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EXPLORING THE ECO-ATTITUDES AND BUYING BEHAVIOUR OF FACEBOOK USERS

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Abstract
Eco-friendly consumers' attitudes are becoming increasingly frequent, recent research indicating that pro-environmental purchase behaviour not only lower costs on the long term, but also enhance business stakeholders' and consumers' confidence in high added value products and services. This paper undertakes an interdisciplinary research on how social media (i.e. Facebook) can influence users' perceptions and buying behaviour related to five categories of ecological products and services (eco-food, eco-tourism, eco-housing, eco-textiles and eco-beauty & cosmetics). This research investigates how ecological products and services could gain popularity and overpass the identified purchasing barriers (e.g. high prices, low awareness, low availability) via superior integration in consumers' daily experiences with Facebook. The research findings indicate that Facebook represents an effective and innovative environment that could build the necessary links between green attitudes and consumers' hearts and minds.

Keywords: ecological products & services, Facebook, green attitudes, buying behaviour, eco-food, eco-tourism

JEL Classification: Q57, L66, L83, L86

Introduction

Social media networks are year on year growing in popularity with many people joining virtual communities. Social media is likely to become a custom-made environment where users can manage their media consumption to satisfy needs and desires that are even more specific (Zolkepli, 2011). Being once the driving force behind the nation-state, classic mass media is nowadays replaced by social media, seen as the driving force behind the new global community. (Leinonen, 2009) Virtual networks such as Facebook, Twitter or MySpace allow consumers with shared interests to join forces and become collective actors on various markets. In this context, online sustainable initiatives can alter the power balance between companies, governments, non-governmental organisations (NGOs) and consumer groups, as they exert more direct power over markets. Social initiatives started

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and developed online, offer consumers new ways to support good causes, often in an easy, social and pleasant manner. Social entrepreneurs can increasingly act as "platform organisations" that can help consumers to successfully organize online sustainability initiatives. Therefore, well-managed online campaigns can have a real sustainable impact. (Langley and Van den Broek, 2010).

From an ecological point of view, our society is in different degrees inefficient, immoral, unhealthy, counter-cybernetic and less ecologically viable habitat. To move forward to a new better society, a changing of people's concepts, thoughts, values, manners, emotions, tastes, customs and habits should be encouraged. Consumption behaviour, life style and production mode need an eco-cultural revolution (Wang et al., 2011).

Recent developments of the internet-based communities show that social media (Facebook, Twitter, Google+) one of the most innovative approaches to involve, inspire and inform consumers about ecological and environmental concerns.

1. Literature Review

Facebook is today the largest worldwide virtual community, with over 800 million users (Socialbakers, 2012), being followed by Twitter (over 250 mil. users) and LinkedIn (over 110 mil. users) (eBizMBA, 2012). Facebook users have had an increasingly activity in terms of total time spend that grew with triple digits year over year (e.g. Facebook growth was 699% April 2009 over April 2008 in terms of total minutes spend (Nielsen, 2009)). Due to its rapid expansion, it is considered one of the top online brands in the world being placed the second after Google (Nielsen, 2011). Due to its worldwide popularity with consumers and because it has already become a part of many organizations' strategies, Facebook has evolved in a new branding landscape, complex and challenging able to build cultural resonances in consumers' minds.

Open source branding has been driven by the new social media technologies such as blogging, video sharing, social bookmarking, social networking, and community platforms that empowered consumers to create their own personalized experiences through exchanging and sharing content with their friends. (Fournier and Avery, 2011).

Akehurst (2009) describes future consumers as more demanding, more time-driven, more information intensive and highly individualistic, being dramatically different from past and even present consumers. Consumers will become more and more powerful, as they will have more information about product providers than providers will have about them, and will largely coordinate the timing and mode of communications. They will be the ones to determine the time and place of deals and not the suppliers.

Ecological citizenship, a term coined years ago (Christoff, 1996) relocated the citizen from its classical territorial political space to each individual ecological footprint along with surrounding attributes such as virtue ("a just distribution of ecological space"), duty and responsibility ("the obligation to ensure that ecological footprints…and make a sustainable impact") (Dobson, 2004). The rights and responsibilities that exist under "classical citizenship" evolve to a non-reciprocal and asymmetrical concept, because the ecological footprints are depending on economic power of different countries/people. Seyfang (2006) tested the hypothesis that ecological citizenship is a driving force for "alternative

sustainable consumption", via expression through green consumer behaviour such as purchasing more often local organic food.

