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Perception of environment quality and attitudes towards tourism: Evidence from lake engure watershed area

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PERCEPTION OF ENVIRONMENT QUALITY AND ATTITUDES TOWARDS TOURISM:

EVIDENCE FROM LAKE ENGURE WATERSHED AREA

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Abstract

The present paper is an attempt at investigating the effect that perceptions of residence place environment has on tourism-related perceptions among residents of the Lake Engure watershed area, a rural / coastal area in Western-Central Latvia. The adopted micro level analysis is based on factor analysis and structural equation modelling, and carried out on a sample of over 200 observations. Results show a high sensitivity to control demographic and socio-economic variables, a strong effect of degraded environment assessment on the view of tourism as source of economic opportunities, and of neat environment assessment on the perception of tourism as source of change; besides, perceptions of tourism are correlated in various and sometimes ambivalent ways according to different respondent groups.

INTRODUCTION

The investigation of determinants of tourism-related attitudes is a widespread issue in territorial development and environmental studies. Most results in this domain point out relevant effects of socio-demographic and socio-economic factors, as well as individual values and norms (Lindberg and Johnson, 1997) and a very important role of contextual community dynamics (e.g. Mbaiwa and Stronza, 2011).

The present paper investigates a specific subdomain of possible tourism attitudes determinants – the ways in which residents of a tourism-targeted area perceive the quality of their living environment. The paper is an attempt at measuring the impact of such views on perceptions about tourism among residents of Lake Engure basin area in Western-Central Latvia, by adopting psychometric and advanced econometric techniques.

LITERATURE REVIEW

In many cases tourism research has typically centred around topics, related to the social, ecological, and economic impacts of the tourism industry. Social impact studies have usually involved an analysis of how the industry has affected local people and their lifestyles, whereas ecological studies have tended to emphasise how the industry has transformed the physical nature of local and regional landscapes. Such studies seem to be in contrast to tourism economic research, which in most cases tends to illustrate the income-generating power of the industry within the community, region or country (Fennell, 2005).

As important tools for evaluation of tourism development and impacts are residents' perception and attitudes towards tourism. The principal reason for this attention is policy making and development planning for successful development marketing and operation of existing and future tourism programmes and projects. According to Butler (1980), unless the often unforeseen and thus unplanned effects of tourism development can be controlled, or at least recognized and predicted, then opposition to the development of tourism, particularly in less developed parts of the world, is likely to increase. Such a would be extremely unfortunate and could result in the loss of potentially valuable economic benefits to many areas. Perdue, Long and Allen (1990) propose a

model that examined relationships between residents' perceptions of tourism impacts and their support for it. It was discovered that when personal benefits obtained from tourism development were controlled, residents with positive perceptions of tourism impacts supported additional tourism development and specific tourism development policies. However according to Husbands, there is so far no theoretical justification of why some people are, or are not favorably disposed to tourism (Ap, 1992).

Many scholars have pointed out that „ residents are major actors in the tourism development process since they are directly affected by it”, and they „should be included as major stakeholders in the tourism planning and development process” (Choi and Sitakaya, 2005). That is why the assessment of resident attitudes toward tourism development and tourism impacts is quite popular among tourism researchers. However, there is lack of such scientific studies in Latvia.

Several researchers have summarized studies on determinants of attitudes towards tourism. Harrill (2004) has defined several groups of factors influencing attitudes toward tourism: socioeconomic (such variables as income, ethnicity, length of residence), spatial (concentration or spatial arrangement of tourism facilities and activities) and economic dependency. According to Bujosa Bestard and Rossello Nadal (2007), perceptions are mainly found to be dependent on socio-demographic and spatial factors, ranging from tourism intensity (Lindberg and Johnson, 1997) to socio-economic conditions of the area. Spatial factors are found to be quite important for coastal areas, nature protected areas or areas with unequal concentration of tourists (Harrill, 2004), such as the areas on which the present research is focused.

In general tourism development is found to be the source of very different and often contrasting attitudes, ranging from perception of development opportunities, to perception of menaces to quality of life and environment. For example, Kuvan and Akan (2005) find evidence of positive attitudes towards tourism development and concerns about environmental impact existing at the same time. Andereck et al. (2005) similarly find evidence of residents who are aware of economic benefits of tourism while at the same time pointing out negative consequences of tourism development. Contrasting attitudes reflect the complex effects that tourism seems to have on regional development, being often found to be beneficial from the economic point of view but at the same time disruptive in socio-cultural and environmental terms (Liu et al., 1987; Hall and Lew, 2009). In detail, empirical studies have found evidence of correlation between resident attitudes and, e.g.:

- perceived economic benefits (and costs) of tourism (e.g. Madrigal, 1995);
- perceived effect of tourism on the quality of recreational facilities (e.g. Lankford and Howard, 1994);
- perceived disruption of daily life in terms of traffic congestion, crime levels increase, crowding (e.g. Ross, 1992).

However, the structure of perception building has not been adequately investigated in literature, since most empirical studies are based on simple regression analyses which do not provide with findings about the supposedly complex cause-effect patterns involving mentioned types of variables. Such a limit – which encompasses both theoretical-conceptual and methodological aspects – may actually reflect a larger issue, that is, the insufficient cross-fertilization which has been attempted between tourism management on the one hand and social theory and cultural geography on the other (Hall and Page, 2009). In this regard, some studies advocate for the adoption of attitudinal models in order to grasp in a deeper way the dynamics of tourism-related social impact (see Deery et al., 2012).

