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Factores que influyen en la decisión de compra de productos orgánicos y clasificación de sus consumidores según preferencias en el área metropolitana de Lima, Perú

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ABSTRACT

The analysis of organic-product consumer behavior deals primarily with preferences. There is a need to better understand the predictors that determine consumer choices when purchasing organic products. Metropolitan Lima was chosen as the study location. The structured questionnaire involved interviews with 547 organic consumers of the metropolitan area of Lima, Peru. A principal component analysis and a cluster analysis were used to assess the underlying opinions of consumers of organic products. The results revealed that decisions to purchase organic products in the future were mainly influenced by factors such as health and quality perceptions. Moreover, profiling the clusters as naturalites, drifters (mid-level) and LOHAS (core level) confirmed the results. The link between health and environment, among other benefits, should be strengthened through communication strategies to increase interest from consumers.

Key words: food merchandising, consumer behaviour, market research, organic foods.

RESUMEN

El análisis del comportamiento del consumidor orgánico se relaciona principalmente con sus preferencias. Existe la necesidad de entender a profundidad cuáles son los predictores más relevantes que llevan a los consumidores a adquirir este tipo de productos. El estudio fue desarrollado empleando un cuestionario estructurado con 547 consumidores orgánicos del área metropolitana de Lima, Perú. Se empleó un análisis de componentes principal (ACP) y un análisis de clusters para analizar las opiniones subyacentes de estos consumidores. Los resultados revelaron que las decisiones para comprar productos orgánicos en el futuro se encontraron influenciadas principalmente por factores como la salud y la calidad. Asimismo, los perfiles elaborados como naturalites, drifters (nivel medio) y LOHAS (nivel core) confirman los resultados de manera consistente. La relación entre salud y cuidado del medio ambiente, entre otros beneficios, debería ser reforzada mediante estrategias de comunicación para acrecentar el interés de los consumidores.

Palabras clave: comercio de alimentos, comportamiento del consumidor, investigación de mercados, alimentos orgánicos.

Introduction

Organic foods are increasingly taking the center stage in the world food market and in global consumption patterns (Hjelmar, 2011). Organic produce has been shown to have halo effects on quality perception, which indicates that consumers perceive food labeled as organic as more "healthy, natural, nutritious and sustainable" (Hsu and Chen, 2014; Vega-Zamora *et al*., 2013; Falguera *et al*., 2012). Parallel to the tendency towards healthier food, a shift towards more environmentally friendly or "green" food products has emerged, which is known as "ethical consumption" or "sustainable" (Aschemann-Witzel *et al*., 2013). Thus, organic food purchases can be seen as actions motivated by beliefs about healthiness, good taste and a positive impact on the environment, among others (Vega-Zamora *et al.,* 2013; Shafie and Rennie, 2012).

Today, market globalization has modified traditional networks of information, production and marketing. Moreover, city growth has been accompanied by development in the global food industry, which has adopted intensive methods of agricultural production to meet the consumers' increasing demands for food (Falguera *et al.,* 2012). The food consumption culture has been closely associated with economic growth. The "health-aimed stage" correlates income with an increased consciousness of the effect of food on human health (Nam *et al.,* 2010). Peru has posted strong growth after two decades of economic and political vulnerability (Evans and Tveteras, 2011). This

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country's economy has registered a sustained growth of 5.7% per year on average (UNDP-Paper, 2012). Gross per capita income increased more than 50% from 2005 to 2011 (UN Data, 2014). Furthermore, the national poverty rate fell from 48.5% in 2004 to 23.9% in 2013 (World Bank, 2014). Policies focusing on trade liberalization and on attracting foreign capital, prudent macroeconomic policies and a favorable external environment favored Peru's solid economic performance and stability (World Bank, 2014). The metropolitan area of Lima is the fifth most populated area in Latin America and accounts for nearly 28% of the total Peruvian population (8,693,387 inhabitants), which contributes around US$ 3,503 of the per capita GDP (Del Carpio and Vila, 2010). Lima's fecundity ratio has fallen due to better sanitary conditions, an increase in women's education and access to work, urbanization improvements, less migration from provinces to the capital and the impact of demographic policy control. Around 60% of the families in this area have a refrigerator at home and 86% have a gas stove for cooking (Del Carpio and Vila, 2010).