Certified organic food, as the expression of the increased consumer demand in eco-friendly products, has brought many changes to the food industry especially in the distribution of green products and services to consumers. Although organic agriculture represents, at the moment, a niche market and only makes little contribution to sustainable agriculture on a global scale (Aerni et al., 2009)., it is believed that locally grown food and organic alimentary products will be the top trend in the coming years (LaVecchia, 2008). Organic food is produced in harmony with the environment and local ecosystems (Seyfang, 2006), does not use chemical fertilizers and pesticides while animals are breed in their natural environment. This is why consumers, who are aware of the environmental implications of agriculture, sometimes support more the concept of "environmentally friendly food", rather than organic or local produced food. Also, those who are loyal to eco-friendly methods are the most careful about the environmental risks and were very supportive of regulations to subsidize farmers for protecting the natural habitat (Selfa et al., 2008).

The increasing popularity of organic food has driven attention to consumers' motivations for choosing ecological over conventional food. Recent research indicates that, compared to conventional food, final consumers perceive ecological food as being full of benefits to all participants in the alimentary chain. By estimating the generated payoffs, researchers can explain people willingness-to-pay a premium price for organic food. As previous research shows (Laroche et al., 2001; O'Brien et al., 2004; Kalafatelis, 2008; Han et al, 2011), modern consumers are willing to pay more for green products. Decreasing time dedicated to the food shopping, preparation and consumption are vital changes in consumer behaviour (Penker, 2006). Today's consumers have lack of access to information on food origin, not to mention details on its ecological embeddedness. Meanwhile, consumers suffer from a "cost of ignorance" (i.e., they would make different choices if they knew the characteristics they were actually purchasing) (Chang and Lusk, 2009).

A forecast of tourist trends in 2015 identified that consumers will be better educated, more sophisticated, aware about many destinations across the world, concerned about the environment and willing for a better quality of life. Multiculturalism is one of the main actual trends in tourism services, consisting in easier access to a wide range of ideas, interests and combined perceptions (Yeoman et.al, 2007).

The key players in the mass tourism system, international tour-operators promote sustainability by offering special incentives for suppliers with reliable environmentally performance. This shows that green practices can become trading value in the future, especially for accommodation services in high-density hotel areas (Budeanu, 2009). Consumers are increasingly searching for green hotels over conventional hotels (Han et al., 2011). Green hotels are defined as environmentally-friendly properties whose managers are eager to institute programs that save water, energy and reduce solid waste – while saving money – to help protect the environment (Green Hotels Association, 2011). As green hotels act in a responsible way towards the environment (recycling, reducing pollution, conserving energy/water), they are more likely to increase customers' perceptions regarding the level of responsibility of business corporations (Han et al., 2011). Eco tourism practices should change individuals' attitudes through environmental campaigns and integrate green practices (e.g., recycling) in their everyday life to make a difference. Such efforts would enhance their perceived importance of being environmentally friendly.

(Han et.al, 2011). Nowadays tour operators, as well as travel agencies, have to deal with the new ways that allow normal people to self-organize and setup their own travel package. Today a tourist has the proper means to organize and reserve a tourist package or plan an itinerary on the spot by using on-line tourism services and resources, including online socialization resources (Stănciulescu and Lee, 2011).

2. Methodology

The main goal of this study is to analyse if and how Facebook drives changes in attitudes and buying behaviour with focus on ecological products and services. For a better coverage of this wide subject, five relevant market segments (eco-food, eco-tourism, eco-housing, eco-textiles and eco-beauty & cosmetics) were analysed with focus on the first two mentioned.

The main specific areas that were investigated were:

- The eco food and eco-tourism opportunities to gain popularity with Facebook community members;
- The identification of the main purchasing barriers as perceived by Facebook users and assessment of different means to overpass them by superior integration in consumers' daily experiences with Facebook, that could bridge between consumers' green attitudes and their hearts and minds.

For undertaking this research, an online, unrepeated survey was conducted with 421 Facebook users. For questionnaire dissemination among target group, it was used the *snowball sampling technique:* the authors' Facebook contacts were kindly asked to share the questionnaire link to their own contacts who asked the same request and so on.