Some studies in this direction have been carried out in the last years. Haley et al. (2005), for instance, combine factor and regression analysis in order to investigate the effect of socio-economic and demographic factors on resident attitudes, finding a strong predicting effect of economic benefits perception on such attitudes. More interesting results in terms of causal patterns investigation have been found through the adoption of the structural equation modelling approach. In the first works in the domain under exam which have attempted to adopt *path analysis* structural

models (Gursoy et al., 2002; Jurovski and Gursoy, 2004; Gursoy and Rutherford, 2004), evidence is found, that the impact of community and environment-related attitudes on tourism perception is mediated by beliefs and perceptions of social and economic costs. Vargas-Sanchez et al. (2011) elaborate and test a more sophisticated structural model in order to grasp the connections between perceptions and attitudes towards tourism. They find evidence of complex patterns correlating perceptions of tourism behaviour, community satisfaction, and, in particular, perception of costs-benefits trade off, with attitudes towards further tourism development. On the basis of a framework emphasizing in an even deeper way cross-fertilization with psychology theories, Kim et al. (2013) find evidence of a causal chain in which social, cultural, economic and environmental impact perceptions of tourism affect sense of well-being (in emotional, material, social terms) and sense of health and safety, leading in their turn to life satisfaction.

STUDY CONTEXT

Data were collected among inhabitants of Lake Engure watershed area, located in Western Latvia and characterized by a recent and fast tourism development (the area is located next to a closed USSR border zone until 1991). The main impact of tourism is in the coastal area; the near hinterland is characterized by a low population density and the presence of a natural park, whereas the far hinterland is mainly characterized by agricultural activity and high farm density (Rozite and Vinklere, 2012).

Table **Composition of respondents**

Variable		%
Gender	Males	40.1
	Females	59.9
Age group	18-24	18.6
	25-39	22.2
	40-54	28.9
	55-64	15.0
	65<	15.2
Duration of stay	Less than 1 year	2.6
	1-5 years	9.2
	5-20 years	35.3
	more than 20 years	52.9
Place of residence	Coastal area	59.5
	Inland area	40.5
Employment status	Employed	58.6
	Unemployed.	5.2
	home maker	4.1
	Students	9.8
	Retired	17.6
Personal career change	Yes	37.1
	No	62.9
N		383

THEORETICAL MODEL

The aim of the empirical analysis is the study of the interplay between perception of the residence place environment quality and perceptions of tourism. Structural equation modelling (see Joreskog and Sorbom, 1979) was chosen as statistical methodology, since it seemed reasonable to hypothesize that cause-effect linkages between attitudes may be mediated by utility perceptions, which makes simple regression statistics not adequate for the analysis.

FACTOR ANALYSIS

Variables to be included in the model have been identified through principal components exploratory factor analysis carried out in SPSS 19.0. Two sets of attitudinal variables measured on 5-point Likert scales (Likert, 1932) have been taken into account, respectively measuring:

- a) the ways in which residents assess the environmental and socio-cultural quality of their residence place;
- b) the ways in which residents perceive the tourism phenomenon.

With regard to the perception of residence place quality, two underlying factors have emerged:

- A negative assessment consisting in the perception of a naturally and socio-culturally degraded residence place environment;
- A positive assessment based on the perception of a naturally and socio-culturally neat residence place environment.

With regard to perceptions of tourism, three underlying factors emerge:

- Tourism is an opportunity for the region in economic terms
- Tourism is an opportunity for personal / family changes in life
- Tourism is a source of social and environmental degradation

HYPOTHESES

The following direct effects and correlations among latent variables were hypothesized, based on the main considerations that a) contrasting attitudes and perceptions are likely to co-exist and b) economic impact-related perceptions are supposed to influence attitudes towards tourism:

1. A negative perception of the living environment affects perception of tourism as source of a. economic opportunities b. change c. degradation. It can be supposed that living in an environment which is perceived as depressed and degraded may raise ambivalent attitudes towards tourism, as a potential source of economic benefits and life changes, but also as a phenomenon which can cause further social-environmental degradation.
2. A positive perception of the living environment affects perception of tourism as source of a. change b. degradation. In case of respondents perceiving their living environment as neat, it seems reasonable to hypothesize that the main perceptions of tourism may be related to perception of possible degradation and potential life changes rather than economic benefits.
3. Perception of tourism as source of economic opportunities affects perception of tourism as source of a. change b. degradation. This hypothesis is based on the evidence found in some literature about tourism-related attitudes being influenced by the perception of economic impact.
4. Perception of tourism as source of change affects perception of tourism as source of degradation. This hypothesis takes into account the possibility that in non-urban areas change may be perceived as a negative phenomenon, leading to degradation of the socio-environmental context.
5. The two exogenous variables are correlated (standard default option)

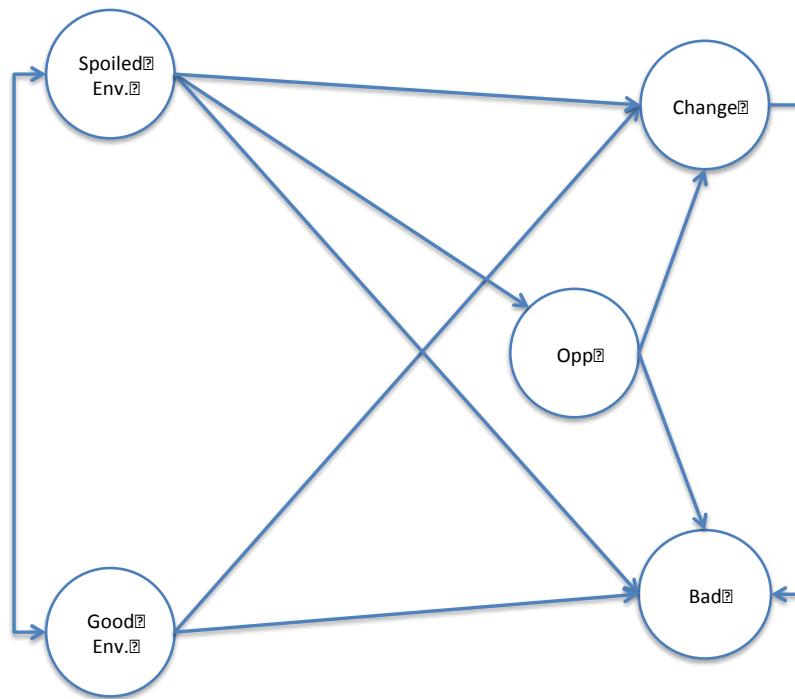


Figure 1: Theoretical model

RESULTS (general sample)

