

HABITS OF PORTUGUESE CONSUMERS ON THE ACQUISITION AND CONSUMPTION OF CHILLED AND FROZEN FOOD PRODUCTS

João Carlos Gonçalves^{1,2*}, Carolina Amoedo³, Paula Correia¹, Raquel P. F. Guiné¹

¹CERNAS-IPV Research Centre, Polytechnic Institute of Viseu, Campus Politécnico - Repeses, 3504-510 Viseu, Portugal

²ADAI-LAETA, Dep. Mechanical Engineering, University of Coimbra, Pinhal de Marrocos, Pedro Hispano 12, 3030-788 Coimbra, Portugal

³IPFN, Department of Physics, Instituto Superior Técnico. University of Lisboa, Av. Rovisco Pais 1, 1049-001 Lisboa, Portugal

*e-mail: jgoncalves@esav.ipv.pt

Abstract

The consumption of cold-chain products, such as dairy, meat, fish, fresh juices and vegetables, ready to eat meals or desserts, is very meaningful in the context of the whole food supply chain since these products are pivotal in most western households. The consumption of cold-chain products in Portugal is still unexplored. Hence, this work aimed to carry out a questionnaire survey to characterize the Portuguese consumers' habits on the acquisition of fresh, refrigerated and frozen food products. Also, the buying frequency of different types of refrigerated food products was investigated, as well as the buying in different food retail stores: local convenience neighbourhood stores, small/medium supermarkets or large retail stores.

The instrument used in the present study to carry out the investigation proposed was a questionnaire survey. The questionnaire included questions to characterize refrigerated dairy food product consumer habits, and also some questions were included aiming at knowing the sociodemographic characteristics of the people involved. The data was collected between 20th of June and 6th of July 2020, using an internet platform. The questionnaire was disclosed to people by different internet tools, like e-mail and social networks. The participation was voluntary and confidentiality of the answers obtained was guaranteed. Ethical issues were respected in the design and application of the questionnaire. The sample size consisted of 136 individuals, all adult citizens, who voluntarily answer the questionnaire. The treatment of the data was made using an Excel database and spreadsheet functionalities.

The result showed that Portuguese consumers purchase refrigerated and frozen foods mostly in shopping centre supermarkets or small/medium supermarkets. The neighborhood stores or outdoor markets are rarely used to purchase this type of product. Regarding refrigerated products, Portuguese consumers buy them mostly every week in case of dairy products (59.4%), charcuteries (42.3%), fresh fish (52.9%) and meat (54.7%) and also fresh vegetables - IV gamma products (51.4%). The refrigerated pre-prepared meals are purchased very rarely (44.9%) or not at all. In Portugal, due to the influences of the Atlantic Ocean and the Mediterranean Sea, there is a tradition of eating fish daily. Concerning the frozen food products, the frequency of purchasing is lower as compared with refrigerated foods, being a monthly frequency for most types of products. It was also observed that Portuguese consumers demonstrate preferences for fresh products instead of refrigerated or frozen ones when it comes to their nutritional and textural quality (94.2%), but prefer the later when it comes to their conservation capacity and longer shelf-life (53.2%). Some recognize that canned foods offer some advantages, particularly related to the convenience of storage (35.0%), shelf-life (37.7%) or reduced storage costs (33.1%). Finally, these results indicate a great level of confidence of Portuguese consumers in the refrigerated (87.5%) and frozen (83.8%) foods stored in supermarket's display cabinets

This work allowed establishing some patterns regarding the Portuguese consumers' habits and preferences regarding refrigerated and frozen food products. They prefer to shop these products in shopping centre supermarkets, with a frequency that is mostly weekly for refrigerated foods and monthly for frozen foods. Finally, they trust the quality of refrigerated and frozen food products displayed in supermarket cabinets and tend to rely on the expiring date information provided in the package.

Key words: Consumption habits, Refrigerated food products, Questionnaire, Portuguese survey.