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## Changes in Marketing Strategies during Recession

Ourania Notta<sup>\*a</sup> and Aspasia Vlachvei<sup>b</sup>

<sup>a</sup>*Alexander Technological Educational Institute of Thessaloniki, Dept. of Agricultural Technology, (Agricultural Economics Program),  
p.o.box 141, 57400, Thessaloniki, Greece*

<sup>b</sup>*Technological Educational Institute of West Macedonia, Dept. of International Trade, 52100, Kastoria, Greece*

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### Abstract

The purpose of this article is to investigate the changes in marketing strategies of Greek food manufacturing companies due to the economic crisis started in 2010. In order to achieve the above research aim, face-to face semi-structured interviews with managers of 161 established Greek firms involved in food industry were conducted. The analysis of firms with changed marketing strategies due to economic crisis with the use of the principal components method explains the presence of seven leading profiles in the sample survey. They are: i) promotional oriented; ii) new product oriented; iii) seller oriented, iv) advertising oriented, v) cost-price oriented; vi) discounts oriented and vii) B2B market oriented. Based on the seven factor scores, a cluster analysis has been conducted and three homogeneous groups are identified.

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### 1. Introduction

When a financial crisis occurs, consumers change their buying behaviour. As the consumers change their buying behaviour, the companies have to alter the way conduct business and change their strategies in order to meet the customers' new preferences. During economic crisis firms make very important adaptations in their marketing mix and marketing policy. Empirical research examine either adaptations occurred in each part of marketing mix separately, or on product policy changes, and suggest to withdraw weak and non-profitable products and to spend proportionately more on R&D (Ang, 2001; Shama, 1993; Shama, 1981; Morbey and Dugal, 1992). Also, Koksals and Ozgul, (2007) confirm that introduction of new products have significant impact on firm performance.

Referring to price decision, according to the literature (Ang, et al., 2000; Koksals and Ozgul, 2007) firms usually either maintain the same prices for higher quality products, assuming that consumers will remain loyal due to values added or offer the same quality product at lower prices. In the first case, firms expect smaller market share and profitability during period of crisis but, in the long run, when the crisis is over this effect will reverse. In the second case, by offering the same quality product at lower prices, firms gain market share. However, there is a big risk, since once price is reduced, it is difficult to reverse it when economy recovers. So, instead of lowering prices, firms offer promotional discounts, which allows firms to keep their market share during crisis, although leads to smaller profitability. Of course, there is the option of offering lower quality product at lower prices especially in the mass

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<sup>\*</sup>Prof. Ourania Notta Tel. 00302310013319  
E-mail address: [ournotta@farm.teithe.gr](mailto:ournotta@farm.teithe.gr)

market but there is the risk of consumers continue to perceive the product as being of inferior quality after the recession.

Kim (1992), Werner (1991) and Quelch, (2008) examine the impact of changes in promotional strategies due to economic crisis. Their results prove that by increasing or maintaining the level of advertising, sales income and market share increased during and after the recession. Contrary, by decreasing their advertising budgets during a recession, their performance was worst. Also, firms can benefit from the increasing number of the Internet users and of different and innovative ways of low cost online advertising (Quelch and Jocz, 2009). Additionally selected promotion techniques (coupons, bonuses, free samples etc), from which the consumer gains value immediately and personal selling can affect company performance positively during recession. Ang et al. (2000) and Koksal and Ozgul (2007) suggest that if a firm decides to change its distribution policy, the elimination of unprofitable channels and intermediaries and the reallocation of scarce resources is the best strategy during crisis.

The Greek economy remains in a deep recession for the sixth consecutive year, due to the implementation of austerity measures after the agreement between the Greek government and the International Monetary Fund, the European Central Bank, and the European Commission, for a three-year, €110 billion adjustment loan. The implementation of this strict austerity programme caused a substantial decrease in demand for good and services pushing the Greek firms to a deep recession. For this reason, it is very crucial to understand and investigate how Greek food firms are adapting and which marketing changes occur due to this deep recession. There is a limited number of works that investigate which determinants explain profitability differences for the period during crisis (Notta and Vlachvei, 2014; Lemonakis et al, 2014; Agiomirgianakis et al, 2013) for food firms and tourism sector. Notta and Vlachvei (2014, 2015a) proved in a sample of 128 dairy firms, that there is actual a structural break between the two periods before and after crisis in the estimation of profitability model. According to the results of Lemonakis et al (2014), the majority of Greek exporting firms were widely influenced by the economic crisis and the lack of sufficient liquidity and financing, while Agiomirgianakis et al. (2013) prove that the age of a firm (credibility effect), firm's size and low cost access to bank financing, are, indeed, factors that may influence positively and substantially the profitability of a firm operating in the tourism sector. However none of these studies investigate the changes and the adaptations made by firms in marketing strategies due to the changed economic environment and changed consumers' buying behavior. The empirical model of this paper develops further the paper of Notta and Vlachvei (2015b), taking into account a larger number of sample firms and utilizing a principal component factor analysis and conducting a k-means cluster analysis. The scores of the centroids of the factors drawn out permit the characterization of homogeneous firm groups.