The structural analysis was carried out through AMOS 20.0 integrated into SPSS. The model showed a quite good adaptation to data ($P=.259$). All hypotheses were found to be significant with the exception of hypothesis 2b (positive assessment does not affect perception of tourism as source of degradation) and hypothesis 6. Therefore most assumptions in the theoretical model were not rejected.

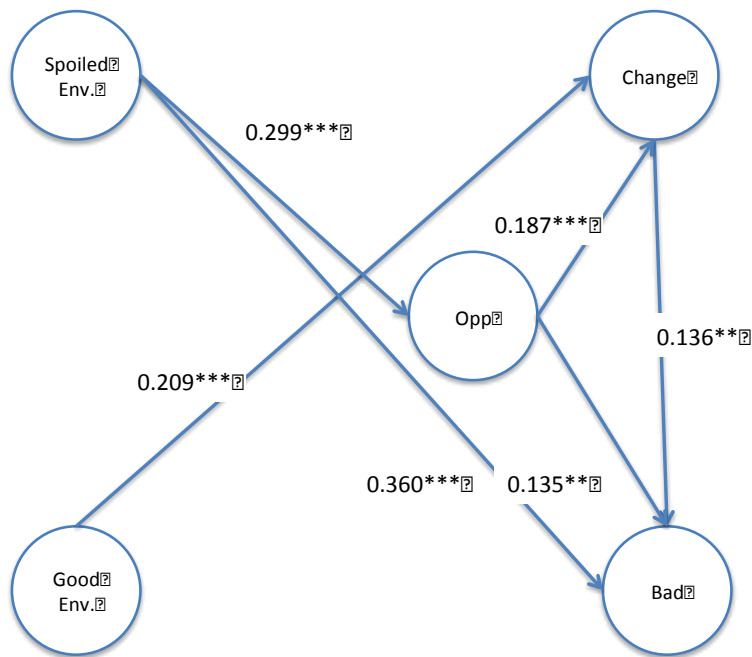


Figure 2: Results (general sample)¹

CONTROL VARIABLES

It has been chosen to test the consistency of general results according to a set of control variables, chosen according to the following considerations:

Socio-demographic variables such as age, gender, education, are commonly used in literature as predictors or control variables in the analysis of tourism- (and in general environment-) related attitudes and are often found to play a relevant role (e.g. Baysan, 2001; Petrosillo et al., 2007; Wang and Ap, 2013). Gursoy (2004) find empirical evidence of a relevant impact of distance from high tourism intensity areas on attitudes.

Besides, preliminary binary / logit regression tests seemed to imply a high correlation between job status and job-related attitudes on the one hand, and residence place on the other hand.

Consequently, the following control dimensions were chosen:

- Residence zone (coast / hinterland). Respondents were distinguished according to living in the coastal area (higher tourism pressure) or in the hinterland area (low tourism pressure).
- Age. Respondents were clustered according to being above or below 40 years of age.

¹ ***:99% significance level; **:95% significance level; *:90% significance level. Continuous lines indicate significant effects; dashed lines indicate non-significant effects. Values represent standardized direct effects

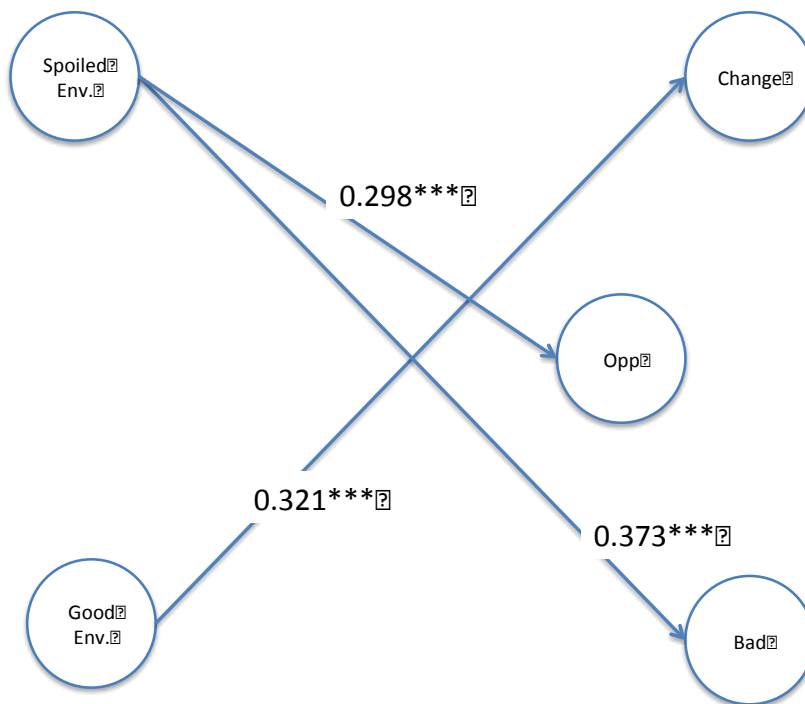
- Rootedness in the residence place. Respondents were clustered according to the period or living in the area (above or below 20 years time).
- Gender
- Employment status
- Having changed job / not having changed job (in the last 20 years)

SENSITIVITY ANALYSIS

Results showed high or relatively high sensitivity with regard to all control variables.

