

EXPLORING DETERMINANTS AND RELATIONS BETWEEN NATURE-BASED (“ECO”)-TOURISM AND AGRO-TOURISM

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Highlights:

- Non-local and female visitors tend to invest more time in enjoying local products while the local and the male visitors tend to spend more time dealing with the nature.
- Local male visitors seem to combine nature-based tourism with agro-tourism, achieving thereby a multifaceted orientation while female ones appear to separate the nature-based from the agro-touristic interests, setting more distinct priorities.
- Education level, feeling of social status, income and age proved to be only slight or not significant at all.
- Hypotheses that the non-local visitors are more stimulated by the “landscape” (nature) than the local ones or that the susceptibility to engage with nature-related values (nature-related “romanticism”) depends on the gender can be regarded as disputable.

Abstract

This research analyzes the initial intentions and the final leisure options of visitors travelling to the rural area of Polikarpi, Greece, and the relation between nature-based and agro-tourism. 161 standardized questionnaires and in-depth interviews were used. Important determinants of the intention, final behavior and their relation proved to be the spatial origin and the gender. Non-local and female visitors tend to invest more time enjoying local products while local and male visitors tend to spend more time enjoying nature. Local male visitors seem to combine nature-based with agro-tourism, achieving thereby a multifaceted orientation. Female visitors appear to separate the nature-based from the agro-touristic interests, setting more distinct priorities. The final leisure options of non-local female visitors seem to be driven by their initial intention to enjoy products while the final leisure options of local female visitors seem to be driven by the initial intention to enjoy the nature. Education level, status, income and age proved to be only slightly relevant or irrelevant. Hypotheses that non-local visitors are more stimulated by the “landscape” than the local ones or that the susceptibility to engage with nature-related values (“romanticism”) depends on gender proved to be disputable.

Keywords: forest policy, rural development, landscape, local products, gender, spatial origin

JEL classification:

1. Introduction

The definitions are imposed but the properties are not imposed. The properties of definitions can only be found out (when they exist). The old epistemological structure of Social Sciences (and Policy Analysis) unfortunately includes plenty of arbitrary definitions and inflationary concepts without properties, hypotheses and “theories” which are either ad

hoc and occasional or too abstract or too self-evident, arguments which are often trivial and not insightful and subjective “qualitative research”. The fragmented quantitative research may enable really insightful middle-range theorization but in future and not soon. These serious epistemological “diseases” are the rule in the old structure of Social Sciences. Concepts such as “nature-based tourism” (or “eco-tourism”) and “agro-tourism” seem not to be exceptions to this rule. The authors are not going to invest much time in presenting such definitions, hypotheses and arguments which can be found in the literature. They hope that certain quantitative empirical evidence concerning properties related to these concepts will be provided in this paper.

The nature-based tourism is a much discussed issue in the field of forest policy analysis. Questions have been posed on its cross-sectoral setting, on its developmental role, on its parameters and determinants as well as on conceptual dimensions. However, whether the nature-based tourism can only be developed “in the shadow” of agro-tourism in a specific area or inversely, and to what extent and how these two types of tourism interact and depend on each other, still remain open questions. These questions are important for planning a more integrated or more specific strategy of rural development. They can empirically be answered only by exploring to what extent the visitors prefer to visit a place for the natural values or for the local products or for both of them. Examining also the tourists’ characteristics which may influence these preferences enables a deeper understanding of their initial intentions and final leisure behavior. As implied by the literature review, the interaction between nature-based and agro-tourism can be explored in a multiple and as possible integrated context including landscape, rurality, gender and spatiality.

In this context, aim of this the research is to explore the relation between nature-based and agro-tourism, to what extent the nature-based or the agro-tourism is the intention of travelling or the real leisure behavior practiced by the visitors when they arrive in the place of visit. Simultaneously, determinants of being oriented to nature- or rural-related values are also examined.

The possibly complementary, antagonistic or neutral relation between nature-based and agro-tourism, namely nature-related values and local (“traditional”) products is examined.

The nature-based tourism is here defined as enjoying natural environment (namely landscape values) while agro-tourism is here defined only as enjoying local products produced by the local female rural association of the research area (town of Polikarpi). (Other possible forms of agro-tourism such as open-light rural museums with participation of visitors in simulation of rural activities, meat products, wine etc) have not been examined on this research occasion.) These simplified forms of nature-based and agro-tourism respectively have been selected, as they constitute quite clear, characteristic and -to certain extent- elementary dimensions of these two alternative types of tourism. Moreover, if more dimensions were implicated, the results could be considered to be more “complete” but possibly less clear. This research does not depreciate the other several forms of eco- and agro-tourism but it is focused only on these basic ones in order to be less descriptive and more explanatory.