Organic agriculture in Peru is a growing segment in the national food sector. All 24 departments in Peru have organic production. The total organic area is approximately 305,000 hectares and there are more than 47,000 producers who are not all certified (FIBL and IFOAM, 2014; Proexpansión, 2014). The main organic-certified products from Peru are coffee, cacao, bananas, quinoa, and Brazil nuts (Senasa, 2013). Domestically, the gastronomy movement has contributed to steady growth in the local demand for high quality indigenous food, including organic food. After Law 29196 for the Promotion of Organic Production was passed in 2012, the platform for coordination and policy development helped boost organic production and provided assistance to the organic sector, with a special focus on smallholders and domestic markets (FIBL and IFOAM, 2014). Peruvian organic food remains a niche yet rapidly growing market (Mohamad *et al.,* 2014). It has penetrated large supermarket chains such as Wong and Vivanda, which are located mainly in Lima.

Consumer behavior analysis deals primarily with preferences and how they are formed in the mind of the consumer (Ozguven, 2012). Consumers are increasingly concerned about and conscious of what they eat, so it is important to understand the implications of organic food (Pugliese *et al.,* 2013). Several studies have provided evidence that consumer attitudes towards organic food significantly influence their choice (Stolz *et al.,* 2011). Previous Peruvian studies have been primarily descriptive in nature and little empirical search has focused on measuring the main factors behind why organic consumers choose to purchase organic products. It is said that when consumers have a better understanding of organic foods, awareness and purchase intentions increase (Mohamad *et al.,* 2014). Therefore, this study's objective was to statistically determine the factors that influence the purchase of organic food and to characterize clusters of organic consumers to understand organic-product consumption in the metropolitan area of Lima in Peru.

Material and methods

The metropolitan area of Lima was selected as the location of this study. This area was chosen based on socio-economic factors including a marked improvement in the standard of living and vast increase in media coverage, among other factors (Instituto Español de Comercio Exterior, 2010). Given that the weight of the organic consumer population in the total population cannot be determined, the choice-based sampling approach precludes making more general inferences about a larger group (Thompson and Kidwell, 1998). Even though this research was limited, it provided an overview of the relevant issues and insights that affect the consumers' perceptions of organic food products in a city such as Lima. Primary data was gathered at the study site every weekend between April and November 2014 at organic markets in Lima, such as "el Mercado Saludable de La Molina" (the health market of La Molina) and "Ecoferia Lima come sano" (Lima eco-fair eat healthy). The structured questionnaire was administered with support from "el Mercado Saludable de La Molina" and from students at the Universidad del Pacífico. The survey involved interviews with 547 consumers who purchase organic products. Average time to complete the interview was between 15 and 20 min. Topics in the survey's questionnaire were based on the main factors that compel organic-product consumers to purchase organic products. The study used a Likert scale questionnaire ranging from 1 (Strongly disagree) to 5 (Strongly agree) to measure the perceptions of these consumers. Additionally, variables in the survey questionnaire were based on an amalgamation of several surveys that were developed to assess the socio-demographic characteristics of households (ORC Macro, 2004) (Tab. 1).

The organic market is the fastest growing sector in the global food industry (Agriculture and Agri-Food Canada, 2014). The increase in sales volume has been generated by organic consumers whose interests in organic food are driven by different values and motivations (Hamzaoui-Essoussi *et al*., 2013; Hughner *et al.,* 2007). Many studies have also attempted to determine the most important

motivations behind organic product purchases (Hjelmar, 2011). Organic produce has intrinsic and extrinsic variables that are highly correlated. Thus, in the first stage of the analysis, a Principal Component Analysis (PCA) was used as a variable reduction procedure to summarize the organic-product consumers' underlying perceptions through small components. Tab. 2 presents the summary of survey responses based on the evaluation of the organic products.

