

**A Better Understanding of French LOHASians:**

**From the Perspectives of Price Sensitivity and a Community-Based Social Network**

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## **Abstract**

There are ongoing shifts in consumer attention to sustainable lifestyles, notably LOHAS (lifestyles of health and sustainability). However, there has not been much research done on French LOHASians. Drawing from in-depth interviews with practitioners and quantitative data about consumers' daily environmental actions, the authors use a structural equation model to investigate the effects of social networks and price on LOHASians' consumption. Results suggest community - based social networks affect green purchasing behavior and LOHASians are price insensitive. The authors extend this analysis to propose integrated marketing practices to companies.

**Key word:** LOHAS, Sustainable Consumption, Social Network, Price Sensitivity

**Introduction and Objectives:** This article investigates LOHASians' consumption. It aims to identify how factors such as price sensitivity and social networks affect French LOHASians' consumption.

**Conceptual Framework/ Literature Review / Research Model:** In this article, we have reviewed the literatures on green consumers, who are the early adopters toward lifestyles of health and sustainability. Meanwhile, we studied Ray and Anderson's work (2001) and Natural marketing institute's report (2008). Based on the literature review, we develop three hypotheses to investigate the relationship between price sensitivity and adoption of LOHAS, community-based social networks and LOHASians' consumption. Furthermore, we illustrate that LOHAS-oriented behavior emphasizes the importance of health and sustainability and convenience to get access to green products and services.

**Methodology:** First, through interviews with practitioners, we generated a preliminary list of green behaviors. Then, we designed a questionnaire to collect data from a random sample of 163 consumers in France, investigating the factors that affect their consumption.

**Findings:** This article offers practical guidelines to companies that are targeting French green consumers, especially the LOHASians. The results show that French seniors appear to be easier to engage in LOHAS. LOHASians are less price-sensitive regarding green consumption. Community-based social networks have positive effects toward the adoption of sustainable behaviors.

**Discussion:** Lifestyles of health and sustainability are becoming more and more welcomed among the consumers. Companies must react to the changing customer requests and try to satisfy the customers at a profit in a healthy and sustainable context. Our results show that consumers seem to have misunderstandings toward green products and service. Moreover, consumers have difficulties to reach the green information. Hence, government and companies should improve the advertising campaigns on LOHAS and accessibilities to reach green and healthy products/services.

**Limitations:** The first limitation in this article is the sample size. Second, this research is conscribed to France only.

**Further Research:** First, it will be interesting to investigate LOHASians' consumption in other European countries. Second, based on our result, one can further test LOHASians' purchasing behavior towards organic foods, or one can study seniors and their adoption of LOHAS-oriented products/services.

**Managerial implications:** This study provides an insight into French LOHASians. It shows that French LOHASians link their purchasing behavior to a health and sustainability orientation. Companies targeting this group of consumers should emphasize individual responsibility in protecting the environment and facilitate networking to spread word of mouth. Meanwhile, our finding shows that senior people tend to value LOHAS more, and therefore should be the important segment to target for green marketing. Last, it is environmentally crucial to promote public green behavior, which is still underdeveloped in most societies.

## **A Better Understanding of French LOHASians: From the Perspectives of Price Sensitivity and a Community-Based Social Network**

### **1. Introduction**

Sustainable responsibility is an increasingly important issue for government, companies, and consumers. On the one hand, governments have begun to adopt green legislation (Boiral, 2006) and companies try to act as green as they can (Campbell, 2007; Walker et al., 2008). On the other hand, consumers have begun to shape their consumption choices in accordance with their sustainable principles (Sanne, 2002). Consumers are becoming more and more demanding and critical about what they buy. They are concerned with a lifestyle as health and sustainability (LOHAS). In order to attract and retain customers, companies therefore should put more efforts into sustainable marketing (Kotler, 2011).

According to the Natural Marketing Institute's (NMI) (2008) report, which has screened 35,000 consumers in ten countries<sup>1</sup>, France has the lowest percentage of LOHAS consumers among the selected countries, although France has largest percentage of naturalites. In view of this result, we were interested in figuring out the profile of LOHASians in France. In our research, we provide a consumer perspective of LOHASians. Our research questions are twofold. Who are French LOHASians? How do factors originating from social networks and price affect French LOHASian behaviors? This work contributes in two areas. First, it provides recognition of LOHAS in France. We match NMI's segmentation results with our findings. Second, through explaining the characteristics of French LOHASians, our work enables a better understanding of the impacts of social networks and price on LOHASians.