Classical hypotheses derived from the literature reviewed below concerning to theoretical field of landscape perception and leisure patterns and from in-depth interviews with members of the female rural association of Polikarpi, Northern Greece, and visitors of this place, are discussed:

- The susceptibility to engage with nature-related values (nature-related “romanticism”) which is expected to characterize the female visitors is critically examined.
- To what extent the visitors coming from other cities and far away distanced regions see the place they visit more as a “landscape” than a “place” and thereby to what extent they should be moved by nature-related values rather than local products is also critically considered. Namely, the possible role of gender and the spatial origin of visitors are thoroughly explored.
- The what extent the high education level, income or feeling of high social status create tendency to the “noble” choice of enjoying nature rather than local products (supposed appreciation of nature-related values induced by eco-ideologies vs. consumption values) is also critically examined.

- The possible role of the age which would be expected to influence the susceptibility to the choice of local spa (which is examined as a nature-related value) or to the travel activity in general is also explored.

- The hypotheses that investing time in enjoying nature is antagonistic or not to time investment in dealing with local products is explored at the level of initial intention of visit and of the real choice of leisure behavior appearing at the place of visit as well as the consequence (accordance) between intention and real behavior are also examined.

The expected scientific added value of this research lies in the description and understanding of the leisure orientation (intentions and behavior) related to the natural environment of a forested mountainous area and the local products, namely the synergistic or antagonistic or neutral relation of nature-based tourism (which is here seen as a dimension of forest policy) and the agro-tourism (which is in general a dimension of rural development policy). The possible use of these results in future design and implementation of these dimensions of forest and rural development policy aiming at maximizing their synergy and harmonization and thereby to a more integrated regional development planning is supposed to constitute the practical added value of this research.

2. Literature review

The nature-based tourism has already been examined as a dimension of forest policy (Elands and Marwijk, 2012). Nybakk and Hansen (2008) have pointed out the need for more insightful research focusing on nature-based tourism in the framework of forest policy as well as of wider rural development from an entrepreneurial point of view. Sikora and Nybakk (2012) have examined the start-up of nature-based tourism from an entrepreneurial and institutional point of view. Selby et al. (2011) have also followed a similar approach, proposing an interesting typology of entrepreneurs taking into account local institutional parameters. Luo et al. (2016) have suggested the cross-sectoral character of nature-based tourism, focusing, nevertheless, mainly on the socio-political role National Forest Parks and not on the interaction of this kind of tourism with agro-tourism.

Erdogan and Tosun (2009) analyzed extensively the relation between natural values and tourism using indicators but without strong focus on the role of landscape as a factor of tourist attraction nor on social characteristics. Buckley et al. (2008) emphasized the importance of nature-based tourism for the rural and general development but without conducting intensive quantitative social research on the landscape and natural environment or on the visitors' characteristics (such as gender or origin). Sedmak and Mihalič (2008) explored the role of "authenticity" in the choice of destination. However, they focused on the non-local visitors and not on the local ones. Mallawaarachchi et al. (2006) dealt with the environment as a factor of attraction. They did not compare, though, its value with alternative values (such as local products, "tradition", etc).

The hypothesis that the non-local visitors perceive a "landscape" (namely, an impression from a "place") while the local people perceive just an unimpressive "place" is a classical assumption (Cosgrove 2006, Cosgrove και Daniels 1988, Royo-Vela 2009, Hasanagas 2010). Tyrväinen et al. (2014) have found that foreign tourists' willingness to pay for forest landscape improvement is significantly higher than domestic tourists'. This constitutes evidence that the foreign visitors are more interested in being familiar with new landscapes than domestic ones. This finding seems also to be in accordance with the conception of out-there-ness (distancing from everyday life), which has insightfully been examined (in terms of amusement, change, interest, rapture and dedication) and supported by Elands and Lengkeek (2012), an may reasonably be supposed to be a stimulus for foreign tourists rather than for domestic ones (who can hardly perceive their everyday place as "out-there").

Holmes (2006) analyzed insightfully the complexity of the rural changes based on certain driving forces such as agricultural capacity, market and social awareness of support and maintenance issues. However, parameters of integration of forest policy and rurality were not taken into account. Che (2006) examined nature-based tourism as an interesting developmental and cultural instrument, without focusing, though, on factors of tourist attraction. Daugstad et al. (2006) explored extensively the multidimensional role of agriculture in the development through food production and the restructure of the rural sector.

However, they did not focus on the interaction between nature-based and agro-tourism. Stamboulis and Skayannis (2003) discussed alternative forms of tourism, differing from mass tourism and characterized by information and communication technologies, but they did not analyze the role of forest policy in these forms of tourism. Insights have been offered into the social effects of tourism in developing countries, without deepening into the relation between landscape values and local products (Gössling 2002).

