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## A case-study on profiling Italian consumers of animal-friendly foods

Jorgelina Di Pasquale<sup>a</sup>, Eleonora Nannoni<sup>a</sup>, Felice Adinolfi<sup>a</sup>, Isabella Del Duca<sup>a</sup>, Fabian Capitanio<sup>b</sup>,  
Luca Sardi<sup>a</sup>, Marika Vitali<sup>a</sup> and Giovanna Martelli<sup>a</sup>

<sup>a</sup>Dipartimento di Scienze Mediche Veterinarie, University of Bologna, Ozzano dell'Emilia (BO), Italy; <sup>b</sup>Dipartimento di Agraria, University of Napoli 'Federico II', Napoli, Italy

### ABSTRACT

Our research is based on 335 consumer interviews, conducted near and within supermarkets and hypermarkets in Bologna (North-Italy) and in its province. A multiple correspondence analysis followed by a cluster analysis were carried out in order to profile consumers based on their knowledge of farming conditions, their knowledge of “animal friendly” products and their willingness to pay for them. The analysis identified four groups of consumers (clusters). Groups were called: (1) “sensible and aware consumers” (36%); (2) “unconcerned consumers” (33%); (3) “the insiders” (6%) and (4) “uninvolved consumers” (25%). The first group represents an important market segment for “animal friendly” products. However, a diffused lack of knowledge was observed towards the issues of animal welfare and animal protection. These results urge a reflection on the needs and the risks that may underlie the creation of a shared European label for animal-friendly foods in order to minimize the risk of a failure of the certification scheme.

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### Introduction

Market development is shaped by two main forces. The first one has a top-down approach, and consists of laws and regulations that drive market development. The second force can be defined as bottom-up, and consists of consumers' needs that push market development in the direction that can better respond to their needs. In this second approach, consumers' choices are crucial. Their purchasing behaviour can considerably affect productive technologies and selling strategies, as they determine which products will be welcomed or not by the market (Grunert 2011; Averòs et al. 2013; Vanhonacker & Verbeke 2014).

In the last decades, European consumers have shown a growing interest towards the ethical aspects tied to the welfare of food-producing animals (Eurobarometer 2005; María 2006). A growing number of EU citizens would like to have more information about the conditions under which farmed animals are treated in their respective countries (64%; Eurobarometer 2016). European policy makers made an effort in order to understand consumers' requests and approved a set of shared regulations on animal protection. The first European rules on animal protection on farm date back to 1986 and firstly concerned the protection of laying hens. Legislation has been

further developed since that time to include the protection of calves and pigs (in 1991). Council Directive 98/58/EC (EC 1998) gave general rules for the protection of animals kept for farming purposes (including fish, reptiles and amphibians). Standards for transport, stunning and slaughter were also adopted ([http://ec.europa.eu/food/animals/welfare/practice/farm/index\\_en.htm](http://ec.europa.eu/food/animals/welfare/practice/farm/index_en.htm)).

The possibility of a shared animal-friendly label for animal-derived foods (i.e. a transparent certification that the product has been obtained under productive schemes exceeding the minimum mandatory requirements in terms of animal protection) has been thoroughly discussed (EC 2009), but an official European label has not been proposed yet due to the fact it is difficult to fully inform consumers on a complex issue such as animal welfare (Ingenbleek et al. 2013). Nevertheless, 59% of Europeans declare to be prepared to pay more for products sourced from animal welfare-friendly production systems; 52% of Europeans look for the animal welfare-friendly identifying labels when buying products and 47% of them currently do not think there is sufficient choice of animal welfare-friendly food products in shops and supermarkets (Eurobarometer 2016). The Italian market appears to be below the European average in these three aspects,

**CONTACT** Dr Eleonora Nannoni  [eleonora.nannoni2@unibo.it](mailto:eleonora.nannoni2@unibo.it)  Dipartimento di Scienze Mediche Veterinarie, Università di Bologna, via Tolara di Sopra 50, 40064 Ozzano dell'Emilia (BO), Italy

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with percentages of 43, 47 and 34%, respectively (Eurobarometer 2016).