TABLE 1. Descriptive statistics for socioeconomic characteristics of organic-product consumers in the metropolitan area of Lima.

Variables	Mean	SD	Min	Max
Education (years)	15.11	2.95	5	23
Age (years)	41.73	15.49	13	84
Number of children	1.27	1.24	0	6
Family members (number of people)	3.88	1.49	1	10
Monthly conventional expenditure (nuevos soles)	805.78	436.15	0	2000
Monthly organic expenditure (nuevos soles)	439.38	431.35	10	4000
Sample size	547			

Approximate exchange rate PEN to USD rate at the study rate: 2.835 PEN (Central Reserve Bank of Peru, 2015).

TABLE 2. Lima consumers perceptions towards organic products.

Item	Description
Environment	Organic products benefit the environment
Animal welfare	Organic products respect animal welfare
Taste	The taste of the organic product is delicious
Health	Organic food is healthier than conventional food
Diabetes	If a person has diabetes, it is good for his or her health to consume organic products
Cancer	If a person has cancer, it is good for his or her health to consume organic products
Certification	Certification guarantees the organic product's food safety
Brand	The brand that identifies the seller is clearly shown on the package
Quantity	The product quantity is fair compared to the price paid
Price	The price is fair in comparison to the quality of the organic product
Quality	The quality of the product is acceptable
Novelty	Organic products are novel and original
Convenient	Organic products are convenient

The underlying main values based on organic food consumption vary from one country to another. In Canada, consumers identify health, the environment, and support of local farmers as the principal values that motivate their consumption of organic food (Hamzaoui-Essoussi *et al.,* 2013). In France, health and environment concerns are always mentioned, but taste and tradition are important too (Hamzaoui-Essoussi *et al.,* 2013; Sirieix *et al.,* 2006). In Turkey, the findings of the study proposed by Cabuk *et al*. (2014) proved that health consciousness and environmental and food safety concerns have an effect on attitudes towards organic foods. In Latin America, for instance, the main reasons that Mexicans consume organic products are health, environmental conservation, taste, freshness and support of the local economy (Pérez-Vásquez *et al.,* 2012). In Argentina, organic-product consumers worry about their health, take care with their meals, worry about hormones and pesticides in food content, and care about the food nutritional content as a quality attribute (Rodríguez *et al.,* 2006). Next, a hierarchical cluster analysis was used to organize the observed data of the organic-product consumers into meaningful taxonomies based on combinations of factor analysis variables. Organic-product consumers have been characterized based on their interest level (Proexpansión, 2014; Chassy *et al.,* 2014; Hartman Group, 2010) among other factors. Thus, one-way ANOVA was used to determine which classifying variables were significantly different between the groups. This analysis included six socio-economic factors (Tab. 1). The descriptive statistics on the scale of variables for each of the clusters were calculated and the differences were noted.

Finally, the relationships between the qualitative variables and the groups (clusters) were assessed using a chi-square test. Categorical data were dealt with using crosstabs (Burns and Burns, 2009). It is recommendable to pose different questions to obtain correct information rather than posing just one question that contains all the answers. This is particularly true when the question is a "why" question that includes two aspects: the attributes of the product and the influences that motivates consumers to learn about and purchase the product (Malhotra, 2008). Therefore, three questions were used to create a profile for each cluster to depict the main factors that motivate organic consumers from Metropolitan Lima to purchase these products and to determine how much these consumers spend on organic products (nuevos soles/month).

Results and discussion

The demand for organic products in the metropolitan area of Lima is small, but it is expanding and expected to grow further (SECO and GIZ, 2013). An assessment of the underlying attitudes of organic consumers in Metropolitan Lima was conducted. This was done to better understand what motivates these consumers to consume organic products. For this specific purpose, an initial analysis was conducted through principal component analysis (PCA) with a varimax rotation of factors because it implies a factorial method of data analysis of multivariate statistics and

creates a visualization of the system of relations between variables and individuals (Hair *et al.,* 2010) to assess the underlying opinions of organic consumers in Lima and the group variables according to shared variance.