Crick-Furman and Prentice (2000) laid emphasis on the tourists' expenses during their holiday. However, they did not examine the relevance of the tourists' income. Telfer and Wall (1996) analyzed extensively the role of food in tourism, without, though, taking into account the intended leisure choice of the tourists. Grenier et al. (1993) focused accurately on issues of global tourism and the diffusion of environment-related ideologies influencing the landscape architecture and urban planning. Directions and practices of tourism regarding development issues in relation to landscape values as well as parameters of cultural and nature-based tourism have also been analytically discussed, but without considering the synergy of agro-touristic values (Galani-Moutafi 2004, Royo-Vela 2009). Lin and Huang (2009) discussed interesting evaluation patterns of tourists' destinations. However, they did not extensively examine the role of local products. The role of non-agricultural motives of visiting areas has been discussed (Farmaki 2012). However, the role of nature-based stimuli is still an open research challenge.

As for the role of the gender in agro-tourism, rural development and entrepreneurship (e.g. female rural associations) has been emphasized in various substantial studies (Iakovidou and Turner 1995, Garcia-Ramon et al. 1995, Koutsou 2002, Koutsou et al. 2006). However, these studies emphasized the role of the gender on the side of the rural entrepreneurs and not on the side of visitors.

Hovardas and Korfiatis (2008) offered useful insights into the conceptual, forest-political and communicational dimension of nature-based tourism. However, spatial and gender-related parameters still remain open research questions. Dhami et al. (2014) proposed an interesting pattern for monitoring, evaluating and planning of nature-based activities which could be enriched with agro-touristic parameters. Other researchers (Alexiadis et al. 2013a, Alexiadis et al. 2013b, Ladias 2013, Papadopoulou et al. 2012, Ladias et al. 2011, Ladias 2010, Ladias 2006, Papadopoulou et al. 2007, Papadopoulou 1998, Pedrana 2013, Shimamoto 2016, Sitarov and Urekeshova 2017) show that there exist serious perspectives of conceiving indicators, evaluation patterns for monitoring rural development issues (e.g. nature- and agro-tourists flow, natural value and spa, "traditional"-local products, "local" cultural peculiarities) and multiple parameters for understanding developmental relevance of forest policy and environmental issues (Sarah et al. 2016, Krott and Giessen 2014, Marta-Costa et al. 2014). Rastogi et al. (2015) have already pointed out issues of restrictive effects of wildlife-tourism on agriculture under certain politico-ecological and socio-economic conditions of India. In extension of this research, it seems to be worth exploring the relation between nature-based and agro-tourism in European area.

The role of forest- and agro-related values and in part of gender, spatial issues have been discussed in an insightful and integrated way either in developmental (Gu et al. 2012, Elands and Wiersum 2001) or in institutional context (Chomba et al. 2015, Secco et al. 2011). Therefore, proposing a model integrating the interdependence among these parameters is still an interesting research challenge and the possible interaction of nature-based tourism with agro-tourism, particularly regarding the intentional and behavioral patterns of visitors remains an unexplored issue.

Additionally, the role of the gender in the perception of landscape and nature constitutes a challenging research terrain (Plumwood 1993). There are empirical findings supporting the hypothesis that female visitors or observers of a landscape present a noticeable susceptibility to the engagement with naturalness and nature-related values (Hasanagas et al. 2007, Hasanagas et al. 2010). The perceived landscape as well as the priorities and the value system of the visitors who perceive this seem also to depend on their social and personal characteristics, including also their spatial origin and gender (Goula et al. 2015a, Goula et al. 2015b). These findings seem to make a more specific research on forest policy and rural development issues such as nature-based and agro-tourism reasonable. Finally, the education level has also been discussed as a parameter of interestedness in nature-based tourism (Young

1999) and it has been supported that the education level is positively related to the nature-based tourism while the age is insignificant (Luzar et al. 1998).

3. Method

3.1. Questionnaire

Two types of standardized questionnaires have been used in the present research: a specifically formulated for visitors considered as “local” another one, specifically formulated for visitors considered as “non-local” in the area of Polikarpi, Northern Greece. Despite their slight differentiations, they were formulated in such a way that the primary data remain comparable and processible in a single data basis. The questionnaires were formulated after in-depth interviews with visitors and members of the female rural association of Polikarpi which produces marmalades, sweets and liquors, which are promoted as local and traditional products. Additional to these interviews, literature was also used for conceiving and operationalizing of variables. In-depth interviews were used for interpreting the quantitative results. The content of the questions is presented in the tables.