However, it is worth noting that, compared to other aspects of the food chain (such as food safety and security) the ethic components of animal-derived foods are considerably more complex to regulate. In fact, in terms of food safety it is easier to define unbiased limits to be used as a basis for EU policies. Conversely, when animal welfare and animal protection are involved, it is more difficult to interpret, homogenize and translate into practice consumers' ethical concerns. In fact, every consumer has a sensibility that depends on his cultural background (including religion implications) and personal history, which determine his ethical concerns when buying animal derived foods.

Besides, many empirical evidences suggest that although an increasing number of consumers declare to be motivated by the values of ethical consumerism, the change in consumption behaviour is much less apparent (Chatzidakis et al. 2007; Arvola et al. 2008; Vermeir & Verbeke 2008; Carrington et al. 2010). Other studies indicated that, according to retailers, consumers' interest in animal friendly foods is low and also declining, probably due to the recent financial crisis (Miranda-de la Lama et al. 2013).

These issues add complexity to the regulatory process of animal-friendly foods, and limit also the development of supply side initiatives. In fact, producers are willing to answer to consumers' needs, but in order to do so they need to define their target market, and to be sure that their productive effort will be compensated both in terms of a clear and transparent labelling of animal-friendly products, and through the acknowledgment of a *premium price* by consumers (Di Pasquale et al. 2014).

The attitude of Italian consumers towards animal-friendly foods has poorly been investigated in the literature. In Italy, some studies (Napolitano et al. 2007a, 2007b; Piasentier et al. 2007; Maiorano et al. 2010; Musto et al. 2015, 2016) have attempted to explain the effect of information about animal welfare on the acceptability of single animal products (e.g. lamb meat, goat milk and beef). Besides, Musto et al. (2014) explored the role of cognitive styles along with sociodemographic characteristics in consumers' attitude towards animal-friendly products. Focus groups were carried out among Italian consumers in the framework of a European research project (Miele & Evans 2010), and identified two groups based on their responses to labels carrying claims about the lives of farm animals: the 'ethically competent consumers' and the 'ordinary' consumers.

The aim of the present research is to profile Italian consumers according to their level of knowledge and concern towards animal welfare and animal-friendly foods, in order to understand market segments and identify a possible target market for a whole-process certification system of animal-friendly foods.

This study represents the conclusion of a research project aimed at understanding the possible response of the Italian market to animal-friendly foods. The first part of the research project not only highlighted the presence of wide gaps in consumers' knowledge, but also identified a group of consumers who declare to be willing to pay a premium price for animal-friendly foods (Di Pasquale et al. 2014). In this second part of the study, Italian consumers were profiled to understand which market segments could react positively to a welfare certification of animal-derived foods.

## Materials and methods

### Questionnaire

The survey was conducted using a structured, semi-close-ended questionnaire. The questionnaire included some questions which were similar to those administered to consumers by previous European surveys (Eurobarometer 2005, 2007a, 2007b). Additional questions were administered in order to gain a deeper insight on consumers background knowledge on animal welfare. The interview was carried out as a face-to-face direct interview that included 335 randomly selected consumers collected among customers of supermarkets and hypermarkets located in Bologna, Italy, and its province. Locations were chosen based on the store geographic position and disparate store brand. Interviews were carried out in different week days (Monday–Saturday) and different day hours (8:00–11:00; 11:01–14:00; 14:01–17:00; and 17:01–20:30), in order to reach consumers with a wide range of socio-demographic characteristics.

The questionnaire included 25 questions. It was divided into three sections, each having a specific objective:

- Section one was aimed at collecting information concerning consumers' direct and indirect knowledge about animal welfare.
- Section two assessed consumers' perception and sensibility as concerns the animal welfare level of different species, and the perceived importance associated with different product certification schemes.