The data in our study showed that there are a number of factors that lead organic-minded consumers to buy organic food products. An examination of the matrix showed four factor solutions. The 57.8% of the variance in our items was explained by the four extracted components: sensory attributes and ecological welfare (27.47%), health concerns (12.01%), food safety (9.75%) and, finally, convenience/ curiosity (8.53%). It is important to ascertain how reliable the internal consistency of the scales is, which is why Cronbach's alpha (α) was calculated. Tab. 3 displayed the varimax rotated component matrix for PCA.

TABLE 3. Varimax rotated component matrix for principal component analysis of organic-product consumers in the metropolitan area of Lima.

Item	Sensory attributes, quality and ecological welfare	Health concerns	Food safety	Convenience/ curiosity
Animal welfare	0.728	0.256	0.000	-0.009
Environment	0.710	0.108	0.159	0.000
Taste	0.650	0.083	0.035	0.271
Quality	0.451	0.171	0.222	0.199
Diabetes	0.133	0.884	0.045	0.036
Cancer	0.124	0.871	0.124	0.009
Health	0.366	0.533	0.016	0.124
Certification	-0.036	0.075	0.794	0.070
Brand	0.101	0.131	0.721	0.205
Price	0.352	-0.057	0.59	-0.123
Novelty	-0.004	0.038	0.093	0.878
Convenient	0.344	0.061	0.062	0.562

Organic production combines best environmental practices, preservation of natural resources and animal welfare standards while ensuring that no genetic engineering, pesticides, additives, or fertilizers are used; each stage of organic food production is controlled and certified. Indeed, organic labels are perceived as symbols of regulation and, therefore, are an important source of trust (Hamzaoui-Essoussi *et al.*, 2013). Hughner *et al.* (2007) identified nine factors that drive the purchase of organic food: Health and nutrition concerns, superior taste, concern for the environment and food safety, interest in animal welfare, support for the local economy, wholesomeness, nostalgia, and fashionableness/curiosity. Stolz *et al.* (2011) indicated that the most important attitudinal choice factors include health concerns, environmental concerns, taste preferences and preferred origin of food. Mohamad *et al.* (2014) mentioned that organic food product consumption is a rising pattern due to the heightened level of consumer awareness about food safety, quality, health concerns and responsibility to Mother Nature, among others. Lee and Yun (2015) stated that consumers' perceptions of five organic food attributes (nutritional content, natural content, ecological welfare, sensory appeal, and price attributes) influence utilitarian and hedonic attitudes toward the purchase of organic food.

The factor scores obtained from the PCA were subjected to a second analysis, which entailed a hierarchical cluster analysis, to group the Lima consumers with similar patterns. Three segments were assessed with the dendrogram and intercepted with the three components to determine if the socio-economic characteristics of different consumers influenced their assessment of organic products. Fig. 1 shows the hierarchical cluster analysis dendrogram and portrays the quantitative relationship among the three clusters. The vertical axis corresponds to Ward's method distance, which measures the quantitative similarity between clusters.

The clustering variables were profiled for the three-cluster solution to confirm that the differences between the clusters were distinctive and significant in light of the research question and to define the clusters' characteristics (Hair *et al.,* 2010). For this purpose, a third analysis was conducted using variance analysis. The one-way ANOVA indicated significant differences between two or more different independent cluster means. From the one-way ANOVA, the F statistic provided evidence that each cluster was distinctive (Malhotra, 2008). None of the variables were significant, which means that there was no difference between the means among the clusters. This implies that the organic-product consumers had relatively equal demographic characteristics. Nonetheless, the variances of the expenditure variables (conventional and organic products monthly expenditures in nuevos soles) were significantly different.