3.2. Sampling and research area

The sampling was conducted in 2008 in the area of Polikarpi (fig. 1), Northern Greece (region of Pella). It was selected as research area due to the combination of nature-based and agro-touristic opportunities provided there. It combines both forest-mountainous landscape and local agricultural production. It has also a local female rural association function as pole of attraction of agro-tourists with the products it produces and promotes. An additional research advantage of this area lies in the possibility of examining the touristic role of the local natural spa which is here regarded as a part of the values of the natural environment of this area. According to the in-depth interviews conducted with the local municipal agencies, the thermal balneotherapy in Polikarpi spa is expected to be effective in numerous cases of diseases such as rheumatic, gynaecological, circulatory system diseases as well as diseases of nerves and skin. Additionally, the particular spa is supposed to be especially attractive because of the combined use of hot and cold water. According to the same sources, the local population is about 1050 inhabitants without serious tendency to migration while the tourists are expected to vary from 100 to 200 annually. Thus, this area seems to have an interesting potential for regional development.

Figure 1. Satellite photo of Polikarpi, region of Pella, Northern Greece. The town of Polikarpi is indicated with “+” on the satellite photo of Greece above.





(scale 1:10000, coordinates: 40° 55' 35.91", 22° 00' 56.13", altitude: 157m, source: gis.ktimanet.gr-National Land Registry SA)

The sampling took place from Mai to August 2008 because this was the high tourist season, assuring the largest possible sample of nature- and agro-tourists. Aim of this research was not the generalizable descriptive but analytic statistics (correlations). For this reason, the sample was a judgement sample and not a random sample. It was collected in such a way that visitors of a great possible variance of age, education level, gender, spatial origins etc were included. Questionnaires were distributed at places where visitor groups of such variance were concentrated, namely the hotel of Polikarpi and the building of the Union of Rural Associations of Almopia.

This hotel was the most appropriate place for finding interviewees with permanent residence outside the region (prefecture) of Pella (which town of Polikarpi is located in). The rural association union's building was an appropriate place for finding interviewees who were permanent residents of the region of Pella. The former were regarded as "non-local" while the latter as "local". Non-random sampling but full survey has taken place within these groups of local and non-local interviewees. More precisely, on the third Sunday of Mai and July, the whole group of the members of the rural association union has been interviewed. On the third Sunday of June and August, all visitors found in the hotel of Polikarpi have been interviewed. The interviewer approached personally all local and non-local interviewees in the rural association union and the hotel, respectively. In this setting, all of them were fully responsive and answered the standardized questionnaire during individual interviews of 2-3 minutes.

The following descriptive statistics are presented as a basic depiction of the sample: The composition of the sample in terms of spatial origin and gender was: 20 non-local male and 30 non-local female, 43 local male and 68 local female. All were permanent residents in Greece and native Greek-speakers. Namely, there were Greek tourists among them in terms of first language and residence (possible international citizenships according to their passports were not asked, as this feature was not considered to be examined in this research).

The following descriptive statistics are presented as a basic depiction of the sample: The age varied from 22 to 59 (average: 38 years old), the education level from non-primary school to higher education graduate (dominant level: high school graduate), the travel distance (measured as bee line) varied from 0 to 166 km (average: 17km). The composition of the visitors sample was: 43 local male, 68 local female, 20 non-local male and 30 non-local female. (The permanent residents of the region (prefecture) of Pella (which town of Polikarpi is located in) were characterized as "local" while visitors with permanent residence outside this region were characterized as "non-local".)

3.3. Process

The bivariate Pearson test has been applied at significance level 1%(**) and 5%(*). This test was preferred as it yields an overview of the possible correlations. Using the binary variable “local – non-local”, a clear typology of visitors has emerged, which is interpretable by the data of in-depth interviews. The proposed typology derived from a gender- and origin-based analysis through moderating effect (grouping according to gender or spatial origin). Although Pearson test is influenced by outliers, this is still desirable, if the results are interpretable, as the outliers are also a part of the reality (cf. Goula et al. 2015). Moreover, the results have been verified by the non-parametric tests Kendall and Spearman. Such a bivariate analysis was preferred to cluster or principal component analysis, offers more complete and concise overview of all possible dependences. Multivariate analysis (classic and logistic regression) was applied on the binary variables but its results were not evaluated by the researchers as useful. Additional interpretation of the quantitative results took place from 2008 to 2015 in order to try a more insightful in-depth analysis of the quantitative results.

4. Results and discussion

4.1. Determinants and leisure orientations

4.1.1. Personal characteristics

The gender generally appears to be a strong determinant of the leisure behavior in the whole sample (-.397 to .277) while the age plays a quite weak role (.156) and the education level seems to be irrelevant (insignificant coefficients) (table 1).