We organize the remainder of the article as follows: we begin with a discussion on the trend of LOHAS. We then review the literature on LOHAS. We describe the origin of LOHAS, explore the characteristics of LOHASians, identify the LOHAS markets, and so forth. Afterward, we formalize the related hypotheses. Then, we describe research methodology. Our findings begin by identifying French LOHASians, which is drawn mainly from socio-demographic features. After that, we investigate the relationship between price insensitivity and LOHASians' consumption as well as social network effects on the adoption of LOHAS. Finally, we discuss the theoretical, empirical, and managerial contributions, and the article ends with further research directions.

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<sup>1</sup> The ten countries are Belgium, France, Germany, Italy, Japan, Netherlands, Portugal, Spain, the United Kingdom and the United States.

## 2. Literature Review and Hypotheses Development

Many types of consumers are increasingly interested in products and services that are environmentally friendly (Haanpää, 2007). These kinds of consumers have changed the consumer market and have driven the market need for organic and locally grown food, natural products, hybrid and electric cars, green buildings, efficient energy consumption, fair trade products, and so forth. Lifestyles of health and sustainability are emerging and becoming more and more welcomed among consumers (NMI, 2008). Companies, therefore, must react to changing customer requests and new regulations on social-environmental impacts. The marketing mind-set has shifted to satisfy the customers at a profit in a healthy and sustainable context.

Up to now, research on green consumers mainly covered the following areas. First, it identified green consumers, the key players in sustainable consumption. According to Gilg et al. (2005), green consumers are influenced by environmental and social values, socio-demographic variables, and psychological factors. The survey highlighted that there are four types of environmentalists (committed, mainstream, occasional, and non-environmentalists). Second, the research focused on the intentions as well as difficulties of the adoption of green consumption practices. For instance, environment concern, food safety, support for the local economy, fashion, curiosity, and healthiness are the major motivations for green consumption behaviors (Smith and Paladino, 2010; Hughner et al., 2007; Scheibehenne et al., 2007; Van Birgelen et al., 2009). The possible hindrance to purchase green include high prices, insufficient availability of green products, difficulty of reaching and verifying the green information, and so on. Third, the research also emphasized how to realize green consumption, for instance, Gilg et al., (2005) proposed the 4R guidelines (reduce, reuse, recycle, and rethink). Our research extends this previous work to explore the specific group of green consumers, who are called LOHASians. We investigate how factors such as social networks and price affect the adoption of LOHAS.

### 2.1 The LOHASians

LOHAS is an acronym for *lifestyles of health and sustainability*, which was first proposed by Paul H. Ray and Sherry Ruth Anderson (2001) in the mid-1990s in the United States. Nowadays, LOHAS consumers are becoming attractive to companies because they represent an emerging market in the world and their numbers are set to grow in the coming years. According to the NMI, there are five consumer segmentations in the market, namely LOHAS, naturalites, drifters, conventionals, and unconcerned (see table 1).

**Table 1: Consumer Segmentation**

<b>LOHAS</b>	Hold strong beliefs about a sustainable environment Dedicated to personal and planetary health Lifestyle oriented Highest consumption rate of green products Early adopters of green products Highest of median income among the five segments
<b>Naturalites</b>	Primarily concerned with personal health and wellness Need incentives to behave in a green manner
<b>Drifters</b>	High commitment to sustainability but few real green actions Price sensitive
<b>Conventionals</b>	Focus more on practicality and frugality than environmental protection Have some “municipal” behaviors (e.g., recycling and energy conservation)
<b>Unconcerned</b>	Lack of interest about eco-friendly products and environmental protection

*Source:* The LOHAS consumer trends database (Natural Marketing Institute, 2008).

LOHAS consumers are the early adopters of green products and services. They seek to actively integrate an ecological lifestyle, sustainable development, alternative healthcare, and personal fulfillment into their lives. They tend to consume the products and services that represent similar values to their own. They are willing to share their green experiences and also persuade surrounding people to buy green. To some extent, they are social network based, in terms of connections with their local communities and usage of high technology. Furthermore, they have relatively medium-sized income that allows them to pay higher prices for healthy and sustainable products and services. With growing sustainability awareness in business and with consumers, the LOHAS market is becoming an important market segment for companies (NMI, 2008).