Table 4 showed the mean values for clusters related to the socio-economic characteristics of consumers in the metropolitan area of Lima.

Welch and Brown-Forsyth procedures were reported because the assumption of homogeneity of variance was violated for certain variables (Field, 2012). The approximate exchange rate of PEN to USD at the study rate: 2.835 PEN (Central Reserve Bank of Peru, 2015).

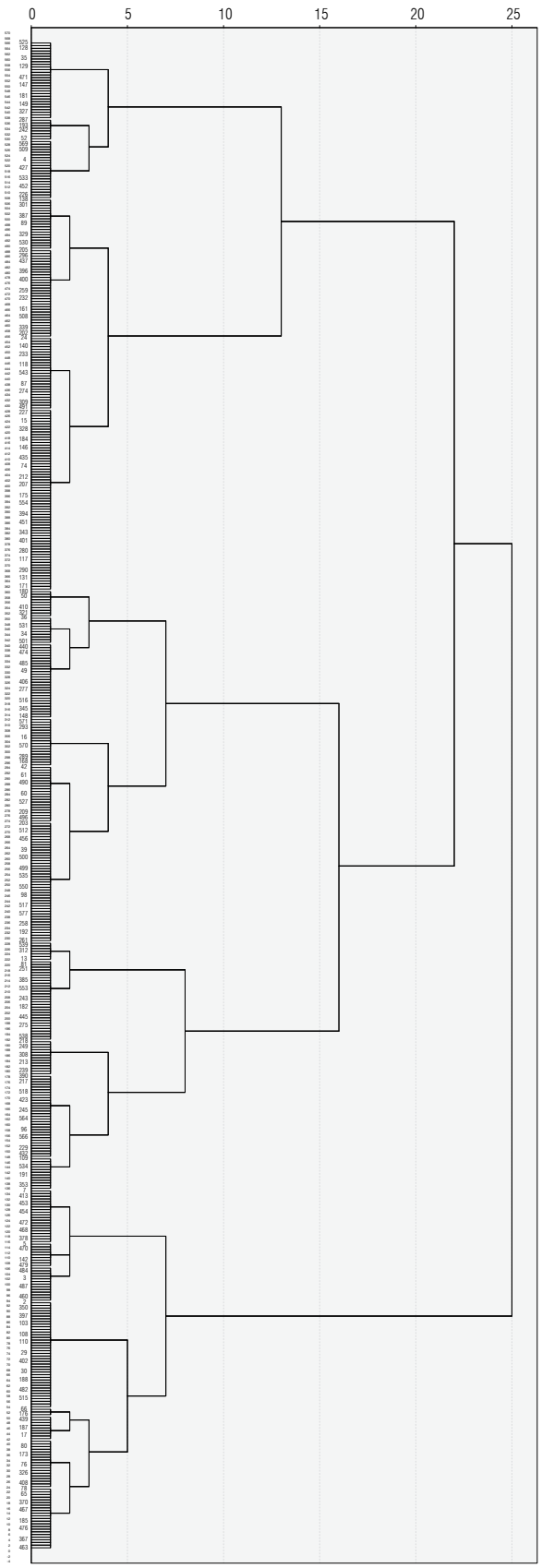

FIGURE 1. Hierarchical cluster analysis dendrogram using the Ward method for organic-product consumers in the metropolitan area of Lima.

Figure 2 helps to explain the position of the clusters and their interpretation for the first (sensory attributes, quality and ecology welfare) and second (health concerns) factors.