- Section three collected data about the purchasing behaviour with respect to animal-friendly products (usual places and purchasing behaviour, declared willingness to pay a premium price for animal-friendly foods).

A further part of the questionnaire was aimed to obtain information about the socio-demographic characteristics of the surveyed sample. More information on the questionnaire itself and on the socio-demographic characteristics of the interviewed sample can be found in Di Pasquale et al. (2014) and are resumed in Table 1.

### Cluster analysis

Market segmentation is used to develop a better understanding of consumers' motives and to facilitate the design of marketing plans by developing groups of consumers with similar needs and wants. Ideally, the

**Table 1.** Socio-demographic characteristics of the surveyed sample of consumers ( $n = 335$ ).

	% of the surveyed sample
Gender	
Female	62%
Male	38%
Age	
18–29	24%
30–39	14%
40–65	51%
over 65	11%
Household size	
1	19%
2	23%
3	24%
4	27%
5	5%
6	2%
Education	
Primary school	3%
Middle school	9%
High school	47%
3-year university degree	12%
5-year university degree	29%
Employment	
Employee	47%
Freelance	14%
Retired	16%
Housewife	6%
Unemployed	2%
Student	15%
Annual household income	
<10,000 €	6%
11,000–20,000 €	18%
21,000–35,000 €	33%
36,000–50,000 €	16%
51,000–75,000 €	16%
>75,000 €	11%
Area	
Urban	85%
Rural	15%

segments will differ in their product needs or buying responses (Kotler & Armstrong 2010). Market segmentation is the process of grouping a heterogeneous market into smaller homogeneous markets. These submarkets (called segments) are not arbitrarily imposed, but derive from the recognition that market segments have different product preferences (Smith 1956). The requirements for successful segmentation are: homogeneity within the segment, heterogeneity between segments, segments that are measurable and identifiable, segments that are accessible and actionable and segments that are large enough to be profitable (Ziehl et al. 2005).

More specifically, segments are homogeneous within (i.e. people belonging to the same segment are similar to each other in their attitudes about certain variables). Because of this intra-group similarity, consumers within a certain segment are likely to respond somewhat similarly to a given marketing strategy. When enough information is combined to create a clear picture of a typical member of a segment, this is referred to as a buyer profile. A statistical technique commonly used in determining a profile is Cluster Analysis (CA) preceded by Multiple Correspondence Analysis (MCA) (Ziehl et al. 2005).

The multiple correspondence analysis followed by cluster analysis is a statistical technique that can be applied to data that exhibit 'natural' groupings with relatively homogeneous characteristics, but with heterogeneous characteristics relative to objects outside the cluster (Thilmany et al. 2006). Statistical analysis was carried out using SPAD.

## Results and discussion

### Socio-demographic characteristics

As discussed in the first part of the research (Di Pasquale et al. 2014), the sample interviewed contained a high percent of women, and this could be due to the fact that women are generally in charge of purchasing groceries. Consumers had a high educational level, and this may be ascribed to the fact that the survey has been carried out in Bologna urban area, which hosts an important university. Lastly, it is worth highlighting that Emilia Romagna is well known as one of the Italian regions in which animal welfare issues are considered as a priority in agricultural politics (MiPAAF 2012).

### Consumer analysis

Four clusters were identified based on MCA + CA and the researchers' interpretation of the analysis results.

The three dimensions identified by MCA were defined as: 'knowledge', 'social responsibility' and 'sensitivity'. Ultimately, the four clusters presented in Table 2 were chosen because they resulted in the most meaningful groupings. The groups identified are presented and discussed below.

### Group one: sensible and aware consumers

The first group classified by cluster analysis includes 36% of the interviewees. This group contains mainly women (75%).

Consumers belonging to this group can be described as well-informed about animal welfare. These consumers have a medium or high level of knowledge of the five freedoms, they had already heard about animal welfare before the interview, and have a high degree of knowledge about protection and welfare of food-producing animals. In other words, all consumers clustered in group one are aware of the existence of policies protecting food-producing animals and are also correctly informed that the main production phases (i.e. rearing, transportation and slaughtering) are all regulated by law.

