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Millennials' consumption behavior toward organic food. Aware or responsible consumers?

MARIA ROSITA CAGNINA, FRANCESCO MARANGON, LAURA PAGANI, STEFANIA TROIANO*

Abstract. The study aims to analyze knowledge and consumption behavior towards packaged organic food among Millennials. This paper identifies the relationships between socioeconomic characteristics of young consumers and their consumption behavior. We carried out a survey with a questionnaire among 1,155 young students aged from 16-25 years in Friuli Venezia Giulia Region. Our results show that socio-economic characteristics do not affects Millennials' consumption. This is probably due to scarce knowledge of organic food.

Key-words. Consumption, organic food, Millennials.

1. Organic market. Both packaged and fresh organic food is the fastest growing market in the food industry in many countries.

Several studies have been published to analyze organic and fair trade food in order to better understand the consumption behavior. Marketing and Agricultural Economics scholars explored supply chain organization (economic agents and their relationships), marketing strategies and competitive trends among organic food products.

Their aim was the assessment of consumers' attitudes, preferences, behavior, and willingness to pay (WTP). Sociologists analyzed life styles and the promotion of a responsible consumption culture according to the principles of sustainability.

Although the market share of organic food is still fairly low, it could not be considered as a niche market but an innovative production method. In fact, it is strongly growing continuously, and has positive economic, environmental, and social effects (Rete Rurale Nazionale 2015).

* Department of Economics and Statistics, University of Udine, Udine, Italy. E-mail: mariarosita.cagnina@uniud.it; francesco.marangon@uniud.it; laura.pagani@uniud.it; stefania.troiano@uniud.it

According to FIBL-IFOAM (2015), in Italy, the market for organic products is valued at 3.1 billion euros, and sales are increasing among all marketing channels. The strong market growth is mainly due to increasing levels of organic food sold in the supermarkets, which permitted the raise of the number of potential consumers and the use of marketing policies, that both alternative channels and small shops were not able to use (Idda et al. 2006). However, a number of researchers state that organic food sold through supermarkets creates contradictions between the principles of sustainable agriculture and the target of big companies (Hughner et al. 2007). In fact, on the one hand the presence of big firms is able to face the fast increase of food demand, on the other hand it produces an alteration of organic production model as it creates an estrangement from its original values, i.e. economic, environmental, and social sustainability (Viganò et al. 2012).

Analyzing organic demand data it is possible to state that organic food expense have been increasing in spite of negative consequences of economic crisis on food purchases. In fact, during 2014 organic market raised (11%), in addition also during the first six months of 2015 ISMEA (2015) data put in evidence a strong increase (20%) of organic market share. Moreover, the expenses for organic biscuits, cakes and snacks (SINAB, 2015) have raised significantly (+ 15%).

These data state that consumers increasingly appreciate organic food and are more conscious about the positive values of organic production methods. Environmental resources conservation, relationships between food safety and human health, ethics motivations in choosing food products, and fair trade opportunities are a number of reasons able to explain the increase of organic market share.

The aim of this study is to analyze young consumers' behavior toward organic and fair trade food to better understand if they are aware and responsible consumers. To reach this objective we carried out a survey among students.

2. Literature review. There are several studies about organic food consumption. They were carried out in a number of countries in order to understand preferences and habits of organic consumers, their willingness to pay for organic food. Yiridoe et al. (2005), Hughner et al. (2007), Verain et al. (2012) produced some critical analysis of these studies. Similarly, in Italy it is possible to identify a lot of studies about organic consumption (e.g. Cosmina et al. 2015; Gracia, De Magistris 2008; Pellegrini, Farinello 2009; Bellini 2011; Ceccacci 2013). Nevertheless, only few studies analize young consumers' behavior and preferences, while several scholars studied young consumers' behavior toward organic non-food products, responsible consumption, and green marketing (Vermeir, Verbeke 2006; Hume 2010; Smith 2010; Smith, Brower 2012).

The aim of this study to analyze young consumers' consumption – i.e. Millenials (Howe, Strauss 2000) born between 1980 and 2000 and children of Baby Boomer generation – arises from the strong differences between

this generation and the others due to socioeconomic and cultural transformations, and the presence of information and communication technologies, which enables people to be more connected and to receive continuously information changing lifestyles and consumption and pinning the consumers in the post-modern era (Fabris 2010). Consequently, they seem to be more informed and aware of their needs.