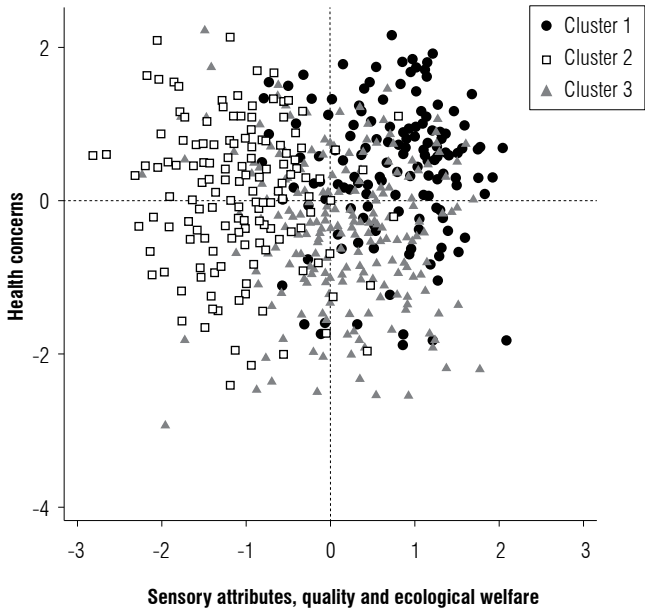

FIGURE 2. Factor 1 *vs.* factor 2 and clusters for organic-product consumers in the metropolitan area of Lima.

For the socio-economic characteristics variables, Tukey's test was used to compare each group of participants to all of the remaining groups. However, none of the clusters were significant. As the population variances were unequal, a Games-Howell test was conducted to compare the difference of means for the "monthly conventional expenditure" and the "monthly organic expenditure". For the "monthly conventional expenditure" variable, the cluster 1 and 3 groups and cluster 2 and 3 groups differed significantly ($P \leq 0.01$ between cluster 1 and 3 and $P \leq 0.05$ between cluster 2 and 3). Clearly, the cluster 3 consumers had the highest expenditure for both conventional and organic products. For the "monthly organic expenditure" variable, just cluster 2 and 3 considerably differed ($P \leq 0.05$). In this particular case, the cluster 2 consumers had the lowest monthly expenditure for organic products.

The last step was to profile the clusters as there was a difference between the means of the variables "monthly conventional expenditure" and "monthly organic expenditure". Therefore, clusters were contrasted with the results relative to the main reasons why consumers purchase organic products in the metropolitan area of Lima using cross tables. First, the resulting three clusters were crossed with the question "what is the main reason you purchase organic products?" and the results are reported in Tab. 5.

TABLE 4. Mean values for clusters against socio-economic characteristics for organic-product consumers in the metropolitan area of Lima.

Variables	Cluster 1		Cluster 2		Cluster 3		Total		F	Welch	Brown-Forsyth
	Mean	SD	Mean	SD	Mean	SD	Mean	SD			
Education (years)	14.95	2.74	15.21	2.87	15.21	3.12	15.13	2.93	0.46 NS		
Age (years)	39.87	15.33	42.3	15.38	42.71	15.58	41.72	15.47	1.75 NS		
Number of children	1.2	1.26	1.27	1.27	1.3	1.2	1.26	1.24	0.33 NS		
Family members	3.93	1.56	3.92	1.52	3.78	1.41	3.87	1.49	0.61 NS		
Monthly conventional expenditure (nuevos soles)	748.45	426.27	764.45	388.33	883.67	468.12	808.02	437.58		5.39***	5.92***
Monthly organic expenditure (nuevos soles)	450.18	443.08	367.47	299	480.54	489.4	439.08	430.27		4.44***	3.48**
Sample size	168		154		221		543				

NS, not signicant; ** $P \leq 0.05$; **** $P \leq 0.001$.

TABLE 5. Main reason to purchase organic products in the metropolitan area of Lima.

Main reason	Clusters (%)			Observations count
	Cluster 1	Cluster 2	Cluster 3	N
Quality	32.60	28.90	38.50	135
Health	32.40	25.50	42.10	259
Variety of organic products	33.30	30.00	36.70	30
Curiosity	11.50	31.40	57.10	35
Taste and freshness	24.20	38.70	37.10	62
Other reasons	56.30	31.30	12.40	16
No answer				10
Total				547

Pearson chi-square (18,229; 10; $P \leq 0.05$), contingency coefficient (.181; $P \leq 0.05$).