Table 1. Personal characteristics and leisure patterns

Whole sample=161	Spend more time for: products (=1) or natural environment (=2)	Visit frequency (from never to sometimes weekly: 1-4)	Initial intention of visit for local products (0-3)	Initial intention of visit for natural environment (0-3)	Initial intention of visit even without natural environment (0-1)	Specific desire for the mountains (0-1)	No specific attraction by the natural environment (only for local visitors) (0-1)	Enjoying natural environment by walking (0-1)	Enjoying natural environment by static viewing (0-1)	Not enjoying natural environment at all (only for local visitors) (0-1)
Gender (male=1, female=2)	-,397(**)	-,047	,167(*)	-,226(**)	,200(*)	-,228(**)	,277(**)	-,295(**)	,181(*)	,277(**)
	,000	,550	,034	,004	,011	,004	,003	,000	,022	,003
Birth year	,052	,156(*)	,029	-,051	-,006	-,130	,134	-,086	,017	,134
	,514	,048	,718	,522	,938	,100	,162	,279	,835	,162
Education level (no primary school:0-PhD:7)	-,043	,093	,041	,078	-,034	-,098	,163	-,054	,001	,163
	,585	,239	,606	,328	,667	,215	,086	,498	,992	,086

Specifically, the female interviewees tend to spend more time in dealing with the traditional products made by the local women rural association during their visit in Polikarpi while the male interviewees invest more time in enjoying the landscape. This behavior (final choice) is in accordance with the initial intention of visit. The female would also visit the place without the attractive landscape while the male tend much more to prefer the mountains.

The male prefer to enjoy walking. On the contrary, the female prefer the static view. As expected, the younger visitors visit the place more frequently due to their greater capacity of mobility or interest in making excursions.

It is also noticeable that the education level does not influence the intention or the final choice of leisure behavior. Thus, a possible hypothesis that “educated” visitors should be characterized by greater “perceptiveness” regarding nature-related values, as suggested by

Luzar et al. (1998), does not seem to be supported. The age seems to slightly influence the visit frequency as the younger visitors have more energy for travelling.

4.1.2. Socio-economic characteristics

The feeling of high social status (.192) is correlated with intention of enjoying natural environment (table 2). However, it is remarkable that this intention is not clearly realized, as it is not supported by any other correlation. Apparently, the “escaping” to the natural environment to find relaxation or to break monotony as well as the nature-related values constitute abstract notions and dogmas adapted by the “high society” visitors rather than real choices of leisure. The income presents a similar effect (.187).

Table 2. Socio-economic situation and leisure patterns

	Spend more time for: products (=1) or natural environment (=2)	Initial intention of visit for natural environment (0-3)	Initial intention of visit even without natural environment (0-1)	Intention of visit even without local products (0-1)	Specific desire for the mountains	No specific attraction by the natural environment (only for local visitors) (0-1)	Enjoying natural environment by walking	Not enjoying natural environment at all (only for local visitors)
Feeling of social status (lowest:0- highest:4)	-,107	,192(*)	,008	,046	,092	,038	-,089	,038
	,176	,014	,921	,561	,247	,689	,262	,689
Income per month (up to 650 euro:0 - more than 5000 euro:7)	-,069	,187(*)	-,025	-,130	,042	,169	-,015	,169
	,386	,018	,754	,102	,594	,076	,854	,076
Being producer of agricultural products (0-1)	,299(**)	,371(**)	-,352(**)	,260(**)	,378(**)	-,378(**)	,324(**)	-,378(**)
	,001	,000	,000	,006	,000	,000	,001	,000
Member of female rural association of Polikarpi (0-1)	-,208(*)	,049	,084	-,173	,047	-,047	-,034	-,047
	,028	,608	,380	,070	,623	,623	,723	,623

The producers of agricultural products (.299 to -.378) appear to be more interested in enjoying the natural environment. This is reasonable, as they are expected to be already familiar enough with local products which constituted a basic agro-tourist value in Polikarpi. However, the members of the women rural association of Polikarpi (-.208) show a quite different leisure behavior. Although they also are producers, their products are not massively produced like that classical agricultural products (e.g. crops, cereals). Their products are traditional food (marmalades, sweets and liquors). Thus, they see them as a pleasant and personal creation rather than as a massive production for merely commercial purpose.

4.1.3. Geographic characteristics

In the table 3a, the distance of the residence from the visit place seems to influence several parameters (-.233 to -.179). The further one travels, the more time one spends in dealing with the local products than with the natural environment at the visit place, in spite of declaring a specific desire for the mountainous landscape. Consequently, the local products could constitute a stronger motive for visit with an appropriate promotion. The travel distance does not even seem to be justified by the desire for visiting natural environment (negative coefficients) nor to be significantly correlated with the initial leisure intention (namely visit the place for products or for nature), therefore the insignificant correlations are not presented in the table 3a (insign. coefficients). Thus, the natural environment does not prove to be the real visit motive for the non local visitors. The visitors coming from closer origins visit Polikarpi more frequently while one could expect a greater interest from the non-local ones, as suggested indirectly and in part by Tyrväinen et al. (2014) (no matter whether they would be considered to be in our case “international” or not, but just non-local or local) and more

clearly by Elands and Lengkeek (2012). Subsequently, a certain locality can be of interest (a “landmark”, “landscape”, “tourist feature”) even for the local people.

