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Evaluation of the attractiveness of four variations of infant food packaging label using eye tracking

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Abstract

High child malnutrition in African drylands is, among other factors, influenced by choice of child food. Local women groups produce healthy, affordable child foods based on traditional recipes, but are in need of appealing packaging to compete with multinational companies. This study is part of a number of investigations aimed at empowering women groups in northern Kenya by co-developing attractive packaging designs. The input of the members of a local women group resulted in four variations of an infant porridge packaging design derived from previous own investigations. All four designs are identical with two exceptions: They have either a red or a yellow background and display either a zebra or a lion, resulting in the following combinations: ‘Red Lion’, ‘Yellow Lion’, ‘Red Zebra’ and ‘Yellow Zebra’. To evaluate the attractiveness of the four variations of the packaging design and identify the most attractive one, a market situation was re-created: the porridge packagings were displayed on tables and a total of 87 participants, who received an expense allowance, were each asked to choose one bag of porridge. The eye movements of 81 participants were recorded using eye tracking glasses. Participants were interviewed to gain insights in the reasoning leading to their decision and answers were recorded using an online form. The majority of participants chose the ‘Red Zebra’ design (n=31), followed by ‘Red Lion’ (n=23), ‘Yellow Lion’ (n=22) and ‘Yellow Zebra’ (n=11). The participants indicated a high interest in buying the product on the market and stated that they were prepared to pay a mean price, according to the packaging option, ranging from 118 Kenyan Shillings (SD 43) to 140 Kenyan Shillings (SD 60). The ‘Yellow Lion’ packaging received the most visual attention, followed by the ‘Red Zebra’, ‘Red Lion’ and ‘Yellow Zebra’. Our results indicate that the colour red was found to be particularly attractive and while there is no clear preference for either the zebra or the lion, it is advisory for the women group to include red as a dominant colour in their packaging. The eye tracking results support this result only partially and further analysis are necessary.

Keywords: Eye tracking, food choices, infant food packaging, malnutrition