TABLE 6. Main reason for visiting an organic shop in the metropolitan area of Lima.

Main reason for visiting	Clusters (%)			Observations count
	Cluster 1	Cluster 2	Cluster 3	N
Organic products' benefits	37.5	21.7	40.8	120
Health	30.9	28.3	40.8	272
Taste	10.4	31.0	58.6	29
Ecological welfare	45.5	27.3	27.3	22
Processed products	16.7	33.3	50.0	24
Novelties	20.8	45.8	33.3	24
Proximity	37.9	41.4	20.7	29
Other reasons	17.7	29.4	52.9	17
No answer				10
Total				547

Pearson chi-square (27,563; 16; $P \leq 0.05$): contingency coefficient (0.22; $P \leq 0.05$).

The organic industry has further confirmed the academic evidence that organic purchases are primarily driven by health reasons and food safety (Chassy *et al.,* 2014). Cluster 3 presented the highest frequency among all the clusters in the main reasons why these organic-product consumers purchase organic products. Taste and freshness are traditional attributes that are considered within the quality factor (Shafie and Rennie, 2012). In this research, these two variables were isolated from the variable "quality" in order to understand how much weight consumers put on taste and freshness when buying an organic product. As seen in Tab. 5, the "taste and freshness" variable was the main reason consumers belonging to cluster 2 had, followed by cluster 3 with just a 1% of difference. Then, the clusters were crossed with the variable "main reason for going to organic shops to purchase organic products". This question was posed in order to determine if other factors, such as "buying novelties" or "proximity to their homes," influenced the decision to purchase organic products. Results are shown in Tab. 6.

According to some studies, organic-product consumers are, first of all, environmentally conscious, while other studies argue that egocentric values such as health, attitude towards taste, and freshness, among others, influence organic food choice more than attitudes towards the environment and animal welfare (Hamzaoui-Essoussi *et al.*, 2013). In the case of cluster 1, as we were anticipated in the analysis of Tab. 5, a large proportion of consumers from cluster 1 responded that they visit organic shops because of their concerns about "ecological welfare". Cluster 2 presented the highest percentages in terms of the question linked to "novelties," e.g. new products offered. "Proximity" to their homes was also a key reason for visiting organic shops. A particularly high percentage of consumers from cluster 2 cited this reason. However, a question related to the transportation that consumers were using for going to the organic market revealed that only 20.4% of the consumers used a bicycle or went to the organic market by walking. Within that 20.4%, cluster 1 presented the highest percentage (41.4%), which revealed that these consumers live closer to organic shops, followed by cluster 2 with 31.5% and, finally, cluster 3 with 27%.

Tab. 7 shows the results relative to the last question for the "main reason for organic food consumption" in the case of

both groups and clusters. It is noteworthy that most respondents from cluster 2 showed their preference for the "variety of products" variable. This same cluster reported that the "trustworthiness" variable relative to organic products is the second major driver of organic food consumption. Additionally, a question regarding the "organic purchasing frequency" was also made in order to support the results of this section. 72.2% of these organic consumers attended these organic markets weekly or every two weeks. Cluster 3 presented the highest percentage of frequency among all of the clusters (38.8%), followed by cluster 1 with 32.9% and, finally, cluster 2 with 28.3%.

TABLE 7. Main reason for organic food consumption in the metropolitan area of Lima.

Main reason for visiting	Clusters (%)			Observations count
	Cluster 1	Cluster 2	Cluster 3	N
Taste	19.6	35.7	44.6	56
Variety of organic product	3.7	55.6	40.7	27
Health	35.7	25.2	39.1	322
Nutrition	31.1	23.6	45.3	106
Trustworthy	25.0	45.8	29.2	24
Others	50.0	0.0	50.0	2
No answer				10
Total				547

Pearson chi-square (26,881; 10; $P \leq 0.01$); contingency coefficient (0.22; $P \leq 0.01$).

