CONSUMER PREFERENCES: PRODUCT ATTRIBUTES DETERMINANTS OF HONEY CONSUMPTION

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1. Introduction

Honey is considered the only food of animal origin that can be consumed without being processed (Pocol and Teselios, 2012). The literature presents several reasons associated with the consumption of honey, namely, the fact of being a natural and healthy product; its dietary, nutritional and medicinal characteristics; the product quality; the geographical region of production; the information available on the products' label, the brand's reputation; as well as the variety, texture, taste, aroma, appearance, packaging and price (Yeow et al., 2013; Wu et al., 2015). The present research intends to identify the intrinsic and extrinsic attributes of honey on which consumers base their purchasing decision.

2. Material and Methods

To achieve this goal, a cross-sectional study was developed based on a non-probabilistic sample of 474 individuals, of whom 399 were honey consumers. Data collection took place from March to May 2016 and was based on a questionnaire developed by Ribeiro et al. (2009), which was applied directly to consumers in the city of Bragança, Portugal. Later, data was analysed with SPSS 23.0 software. The data analysis included univariate and multivariate analysis. The univariate analysis involved the calculation of relative and absolute frequencies in qualitative variables and the calculation of measures of central tendency and dispersion in quantitative variables (descriptive analysis); and the multivariate analysis involved the estimation of a binary logistic regression in order to identify the product attributes determinants of honey consumption. In the logistic regression model, the stepwise method was used to choose the factors. The overall validity of the model was tested using likelihood ratio (LR), as well as the significance of each estimated parameter, with hypotheses H_0: $\beta_j = 0$ *versus* H_1: $\beta_j \neq 0$, at a significance level of 1%. Plus, the adjustment quality of the model was tested using the Nagelkerke's R^2, a coefficient that reveals the proportion of variation explained by the model of logistic regression.

3. Results

The majority of surveyed honey consumers were aged between 25 and 64 years old (61.2%), were female (58.1%), were employed (45.6%), had secondary school level (36. 6%) and higher education (40.6%). Additionally, they lived in households of 3 (21.6%) and 4 people (36.3%) with a monthly income of up to 999 euros (50.5%) and in the urban area (56.1%) (Table 1).

Table 1. Socioeconomic profile of the respondents

Variable	Categories	Honey consumption(%)	
		No (n = 75)	Yes (n = 399)
Gender	Male	49.3	41.6
	Female	50.7	58.1
	Missing	0.0	0.3
Age	18 to 24 years old	29.3	33.3
	25 to 64 years old	65.3	61.2
	≥ 65 years old	2.7	4.8
	Missing	2.7	0.8
Professional situation	Employed	36.0	45.6
	Student	28.0	31.8
	Unemployed	28.0	11.0
	Retired	2.7	4.3
	Missing	5.3	7.3
School level	1st cycle	8.0	5.3
	2nd cycle	6.7	5.5
	3th circle	10.7	11.0
	Secondary	29.3	36.6
	Higher	45.3	40.6
	Missing	0.0	1.0
Monthly household income	< 599 euros	21.3	22.3
	600 to 999 euros	32.0	28.1
	1,000 to 1,499 euros	17.3	27.1
	1,500 to 1,999 euros	21.3	10.5
	≥ 2,000 euros	6.6	12.1
	Missing	1.3	1.3
Household size	1 person	14.7	10.8
	2 people	14.7	20.3
	3 people	16.0	21.6
	4 people	46.7	36.3
	≥ 5 people	8.0	11.0
Residence	Rural	46.7	43.4
	Urban	53.3	56.1
	Missing	0.0	0.5

The honey attributes most valued by respondents were: taste (71.4%); aroma and crystalline appearance (57.1%); colour (51.5%); viscosity (47.2%); geographic origin (42.3%); certification label (42.4%) and price (41.2%).

The output of the logistic regression model estimation is shown in Table 2. The estimated model is statistically significant (significance = 0.000). The results show that the statistically significant parameters are taste, colour, origin and certification label, at a level of significance of 1%. These characteristics accounted for 68.9% of the consumer's decision to purchase honey. It is noteworthy that the certification label was considered important by non-honey consumers, probably when they buy the product to offer. While taste, colour and origin are important characteristics that honey consumers value in the purchasing decision process of this product.

Table 2. Binary Logistic Regression Model

Dependent variable: Honey consumption			
Y = 0 (Yes); Y = 1 (No)			
Variables	**β**	**Standard Deviation**	**Significance**
Constant	1.719	0.277	0.000*
Taste	-4.287	0.629	0.000**
Colour	-2.974	0.871	0.001*
Certification label	3.988	1.018	0.000*
Geographic origin	-2.116	0.727	0.004*
Likelihood Log = 262.948; Significance = 0.000			
Nagelkerke's R^2 = 0.689			

* Significant parameter at the significance level of 1%.

4. Conclusion

Honey is a product to which the consumer recognizes properties of authenticity and innate attributes. In fact, certification label, taste, colour and geographic origin have proved to be determinant attributes in the purchase decision process.

References

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