

# Does Economic Crisis Force to Consumption Changes Regarding Fruits and Vegetables?

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## ABSTRACT

This study focuses on consumers' behaviour towards Fruits and Vegetables (FVs) under economic crisis. The implementation of both factor analysis and logistic regression reveals discrete consumer groups, affected and not affected by the ongoing economic crisis. Interviewees were selected randomly. In total, 250 questionnaires were completed and 238 of them were used for computations. There are two consumer groups, one affected by the crisis and one which did not. For the former, the price criterion prevails, while for the latter parameters like locality of production and health concerns lead them to purchasing decisions. The economic crisis has reduced the quantities of FVs being consumed, and the retail chain stores fail to meet the criteria of locality and secure traceability procedures about the origin of the products. Nevertheless, educated consumers with higher incomes prefer to visit super markets, while elderly people with low incomes prefer grocery stores and open markets.

## KEYWORDS

Consumer Behaviour, Consumer Groups, Economic Crisis, Fruits and Vegetables

## INTRODUCTION

It is widely accepted and scientifically proved that Fruit and Vegetables (FVs) consumption is positively correlated with aversion of serious health issues, like heart diseases, stroke and cancers, with other studies verifying that higher rates of cardiovascular disease are partially explained, in low socioeconomic groups, because of low intakes of FVs (Griep et al., 2012; Dauchet et al., 2005; Dauchet et al., 2006; He et al., 2006; He et al., 2007). These findings upgrade the FVs consumption from a dietary issue to a public health one, signifying the importance of assessing the parameters shaping the consumers' profile. The ongoing economic crisis worsens the purchasing power of continuously greater social groups, because of wage reductions and high rates of unemployment (Frangos et al., 2012). Greece perhaps is the EU country having experienced up till now the most negative outcomes of this deficit crisis, with six continuous years of recession and extremely high rates of unemployment (KEPE, 2012). Therefore it is important to assess the impact of this economic crisis on FVs consuming norms.

DOI: 10.4018/IJAEIS.2017010104

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## LITERATURE REVIEW

The FVs consumption issue is a research topic being approached by both psychological and economic means. The most consistent predictors for consumption are self-efficacy, social support, and knowledge, while there was no strong evidence for barriers, intentions, attitudes/beliefs, stages of change, and autonomous motivation (Arulselvan et al., 2008; Brug et al., 1995). There are though differences on consumer profiles among consumer groups. Regarding young adults, findings suggest that fruit consumption increase target should focus on developing messages concerning situational beliefs, rather than emphasising on health outcomes (DeBruijn, 2010). In Italy, referring to the same consumer group, in order to increase fruit consumption it is necessary to improve availability and develop abilities to overcome barriers. Especially for those who do not consume large quantities, it is proven that this happens due to attitude, supporting by this way the effectiveness of school campaigns (Menozzi & Mora, 2012). Various studies focus on the implementation of the TPB to examine possible differences among genders regarding FVs consumption. Emanuel et al. (2012) verified that TPB constructs to a large extent explain the gender difference, with females to report more favourable attitude and greater perceived behavioural control regarding FVs consumption than males, while males reported greater perceived norms. Locality of production and consumption is another important issue for FVs. Issues maintaining competitive advantage is less food miles and better quality for central England and southern France respectively (Brown et al., 2009). During economic crises special attention is given on consumer behaviour of low-income households. Five parameters revealed as their concerns regarding FVs consumption: store venue; internal store environment; product quality; product price; relationships with the stores (Webber et al., 2010). Considerable differences have been revealed among low and high socioeconomic status women on the FVs consumption subject, with the former to reveal as key influences the high cost of healthy eating and the lack of time due to work commitments. On the contrary, the latter reveal the health consciousness and the lack of time due to family commitments (Inglis et al., 2005). Perhaps the most sensitive members of the society, the children, are the most exposed, regarding dietary habits, during economic crises. A repeated taste exposure by low-income elementary school children increased liking scores for carrots, peas, and tomatoes; with the liking to remain stable for bell peppers, proving that this strategy is a promising one for the achievement of FVs consumption increase (Lakkakula et al., 2010). The use of promoting e-mails, in order to increase FVs consumption, proved to be effective for those primarily interested in increasing FVs consumption, with concerns though about the development of the TPB to explain any behavioural change in this particular context (Kothe et al., 2012). Similar attempts to increase FVs consumption of low-wage employees revealed that fresh fruit deliveries on scheduled basis increased the overall consumption (Backman et al., 2011).

## METHODOLOGICAL APPROACH: FINDINGS

The present study focuses on consumers' choices for buying FVs from retail chain stores and other selling places, like grocery stores and open markets, taking into consideration several socioeconomic factors affecting the final choice of each consumer. For this field research consumers were asked to fill a questionnaire in both urban and rural areas of Greece. Interviewees were selected randomly. In total, 250 questionnaires were completed and 238 of them were used for computations. The assessment of the impact of these parameters is achieved through regression analysis in which the depended variable will be the final choice of the consumer, (buying FVs from retail chain stores or other selling places), and the independent variables are the factors being derived from the completion of a questionnaire being described below. Since the phenomenon under study is a dichotomous outcome (buying from super market or grocery store) application of an Ordinary Least Squares model is not feasible as it violates the normality assumption of the dependent variable and the residuals. For this reason binomial logistic regression is preferred as it is applied with greater ease when the dependent

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