One of the goals of this article was to profile the different consumers in the metropolitan area of Lima, Peru. The Hartman Group (2008), in its report "The Many faces of Organic", classified organic-product buyers into three categories: core, mid-level and periphery. Similar to the Hartman Group, the Natural Marketing Institute (NMI) classified consumers by their level of interest in products promoting health and environmental safety. Tab. 8 contains the results of profiling the three different clusters derived from this research and the classification of organic consumers proposed by the Hartman group and the NMI. The results also matched the monthly organic product expenditure presented in Tab. 4.

A wide range of research has revealed health concerns as the primary factor that motivates consumers to spend more of their food budgets on organic products (Chassy *et al.,* 2014). Magnusson *et al.* (2003) found that British respondents most strongly associated organic food purchases with human health benefits. The results of the aforementioned studies confirmed that the more significant motives for choosing organic food are the health factor (Shafie and Rennie, 2012) and quality perceptions (Rodríguez *et al.,* 2006), among other factors seen in the results of this research (Tab. 3). Furthermore, the results indicated that the clusters of organic-product consumers in the metropolitan area of Lima were profiled consistently with the classification of the Hartman Group and the Natural Marketing Institute (NMI) as internal middle level consumers and naturalites (cluster 1), external middle level consumers and drifters (cluster 2) and, finally, core level consumers and LOHAS (cluster 3).

To successfully respond to growing organic food market demands, marketers and policy makers should understand consumer psychological preferences for organic food over conventional food and adjust marketing strategies accordingly to change their food consumption decisions (Lee and Yun, 2015). To increase the reliability of organic products, investment must be made in marketing communication and public relations to increase naturalite consumer awareness of the logo/brand and also the certification. Moreover, direct consumer contact with producers stands as a guarantee of quality. Drifter consumers buying from farmers (producers) experience proximity to the farm, fresh products and quality and display a better understanding of the organic farming process. They show a clear interest in this process's impact on health and the environment (Hamzaoui-Essoussi *et al.*, 2013). Distributing informational brochures at the retail point of sale is a very important strategy when seeking to capture the attention of drifters. The link between health and environmental benefits should be strengthened to increase interest among consumers (Shafie and Rennie, 2012; Magnusson *et al.,* 2003), who are mid-level (naturalites and drifters), and the quality factor should be emphasized through communication campaigns designed to inform customers about the benefits of organic products. Finally, conventional buyers

TABLE 8. Organic-product consumer from the metropolitan area of Lima market segments profiled with the theory proposed by Hartman Group and NMI.

Classification	Cluster 1	Cluster 2	Cluster 3
Hartman Group	Internal middle level	External middle level	Core level
NMI	Naturalites	Drifters	Lifestyles of health and sustainability (LOHAS)
Description	Care about environmental issues and the benefits of consuming organics. They have a deeper, integrated approach to organics	Consider variables as "proximity" or buying "novelties" as the main purpose of purchasing organic products. Closer to the periphery in the classification	Concern about health, quality, taste and nutritional level, among other issues. Engaged and passionate about organic products

can also be a target group for organic product purchases in the future based on factors such as emphasizing taste (providing tactile, visual, taste and sample cues at point of purchase), nutritional value, ecological welfare, health, food safety and quality. These attributes can make conventional consumers eventually modify their shopping habits.

Conclusions

This research provided insight into the decision-making process of organic-product consumers in the metropolitan area of Lima. The values of the consumers, particularly in terms of health and quality perceptions, seemed to be predictors of their organic purchasing behavior. Additionally, profiling the clusters as naturalites, drifters (mid-level) and LOHAS (core level) confirmed these results. Investment in marketing communication and public relations is needed to increase the naturalite consumer's awareness of the logo/brand and/or the certification. Ensuring proximity to farmers and distributing informational brochures at the retail point of sale are important tactics in efforts to develop a better understanding of drifter consumers. The organic food marketing industry should strengthen the link between health and environmental benefits through communication strategies to increase interest among consumers who are in the mid-level (naturalites and drifters).

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