

Food Packages for Senior Consumers – Preferences on Information and Labelling

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1.1 Abstract

Senior consumers are a heterogenic group covering a wide range of ages, physical capabilities, lifestyles and purchasing power. Only little research is published about the ageing consumers' expectations and experiences regarding food packaging. However, defining key packaging factors might provide a valuable tool to improve consumption of suitable food for older people. Therefore, the present study aims to explore possible relationships between packaging preferences and type of product information among senior consumers.

In this paper results of a quantitative consumer study are presented. The study was done in the Netherlands using the SenTo (Seniors of the Future) internet panel (age = 55+, n=400). All participants had at least some influence on the grocery shopping in their household. The questionnaire included questions on which information the consumers would be interested in reading on a food packaging and how appealing they experienced certain labels and hallmarks.

Seniors did not find all packaging labels included in this study equally appealing. They expressed a special interest in reading product quality related information. In contrast, only limited interest was expressed in the information that a product is designed especially for seniors. Age related issues, such as difficulties with opening packages, seems not recommendable for communicating product information to seniors. Instead, it seems advisable to ensure that packaging design communicates a positive image of older age and personal benefits.

Keywords: older people, hallmarks, involvement, food products, packaging, package communication

1.2 Introduction

Senior consumers are very heterogeneous group covering a range of ages, physical capabilities, lifestyles and socio-economic situation. In older age, physiological (e.g. declines in vision and hearing, and strength in hands), social (e.g. loss of social network) and psychological (e.g. cognitive impairment) changes co-occur. [14, 2, 15]. With regard to nutrition, loss of appetite and decreased food intake is a

frequently observed phenomenon [10, 21]. Packaging factors, e.g. attractiveness of design, might help to improve food consumption and nutrition of older people. Traditionally, packaging technologists have focused on primary package functions such as containment, protection and storage [4]. Nowadays the focus on these functions is shifting towards the consumer and what they desire and expect of product packaging. So far, only little research is published about the ageing consumers' expectations and experiences with regard to packaging [4].

Packaging is known to be an important marketing factor to attract buyers and to facilitate purchase [16, 22]. During the buying process, consumers pay most attention to visual aspects of the product package [5]. In addition, package design has an important role in helping the buyer to recognize and classify product and brands [19, 20]. The ease of comprehension, such as choice of words and language used, affect how the reader interprets the written message. In low-involvement situations, e.g. when buying familiar foods, images are easier and quicker to process and more vivid stimuli compared to words [23].

Package design is an important part of package communication [18]. It is generally seen as the visual appearance of a product package. It consists of both graphical and structural elements [8,19]. The graphical elements refer to visual aspects, such as colour, logos, and typography. Structural elements refer to tactual design aspects, such as material, size and shape of the package. According to Kauppinen [12] package colours attract attention, evoke an aesthetic response, and convey meanings with regard to the product. Furthermore, package communication can be verbal and non-verbal [19]. For example, nutritional information and brand name are typical verbal signs on packages, whereas labels and pictures are non-verbal. Regarding to senior consumers, Moschis [14] (also [3]) states that product packaging should not refer to their age as they might feel ashamed or old.

In order to be able to design packaging that fulfills the needs and wants of seniors, it is necessary to investigate both their packaging preferences and their responsiveness to product communication in more detail. Therefore, the aim of the present study is to explore possible relationships between preferences in packaging and type of product communication as well as possible differences among subsets of ageing consumers.

1.3 Materials and Methods

1.3.1 Subjects

The study was conducted in the Netherlands using the SenTo (Seniors of the Future) consumer panel. Four hundred Dutch participants (n = 156 male, n = 244 female) completed the survey. Forty-one percent (n = 165) were future seniors between 55 and 64years old, 59 % (n = 235) were 65 years old or older. All did their own shopping or had at least some influence on the grocery shopping in their household. Only three participants (0.75 %) reported to experience difficulty carrying out their daily activities. An invitation to participate was sent out by e-mail and after several days a reminder followed. The questionnaire was filled in online as an internet survey between the 24th of October and the 4th of November in 2012.