Naturalite consumers have fewer concerns about the planet's sustainability. They are more driven by personal health and wellness. They want to do more for the environment but only if their personal interests can be fulfilled. Hence, their attitudes toward the environment are less proactive than the LOHASians. In France, there are more Naturalite consumers than LOHASians (NMI report, 2008). Drifters have good awareness of green issues but they are price sensitive. Thus, there exists an attitude-action gap in drifters that prevents them from consistently realizing green consumption. Conventionalists recycle and conserve energy to meet the requirements of municipal legislation. They give priority to cost savings rather than environmental protection. Finally, the unconcerned segment lacks interests about green products in general.

## 2.2 Hypotheses

According to the literature review, green consumers share similar socio-demographic characteristics, such as they have a medium-sized income, women are more concerned about purchasing green, they are generally highly educated people who have more facilities to obtain green information, and so on. Furthermore, age differences might affect this consumer's decision making (Gilg et al., 2005; Yoon et al., 2009). For instance, health-related aspects become more and more relevant to aging consumers. Older generations tend to place a higher value on green nutrition. Hence, we assume that there is a positive relationship between socio-demographic features and LOHAS. In particular, we focus on the relationship among age, socio-professional category, habitat type (e.g., living in a big city or small town), gender, and income compared to LOHAS choices.

H1: The adoption of LOHAS is positively associated with specific socio-demographic features.

H1a: The adoption of LOHAS is positively associated with age.

H1b: The adoption of LOHAS is positively associated with socio-professional category.

H1c: The adoption of LOHAS is positively associated with habitat type.

H1d: The adoption of LOHAS is positively associated with a consumer's gender.

H1e: The adoption of LOHAS is positively associated with income.

In general, consumers' willingness to pay a surcharge for various product categories might differ. For instance, certain consumers accept paying a higher price for organic foods (NMI, 2008). Therefore, we form the hypothesis as follows:

H2: The price sensitivity of LOHASians varies according to the type of products and services.

Influenced by the media and community, there is a trend for the younger generation to take LOHAS into consideration. In our research, social networks include friends, colleagues, neighbors, and the use of high technology (e.g. internet, cell phone, etc.). These networks help consumers to achieve the information on green products and services as well as LOHAS (Olli

et al., 2001). Therefore, we consider that different kinds of social networks and proximities of technology contribute to the adoption of a healthy and sustainable lifestyle:

H3: Networks are positively associated with the adoption of LOHAS.

H3a: Personal integration in a group is positively associated with the adoption of LOHAS.

H3b: When the consumers use more high technology communications, they are more likely to adopt LOHAS.

### 3. Methodology

In order to better understand the consumer intention toward sustainable consumption, namely LOHAS, we looked for companies that may be a good fit for this category. We interviewed two practitioners in the field of greenmarketing. The first informant is responsible for customer relationship management in an electricity company, which is a producer of renewable energy: hydro, wind, solar, and bio mass. The second informant is a consultant in a market research firm. She is responsible for analyzing alternative consumption behaviors and creating an annual report regarding consumption trends. Based on the interviews, we generated a list of measurement items and created a questionnaire. In order to ensure the validity and credibility of the data, the questionnaire was pilot-tested and pretested by random consumers. A total of 180 questionnaires were delivered. Seventeen questionnaires were removed because of incomplete responses. Hence, our sample consists of 163 French consumers, who are varied in age, gender, income, socio-professional category, and habitat type.

Through the interviews, we found that networking seemed to play an important role in explaining green consumption behavior. We therefore integrated several indicators related to networking into our questionnaire. In our research, the term *network* has two meanings. On the one hand, it represents as a person's involvement in various cultural or social activities. On the other hand, it refers to the use of high technologies and communication. Despite the growing number of studies on sustainable marketing, rare research has been conducted to explore the network factor and its effects on green behavior. We therefore created the following criteria to identify consumers' social networks: participation frequencies in social activities (sporting, cultural, social, and educational) and the usage frequencies of high technologies (web, SMS, phone call). For example, questions such as "Per week, how often do you use public transportation? How many hours per week do you surf on internet? How many hours per week do you participate in community-based activities" were posed.

The purpose of the research was to measure consumers' awareness of LOHAS. Specifically, we examine this concept through two dimensions: importance of LOHAS consciousness and convenience orientation. LOHAS-oriented behavior emphasizes the importance of healthy and environmentally friendly products and services (Bilharz and Schmitt, 2011; Chou et al., 2012). Convenience orientation identifies the possibility of getting access to product and service information (description, price, distribution channel, customer service, etc.) and the availability of green products and services. According to Straughan and Roberts (1999), perceived consumer effectiveness can lead consumers to form green behavior.