Residence zone

For coastal area residents, only effects 1a, 1c and 2a were found to be significant. For hinterland residents effects 1abc, 3b, 4 were found to be significant.



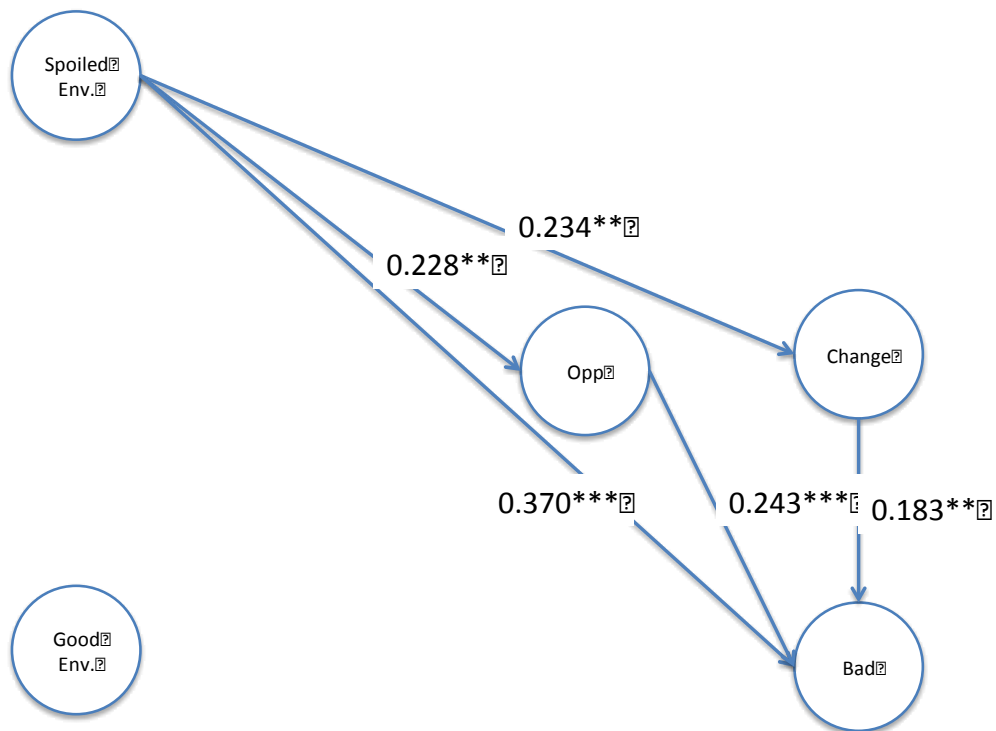
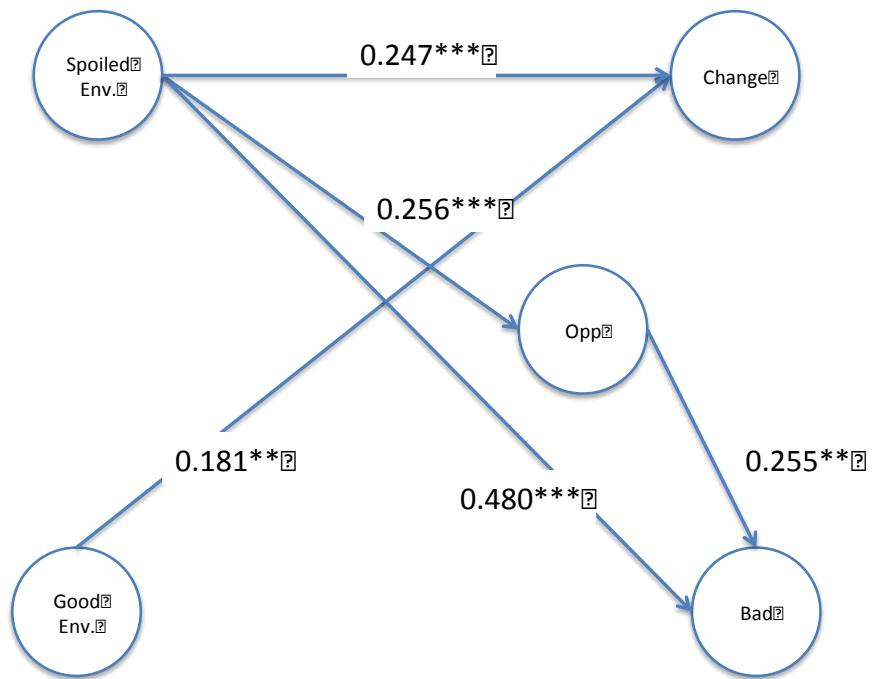


Figure 3: a) coast inhabitants; b) hinterland inhabitants

Age

Among elder respondents, effects 1a,b,c, 2a, 3b were found to be significant. One unexpected effect was found (positive perception of environment affects perception of tourism as source of economic opportunities). Among younger respondents, only effects 1a and c and 2a were found to be significant.