Table 3a. Geographic parameters and leisure patterns

	Spend more time for: products (=1) or natural environment (=2)	Specific desire for the mountains	No specific attraction by the natural environment (only for local visitors)	Not enjoying natural environment at all (only for local visitors)	Visit frequency (from never to sometimes weekly:1-4)
Distance of origin from place of visit-Polikarpi (km)	-,233(**)	,173(*)	-,188(*)	-,188(*)	-,179(*)
	,003	0,28	,048	,048	,023
Size of residence place (Thessaloniki:3, other capital city of prefecture:2, town or village:1)	-,052	,125	-,138	-,138	-,206(**)
	,513	,113	,150	,150	,009

In the same table, it is also observed that the larger the urban place of the visitors’ residence (-.206) is, the less frequently they visit Polikarpi. This may be interpreted as a result of the fact that large urban places are normally far away from Polikarpi. Thus, it is in accordance with the previous findings about the negative influence of the travel distance on the visit frequency. Simultaneously, visitors from towns and villages (which are as a rule closer to Polikarpi), are more familiar with local products and nature-related values. Thereby, they know how and where to find and to enjoy these under optimal conditions or at optimal quality level. It is also noticeable that even for the visitors coming from urban centers, and, thereby, they would be supposed to “miss” natural environment, this appears not to be a strong motive of visit, as the correlations are respectively insignificant.

In order to avoid criticism about outliers, the only four residents of Thessaloniki city, the Pearson test was repeated without these, producing the results of the table 3b. In this table, the size of the origin place is still decreasing (-.176) the visit frequency.

Table 3b. Size of residence place except for Thessaloniki

	Visit frequency (from never to sometimes weekly:1-4)	Intention of visit even without spa (only for non-local visitors) (0-1)	Intention of visit even without local products (0-1)
Size of residence place (capital city of prefecture except for Thessaloniki:2, town or village:1)	-,176(*)	,306(*)	,178(*)
	,028	,041	,027

Moreover, for the visitors of the table 3b neither the spa of Polikarpi area (.306) nor the local products (.178) constitute the main visit motive. The nature is also not attractive enough (the insignificant correlations are not presented in this table). Thus, other determinants seem to influence the residents of larger urban centers in choosing their recreation place.

4.2. Relation between initial intention and final leisure behavior

In the table 4a, the local male visitors present an obvious accordance between intentions and final leisure behavior is obvious. Visitors, who initially intend to visit Polikarpi for enjoying natural environment, indeed tend to invest more time in this than in dealing with local products (.554). Those who spend time in enjoying nature also tend to declare that they would not visit the place, if the natural environment would not exist there (-.476).

However, there is not necessarily accordance between intention and final behavior regarding local products (insignificant .121 and -.122). Additionally, the intention of visiting for nature is positively correlated with the intention of visiting for local products (.391). Therefore, the local male visitors tend to seek nature-related and agro-touristic values simultaneously. This combined attitude is also fostered by the fact that these visitors also present a flexible combination of interests, as the intention of visit the place for the nature is negatively correlated but with weak coefficient (-.376) with the intention to visit the place without the natural environment. If the nature was the only motive to visit the place, the

coefficient would approach the -1. In other words, they intend to visit the place for the nature, but without it they would not necessarily disdain and devalue the place. A similar correlation (-.386) also appears in the case of products.

These two characteristics of the leisure patterns of local male visitors, namely accordance between intention and final behavior and simultaneously flexibility of interests can be attributed to the fact that they are familiar with the recreation opportunities of this place. This can also be interpreted as a single and multisided assumption of the recreation at this place, without distinguishing between nature-related and agro-touristic values.

Table 4a. Relation between nature-based and agro-tourism in the case of local male visitors

43 visitors	Initial intention of visit for local products (0-3)	Initial intention of visit for natural environment (0-3)	Initial intention of visit even without natural environment (0-1)	Intention of visit even without local products (0-1)
Spend more time for: products (=1) or natural environment (=2)	121 ,438	,554** ,000	-,476** ,001	-,122 ,437
Initial intention of visit for local products(0-3)		,391** ,010	,032 ,838	-,386* ,011
Initial intention of visit for natural environment (0-3)			-,376* ,013	-,214 ,168

The local female (table 4b) seem to present similar tendencies with these of the local male, regarding the accordance between intention and final leisure behavior. Those who tend to invest time in enjoying nature rather than local products, seem also to have such an intention initially (.594). Additionally, they also confirm that they would visit the place without the natural environment (-.592) while they declare more clearly than the male (in table 4a) that they would visit the place also without the local products (.433).