The purpose of this article is to investigate the changes in marketing strategies of Greek food manufacturing companies due to the economic crisis started in 2010. In order to achieve the above research aim, face-to face semi-structured interviews with managers of 161 established Greek firms involved in food industry were conducted. The article is structured as follows: After the introductory section is a section that describes the sample and methodology used in empirical research and presents the main findings. Finally, section three summarizes the results along with their implications.

## 2. Empirical Research and Results

The empirical research in this paper tries to generate more knowledge about how the Greek food manufacturing firms change their marketing strategies in order to cope with the changing buying behavior, which is an effect of the economic crisis started in 2010. We obtained our empirical data on changes in marketing strategies by Greek food firms from a structured questionnaire survey conducted in January- September 2014. A total number of 3540 food manufacturing firms were identified from Hellstat database. A systematic random sample of 1018 firms was drawn. The pre-tested survey questionnaire with an introductory cover letter was mailed to the respondents, to inform them about the importance of their contribution, and they were assured of confidentiality of the results. Face-to face semi-structured interviews were conducted with managers of 161 established Greek firms involved in food industry, at their place of business, yielding a satisfactory effective response rate of 16.0 percent (161/1018). Companies ranged from small businesses to large global players. The majority had less than 10 employees (38.7%), followed by companies with 11-50 employees (34.5%) and those with over 50 employees (26.8%).

The first part of the questionnaire contained questions to collect descriptive data relating to the companies. In the second part, we utilized 22 marketing strategies – two 'product', five 'cost-price', two 'place' (distribution), eight 'promotion', and five 'general' – to capture the impact of economic crisis on firms' marketing mix. Respondents

were asked to what extent and in which direction their company had changed those strategies since the begging of crisis period in 2010.

We chose food manufacturing firms because the Greek food and beverage industry consistently constitutes one of the most important areas of the secondary sector of the domestic economy and one of the driving forces of Greek manufacturing. The sector employs 27,8% (2011) of the total employees in secondary sector. Food and Drinks ranked first in the share of total manufacturing value added in 2009, contributing 31% to the total Manufacturing (22.6% food and beverages 8.5%). In terms of turnover, the food and beverage sector in 2009 covering 26.2% of the total turnover of the manufacturing sector (21% Food and 5.2% in the Drinks), making a total value of sales 9.74 billion €, a fact that ranked the industry in the second place. In 2009, when started the recessionary course in the domestic economy, the industry received strong blow in terms of employment, value added, sales, gross value production and investments, recording a substantial drop in these sizes. Table 1 presents the number of firms for the twelve different industries that have been chosen.

Managers were asked to select how much their firms changed the marketing strategies due to the economic crisis after 2010. The final measure included 22 items all assessed on a five-point Likert scale with the anchors 1 =very much decreased, 5 = very much increased. They were asked about: (a) changes in product strategy, (b) changes in pricing strategies, (c) changes in promotion strategy, (d) changes in distribution networks and (e) changes in other marketing strategies.

Table 1. Number of firms for each industry

Industry	Number of firms	Industry	Number of firms
Dairy products	26	Other food products	28
Processing of fruit and vegetables	21	Wines	19
Meat and sausages	20	Water & soft drinks	7
Bread, pies & cakes	10	Brewery & alcoholic industry	12
Oil & fats	9	Grain mill products	4
Biscuits & chocolates	5	Fish & fish products	3

Firstly we have utilized a principal component factor analysis. Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. Factor analysis searches for such joint variations in response to unobserved latent variables. Principal component analysis seeks a linear combination of variables such that the maximum variance is extracted from the variables. It then removes this variance and seeks a second linear combination which explains the maximum proportion of the remaining variance, and so on (Child Dennis, 2006). The second stage of the analysis concerns cluster analysis.