1.3.2 Questionnaire

The questionnaire included questions on which information the consumers would be interested in reading on a food packaging and how appealing they experienced certain labels and hallmarks. First participants were asked to mark a label's appeal on a 100 millimeters long line scale, ranging from "not appealing at all" to "very appealing". After answering this question, participants were asked to indicate their interest in buying a product with the label on it. Possible answers were "I prefer a regular packaging", "I prefer a package with this label", "I have no preference" and "I don't know/no opinion". "Regular packaging" meant a package without a specific label, whereas "a package with this label" referred to a package with the label mentioned in the previous question about the appeal of the label.

Both existing labels and non-existing labels were presented with a short explanation on their meaning. The existing EKO hallmark indicated the product is environmental friendly, the label "I make a conscious choice" ("*Ik kies bewust*®") is a label indicating the product is a healthier choice within the specific product

category. Three non-existing labels were used: “Gold for Silver”, “Senior friendly” and “50+”. In all three descriptions the hallmark referred to products suitable for ageing consumers (Table 1).

Table 1. Given Descriptions of the Labels.

EKO hallmark (Existing label)	EKO hallmark. The EKO hallmark indicates a product is 100 % biological and originates from a company paying special attention to sustainability.
Conscious Choice (Existing label)	I make a conscious choice. The “I make a conscious choice” hallmark is mentioned on products that are healthier than other products from the same product group. These products contain less salt, sugar, and saturated fats, and contain more fibers.
Gold for Silver (Fictive label)	Gold for Silver. When “Gold for Silver” is mentioned on a package it means it is a product made of high quality ingredients. It is being produced for older consumers who value quality.
Senior friendly (Fictive label)	Senior friendly. To meet older consumers' needs even better, producers would like to introduce a special label, “senior friendly”. This way they want to communicate the package is easier to open than regular packages as found in the supermarkets nowadays.
50+ (Fictive label)	50+. Another possibility is to develop products especially for the older consumer. The products meet the needs of this group of consumers and will be labelled “50+”.

1.3.3 Data-analysis

In order to analyse the interest in type of information, frequencies and percentages were computed. The line scale on which participants marked the appeal of the different labels was measured in a score per label ranging from 0 (not at all appealing) to 100 (very appealing). After testing the distribution of the score for normality, a one sample t-test with test value 50 (as indicating not appealing nor unappealing) was performed to analyse the appeal of the labels. A one-way analysis of variance (ANOVA) was used to investigate different subsets of seniors. Both the effect of gender and age were investigated as subsets, with seniors aged 55 to 65 defined as future seniors and those of 65 years and older as older seniors. Also, a paired samples test was used to investigate possible differences when comparing two different labels. Buying preference was analysed using frequencies and percentages. And a Pearson Chi-square using the exact method (2-sided) was done to investigate the two subsets of seniors. A significant difference was defined as $p < 0.05$. All calculations were performed using IBM SPSS Statistics Version 19.

1.4 Analysis and Results

1.4.1 Information on packaging

Concerning the whole consumer panel the majority of the senior participants reported to be interested in package information with regard to the quality of the product (68.3 %) and the due date approaching (61.5 %). Participants reported to be not very interested in reading on the package that the package is easy to open (25.2 %) and /or the product is targeted at seniors (13.6 %). Women reported a significantly higher interest in the information on the due date than men ($\chi^2(1, N = 281) = 4.434, p < .05$). Table 2 sums up the frequencies and percentages of interest per type of information.

Table 2. Frequency and Percentage of Interest per Type of Information.

Type of information	Frequency	Percentage
Product quality	N = 312	68.3 %
Due date approaching	N = 281	61.5 %
Environmental friendliness	N = 167	36.5 %
Maintained product quality during delivery	N = 159	34.8 %
Ease of opening	N = 115	25.2 %
Indication of senior product	N = 62	13.6 %

1.4.2 Package Labelling

1.4.2.1 Appeal of labels

The existing EKO hallmark and Conscious Choice label were both significantly highly-scored as appealing (EKO hallmark: $M = 57.5$, $SD = 19.0$, $t(399) = 7.88$, $p < .001$; Conscious Choice: $M = 59.6$, $SD = 20.5$, $t(397) = 9.31$, $p < .001$). The label "50+" on the other hand was found to be significantly unappealing ($M = 42.6$, $SD = 22.9$, $t(397) = -6.47$, $p < .001$). The labels Senior friendly ($M = 50.0$, $SD = 23.5$) and Gold for Silver ($M = 48.8$, $SD = 19.5$) were perceived by the seniors as neither appealing, nor unappealing. The scores per label are shown in Figure 1. When comparing pairs of two labels, all differences were statistically significant, except the difference between the Gold for Silver label and Senior friendly (Table 3).