However, they differ from the male of table 4a, as their intention to visit the place for the nature is not significantly correlated with the intention to visit it for the local products (insign. 0,036). Thus, the local female do not present clear tendency to enjoy nature-related and agro-touristic values combined, as the male do. Moreover, the female who intend to visit Polikarpi in order to enjoy local products tend to declare more clear than local male that they would pay the visit also without the natural environment. Concerning the local products, as the local male do, the local female who intend to visit the place for these declare with relatively not so strong coefficient (-0,381, quite weaker than -1). Thus, the local products do not seem to be a crucial determinant of attraction. However, one more difference between the local male and female lies in the perception of the value of natural environment, as the coefficient -0,675 considerably approaches the -1 (namely, much more than in the case of local male). Thus, in the case of the female the natural environment appears to be a more decisive motive of visit than the local products. Simultaneously, this crucial role of the natural environment seems also to be indirectly verified by the positive correlation of the intention of visiting it even in the hypothetical case of absence of local products (.354).

Table 4b. Relation between nature-based and agro-tourism in the case of local female visitors

68 visitors	Initial intention of visit for local products(0-3)	Initial intention of visit for natural environment (0-3)	Initial intention of visit even without natural environment (0-1)	Intention of visit even without local products (0-1)
Spend more time for: products (=1) or natural environment (=2)	-,233 ,056	,594** ,000	-,592** ,000	,433** ,000
Initial intention of visit for local products(0-3)		,036 ,771	,327** ,007	-,381** ,001
Initial intention of visit for natural environment (0-3)			-,675** ,000	,354** ,003

Generally, the local female visitors present a quite clear tendency to separate nature-related from agro-touristic values in contrast to local male who tend to perceive these two

categories of values as a single whole. Namely, the local female visitors seem to maintain a more clearly separated and structured and less flexible tourist value system. Subsequently, they can constitute a more stable pole of influence in *setting priorities* in family, concerning the perception and management of leisure behavior while the local male can be a pole of *multisided or holistic orientation*.

In the table 4c, the non-local male interviewees are characterized by flexibility in the intention of visit the place for the nature: These who declare that they visit the place for this reason would apparently not devalue the place, even without them, as the coefficient $-.501$ is far from the absolute -1 . Thus, the nature-related value is a serious motive, however not exclusive. Simultaneously, no significant correlation appears between any intention and final choice of leisure behavior. Therefore, the leisure pattern of non-local male appears to be noticeably different from this of the local male (table 4a), as no significant correlations appear to imply a clear tendency for accordance between intention and behavior in leisure nor consolidated holistic orientation. This may be in part attributed to the fact that the non-local visitor is not meticulously familiarized with the leisure opportunities of the place. They only know (or hope) that they will find there a “beautiful landscape”. Although it may be possible to find out details about a place through internet, it is not conducive to the familiarization, if the place is not appropriately promoted through this.

In contrast to the significant coefficient ($-.510$) concerning the nature-related values, the respective coefficient regarding agro-tourist values (local products) is insignificant ($-0,270$). Thus, the agro-tourist values do not seem to constitute any strong and clear motive of visiting the place.

Table 4c. Relation between nature-based and agro-tourism in the case of non-local male visitors

20 visitors	Initial intention of visit for local products(0-3)	Initial intention of visit for natural environment (0-3)	Initial intention of visit even without natural environment (0-1)	Intention of visit even without local products (0-1)
Spend more time for: products (=1) or natural environment (=2)	$-.402$ $,079$	$,157$ $,509$	$-.236$ $,317$	$,058$ $,808$
Initial intention of visit for local products(0-3)		$,395$ $,085$	$-.041$ $,865$	$-.270$ $,250$
Initial intention of visit for natural environment (0-3)			$-.510^*$ $,022$	$-.333$ $,151$

Like the local female (table 4b), the non-local female in table 4d seem to be a pole of more clear influence on the touristic interests in comparison with the non-local male, as they present more significant correlations. These who intend to visit the place for the products indeed invest time in dealing with these rather than with the natural environment ($-.590$). Simultaneously, the non-local female who would intend to visit the place even without the local products, tend indeed to invest more time in enjoying nature ($.612$). They differ, though, from the local female in that their leisure behavior is strongly influenced by their intention to visit the place for the local products ($-0,590$) while the leisure behavior of the local ones tend to be influenced by the intention to visit the place for the nature (respective coefficient $0,594$ in table 4b).

Table 4d. Relation between nature-based and agro-tourism in the case of non-local female visitors

30 visitors	Initial intention of visit for local products(0-3)	Initial intention of visit for natural environment (0-3)	Initial intention of visit even without natural environment (0-1)	Intention of visit even without local products (0-1)
Spend more time for: products (=1) or natural environment (=2)	$-.590^{**}$ $,001$	$-.016$ $,931$	$-.111$ $,559$	$,612^{**}$ $,000$
Initial intention of visit for local products(0-3)		$,008$ $,965$	$,057$ $,767$	$-.312$ $,093$
Initial intention of visit for natural environment (0-3)			$-.592^{**}$ $,001$	$-.111$ $,560$

Simultaneously, the existence of natural environment in the place Polikarpi constitutes only a slightly stronger motive of visit the place for the non-local female (-0,592) comparing with the non-local male (respectively -0,510 in table 4c), which is again quite lower than -1. As for the local products, they do not appear to be a clear motive for visiting the place (insign. -0,312).