Regine (2011) studied the relationship between young people and organic products in an exploratory survey conducted on a sample of 220 college students (less than 35 years old) in New England. The Author examined the relationship between gender, age, income, level education, ethnic groups and consumer preferences for organic products and found statistically significant results. Nevertheless the Author highlighted an imbalance of the sample suggesting further research to understand the impact of gender on the choices of young consumers toward organic food. A recent contribution of Martinengo (2012) pointed out the relationship between young people and the quality of food. The survey has been carried out on a sample of adolescents and preadolescents in Piedmont.

Results suggested there are two food styles: the first focused on female fitness, lightness and well-being, and the second one focused on male, higher contents of protein, carbohydrates and fats. Each food style had a significant relationship with cultural status of family and family habits. As regards consumers' awareness, the results showed that only 20% of respondents regularly collected information about the food they consumed (e.g. reading the labels). Findings put in evidence that the gender differentiated consumers since girls seemed to be more aware than males.

Since the choice of food can be seen as a complex function that combines sensory preferences and "non-sensory elements that include expectations, attitudes, emotions, health goals, price and ethical motivations" (Martinengo, 2012, p. 435), the research question of this study were in detail: are Millennials aware consumers of organic food and fair trade products? Can we identify the existence of groups of consumers more or less responsible among Millennials? Are there differences in gender, age, educational level, household composition able to affect the purchasing decisions made by Millennials? Have price and financial resources an impact on the consumption of packaged organic food?

3. Material and methods. To reach the aim of this study we decided to conduct a survey among young consumers in Friuli Venezia Giulia Region. They were recruited in high schools and at the University and accepted to participate without any incentive. 1,114 questionnaires were compiled.

The questionnaire was divided into two parts with questions on: i) respondents' socioeconomic characteristics; knowledge about organic and fair trade food; consumption and purchase habits of fair trade and organic food; and their price sensibility; ii) consumption behavior via a pur-

Situation 1 - € 5 *Situation 2 - € 5* *Situation 3 - € 8*

Figure 1. Simulation example.

chase simulation using four different snack products (both organic and conventional). In detail, we proposed two types of biscuits (one organic and the other conventional), and two types of fruit juice (one organic and the other conventional). Both organic and conventional products share a very similar packaging. The simulation has been repeated three times to take into consideration i) a price change of one organic product (biscuits), ii) and an increase of the availability of respondents' financial resources (from € 5 to € 8) (Figure 1).

The survey was carried out during the orientation days for high schools realized by the University of Udine, at a number of schools in the province of Udine and Gorizia (Italy), and during the presentation of the courses for freshmen and Bachelors between November 2012 and April 2014.

The aim of the survey was to analyze the awareness and responsibility of consumers, proving the existence of relationships between demographic factors and purchasing behaviors of young consumers. To better investigate eating habits in particular at school or college, and attitudes to purchase and/or consume organic and/or fair trade food we used the principal component analysis (PCA) to analyze specific collected data. We identified 8 items using 5-point ordinal scale. In detail: two items concerning the reading of the label during the consumption and/or the purchase of food, one item concerning the interest in the price of purchased goods, three items related to the purchase/ consumption of snacks, and lastly two items on the frequency of consumption of fair trade and/or organic products. Then we built similar groups of respondents using the cluster analysis.

The results of this phase have been associated with purchasing behavior simulated in the three phases we considered.

4. Results. The summary statistics of socioeconomic variables indicate that 64% of respondents were female, and their mean and median age was 19 years. As regards their parents' occupation, findings stated that both fathers (54%) and mothers (57%) were employees, while the average number of household members was 4. Respondents stated that the mother is the person who most often (76%) is responsible for grocery shopping,

Table 1. Principal component analysis dimensions.