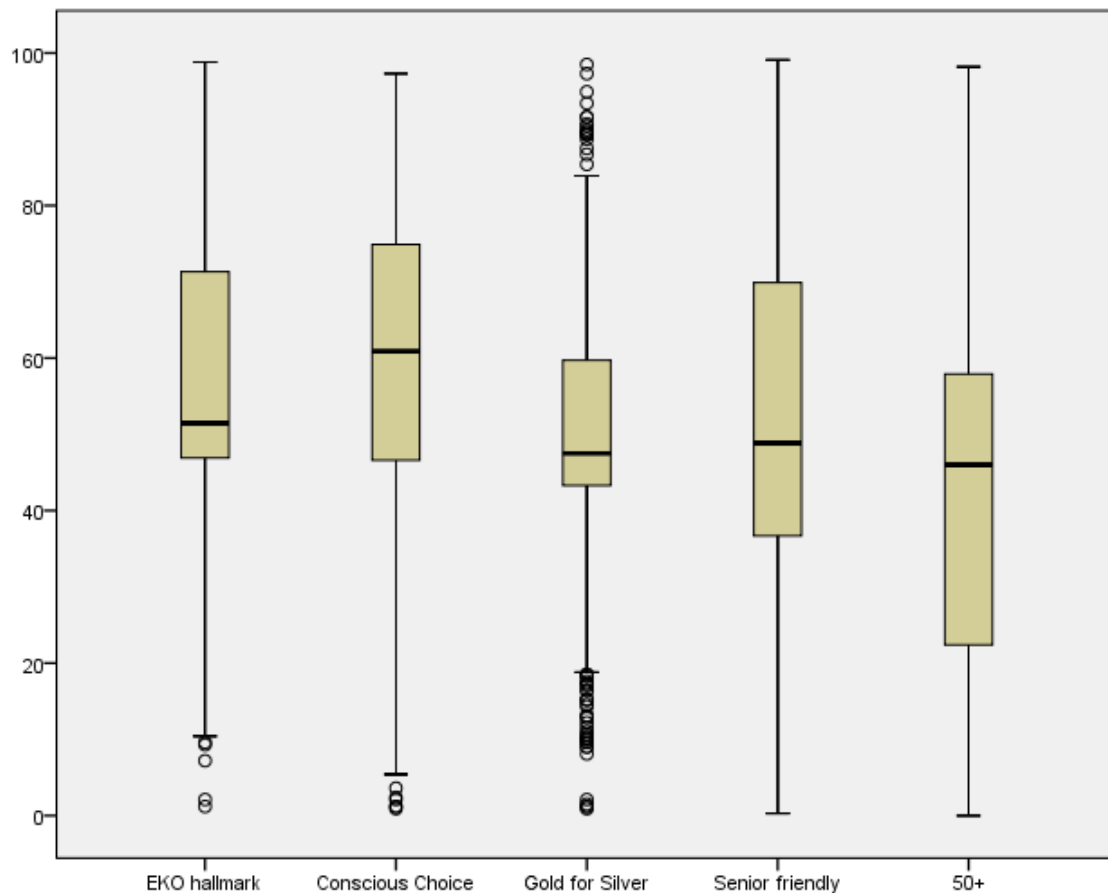


Figure 1. Distribution of Scores on Appeal per Label, Ranging from 0 (not appealing at all) to 100 (very appealing).