For the sample size determination, it was assumed a 95% confidence level, a +/- 5% confidence interval and a target population of over one million, considering that the total Facebook community is over 750 mil. and Romania has over 4 mil. users (Socialbakers, 2011).

The survey was based on a 19 questions online questionnaire written in English, taking into account that most of the Facebook users speak English, at least at upper-basic level. The questionnaire included different kinds of questions: closed - multiple choice items (single-answer and multiple-answer questions), ranking/scaling, and open-ended items (e.g. for consumers preferences concerning eco-brands). Finally, the participants were asked a number of demographic questions including age, gender, occupation and home location.

The main target group consisted of Facebook users, most of them being young people (between 24-35 y.o.), highly educated (university or more), average income, living in urban areas. The questionnaire was disseminated exclusively on Facebook using wall postings. The respondents were mostly Romanians (90%), but also foreign respondents from different corners of the world were involved in this research (e.g. Italy, Spain, Belgium, Germany, Finland, United States, Peru, Australia, etc.). The survey has been conducted between July-August 2011 using exclusively e-forms and the respondents participated voluntarily without any reward or payment.

Due to its popularity among young people, Facebook proved to be a proper dissemination environment for the research purpose. We estimate that 4500+ people received the

invitation to participate in this survey and the response rate was roughly 10%, the final number of valid questionnaires was 421. Factors that influenced the participation rate can have either an objective (survey-related) or subjective (respondent-related) nature. Among the objective factors we can mention: the questionnaire distribution to uninterested people (wrong targeting) or the easiness to refuse to participate in e-surveys. A few possible subjective reasons might have been: virtual community members' low interest in the topic, frequency of visits to social network websites, information overload and mistrust in online surveys. The previous mentioned issues were observed in past research (Illum et. al, 2010), therefore specific measures/actions were taken to overcome the identified barriers:

- Virtual communities linked to ecology matters were selected for questionnaire distribution (discussion groups about ecological subjects, student groups, green NGO's associations);

- The questionnaire was designed to avoid information overload and boredom, thus stimulating the respondents to get involved; the length of the questionnaire and time for completion were reduced in order to receive a high rate of responses and avoid refusals to participate in the survey; a pilot survey was previously done to measure the average completion time, questions' understanding and easiness to fill out the electronic form.

- The web based surveys are easy to refuse (in comparison with personal interviews), therefore a lot of follow-up was necessary (via Facebook personal private messages, news feed messages) in order to increase the response rate;

- To avoid mistrust and fear of breach anonymity, the respondents were assured that their identity will not be disclosed. There were required no personal or contact data and respondents were assured that this was part of an academic research with no commercial outcome.

3. Results and Discussion

This research, although including responses of Facebook users from various places across the world, has rather a national character, most of the respondents (90%) being Romanians (from various regions, cross country). The other respondents (10%) are from different countries and continents across the world: United States, South America (Peru), Europe (Italy, Spain, Finland, Belgium, Germany and Moldova) and Australia. 50.8% of them are females, 49.2% males, the average age is 28.5 years.

More than half of the respondents (58.62%) use Facebook more than twice a day, most of them (34.48%) logging in more than three times a day. Previous studies (Pempek et al, 2009, Ellison et al, 2007) indicate the same ubiquitous character of Facebook that has become a part of young people daily routine, users logging in more times a day, the average time spent being approximately 30 minutes.

Mobile users represent more than half from the total respondents, laptops (32.48%) being the most used devices to access Facebook, while almost 20% are accessing Facebook using their mobile phones.

"Expression of Identity", has been revealed as the main reason of social media usage in previous research (Pempek et al, 2009). Instead, the results of this study show that "self-

expression" is overtaken by social connections and interaction goals. The principal motivation drivers for using Facebook proved to be: "to maintain existing relationships /make new relationships" (24.2%), "to share information and resources with my friends" (20.9%) and "to keep track of my contacts' updates" (15.4%). These results confirm other research outcomes, that presented as primary usage motivations reasons like "staying in touch and reconnecting with friends", "social grooming and communicating with people one has met or befriended offline", features facilitated by Facebook's peer-to-peer character and "one-to-many communication" pattern (Zolkepli and Kamarulzaman, 2011; Vasalou,, Joinsona and Courvoisierb, 2010; Liu, 2007). The complete list of motivations resulted from this study and detailed related data are presented in table no. 1.