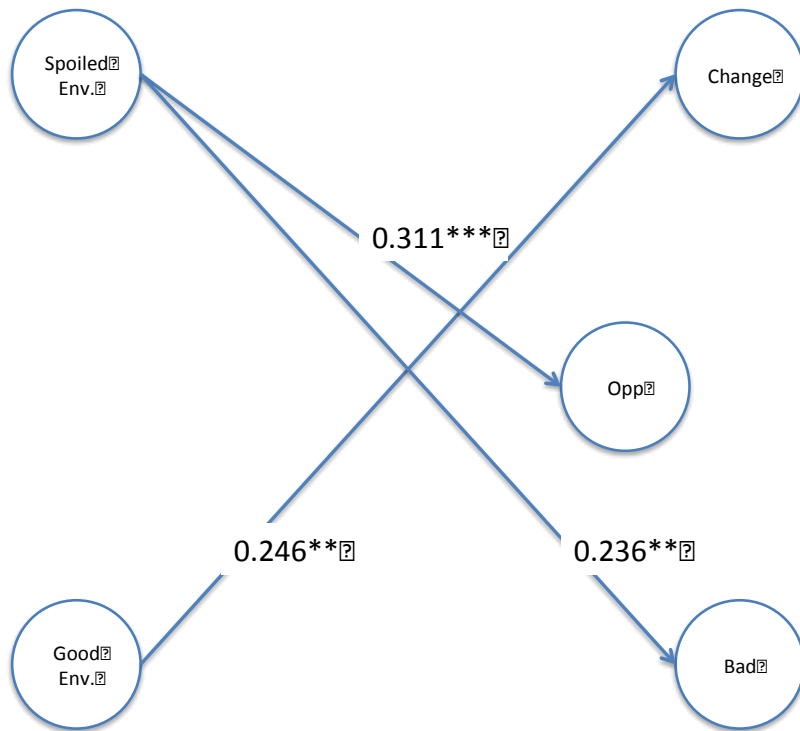
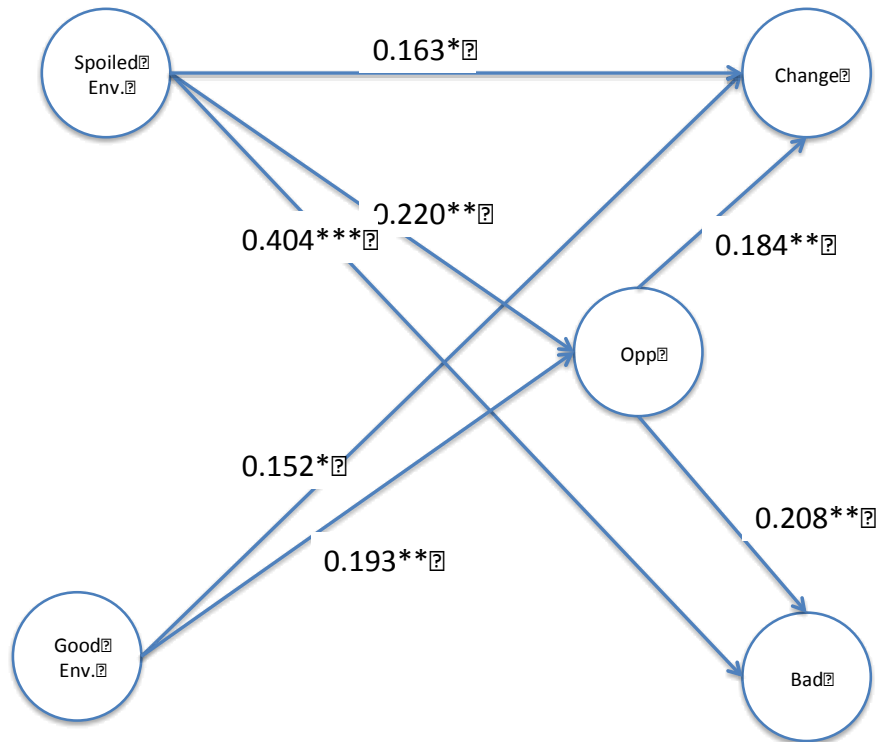


Figure 4: a) elder respondents; b) younger respondents

Rootedness

All effects except for hypothesis 4 were found to be significant among long term residents. For short term residents, effects 1ac, 2a, 4, and 5 were found to be significant.