Table 3. T, Df, P-value per Paired Labels.

	t	df	Sig. (2-tailed)
EKO hallmark - Conscious Choice	-2.022	397	0.044
EKO hallmark - Gold for Silver	8.153	398	0.000
EKO hallmark - Senior friendly	5.594	397	0.000
EKO hallmark - 50+	11.310	397	0.000
Gold for Silver - Conscious Choice	-10.684	397	0.000
Conscious Choice - Senior friendly	8.223	397	0.000
Conscious Choice - 50+	14.554	397	0.000
Gold for Silver - Senior friendly	-0.894	397	0.372
Gold for Silver - 50+	5.658	397	0.000
Senior friendly - 50+	9.133	397	0.000

Several significant age or gender effects were observed with regard to the appealingness of the different hallmarks. Firstly, the EKO hallmark, even though generally appealing to both groups, was significantly perceived more appealing ($F(1,398) = 13.39, p < .001$) by the future seniors ($M = 61.6, SD = 18.1$) than by the older seniors ($M = 54.6, SD = 19.1$). Secondly, the Conscious Choice label was significantly ($F(1,396) = 4.35, p < .05$) more appealing to women ($M = 61.3, SD = 20.7$) than to men ($M = 56.9, SD = 20.0$). Finally, for the “50+” label a marginally significant trend ($F(1,396) = 3.76, p = .053$) could be observed that women ($M = 40.8, SD = 22.5$) found this label even more unappealing than men ($M = 45.4, SD = 23.3$).

1.4.2.2 Buying preference

After rating the labels participants were asked whether they would prefer to buy a regular packaging or a labelled package. Results show a high preference for a labelled packaging in the case of the EKO hallmark (90.3 %) and the Conscious Choice label (90.7 %). Also, the Senior friendly labelled packaging was slightly more often preferred (53.2 %) over the regular packaging. In contrast, in the case of a “50+” label the regular packaging was preferred (58.7 %). No preference was found for the Gold for Silver label (50.0 %).

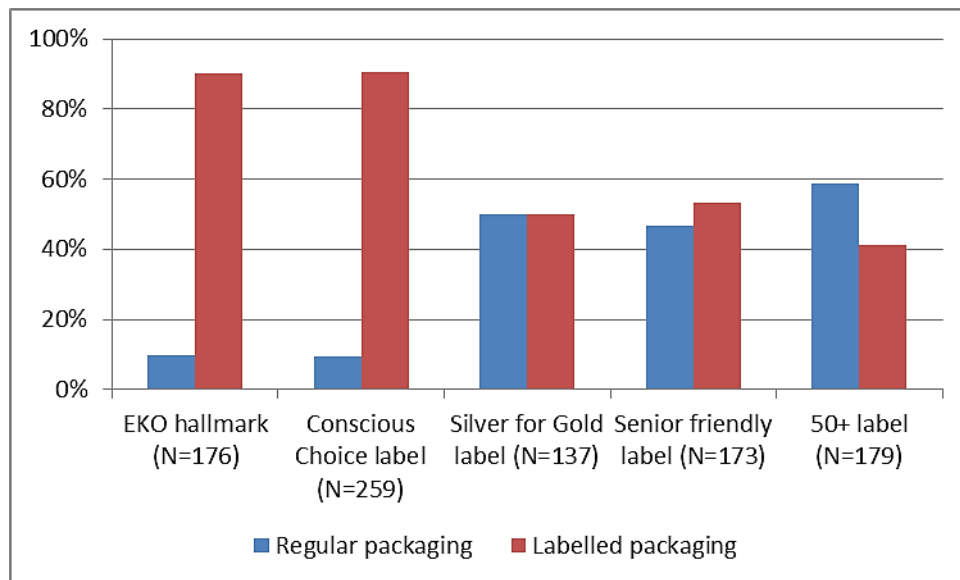


Figure 2. Percentage of Participants Preferring Regular Packaging and Labelled Packaging per Label.

In case of the EKO hallmark, the majority of participants (56.0 %, N = 224) did not express a preference with regard to the packaging. Of those who had a preference (N = 176), 9.7 % preferred a regular package without the EKO hallmark and 90.3 % a package with the EKO hallmark. These expressed preferences varied significantly by age ($\chi^2(1, N = 176) = 5.424, p < .05$). Future seniors (96.2 %) preferred clearly more often to buy a package with an EKO hallmark than older seniors (85.7 %).

For the Conscious Choice label, 34.9 % (N = 139) of the seniors indicated to have no preference and 65.1 % indicated to have a preference. Of those who had a preference (N = 259), only 9.3 % indicated to prefer a package without the label and 90.7 % preferred a label on it.

More than half of the participants (65.7 %, N = 262) expressed no preference in buying a package with or without the Gold for Silver label and only 34.3 % had a preference. Of those who expressed a preference (N = 137), half of the participants (49.6 %) preferred a package with label and half (50.4 %) without the Gold for Silver label.