In addition, these consumers show a pronounced sensitivity as concerns animal welfare. In fact, the interviewee belonging to this group deem themselves to be responsible, as consumers, of the conditions under which food-producing animals are kept. This group of consumers would like to buy animal-friendly foods and would be willing to pay a high

premium price (between 10 and 20%) in order to purchase them.

Although these consumers declare to be willing to purchase products labelled as animal friendly, they actually do not purchase them because they cannot find them in the main retail chains. This is a further evidence of the degree of knowledge of group 1, as indeed it is very difficult, or even impossible, to find and purchase certified animal-friendly foods in the Italian market (Di Pasquale et al. 2014).

As concerns the characteristics attributed to animal-friendly foods by consumers, group 1 answered that these foods are more ethical and greener than conventional products. The answer 'more ethical' is in agreement with the intangible characteristic achieved by foods deriving from animal-friendly production schemes. Similarly, the answer 'greener' can be either associated to organic production schemes (which are often mentioned as an example of animal-friendly products) or connected to the increased 'naturalness' that can be achieved when the rearing systems are extensive and, in general, more respectful of the animals' ethological needs (e.g. pasture, access to open areas, provision of environmental enrichment).

With regard to this issue, it can be seen how the majority of consumers belonging to this group (67%) indicated 'freedom to express normal behaviour' as one of the most important factors in determining the welfare of farmed animals. When asked to score (on a 1–10 scale, where 1 corresponded to minimum and 10

**Table 2.** Characteristics of the four groups of consumers identified by the cluster analysis.

	1. Sensible and aware consumers (36%)	2. Unconcerned consumers (33%)	3. The insiders (6%)	4. Uninvolved consumers (25%)
Gender	Mainly women (75%)	Heterogeneous	Mainly men (90%)	Heterogeneous
Direct knowledge	Have never visited a food-producing farm (indirect knowledge)	Have never visited a farm or heard about animal welfare before the interview	Have previously visited intensive farms at least three times for work reasons	Have visited a farm at least once (intensive, extensive and/or agritouristic)
Indirect knowledge	Well-informed about animal welfare and protection	Poor (or none at all) knowledge, don't seek for information about animal welfare	Show knowledge and proximity to the animal production sector (workers in animal production, agriculture or veterinarians)	Partial information, retrieved from friends and relatives
Social awareness	Believe to be responsible, as consumers, of the welfare of farmed animals	No awareness of the impact of their purchasing choices on animal welfare; are not aware of the existence of any policy on animal protection	Believe that animal protection policies and the Common Agricultural Policy are adequate to guarantee animal welfare.	Are aware of their role and their responsibility towards the welfare of farmed animals
Willingness to pay (WTP)	Would like to buy animal-friendly foods and would pay a high premium price (between 10 and 20%), but declare to be not able to recognize them	Are not interested in animal-friendly products and not willing to pay a premium price for them	Heterogeneous answers	Do not have a consistent purchasing behaviour
Attributes of animal friendly foods	They are more ethical and greener than conventional products	They are not greener than conventional products	Heterogeneous answers	Organic productions are not respectful of animal welfare (low information, sceptical attitude)