### 4. Results

According to the factor analysis, three new variables were identified: price, product, and network. In our research, price refers to a consumer's willingness to pay a premium price for products and services. Food purchasing includes three variables: buying local products, organic food, and from nearby market. Network includes the involvement of the person in the local community and his or her usage of high technology communication. From table 2, one can assess how price, products and network influence LOHASian's consumption behavior.

**Table2: Correlations between Manifest Variables and Latent Variables**

Manifest Variables	Latent Variables		
	Price	Product	Network
Food	.69		
Cosmetics	.70		
Cars	.59		
Home equipment	.78		
Services	.77		
Locavores		.85	
Markets		.78	
Organic food		.79	
Time-consuming length			.56
Usage of Internet			.59
Communication (SMS, messages)			.75
Conversations			-.25

Based on the factor analysis, we continued to describe the demographic profile of LOHASians. This description was led by a series of analysis of variance (ANOVA) tests. Table 3 shows the relationship between demographic factors and the adoption of LOHAS.

**Table3: Influence of Variables on Identity Dimensions of LOHASians**

Dependent variable	Independent variable	<i>P value</i>	<i>F</i>	Significance
Price	Age	> -0.1	> 0.01	Insignificant
	Socio-professional category	> 0.01	> -0.01	Insignificant
	Habitat	> -0.01	> -0.01	Insignificant
	Gender	20.9	1.57	Insignificant
Product	Age	< 0.1%	9.16	Highly significant
	Socio-professional category	< 0.1%	8.15	Highly significant
	Habitat	3.8	2.6	Significant
	Gender	20.9	1.57	Insignificant
Network	Age	< 0.1	13.8	Highly significant*
	Socio-professional category	< 0.1	8.78	Highly significant
	Habitat	10.7	1.93	Lowsignificant
	Gender	> 0.1	> 0.01	Insignificant

*Note:* \*The younger generation has more tendency to use networking to recognize LOHAS.

The results indicate that demographic features offer strong explanations of LOHAS-oriented consumption behaviors, for instance, buying local and organic food and purchasing products from markets. In particular, the findings show that age differences can moderate the influences on LOHAS-oriented decisionmaking. From table 3, one can also see that LOHAS awareness varies according to socio-professional categories. For example, professionals and managers attach more importance to LOHAS. Meanwhile, the aggregated variable shows a different effect. Young and middle socio-professional categories have less interest in LOHAS. By contrast, habitat type, gender, and income level of the respondents do not have a strong influence on LOHAS-oriented behavior. Hence, hypothesis 1 is partially confirmed.

As previously mentioned, LOHAS awareness is composed of two dimensions: the importance of being responsible as a consumer and the convenience of behaving healthily and sustainably. The result shows that importance ( $T=0.81$ ) and convenience ( $T=0.82$ ) can significantly influence LOHASians. However, the relationship between importance and

convenience is not significantly correlated. Table 4 shows the influence of identity variables on LOHAS awareness.

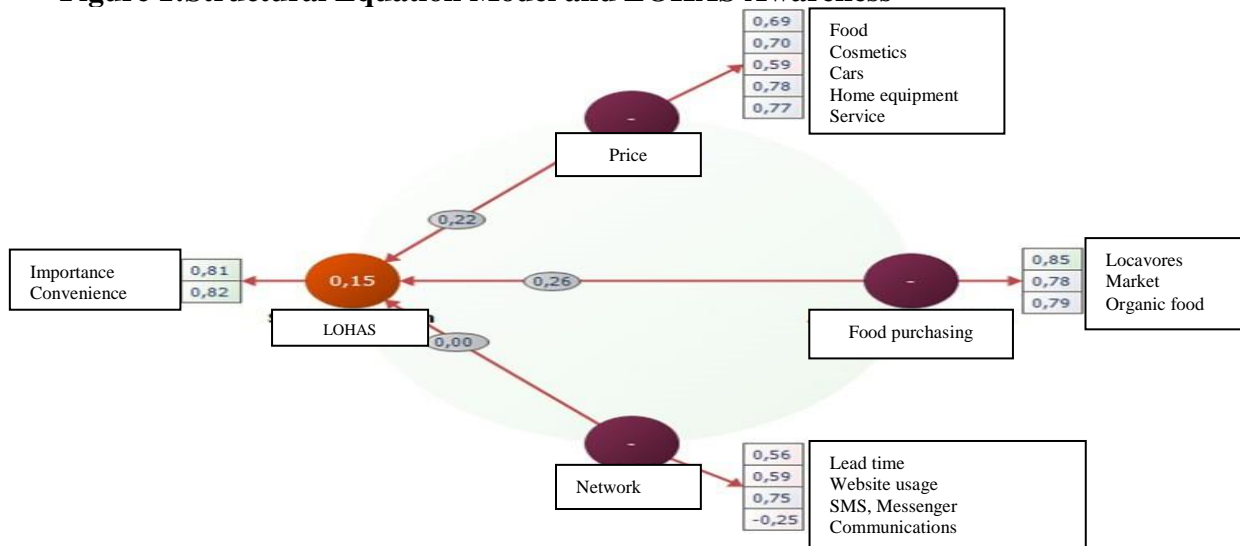
**Table 4: Influence of Identity Variables on LOHAS Awareness**