Through the analysis of the principal component method seven factors have been identified explaining together 68.2% of the variance in the items. See Table 2 for exact item wordings and factor analysis results. The analysis of these coefficients explains the presence of seven leading profiles in the sample survey. They are: i) promotional oriented; ii) new product oriented; iii) seller oriented, iv) advertising oriented, v) cost-price oriented; vi) discounts oriented and vii) B2B markets oriented.

The first factor explains 25.46% of the explained variance and is characterized as promotional oriented since there is significant correlation in parameters concerning promotions to consumers and intermediates, new promotional methods and product differentiation. The second factor explains 10.84% of the explained variance and is characterized by significant correlation in parameters concerning emphasis on high quality products and customized products, targeting in different market segment and developing of new products. It is characterized as new product oriented since firms of this factor have decided to redesign their products into new, high quality, customized products, targeting to very demanding niche markets.

The third factor explains 10.12% of the explained variance and is characterized by significant correlation coefficients in number of salespersons and salesmen education features, which show a seller oriented factor. The fourth factor explains 6.05% of the explained variance and is characterized as advertising oriented since there is significant correlation in parameters concerning advertising in all media (TV, radio, newspapers and magazines) and public relations. The fifth factor explains 5.77% of the explained variance and is characterized as cost-price oriented since there is significant correlation in parameters concerning production and input cost and product price.

The sixth factor explains 5.13% of the explained variance and is characterized as discounts oriented since there is significant correlation in parameters concerning new pricing methods and discounts. The seventh factor is

characterized by significant correlation in parameters concerning emphasis on B2B and explains 4.83% of the explained variance. The factor can be characterized as B2B market oriented.

Based on the seven factor scores associated to each firm a k-means cluster analysis has been conducted. A three group solution has been chosen after the comparison of Euclidean distances among different groups of alternatives. The scores of the centroids of the seven factors drawn out (Table 3) permit the characterization of homogeneous firm groups as described below.

Table 2 Principal Component changes in marketing strategies due to Economic Crisis <sup>a</sup>

	Components						
	1	2	3	4	5	6	7
Development of new products (design, packaging etc)	0,311	0,424	0,347	0,121	-0,175	0,143	-0,414
R&D Investments	0,480	0,167	0,437	0,175	0,078	0,070	-0,335
Development of new promotional methods ( $\pi,\chi$ new means or promotional techniques)	0,642	0,271	0,165	0,327	0,056	0,033	0,016
TV and Radio advertising	0,168	-0,037	0,149	0,858	0,095	0,081	0,000
Newspaper and magazine advertising	0,184	0,021	0,125	0,843	0,093	-0,019	-0,096
Public Relations	0,473	0,264	0,230	0,581	0,047	0,043	0,057
Promotions to consumers	0,805	-0,016	0,120	0,216	0,033	0,034	0,064
Promotions to intermediates	0,867	-0,015	0,129	0,025	-0,009	-0,063	0,115
Product differentiation	0,620	0,326	0,133	0,102	-0,167	0,179	-0,154
Building and maintain Brand equity (sponsorship, corporate social responsibility loyalty cards etc)	0,269	0,326	0,403	0,197	-0,104	0,002	-0,084
Number of salespersons	0,087	-0,070	0,851	0,169	0,054	0,068	0,134
Salesperson education	0,292	0,057	0,776	0,148	0,059	-0,156	0,004
Production cost	0,032	0,098	-0,028	0,069	0,886	0,063	0,137
Input cost	-0,017	0,059	-0,026	0,133	0,918	0,004	-0,026
Product price	-0,050	0,043	0,220	0,001	0,611	0,033	-0,438
New pricing methods (discrete, dynamic, etc)	-0,033	0,244	-0,006	0,067	0,045	0,816	-0,014
Discounts	0,097	0,042	-0,022	0,015	0,037	0,895	0,043
Targeting in different market segment (e.g niche markets, high income etc)	0,115	0,746	0,083	-0,050	0,119	0,227	0,166
Emphasis on Customized products	0,187	0,771	0,045	-0,001	0,058	0,159	-0,028
Emphasis on high quality products (e.g organic, PDO, PGI etc.)	-0,072	0,699	-0,189	0,204	0,132	-0,153	0,024
Emphasis on new international markets	0,117	0,475	0,308	-0,097	-0,037	0,227	0,154
Emphasis on B2B markets	0,091	0,228	0,169	-0,021	-0,027	0,074	0,720

a. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

In Cluster 1 we meet thirty nine (39) firms which during economic crisis put emphasis on B2B markets, while there is a significant variation and development on their pricing methods and a significant effort to provide discounts to both consumers and intermediates.