to maximum welfare level) the importance of the factor 'expression of species-specific behaviour' in determining the level of animal welfare on farms, all the consumers in this group answered 9/10. The importance attributed by this group of consumers to normal behaviour can also explain the fact that they unanimously disapprove the conditions in which caged laying hens are kept. In fact, when asked to score the rearing conditions of hens, their answer was 1 on a 1–10 scale. Such a result can be explained by the fact that consumers in this group show a high degree both of sensibility and of knowledge about animal welfare. Consumers awareness was increased by the fact that, since 2004, a code reporting the rearing system of the hen has to be mandatorily printed on each egg shell (EC Regulation 589/2008), and in 2013 the ban of unenriched cages for laying hens came into force (law 1999/74/EC; EC 1999). Simultaneously, media campaigns have repeatedly brought to the attention of consumers the issue of caged laying hens' conditions thus drawing consumer attention on this species more than on others. Lastly, it is worth highlighting that all consumers grouped in this cluster declare to have never visited a food-producing farm before the interview. Therefore, although we defined them as interested and sensible towards the animal welfare issue, it is clear that their knowledge of animal farming techniques (and consequently their opinion) is not based on direct experience and might, therefore, be biased. Besides, despite the knowledge of animal welfare policies, this group of consumers appears to be sceptical about politics, and deems politicians responsible for animal welfare level on farms, judging scarce the resources allotted by agricultural policies to animal welfare.

### ***Group two: unconcerned consumers***

The second group includes the consumers that show no interest in the issue of animal welfare (33% of the sample). Consumers belonging to this group are defined as uninterested towards animal welfare since they show a poor (or none at all) knowledge and awareness about the issue, they do not pay attention or are interested in animal-friendly products and they tend to have a disenchanted view about animal welfare.

As concerns direct knowledge, consumers belonging to this group declare to have never visited a farm or heard about animal welfare before the interview, they do not know the five freedoms and are not aware of the existence of any policy on animal protection and welfare. Besides, they do not seek for information

about animal welfare. However, they are well aware of their own level of knowledge on the matter, which they estimate as 'none'.

This group of interviewees affirms that consumers have no responsibility in determining the welfare of farmed animals. Therefore, they do not seem to be aware of the impact of their purchasing choices.

The attitude of group 2 as concerns animal-friendly foods reflects the lack of interest and the disinformation mentioned above. These consumers declare not to pay attention to animal-friendly products when purchasing groceries, and not to be interested in buying them. Consequently, they are not willing to pay a premium price for foods produced under high animal welfare standards.

Another interesting aspect is the fact that this group of consumers unanimously believes that animal friendly foods are not greener than conventional products. The last trait that these consumers have in common is what we defined a disenchanted attitude towards animal welfare. In fact, they believe that animal welfare is not under the responsibility of Veterinary Public Health services and consider null the resources allocated by agricultural policies to animal welfare.

Overall, the declarations from this cluster make us conclude that, besides their lack of interest, these consumers are also sceptical about the fact that the issue might be of any importance from a political or a social perspective.

### ***Group three: the insiders***

This cluster includes 6% of the surveyed consumers. This small group is characterized by consumers that have few, but very specific characteristics in common.

Consumers grouped in this cluster declare to have previously visited intensive farms raising cattle, poultry and/or pigs at least three times, and they indicated 'job' as the reason for visiting. These consumers are workers in the animal production or agricultural field (farmers, agronomists or veterinarians). For this reason, we called them 'the insiders'.

This group includes a large majority of men (90%) and this figure is in agreement with the fact that the agricultural sector employs more men than women in Italy (according to ISTAT 2011, female workers account for 37%).

Consumers in this group have very different socio-demographic characteristics, in particular as concerns education, since it collects agronomists, veterinarians and workers in the agricultural sector. This could be the reason why the opinions they agree on are few,

but very specific, and all ascribable to their knowledge (which is above the average) and proximity to the animal production sector.

These consumers judge favourably the amount of resources allotted by the Common Agricultural Policy (CAP) to animal welfare and they unanimously state that the most important factors in determining animal welfare level are: (1) the availability of space and (2) the absence of mutilations. It is worth noting how consumers who are closer to the animal production sector tend to share the same opinion as concerns stock density and mutilations (e.g. castration and tail docking). In fact, these issues are of current interest by technicians and represent aspects that are still somehow debated. The insiders attributed a score of 6 out of 10 to the importance of space availability and 7 out of 10 to the importance of the absence of mutilation in determining the welfare level of farmed animals. Although these two factors have received the highest score, the points attributed to them are limited. This result is in agreement with what observed by Heleski et al. (2004) who highlighted that practical issues concerning animal welfare often raise only little concerns among the experts in the field.