Item	*Dimension 1*	*Dimension 2*
Ethical consumption	-0.008	0.812
Ethical purchase	0.034	0.820
Price	-0.315	0.123
Home	-0.803	-0.031
Out	0.895	0.060
Vending machine	0.754	-0.060
Fair Trade	0.005	0.572
Organic	0.041	0.632

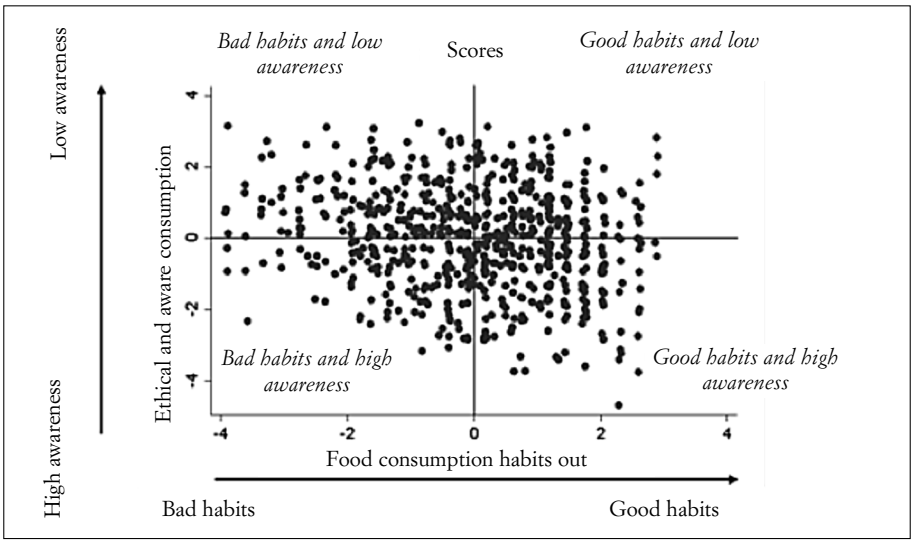

Figure 2. Students' position using PCA dimensions.

however 69% of subjects declared to accompany the responsible.

Using the PCA analysis two dimensions has been identified. They were able to reproduce about 56% of the total variability of the 8 items (Table 1).

We called the first dimension "Eating habits away from home" as it summarized the behaviors related to the ways students usually adopt to purchase and/or consume a snack when they are at school or college. The second dimension called "conscious and ethical consumption" was mainly related to i) the habit to read the label of the purchased or consumed goods and ii) the consumption of fair trade and/or organic food. Then we assigned a score to each student using the di-

Table 2. Correlation between propensity to purchase organic food and PCA dimensions.

Propensity to purchase organic food	*Food consumption habits out*	*Ethical and aware consumption*
Situation 1	0.22	0.40
Situation 2	0.18	0.37
Situation 3	0.22	0.43

mensions identified by the PCA in order to group them into 5 clusters. In detail: 1) the first group of "ethical and aware students with good eating habits", 2) the second group of "students not aware of consumption and/or purchase choices with bad eating habits", 3) the third group of "students who have a conventional approach both for purchase and consumption", 4) the fourth group of "students not interested in what they buy and/or consume", and 5) the last group of "students with average behavior and/or attitudes" (Figure 2).

This classification was confirmed by using a cluster analysis.

The analysis of purchasing behavior was synthesized by using the propensity to buy organic products. In particular, we measured the share of organic products bought by each respondent. By correlating the propensity to purchase organic food with the dimensions identified by the PCA (Table 2), it was possible to note that the propensity raised both when respondents have good eating habits out, and the awareness for ethical and organic consumption increases.

5. Conclusions. Differences in i) knowledge and preferences of consumption toward organic products, ii) eating habits, and iii) behavior of young consumers forced manufacturers and distributors to reconsider their marketing strategies. But, to be able to recreate these strategies it is necessary to improve the knowledge of consumers' behavior.

The empirical findings of our study revealed that in general young consumers are sensitive to the issues of sustainability, but they are either not always adequately informed or totally misinformed.

The study also demonstrated that Millennials' purchase and consumption attitudes do not seem to be influenced either by demographic and socioeconomic family characteristics or gender. In fact, the increased availability of financial resources influenced and increased organic purchase and consumption only for respondents who were already willing to purchase them.

These results are useful for marketing decision makers. In particular, findings suggest them firstly to provide more experiential involvement, such as edutainment experience toward young consumers; secondly, to try to address the categories of young consumers whose behaviors are not clearly defined (average behavior); finally, to improve information toward

young consumers with a conventional or disinterested behavior. According to our results, acting on these three paths could enhance the organic market without distorting the principles of organic production methods.