LOHAS Awareness	P value	F	Significance
Age	40.3%	1.01	Insignificant
Socio-professional status	10%	1.75	Significant
Habitat	28.8%	1.26	Insignificant
Gender	32.3%	0.99	Insignificant
Income	43.2%	0.99	Insignificant

Concerning the price variable, one can assess that the price sensitivity of LOHASians varies according to the type of product. For all kinds of green products, such as food, cosmetics, housing equipment, services, and cars, LOHASians show a varying willingness to pay a higher price. As presented in figure 1, LOHASians accept paying higher prices for green home equipment ( $T=0.78$ ) comparing to cars ( $T=0.59$ ). Hence, hypothesis 2 is confirmed.

As presented in figure 1, the test of hypothesis 3 is not confirmed. The relationship between the network and the adoption of LOHAS is not significantly correlated. In our research, a network has two subconstructs. On the one hand, a network is made up of lead time, website usage, SMS/Messenger, and conversations, which are the high technology-based connections. On the other hand, the network reveals the involvement of consumers with the local community, namely, families, friends, clubs, and so on. Instead of the technological connections, our findings show that the awareness of LOHAS is positively influenced by consumers' involvement in the local community. For example, through communication with family members or friends, consumers will form their purchasing intentions toward locavores, organic foods, and nearby markets.

**Figure 1: Structural Equation Model and LOHAS Awareness**



## 5. Discussion and conclusion

Our first research contribution identifies the profiles of French LOHASians. Based on the research report from NMI and our survey, French seniors appeared to be easier to engage in LOHAS than non-senior groups. They are ready to pay more to buy green products. The explanation for this phenomenon is that the aging population is increasing rapidly in many



countries. Health issue becomes as one of the important concerns for this segment. Therefore, the senior group should be one of the promising market segments for companies that offering LOHAS-oriented products and services. Specific customer relationship management should be put in place in order to better satisfy senior consumers' needs.

Second, our work emphasizes the importance of sustainable marketing. Consumers are becoming more and more demanding of environmentally friendly products and services. LOHASians have emerged as an important segment in the market (Axsen et al., 2012; NMI, 2008). In order to attract LOHASians and improve their loyalties, companies that operate sustainable marketing will have more competitive advantages.

Third, we identify how factors such as price sensitivity and network affect LOHAS-oriented behavior. Our findings are in line with previous studies (NMI, 2008). For example, we found that French LOHASians are priceinsensitive when the products and services are healthoriented and environmentally friendly. In addition, our research offers some new insights. Concerning the convenience variable of reaching LOHAS-oriented information and products, we found that consumers have not gotten sufficient recognition toward LOHAS. Consumers seem to have misunderstandings about green products and services. For example, according to our survey, certain numbers of consumers consider green marketing as a fashion activity and purchasing green is privileged to rich consumers. As a consequence, government and private companies should improve their advertising campaigns on LOHAS, educate the consumers and increase accessibility for consumers to obtain green and healthy products, services, and information. Meanwhile, some trust campaigns are necessary.

### **Limitations and further research**

This research has some limitations. First, our sample covers only 163 consumers. This is a relatively small sample size. Second, this work is also limited by its focus on only French consumers. For further research, it would be interesting to compare a LOHAS orientation in various European countries to differentiate French LOHAS identities from those in other European member states.

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