Another response that groups together the consumers of group 3 is the very high level of welfare they attributed to the bovine specie: the score given was 8/10 for cattle and 10/10 for dairy cows. This positive judgment is unanimous across the group and is in agreement with the results from European Surveys (Eurobarometer 2005; EC 2005). Besides, it has been extensively observed how who lives or works in a rural environment and therefore has a good knowledge of the context tends to be more optimistic when judging the farming conditions of food-producing animals (amongst the others, Te Velde et al. 2002; Boogaard et al. 2006).

#### **Group four: uninvolved consumers**

This last group of consumers gathers 25% of the interviewed and is a heterogeneous group. The characteristics these consumers have in common are few, but significant for the interpretation of their attitudes towards animal welfare and animal-friendly products.

All consumers belonging to this group have direct experience of the animal production sector, because they visited at least once a farm. However, answers are inhomogeneous as concerns both the species (bovine, swine and/or avian) and the kind of farm visited (intensive, extensive and/or agritouristic farms).

The reasons for the visits were commonly referred to be relax (in agritourism) and family (e.g. having a

relative who works as a farmer or owns either a farm or an agritourism). Therefore, although these consumers do have a direct knowledge of the animal production sector, this knowledge is usually not ascribable to a conventional intensive farm, and this may lead to partial or distorted information about the farming conditions under which the majority of animals is kept.

The indirect knowledge of this group of consumers can be defined as partial too. In fact, the sources from which information as concerns animal welfare is drawn are reported to be friends and relatives. However, these consumers are aware not to be informed enough to express a judgment on the economic and political resources allotted to improve animal welfare. Besides, they believe that organic productions are not respectful of animal welfare (they attributed to animals raised under organic farming a welfare level of 4/10). This answer indicates a low level of information, but also a sceptical attitude towards organic products and their characteristics.

When asked to attribute a score (on a 1–10 scale) to the importance that different factors have in determining the welfare level of farmed animals, this group attributed the highest score (10/10) to comfort during transport. This result may be once again due to the influence of media. In fact, in the last years, the transport of food producing animals has repeatedly been the subject both of news reports and of television programs reaching a wide audience in Italy.

It is worth noting how consumers belonging to group one, which are more informed and sensible if compared to group four, do not share this concern over transportation. This might be due to the fact that consumers of group one are aware also of the existence of regulations on transportation, and this could explain their higher degree of confidence in the procedures adopted during this phase.

Group four pools consumers who are aware of their role and their responsibility towards the welfare of farmed animals (they state that the farming conditions of food-producing animals might be influenced by consumers, and that consumers are responsible for the welfare of farmed animals), but this awareness is not translated into a consistent purchasing behaviour.

#### **General remarks**

From the description of clusters, it is clear how none of the socio-demographic characteristics of the sample influenced the groups, apart from gender. In particular, in this study, the annual income does not affect consumers' interest and willingness to pay for certified animal-friendly foods. The effect of income on consumer

perceptions and attitudes towards animal welfare is a bit controversial. Kendall et al. (2006) found that people with lower levels of income have higher concern for AW. This was not supported by recent studies (Vanhonacker et al. 2007; Di Pasquale et al. 2014; Musto et al. 2014). However, such a result may be due to the fact that our research focused on ethical characteristics of foods. When socially important factors are analyzed, the interviewee's response may be biased by the fact that they instinctively give the answers that they believe to be more socially acceptable (Lusk & Shogren 2007) instead of answering critically after an evaluation of their own economic availability.