Table no. 1: Reasons and motivations for using Facebook

	Responses	%
Why do you use Facebook? (please choose all applicable options):	1. To maintain existing relationships /make new relationships	24.20%
	2. To share information and resources with my friends	20.86%
	3. To keep track of my contacts' updates	15.37%
	4. To have fun and spend my free time	13.46%
	5. To find people with common interests and to join groups with such people	8.04%
	6. To find out about new products/services	7.09%
	7. For being known more easily among people	5.18%
	8. To view other people's friends & look at the profiles of people you do not know	5.18%
	9. Other reason(s)	0.62%
Total		100.00%

44,83% of the respondents frequently use eco products, most of them buying more than one category. The most popular eco products among respondents were cosmetics (34.48%), and eco-food (27,59%) (figure no. 1).

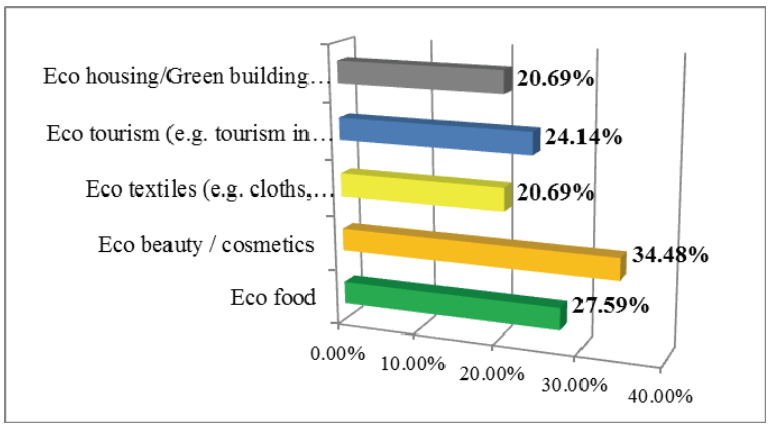

Figure no. 1: User preferences of various types of Eco products and services (values represent percentage distribution of multiple responses, most of the respondents use more than one category)

Eco tourism services are preferred by 24.14% of the total number of respondents. Most of the mentioned eco brands were from cosmetics and beauty category. (e.g. Florame, L'Erbolario, Manufaktura, BDIH, Body Shop, etc.) Only a few eco-food brands were mentioned by

respondents: Frufru (a Romanian slow food restaurant chain), Vivani (organic chocolate), Annie's (organic food), LaDorna (organic dairy products), proving a limited unaided brand awareness. More than a half of the eco food consumers mentioned "organic fruits and vegetables" as their preferred product category, procured from relatives or friends who live in the rural areas. These facts confirm the predominant "self-consumption" character of the Romanian agriculture (76% of the total farms are small self-producers, that control 38.2% of the total arable land (Eurostat, 2009). Eco-tourism category is represented mainly by traveling to national parks /protected areas, only few respondents indicated eco-hotels as their preferred services providers.

Facebook has rapidly evolved to a very complex environment including thousands of available operations, applications and gadgets. Our respondents indicated Tagging, Events invitations and Support causes as their preferred operations on Facebook while Trading activities (Marketplace) and Contest participations received the lowest ranks, indicating a lack of business/commercial involvement with Facebook. Check-in, Games and Questions asked by friends are receiving average attention from users (table no. 2).

Table no. 2: The most used operations/applications on Facebook

Responses		%
What kind of operations/applications do you use most frequently?	1. Tag friends in your status and posts	26.33%
	2. Events invitations	20.32%
	3. Support causes	16.52%
	4. Questions asked by friends	11.61%
	5. Play games	10.01%
	6. "Check in" to locations/Places	9.51%
	7. Participate in contests	5.00%
	8. Buy & sell (e.g. Marketplace)	0.70%
Total		100.00%

In terms of media choices, as expected, on-line communication and entertainment (Facebook and chat) proved to be the clear cut leaders in users' preferences (Table no. 3). TV, once the leading media vehicle, was ranked by 24% of the respondents as "the most familiar and frequently" used media ("Watching TV" received the most votes as the first choice). The classic information sources (newspapers and magazines) as well as blogs have fallen behind (Table no. 3). These outcomes are in line with previous research that demonstrated that traditional media has been losing authority with the younger generation, who are increasingly turning to "open" media for advice about music or innovative products and services (Olliance Group - SDForum, 2006).