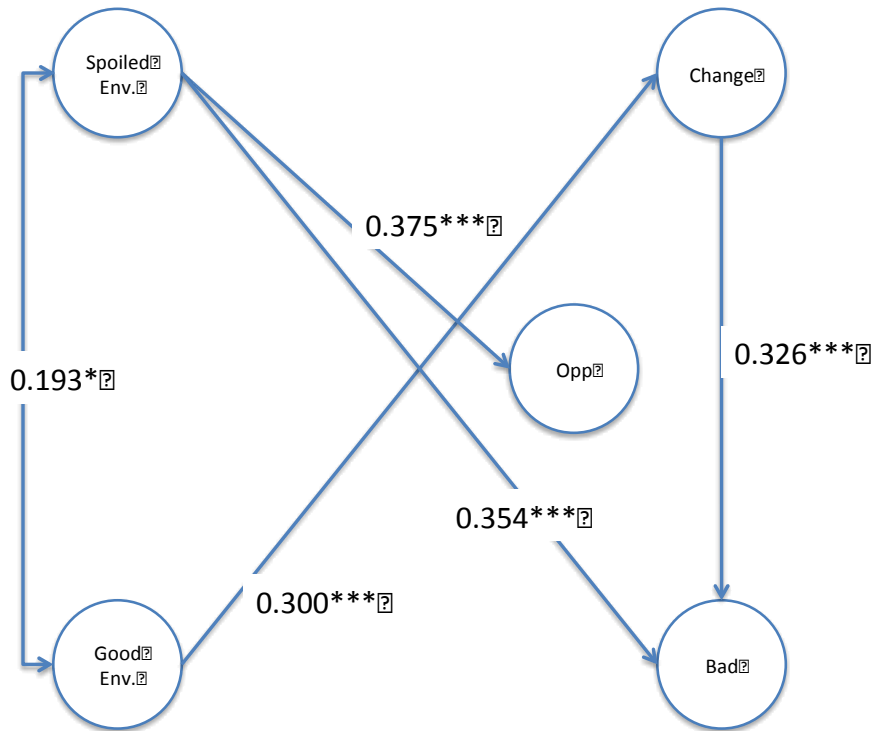
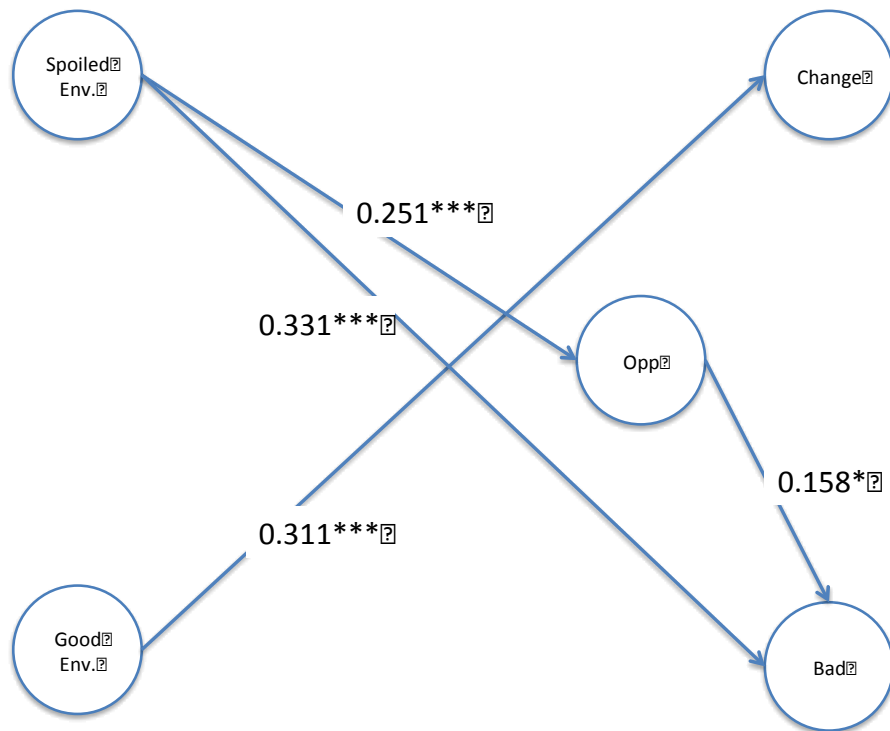


Figure 5: a) long-term residents b) short-term residents

Gender

Among female respondents, effects 1a,c, 2a, and 3b were found to be significant. Effects 1a,c, 3a, and 4 were found to be significant among male respondents, plus one unexpected effect (positive perception of environment affects perception of tourism as source of economic opportunities).



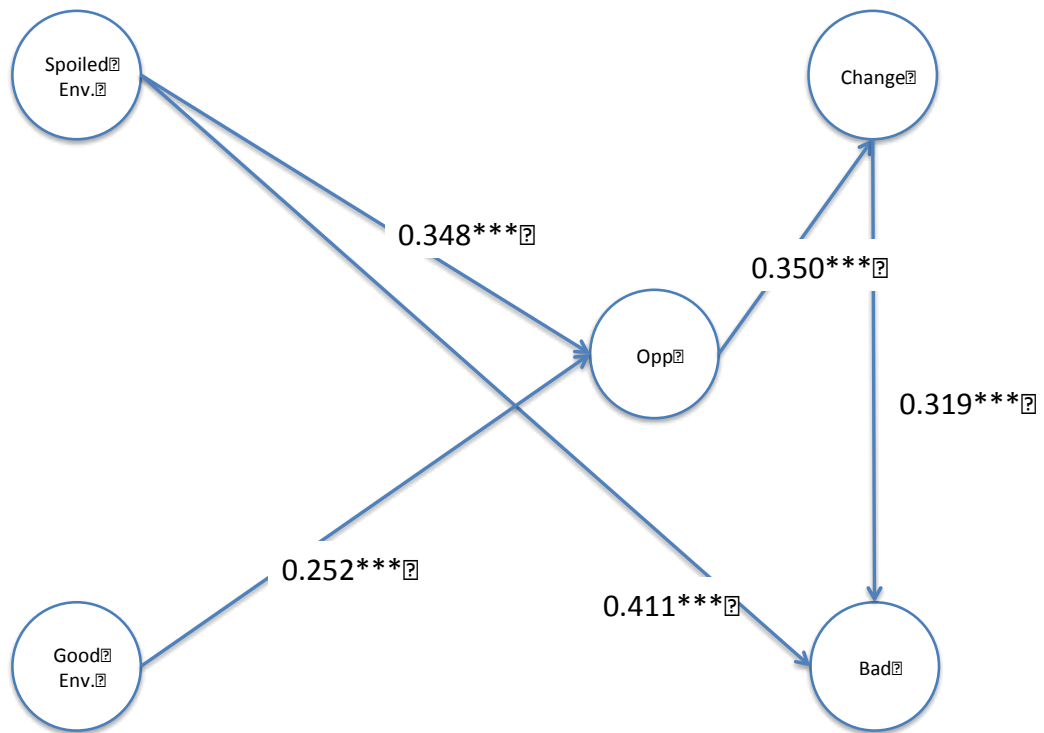
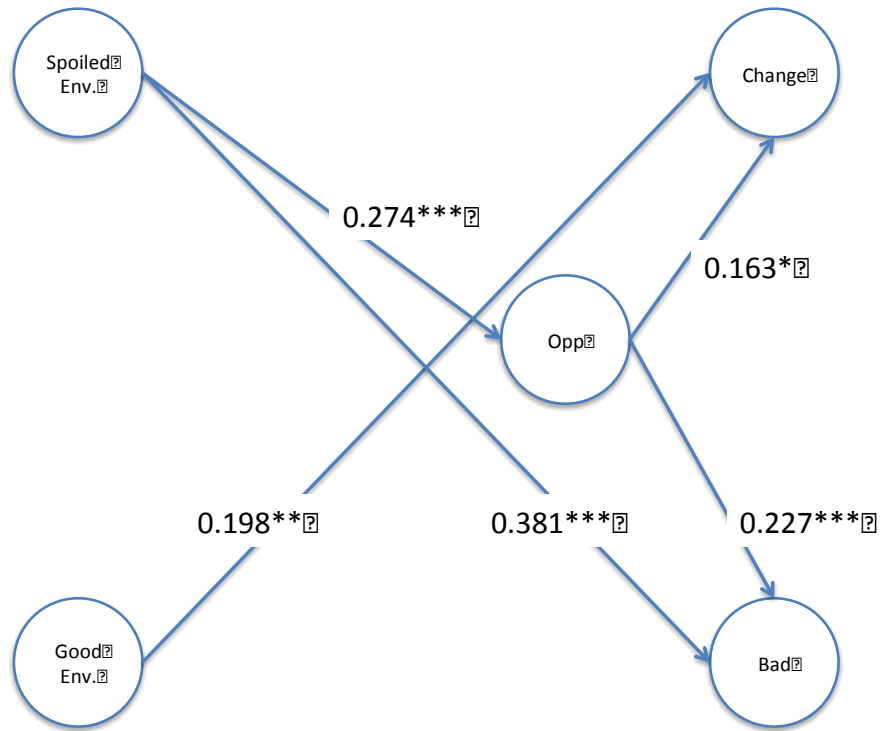