Bibliografie/ References

Bellini S. (2011). Le determinanti del comportamento di consumo e di acquisto dei prodotti biologici in Italia: i risultati della ricerca, Sana, 23° Salone internazionale del naturale, Bologna 8-11 settembre.

Ceccacci F. (2013). Un'analisi del consumatore di prodotti biologici nella Grande Distribuzione Organizzata. *Micro & Macro Marketing*, XXII, 2: 401-408.

Cosmina M., Gallenti G., Marangon F., Troiano S. (2015). Attitudes towards honey among Italian consumers: a choice experiment approach. *Appetite*. DOI: 10.1016/j.appet.2015.12.018

Fabris G. (2010). La società post-crescita. Consumi e stili di vita. Milano: Egea.

FIBL-IFOAM (2015). *The world of organic agriculture. Statistics and Emerging Trends 2015*. FiBL-IFOAM Report. Bonn: Research Institute of Organic Agriculture (FiBL), Frick, and IFOAM – Organics International.

Gracia A., de Magistris T. (2008). The demand for organic foods in the South of Italy: a discrete choice model. *Food Policy*, 33: 386-396.

Howe N., Strauss W. (2000). *Millenials rising:the next great generation*. New York: Vintage Books.

Hughner R.S., McDonagh P., Prothero A., Shultz IIC.J., Stanton J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, 6: 1-17.

Hume M. (2010). Compassion without action: Examining the young consumers consumption and attitude to sustainable consumption. *Journal of World Business*, 45: 385-394.

Idda L., Furesi R., Madau F.A. (2006). Grande distribuzione e alimenti biologici: un'analisi sul comportamento del consumatore. *Economia agro-alimentare*, 3:11-37.

ISMEA (2015). *BIO-Retail. Indagine ISMEA sul mercato al consumo dei prodotti biologici in Italia 2014*, http://www.ismea.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/9640 (accessed 07/01/2016).

Martinengo M.C. (2012). Giovani e qualità alimentare. *Micro & Macro Marketing*, XXI, 3: 427-441.

Pellegrini G., Farinello F. (2009). Organic consumers and new lifestyles. An Italian country survey on consumption patterns. *British Food Journal*, 111, 9: 948-974.

Regine K.M. (2011). Generation Y consumer choice for organic foods. *Journal of Global Business Management*, 7, 1, http://www.jgbm.org/index.htm (accessed 10/04/2014).

Rete Rurale Nazionale (2015). *Bioreport 2014-15. L'agricoltura biologica in Italia*, Roma, http://web.inea.it:8080/documents/10179/227001/bioreport%202015%20x%20web.pdf (accessed 15/01/2016).

SINAB (2015). *Bio in cifre 2015*, Roma, http://www.sinab.it/bionovita/bio-cifre-2015-tutti-i-numeri-del-bio-presentati-al-sana (accessed 08/01/2016).

Smith K.T. (2010). An examination of marketing techniques that influence Millenials'perceptions of whether a product is environmentally friendly. *Journal of Strategic Marketing*, 18, 6: 437-450.

Smith K.T., Brower T.R. (2012). Longitudinal study of green marketing strategies that influence Millenials. *Journal of Strategic Marketing*, 20, 6: 535-551.

Vermeir I., Verbeke W. (2006). Sustainable food Consumption: exploring the consumer "attitude – behavoiral intention" gap. *Journal of Agricultural and Environmental Ethics*, 19: 169-194.

Verain M.C.D., Bartels J., Dagevos H., Sijtsema S.J., Onwezen M.C., Antonides G. (2012). Segments of sustainable food consumers: a literature review. *International Journal of Consumer Studies*, 36: 123-132.

Viganò E., Mariani A., Taglioni C., Torquati B. (2012). Consumatori e canali alternativi per il biologico: il caso del Gruppo Organizzato di Domanda e Offerta di AIAB-Umbria. *Economia agro-alimentare*, 1: 173-215.

Yiridoe E.K., Bonti-Ankomah S., Martin R.C. (2005). Comparison of consumer's perception towards organic versus conventionally produced foods: A review and update of the literature. *Renewable Agricultural Food System*, 20, 4: 193-205.