Table no. 3 – Media choices

	TV	Radio	News on paper	News Online	Mag. on paper	Mag. Online	Blogs	Chat	Facebook
Mean*	4.87	4.16	6.40	4.68	5.90	5.54	6.65	3.39	3.40
Std. Dev.	3.026	2.481	2.307	2.519	1.944	2.215	2.125	2.031	2.020

* 1= the most used/liked; 9= the least used/liked

Users' attitudes towards various types of information sources when being logged-in to Facebook indicate that most of them pay attention mainly to News Feed Messages (48% ranked as the most watched when using Facebook). Event Invitations, Group Messages and Board Discussions represent other points of interest (table no. 4).

Table no. 4: Facebook users' attitudes towards various types of information sources

	Sponsored ads.	Information presented in Applications	Group messages	Event invitations	Discussion boards messages	News feed messages
Mean*	5.00	4.75	2.79	2.92	3.18	2.35
Std. Dev.	1.033	1.501	1.180	1.314	1.474	1.693
Variance	1.067	2.254	1.393	1.728	2.174	2.867

* 1 pay the most attention /6 pay the least attention

The Sponsored Advertisement received the lowest ranking, most users indicated that they paid the least attention to them (40%). These results indicate that the majority of the respondents are psychologically involved in using Facebook, showing high levels of social openness towards generated user content. Previous research indicated users' emphasis on "observing" rather than "doing" and "observe & lurk" behaviour, more time being spent on observing content on Facebook than actually posting content (Pempek et al, 2009)

The most common usage pattern is posting on personal wall (appearing to others as news feed messages); therefore many users see what they are doing all at once, rather than exchanging private messages (as in chat sessions).

Low affordability and limited availability are the top purchasing barriers for eco-products and services as indicated by the participants in this research (figure no. 2).

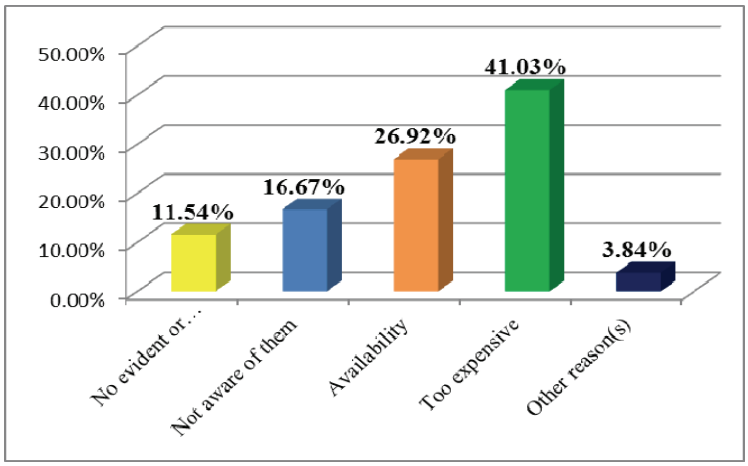

Figure no. 2: Purchasing barriers for eco products and services

Judgmentally, when price is within the expected norms and in line with the market, then attributes like environmental friendliness, sustainability or health will become attractive to the consumer. Not all respondents proved to be fully aware of the benefits and qualities implied by the ecological categories considered.

Product quality and eco labelling are the main decision drivers when consumers consider environmental impact of their chosen products and services. Previous consumer studies developed in other European countries showed that, apart from price, product performance and quality are equally important. Food shoppers from United Kingdom base their decisions on price, taste and sell-by-date, while German consumers rank quality first, then price, followed by look and design, brand, and environmental-friendliness. (OECD, 2008)

According to the survey results, eco-labels represent recognizable, reputable symbols, also a source of credible information that guarantee a basic level of environmental friendliness and they decisively influence the purchasing behaviour (table no. 5).