Figure 6: a) female respondents b) male respondents

Employment status

Among employed respondents, effects 1a and c, 2a and 3ab were found to be significant. Among unemployed, effects 1ac, 2a, 4 were found to be significant.



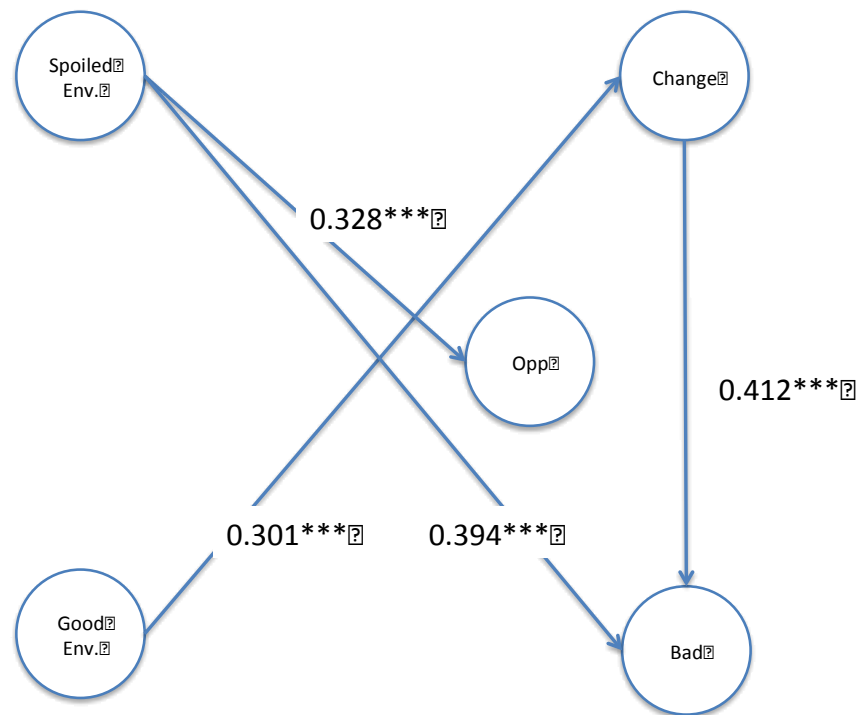
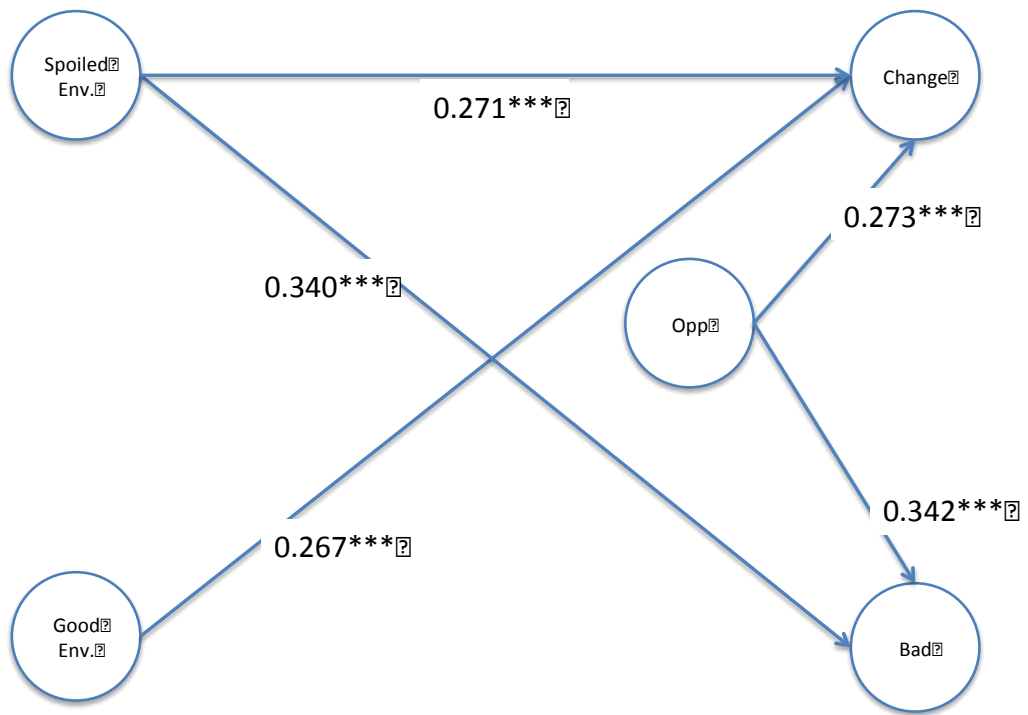