Another interesting finding of the present study is that women are considerably more represented than men in cluster one (sensible and interested consumers). This finding is in agreement with the literature (Harper & Henson 2001; Roex & Miele 2005; Kendall et al. 2006; María 2006; Vanhonacker et al. 2007; Izmirli & Phillips 2012). However, it may appear to conflict with the first part of the research (Di Pasquale et al. 2014), where the econometric model showed that men declared to be more willing to pay a premium price for animal-friendly foods. This apparent contradiction may arise from the fact that Italian men, who tend to have higher incomes from salary (ISTAT 2013), may declare more easily to be ready to spend for animal-friendly foods. Conversely women, who are generally in charge for groceries in the Italian context (CENSIS 2010; Panico et al. 2011), are characterized (at least in group one) by a good level of sensibility and knowledge of the issue, resulting in a higher willingness to pay a premium price for animal-friendly foods. However, it is worth remembering that our study investigated the declared willingness to pay, which may not be consistently translated into actual purchasing behaviour by the interviewees (consumer/citizen duality; Verbeke et al. 2010).

Knowledge and information of consumers is a key issue for the implementation of marketing strategies when certification schemes are involved. This is true also for PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication) labelled products (EU Reg. 1151/2012). The most comprehensive study on the implementation of PGI labels in EU (London Economics 2008) showed how firms along the supply chains of the products observed only an increase of firm's reputation rather than added value or prices, also due to poor knowledge and understanding by consumers (Areté 2013; Belletti et al. 2014). When ethical values are involved, as is the case with animal-friendly foods, the certification concerns a credence attribute, i.e. a product

characteristic that can neither be directly perceived nor verified by consumers. Instead, people have to put trust in the presence of these attributes, e.g. through confidence in personal communication, labels or controlling organizations (Verbeke et al. 2005). For this reason, to avoid any possible misinterpretation, animal-friendly products should be clearly identified thorough an effective and transparent approach (European Council 2012) possibly claiming the exact welfare improvements attained during the life of the animal (e.g. increased space allowance, access to open areas, possibility to express species-specific behaviours) (Di Pasquale et al. 2014).

## Conclusions

The results of the present study highlight among consumers a diffused lack of knowledge towards the issues of animal welfare and animal protection, with more than a half of the interviewee who never heard about animal welfare and who are unaware of the existence of animal protection policies.

These results, although limited to a sample of Italian consumers, urge a reflection on the needs and the risks that may underlie the creation of a shared European label for animal-friendly foods. In fact, it is worth remembering that in some previous experiences certification efforts did not reach the hoped effects and resulted to be not profitable for the involved production chains.

There is, however, a substantial group of consumers, corresponding to the first cluster, who are sensible and informed towards animal welfare issues and declare to actively look for animal-friendly foods and to be willing to pay a premium price to purchase them. These consumers' wishes are presently frustrated by the low availability and the difficult identification of animal-friendly foods in the Italian market. This group of consumers represents the possible target market for production and marketing strategies aimed at fulfilling their desires in terms of animal-friendly foods.

However, further research on consumer behaviour is needed in order to minimize the risk of a failure of the certification scheme. For example, consumers from cluster one have never visited an intensive farm. How would their perception of animal welfare be modified if they visit a farm at least once? Direct experience may either increase their social responsibility or have the opposite effect, increasing their objective knowledge and limiting their willingness to pay a premium price for animal friendly foods. Besides, it should be investigated to what extent the declared purchasing



intention and willingness to pay are translated into actual purchasing behaviours.

## Disclosure statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

## ORCID details

Jorgelina Di Pasquale  <http://orcid.org/0000-0001-6388-5756>  
 Eleonora Nannoni  <http://orcid.org/0000-0002-5431-6807>  
 Felice Adinolfi  <http://orcid.org/0000-0002-8181-5492>  
 Fabian Capitanio  <http://orcid.org/0000-0003-0327-8019>  
 Luca Sardi  <http://orcid.org/0000-0003-0937-8088>  
 Marika Vitali  <http://orcid.org/0000-0002-8373-0898>  
 Giovanna Martelli  <http://orcid.org/0000-0002-3137-6700>

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