# An assessment of the choice making and purchase intentions among fast food customers according to gender 

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Background choosing fast-food has been associated with an increased risk of becoming overweight and obese due to high energy density and large portion sizes of most fast foods. As a response to the consumers' health concerns the fast food industry has engaged in several initiatives aiming at improving the healthfulness of its offerings, including selection of healthy side dishes or labelling of healthier meals. Yet, actual purchase rates of the nutritional improved fast food selections appear limited and additional efforts are needed.

Objective The present study aims to better understand the choices of fast food consumers and identify opportunities toward healthier and more sustainable fast food products among consumer groups. More specifically, the objectives are to:

* Explore reasons for choosing a fast food meal
* Examine meal choices in a constructed methodology based on four burger menus, including two hypothesized healthier burger menus (keyhole labelled)

Methods Data were collected from 740 randomly selected customers at three fast food restaurants through a questionnaire, including questions on background information and reasons for choosing a fast food meal. Furthermore, the customers were asked to prioritize among four burger menus prized equally, including two hypothesized healthy labeled menus (keyhole symbol) presented in pictures and writings (Figure 1).

The effect of gender on the participants' responses (yes/no) to each reason for choosing their actual meal was tested using a logistic regression model adjusting for age group, body mass index (BMI) group, educational level, and restaurant location. Initially, in order to compare first priority among the four fast food menus a chi-square test was used. Data for males and females were analyzed separately using multinomial logistic regression analysis to identify factors associated with intended purchase priorities, i.e. age group, BMI group, educational level and restaurant location.

Table 1. Participants' responses in relation to reasons for choosing their actual meal according to gender (a maximum of three selections allowed)

|  | $\begin{gathered} \text { All } \\ (\mathrm{n}=740) \end{gathered}$ (\%) | $\begin{gathered} \hline \text { Males } \\ (\mathrm{n}=382) \end{gathered}$ (\%) | $\begin{aligned} & \text { Female } \\ & (\mathrm{n}=358) \end{aligned}$ (\%) | $\begin{gathered} \text { AOR } \\ \left.(95 \% \mathrm{CI})^{*}\right) \end{gathered}$ | p -value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| What were your reasons for choosing your actual meal? |  |  |  |  |  |
| Fast food I am used to eat | 42 | 39 | 46 | $\begin{gathered} 1.24 \\ (0.91 ; 1.69) \end{gathered}$ | 0.180 |
| Fast food most appetizing and tempting | 21 | 23 | 20 | $\begin{gathered} 0.82 \\ (0.56 ; 1.20) \end{gathered}$ | 0.303 |
| Fast food most reasonable in price | 19 | 19 | 19 | $\begin{gathered} 0.77 \\ (0.51 ; 1.16) \end{gathered}$ | 0.205 |
| I was tempted by offers and promotions | 17 | 22 | 13 | $\begin{gathered} 0.48 \\ (0.31 ; 0.74) \end{gathered}$ | <0.001 |
| Something new I had not tasted before | 16 | 19 | 13 | $\begin{gathered} 0.76 \\ (0.50 ; 1.16) \end{gathered}$ | 0.197 |
| Fast food most satiating | 9 | 12 | 6 | $\begin{gathered} 0.39 \\ (0.21 ; 0.70) \end{gathered}$ | 0.001 |
| Fast food perceived most healthy | 6 | 5 | 8 | $\begin{gathered} 1.67 \\ (0.84 ; 3.31) \end{gathered}$ | 0.141 |
| Fast food most sustainable **) | 1 | 1 | 0 | $\begin{gathered} 0.26 \\ (0.03 ; 2.38) \end{gathered}$ | 0.293 |

The significant P-values are printed in bold. *) Adjusted odds ratio (AOR) estimated by logistic regression ${ }^{* *}$ ) Results on odds ratio and $p$-values based on a $\chi 2$-test due to very low values


Figure 1. Participants were asked to prioritize among the four burger menus assuming they were prized equally. Keyhole labeled meals must fulfill certain conditions concerning amounts of energy, fat, salt and sugars, as well as content of fruit and vegetables and wholegrain.

## Results

Choice reasons based on actual meal purchased
First priority of reason for actual meal choice among both genders was "what I am used to" (Table 1). The following two most important reasons included "fast food most appetizing and tempting" and price. Compared to female customers the male customers more frequently selected "tempted by offers and promotions" ( $p<0.001$ ), and "fast food most satiating" ( $p=0.001$ ) as reasons for actual meal choice.
Purchase intentions based on hypothesized burger menus
Significant differences were seen among males and females with regard to prioritizing burger menus (Figure 2). Nearly the same proportion of male and female participants chose the healthier beef burger menu as first priority among the four fast food menus (36 and $35 \%$, respectively for males and females). However, almost twice as many female participants compared to male participants preferred the healthier chicken burger (40\% and $21 \%$, respectively). Very few chose the whole-grain burger menu, which was similar to the normal burger menu except for the whole-grain bun.


Figure 2. Participants' first priority according to gender among four burger menus prized equally ( $\mathrm{n}=716$ )

Conclusion The present study suggests that the fast food sector has a large potential for promoting healthier menus. However, habits, taste, and price remain the major reasons for actual meal selections. In order to promote healthier fast food, different gender priorities should be taken into account.

* A large majority of men prefer a beef burger menu (healthy labelled or regular), whereas women respond positively to both the healthy labelled chicken and beef burger menu
* Men are more inclined to respond favorably to offers and promotions, and to fast food that are perceived to be most satiating.
Understanding the reasons for choice making could help improve the food environment and identify strategies to support healthier food selections among fast food customers.