Cluster 2, includes forty (40) firms (25% of the sample). They are characterized by their efforts to give emphasis on high quality and customized products and targeting on very specific and demanding global markets. They are specific target market oriented and they try to provide a more complex and satisfying consumer experience through developing new customized differentiated products and targeting to niche markets of high income, and differentiated preferences (organic, PDO, PGI etc). Additionally, in order to deliver this differentiation advantage they try to develop new promotional methods focusing on promotional efforts to both consumers and intermediates.

Cluster 3 with 82 firms, is the largest cluster and includes firms that due to the economic downturn their main focus is product price. Price is a key component of the value delivered to customers and the ability to manage pricing effectively during recession is therefore their main marketing effort. Firms in this group give great emphasis on reducing or at least eliminating production and input cost, in order to maintain their customers and to meet consumers demand.

### 3. Concluding Remarks

The empirical research in this paper tries to investigate the changes in marketing strategies of 161 Greek manufacturing companies during the economic crisis started in 2010. We obtained our empirical data on changes in marketing strategies by food firms from a questionnaire survey conducted in January- September 2014. Then managers were asked to select how much marketing strategies changed in their business due to the economic crisis

(after 2010). They were asked about: (a) changes in product strategy, (b) changes in pricing strategies, (c) changes in promotion strategy, (d) changes in distribution networks and (e) changes in other marketing strategies.

The analysis of firms with changed marketing strategies due to economic crisis with the use of the principal components method explains the presence of seven leading profiles in the sample survey. They are: i) promotional oriented; ii) new product oriented; iii) seller oriented, iv) advertising oriented, v) cost-price oriented; vi) discounts oriented and vii) B2B market oriented.

Table 3. Cluster centers

Factor	Cluster		
	1	2	3
Promotional oriented	-0,12749	0,69517	-0,27847
New product oriented	-0,02055	0,78582	-0,37355
Seller oriented	0,32179	-0,13698	-0,08623
Advertising oriented	0,33325	-0,13601	-0,09215
Cost-price oriented	-0,56556	-0,41692	0,47237
Discount oriented	0,68215	-0,67932	0,00694
B2B oriented	0,90883	-0,26346	-0,30373
<i>Number of firms</i>	<i>39</i>	<i>40</i>	<i>82</i>

Based on the seven factor scores, a cluster analysis has been conducted and three homogeneous groups are identified. The first group includes firms which during economic crisis give great emphasis on B2B markets, while they try to develop variation in their pricing methods (like dynamic and discrete pricing) and a significant effort to provide discounts to both consumers and intermediates.

The second group includes firms that are characterized by their efforts to deliver a differentiation advantage by developing high quality and customized products and targeting on very specific and demanding global markets. Additionally they try to develop new promotional methods focusing on promotional efforts to both consumers and intermediates. It seems that Greek food manufacturing firms of this group focus on global market, in order to overcome the consequences of crisis inside Greece and try to develop customized high quality products targeted for these markets. Data for Greek exports also confirm that exports of food products increased substantially during crisis.

Finally, the third group, which is the largest one (50% of the sample) includes firms that due to the economic downturn they try to succeed a cost leadership advantage by focusing on the way they handle changes in production and input cost and by reducing or at least maintaining in the same level their product price, in order to meet consumers demand.

This study provides valuable insights and provides preliminary implications about how to facilitate the marketing strategies and practices during periods of debt crises. The weaknesses of the study refer mainly to the small number of sample firms. Future research is required to expand this research into a larger sample of food manufacturing firms. Second is that our handling of marketing changes are based on perceptions. There is a question whether these changes in strategies are in fact the ones realized, and whether perceptions accurately reflect reality. Third, the arguments of this study could be developed and extended also through further research of Greek firms in different economic sectors. It would be fruitful to see studies in other manufacturing sectors, and maybe cross-country comparisons to test the validity of our results.

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