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MATERIALS SELECTION AND INNOVATION SYSTEMS IN PACKING DESIGN FOR HEALTHY FOOD

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ABSTRACT

Nutrition influences the health and well-being of all individuals; however, daily activities and lack of time and alternatives in the consumption of healthy, balanced and varied foods are factors that determine poor nutrition. The results are based on an analysis of documents published in accessible international resources related to materials selection, and innovation systems in packing design with the objective of developing a new product that contributes to the storage and transportation of healthy meals, to stimulate the interest of a healthy lifestyle and promote the physical and psychological well-being of individuals. It promises environmental benefits resulting from the design and development of a product that includes new technologies and the choice of reusable materials. Social advantages include improving and contribute to a correct diffusion in relation to a healthy diet, proposing an innovative system where a selection of materials for a correct conservation of foods will be the main focus. For some applications, the necessary technologies are known, but have not been combined in this way before. The paper concludes by outlining what Packing Design can offer to reorient food systems to successfully promote healthy eating.

Keywords: product development, materials selection, innovation systems, packing design.

INTRODUCTION

The development of new consumer products requires knowledge of target consumers, production technology and the business environment (Schifferstein, Hendrik N. J. 2016). It is a useful means of contacting food and consumers, whose purpose is to ensure food quality in terms of hygiene, conservation, nutritional characteristics and quality of use. In this sense, food protection and storage, a selection of the best materials and the design are determining factors for the success of the packaging.

Design integrates a very relevant field for the interaction of man with the product, allowing the object to be more valuable instead of being thrown out in a short time (Norman, 2004). Packaging has an increasingly essential role to play in preserving the value invested in products (Russell 2014) by ensuring that they can deliver their designed service with minimum wastage. A storage temperature that ensures that food is kept warm or cold in order to prolong the shelf life of the food and ensure its taste is essential to the success of the product.

RESULTS AND CONCLUSIONS

After an analysis of the usability tests performed during the product development process, the results showed that, for the type of product with these characteristics, it is necessary for

containers and maintenance of hot foods. This system is already used in baby dishes to keep food warm. The proposed piece to drain water and fats can also be attached to increase the depth of the place where food is introduced.

The backpack will need darker colors, to be enjoyable when used all year around, and will have two divisions for the beverage containers in which each division must stay on the sides of the backpack in order to balance the weight (Figure 1).

At last, it is worth mentioning that pleasing the wishes and needs of consumers, the manifestation of positive emotions will be even greater, and less experienced negative emotions shall result in more appealing experiences in product interaction, that arouse enjoyment and satisfaction during use.

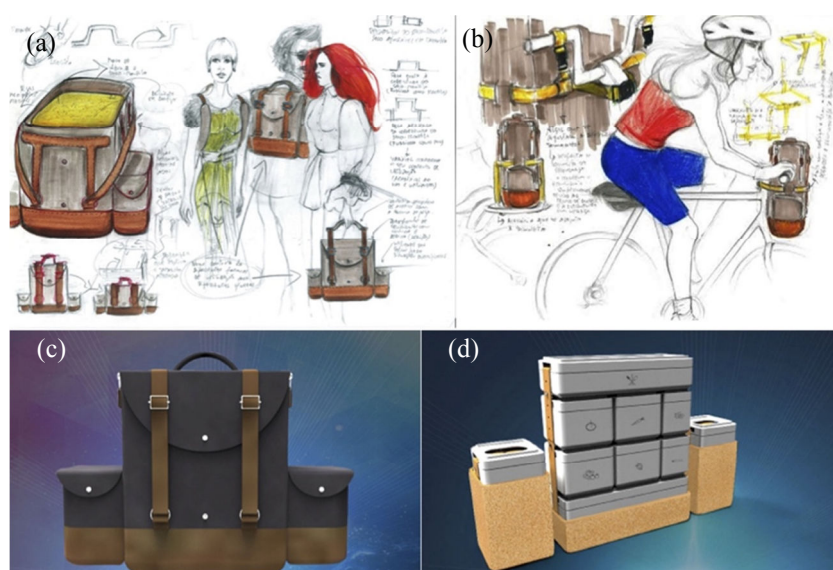


Fig. 1 - (a) Drawing of the possibilities of the user carry the backpack; (b) Design of possibilities of the product being transported on bicycles; (c) Front view of the backpack result; (d) Result of the containers.

The final solution of a multisensory packaging works in function of healthy eating should aggregate tangible values (pleasantness in shape, color, materials and textures of an object) and intangible values, that are featured by emotions and experiences provided between the interaction of the packaging with the user, which will result in well-being and meaning for the individual.

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