5. Conclusions, suggestions and points for future research

The most important determinant for the initial intention of visit and the final choice of leisure behavior (local products vs. natural environment) is the gender and not e.g. the education level, as one could expect (Luzar et al. 1998). The female visitors generally intend to travel to Polikarpi for the local products and indeed to mainly invest time in dealing with these and not with the natural environment. This result seems to challenge any consolidated expectation about susceptibility of the female visitors to engage with nature-related values (“romanticism”). The age proved to be slightly relevant to travel activity, as expected, but quite irrelevant to spa use or to any other leisure pattern. Thus, intensive travelling is a characteristic of young visitors but nature-based (incl. spa use) or agro-related leisure patterns are age-independent.

The examination of origin has also produced interesting results. The hypothesis that the local people see just a “place” while the non-local pay more attention to “landscape” (in this case, to natural environment) perceiving it as noticeable sightseeing, and subsequently the theory of out-there-ness supported by Elands and Lengkeek (2012) or the findings of Tyrväinen et al. (2014) about the possible greater interest of foreign tourists seems here to be also critically challenged, as the visitors coming from further areas tend to spend more time dealing with local products rather than with the nature, independently of their initial intention of visit. In this sense, the agro-touristic consumption values seem to prevail over the nature-related values.

The visitors of high income and social status may intend to visit Polikarpi as nature-tourists (namely for enjoying natural values) but they do not strictly remain stable to this intention. This supports the hypothesis that the nature-related values remain at the level of ideology (dogma) without coming into any considerable effect, namely the nature-related intentions have not necessarily led to nature-based tourism during the visit.

In a more detailed typology, the local male and female visitors are characterized by stronger accordance between intentions and leisure behavior concerning either nature-related or agro-touristic values. However, the male ones proved to maintain a more flexible touristic value system (or, from another point of view, not quite clear) and a more holistic assumption in comparison with the local female visitors. Namely, the local male visitors tend to combine nature-related and agro-touristic interests while the female tend to separate them. In other words, in former case (male visitors) the nature-related and agro-touristic values function more complementarily to each while in latter case (female visitors) these values are more distinct and antagonistic to each other.

The non-local male do not present clear tendency of holistic approach of touristic values nor as clear accordance between intention and behavior as the local ones. The non-local female are, though, more clear and decided in their orientation. Generally, the female visitors tend to be a pole of clear orientation in personal leisure management, as they distinguish between nature-related and agro-touristic values. In general, the non-local and female visitors tend to be rather agro-tourists, while the local and male rather nature-tourists. The choosing between agro-touristic or nature-related orientation seems to be strongly dependent on the spatial origin (local or not, and the distance of the origin place) and the gender (male-female) of the visitors.

These results can be supposed to constitute basic research results, as they enable a deeper understanding of the tourist stimulation and behavioral patterns and they reveal the specific relevance of gender and origin in the leisure behavior. However, to certain extent, they may also be supposed to be of applied orientation, as they in part show that local products alone seem to be enough strong stimulus for visitors, even without the natural landscape. Thus, rural areas without attractive natural landscapes may still have the potential to attract visitors even from far away, if the local products are appropriately promoted. Simultaneously, visitors coming from closer rural places may be a well perceptive group for nature-based tourism.

It has been pointed out that nature-based and agro-tourism are not only interdependent but there are visitors of specific profile who prefer an holistic pattern of tourism. Thus, a clear suggestion for entrepreneurs and municipal actors would be not to follow a strategy of specializing but of integrating tourism. However, whether a hotel entrepreneur who provides an integrated program of riding and environmental education in forest and of testing local products (e.g. wine or even liquor made by the visitors from herbs collected by them during their riding and education in the forest) is expected to be more profited or achieving stronger entrepreneurial sustainability than an entrepreneur who only develops nature-related activities should be a specific question of future research.

In this research, the visitors were sampled non-randomly only from one place (Polikarpi at the hotel and the local rural association union). Although, this should not be deemed a weakness, as the aim of this research was the analytic and not the descriptive statistics, a wider and random sample from other places would make sense in future, e.g. using telephone catalogue. A future sample may also be extended to more complex forms of nature-based tourism (riding, rafting, climbing, environmental education, camping etc) and agro-tourism (wine, meat participation in rural and agricultural activities, open-light rural museums etc) or to groups of international tourists in order to examine whether such features produce different results. Moreover, in future research more statistical techniques like classical or logistic regression, principal component or cluster analysis can be applied on more variables. Also, from a theoretical point of view, the results of this research may provide further research initiatives in the field of gender analysis.

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