Table no. 5: Decision drivers for buying eco products and services

	Quality	Brand	Eco-label	Purchasing place	Assurance	Eco packaging
Mean*	2.10	3.08	2.48	3.70	3.28	3.11
Std. Deviation	1.804	1.965	1.764	2.154	2.058	1.896
Variance	3.255	3.863	3.112	4.639	4.234	3.595

*1 (the most important) to 6 (the least important)

Eco-labelling, a trend started on voluntary basis, has been subject to numerous legislative initiatives in the last years. (e.g. Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Eco-label). The continuous growing number of eco-labelling systems across the world has been creating confusion among consumers. It has been acknowledged that although eco-labelling has an important role in the communication of the ecological performance of products, there are still numerous information gaps between seller and buyer (Van Amstel, M, Driessen, P., Glasbergen, P., 2008) and also in the process of eco attributes assessment (Bratt, C. et al. 2011). A recent study (Delmas and Lessem, 2011) showed that successful eco-labelling requires a strong emphasis on marketing, involving complementary information instruments and complementary skills. This suggests that consumers' ecological behaviour is sensitive to promotional activities, which were not part of the "traditional environmental tool kit". To be effective to a large number of purchasers, ecological branding must be back grounded by specific information and education programmes, for consumers to understand and evaluate correctly the message on the label and to use it for themselves, when deciding what product to choose (Pamfilie et al., 2010).

One of the key purchase drivers, the eco premium price, reflects customers will to pay a price premium that helps defray the higher cost of improved environmental management practices. This study indicates that more than a half of the participating consumers would pay a premium price of up to 20% (figure no. 3). However, circumstances under which eco-products can trigger price premiums are not fully understood. In the decisional processes are involved a series of factors, including behavioural biases, as people may not choose "rationally" when making lifestyle decisions, as is the case of food procurement or vacation planning. Studies (OECD, 2008) showed that some consumers may have biases against items made from recycled materials due to concerns about their reliability or performance. The word "waste" could have a negative connotation and may lead consumers to associate terms such as wastepaper or waste oils with risky or inferior products. Therefore, communication campaigns on the quality of green products could overcome consumers' risk aversions (OECD, 2006).

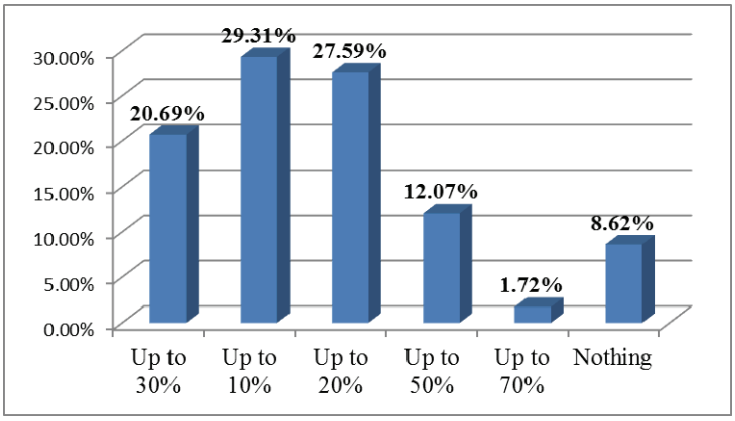

Figure no. 3: Willingness to pay a premium price for eco products and services

We measured the propensity of consumers to get involved with eco products and services on Facebook. More than half have already voted/followed the profiles of their preferred ecological products or services, being convinced by various factors (figure no. 4).

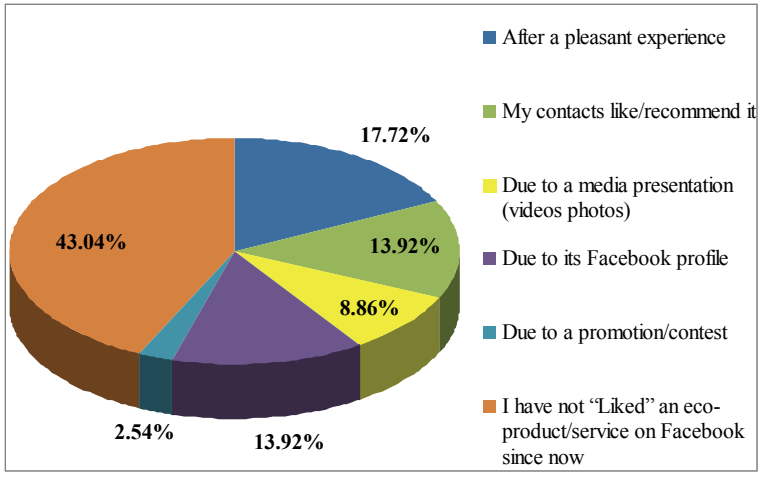

Figure no. 4: Reasons to follow ("Like") eco brands on Facebook

Previous positive experience with the brand in real life proved to be important, but friends' recommendations also play an essential role. Facebook user created content (multimedia and information posted on the eco brands Facebook profiles) together proved to be the most powerful decision drivers. Promotions/contests organised on Facebook by producers have a weak impact, judgmentally because of the inconsistency of such marketing approach on Facebook. Yet, a large number of Facebook users declared that they have not "Liked" any eco product or service. However this is almost in line with the participation rate for some other business categories (e.g. restaurants, travel agencies), but below "entertainment" and "daily life" categories that receive much more of consumers attention, like "My preferred brands", "My preferred clubs/bars", "My Hobbies" or "My travel destinations".