Figure 7: a) employed respondents; b) unemployed respondents

Job change status

Effects 1bc, 2a, 3ab were found to be significant among respondents who changed job. Effects 1ac, 2a, 4, were found significant among stably employed respondents.



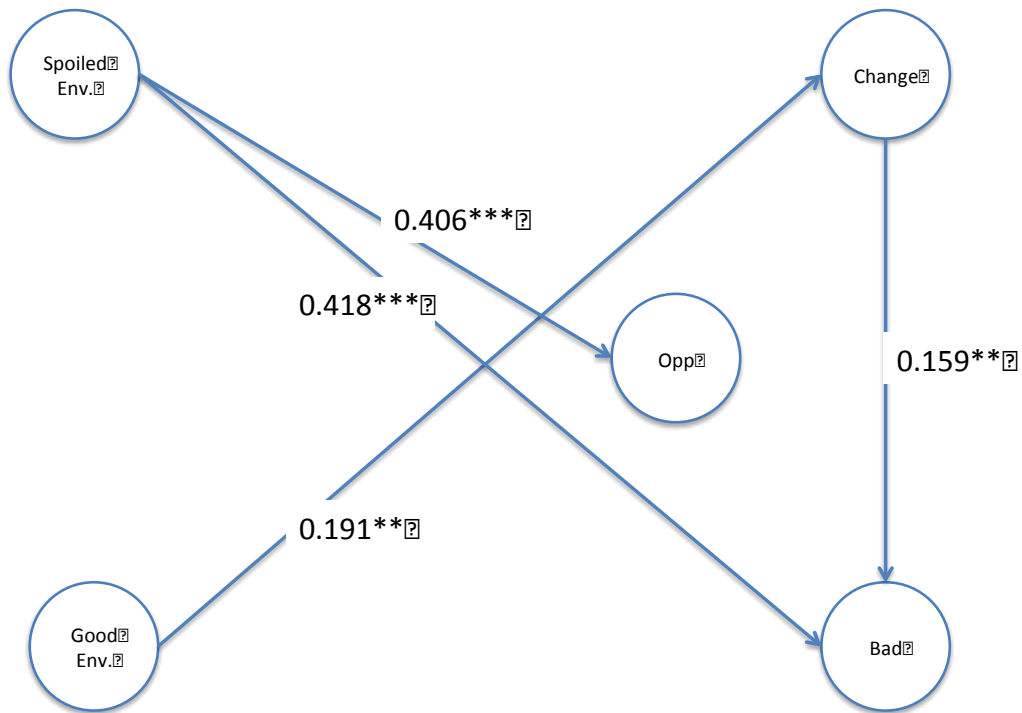


Figure 8: a) respondents who have changed job; b) respondents who have not changed job

COMMENTS

The modest explanatory power of the model (low squared multiple correlations) and the limited dimension of the samples suggest that results have to be taken cautiously (in particular, perceptions of residence place quality are not the only main predictors of tourism-related perception). However, due to the generally high goodness of fit for the model and high significance of hypotheses, it is possible to outline some findings. Main results can be summarized as following:

- Perception of a degraded living environment is always (directly or indirectly) linked to fears of tourism increasing degradation;
- Perception of a good living environment generally affects perception of tourism as a source of change (except hinterland residents);
- From the point of view of the possible ‘intermediate’ role of the perception of tourism as source of economic benefits, unemployed, non-changing job, short time resident respondents cluster together, as such as employed, changing job, long time resident respondents. For the latter clusters, perception of economic opportunities affects perceptions of tourism both as menace and opportunity of change; for the former, it does not affect either perceptions.
- Among groups which are disadvantaged or less used to change (hinterland residents, unemployed, stable workers) but also among short time residents and male respondents, perception of change is associated with perception of degradation

CONCLUSIONS

The above mentioned results suggest the following interpretation of perception patterns among residents of Lake Engure basin area:

- Perception of a spoiled environment leads to perception of tourism as source of economic opportunities. This result seems to identify economic development as a priority mostly for those respondents, who are not satisfied with the quality of their residence place.
- Perception of economic opportunities, in its turn, leads to contrasting attitudes, being alternatively or at the same time associated with change or degradation. Such a result confirms the frequent findings in literature which point out the contrasting aspects of tourism-related attitudes – where perception of economic benefits is often coexistent with socio-environmental concerns.
- Perception of a neat environment leads to perception of tourism as source of change. This may suggest that change is a relevant issue (whether positive or negative) for those respondents who are satisfied with the quality of their residence place.
- Perception of ‘change’ seems to have an ambiguous meaning, not directly identifiable as positive: with regard to some of the considered clusters, it is associated with degradation.
- Control socio-demographic and socio-economic dimensions seem to play a relevant role. In particular, results show a high degree of sensitivity with regard to variables related to employment status and attitudes and rootedness, suggesting a major explanatory power of ‘dynamic’ rather than ‘static’ variables with regard to tourism-related perceptions, expectations and attitudes.

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