When asked for buying preference regarding Senior friendly packaging, 56.5 % (N = 225) of the participants indicated to have no preference and 43.5 % expressed a preference. Of those who indicated a preference (N = 173), 46.8 % indicated to prefer to buy the regular packaging, and 53.2 % preferred a senior friendly packaging.

Regarding the "50+" label, most participants (55.0 %; N = 219) indicated to have no buying preference, whereas 45.0 % had a preference. Of those who indicated to have a preference (N = 179), 58.7 % indicated to prefer the regular packaging, whereas 41.3 % preferred a senior friendly packaging.

1.5 Discussion and conclusions

This research shows that seniors do not find all packaging labels equally appealing. Also, older consumers are interested in reading product information regarding the quality of the product. This was expressed in the interest in shelf-life information. Only very limited interest was expressed for the information that a product is suitable for seniors. The majority of the seniors were not interested in reading that the package is easy to open, or that the product is specially targeted at seniors. Therefore, age related issues seem not recommendable for communication of product to older consumers. This is in line with other studies [14, 3, 13, 1].

Furthermore, most participants indicated to have no preference to a package with a label. This result is in line with previous research showing little interest of consumers on nutritional labels [7, 17]. Interestingly, in the present study older people expressed greater preference to buy product with the existing labels than without. This might be due to familiarity with these labels, since familiarity can lead to a more positive view (e.g. The mere exposure effect [26]). Though the EKO hallmark is also an existing label, it is not as widely promoted as the Conscious Choice label in The Netherlands. This might explain why the Conscious Choice label was even more appealing and preferred over the EKO hallmark. Labels "50+", "Senior friendly" and "Gold for Silver" were fictive labels. This could also partly explain the lack of interest in them. Thus, the results of fictive labels should be treated with great care.

In another research it has been observed that when a label is personally relevant, the label is more appealing and the intention to buy increases. It is shown [24] that health oriented people pay attention to nutrition information on food products. Being and staying healthy is a positive, personally relevant issue. Therefore the Conscious Choice hallmark might be rated favourably and was preferred over a regular packaging. It is plausible that environment issues are more important to future seniors than to older seniors, since they have a longer life expectancy or a greater involvement in current news issues such as climate change. This was shown in the interaction between age and buying preference in the case of the EKO hallmark. A higher percentage of future seniors preferred a product with the label on it. In contrast, older seniors expressed more often to prefer to buy a regular packaging.

In the present study, a label directly referring to older age was reviewed as highly unappealing. This observation is in line with earlier results [14]. Seniors want and expect a sympathetic understanding of the realities of age, but they don't necessarily like to be referred to as old or senior [14, 3, 13, 1]. Hirsch et al. [9] pointed out that a product should not pose a stigmatizing aesthetic or make them feel ashamed. This

results seems to be even more pronounced for women than for men. This is also in line with a previous research [11] stating that women seek to distance themselves from the category “old”.

Senior friendly packaging was not an attractive nor unattractive label, even though it indicated that the product is easy to open [6, 25]. This might be due to the fact the participants in this research were relatively healthy ageing consumers. Thus, the label might not have addressed a want or need of the healthy, independent living seniors. Future research should investigate the effects of product labeling among frailer seniors. In our study the senior friendly label was described only as easy to open. However, if the consumers would have been asked the importance or preference on easy to open and not senior friendliness, the results might have been very different. Easy to open a package is a crucial factor for all consumers regardless of the age.

This study is limited to self-reported preferences. Therefore no certainty exists regarding actual consumer behavior. A difference might exist between what senior consumers express to prefer when package information is presented and the actual reading and buying processes in a retail environment. Also, when buying familiar foods, images are easier and quicker to process compared to words [23], so when older consumers buy familiar products, the impact of package information might be limited.

In the present study it was observed that stressing negative aspects of ageing might backfire on the product's appeal and the intention to purchase the product. Therefore, it seems advisable to ensure that packaging design communicates a positive image of older age and personal benefits of usage.

In conclusion, the wants and needs of older consumers with regard to food and its packaging should be carefully addressed, especially if age is used in package communication. Thus, it seems advisable to ensure that packaging design communicates a positive image of older age and personal benefits.

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