The eco business has not got yet the whole attention from Facebook fans. Not only producers but also the other opinion stakeholders (governmental bodies, NGOs, local / regional authorities, education organization, etc.) have opportunities in reaching consumers hearts and minds on social media networks. Although almost one half of respondents use eco products in real life, only a few respondents indicated that they were involved with eco products /services on Facebook, the most frequently brand nominations were: Mighty Wallet (wallets made of eco-friendly/recycled materials), Manufaktura (ecological cosmetics & beauty), Pianno (ecological cosmetics & beauty boutique) and Wild North (eco-tourism company). The respondents did not participate in any contest/promotions organised by ecological brand owners. Some of them, after visiting the Facebook profiles of eco producers, decided to access producers' web pages.

Conclusions

Facebook, the most successful social media platform, has been designed as a genuine social virtual community, being primarily created to maintain existing relationships with friends with whom the users had a pre-established relationship offline. On top of the existing studies that outlined the fact that Facebook has become a major communication and media vehicle, being ranked in the users' daily routine activities above TV, radio listening or news reading (Olliance Group - SDForum, 2006; Pempek et al, 2009; Zolkepli and Kamarulzaman, 2011) this research also took into consideration that Facebook facilitates public online communication, mainly through user created content (e.g. Wall/News feed messages, Event invitations and Group messages). The analysis of the responses shows that the most common usage pattern is posting on personal wall (appearing to others as news feed messages); therefore many users see what their contacts are doing all at once, rather than exchanging private messages (such as chat sessions). This setup creates the premises for social media users to publicly share their previous experience with eco products/services or to disseminate and exchange with their friends recommendations, as our study indicates them both as essential drivers in eco products buying decisions. Although used in the real life by almost half of respondents (as revealed by this research), eco brands are not yet enjoying much consideration on social media. We did not identify high levels of product/brand awareness or involvement with eco products or services on Facebook. Organic food, green hotels and eco-destinations (e.g. ecologically protected areas) are yet to overcome other categories that are popular on Facebook (e.g. hobbies, travel destinations, clubs, bars, etc.). We believe this is because of the weak presence and also due to the low number of eco brands on social virtual networks. Their fans proved to be receptive to eco brands profiles on Facebook, especially in terms of their related multimedia content. In addition, preferences for Photo tagging, Events invitations and Causes support reveal the generous potential of Facebook as a proper environment for the ecological advocacy, green events dissemination, or eco branding.

After testing consumers' willingness to pay a premium price for green products, this study revealed that more than a half of the participants would pay a premium price of up to 20%. Yet, only some of the respondents seemed to be aware or convinced of the benefits and qualities implied by the studied ecological categories, judgmentally due to purchase and usage behaviour biases. The main purchasing barriers for eco products and services proved to be low affordability and limited market availability while quality and eco labelling represent essential drivers in ecological products buying behaviour. Although eco labelling

has encountered numerous shortcomings and inconsistencies, it represents an important communication gate to consumers, requiring complementary information instruments and complementary skills. We found out that consumers' ecological behaviour is sensitive to promotional activities that have to be added to the "traditional environmental tool kit". In order to be adopted by a large number of consumers, ecologically conscious behaviour should be driven by continuous information and informal networking across the world mainly through user created content (e.g. Wall/News feed messages, Event invitations and Group messages). We propose Facebook could represent a complementary tool to address consumers' reluctance when choosing ecological products and services, especially through user generated content and open source branding.

Acknowledgements

This article is a result of the project POSDRU/88/1.5./S/55287 „Doctoral Programme in Economics at European Knowledge Standards (DOESEC)". This project is co-funded by the European Social Fund through the Sectorial Operational Programme for Human Resources Development 2007-2013, coordinated by The Bucharest Academy of Economic Studies in partnership with The West University of Timisoara.

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