2.2	0.2	100.0
Peach marmalade	1.9	16.9	77.7	2.9	0.6	100.0

Sample: Canned peaches in syrup: 350; Peach juice: 497; Peach marmalade: 314

also for developing brand loyalty. Walker (1996) stated that brand loyalty in the United Kingdom increased by 5.2% in 1995, because of the large distribution of price coupons.

The current study is starting to provide Greek processing industries of the product with information of household purchase and consumption behaviour of the three most important processed peach products, i.e. canned peaches in syrup, juice and jam in markets such as Thessaloniki. Greek producers (processing industries) must understand that they too should invest on appropriate marketing techniques and should not rely on retailers. The findings from this research can be used as a base for developing an effective marketing program, especially for the processing industries, with the main objective of increasing purchasing, consumption, as well as developing the brand loyalty of processed peach products.

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