

Factors Influencing the Preference for German farm Tourism: A Path Model Approach

Sidali, Katia Laura* · A. Spiller**

⟨Abstract⟩

This paper aims to analyse the preference for German farm tourism among the German population. For this reason, we conducted an empirical study in Germany during summer 2007 and we applied a structural equation model based on partial least squares (PLS) to analyse the data. In the following chapters we will introduce the literature review and our conceptual framework. We will then outline the procedures we adopted and the results of the empirical analysis. In the final part some conclusions will be presented and a discussion will follow in order to draw the future directions of our research.

According to our hypotheses, the possibility that agri-tourism enters in the evoked set of an individual is higher:

H1: The higher the information degree about it.

H2: The lower the influence of the social stimuli.

H3: The higher the physical exposure to it (experience).

H4: The higher the wellness image of agri-tourism.

H5: The higher the traditional image of agri-tourism.

H6: The higher the exciting image of agri-tourism.

H7: The higher the perceived value for money.

Our further hypotheses affirm that the possibility that agri-tourism enters in the evoked set of an individual is higher:

H8: The lower the perceived risk.

H9: The higher the motive to enjoy a holiday in the nature.

* Katia Laura Sidali: Research assistant and PhD student Georg August University of Goettingen and Alma Mater Studiorum University of Bologna. / ksidali@gwdg.de

** Prof. Dr. A. Spiller: Professor at the section of Marketing of Food and Agricultural Products, University of Goettingen.

H10: The higher the motive to enjoy a sport holiday.

H11: The lower the motive to have an organized holiday.

H12: The lower the motive to have a holiday abroad.

H13: The lower the motive of action and night life.

H14: The higher the motive to spend a holiday with the family.

H15: The lower the motive to spend a city holiday.

Finally, our model has some socio-demographics data. As we mentioned before, German agri-tourism has traditionally been the travel destination of large-size families, with low-to-middle income. For that reason, our final hypotheses are the following: the possibility that agri-tourism enters in the evoked-set of an individual is higher:

H16: The higher the number of family members.

H17: The lower the family income.

Since in this study we use a path model with a PLS approach, we are able to state some interrelations among the exogenous latent variables:

H18: The motive of sport holiday has a positive influence towards nature motives.

H19: The physical exposition to agri-tourism has a positive influence toward information.

H20: The motive of family holiday has a negative influence toward the motive of action and night life.

H21: Social stimuli have a positive influence towards individuals risk perceptions.

H22: Social stimuli have negative influence towards experience.

Data for this study were gathered via administrated questionnaires during the summer 2007 within the frame of an academic “marketing research” course.

The corresponding t-values are assessed using the bootstrapping method with 500 re-samples. In our model 61% of the degree of appreciation of German agri-tourism (evoked set) is explained by five independent variables: value for money (0.335***) (H7) experience (0.267**) (H3), exciting image (0.204*) (H6) organisation (-0.162*) (H11) and holiday abroad (-0.156*) (H12). The variance explained (R^2) for the other endogenous variables are the following: nature 24.3%, information 14.1%, action holiday 13.8%, risk perception 5.8% and experience 2.4%. An overview can be inferred from table 5. The results also allow us to test each of the proposed hypotheses.

With exception of organization and abroad, none of the others travel style factors (H9

to H15) seem to have any significant impact towards evoked set which leads to the rejection of the respective hypotheses. As expected, social stimuli have a significant influence on individuals' risk perception (H21 accepted), however neither the former nor the latter have a valuable impact on evoked set (rejection of H2 and H8). Besides, since the influence of social stimuli towards experience is not significant, also H22 has to be rejected. Experience influences information (H19 accepted) but the latter does not affect significantly the evoked set (H1 rejected). Both H4 as well as H5, referring respectively to the perceived images of German agri-tourism as a wellness destination and the traditional image of the German farm tourism have to be rejected. Finally, none of the demographic data included in the model explains significantly the variance of the factor evoked set. Therefore neither H16 nor H17 has been accepted. As far as the interrelation between sport and nature (H18) and family and action (H20) are concerned, the stated relationship among these variables has been statistically confirmed.

Our path model based on partial least squares shows the factors influencing the preference for farm tourism in Germany. Among others value for money and experience are the most significant ones. Practical implications are discussed.

Key words: PLS, farm tourism, agri-tourism, traveller, preference

影响德国农场旅游者偏好的因素：路径分析

Sidali, Katia Laura* · A. Spiller**

<摘要>

本文目的是研究德国人对德国农场旅游的偏好。我们在2007年夏天对德国人进行了研究。使用基于最小二乘法（PLS）的结构方程模型分析数据。下面的章节中将进行文献综述，提出概念模型，分析过程和结果讨论、结论和未来研究方向。

根据假设，农业旅游增长的可能性将随着以下因素的增长而提高：

假设1：农业旅游增长的可能性将随着信息化程度的增长而提高。

假设2：农业旅游增长的可能性将随着社会刺激的影响的增长而提高。

假设3：农业旅游增长的可能性将随着体验的增长而提高。

假设4：农业旅游增长的可能性将随着农业旅游健康形象的增长而提高。

假设5：农业旅游增长的可能性将随着农业旅游传统形象的增长而提高。

假设6：农业旅游增长的可能性将随着农业旅游刺激形象的增长而提高。

假设7：农业旅游增长的可能性将随着感知经济价值的增长而提高。

进一步的假设是农业旅游增长的可能性将随着以下因素的降低而提高：

假设8：农业旅游增长的可能性将随着感知风险的降低而提高。

假设9：农业旅游增长的可能性将随着自然度假动机的降低而提高。

假设10：农业旅游增长的可能性将随着运动度假动机的降低而提高。

假设11：农业旅游增长的可能性将随着团体度假动机的降低而提高。

假设12：农业旅游增长的可能性将随着出国度假动机的降低而提高。

假设13：农业旅游增长的可能性将随着以娱乐和夜生活活动机的降低而提高。

假设14：农业旅游增长的可能性将随着家庭度假的降低而提高。

假设15：农业旅游增长的可能性将随着城市度假动机的降低而提高。

* Katia Laura Sidali: research assistant and PhD student Georg August University of Goettingen and Alma Mater Studiorum University of Bologna. / ksidali@gwdg.de

** Prof. Dr. A. Spiller: professor at the section of Marketing of Food and Agricultural Products, University of Goettingen.

模型中还有一些社会人口统计数据，一直以来，德国农业旅游被中低收入的大家庭作为旅游目的地，因此我们假设：

假设16：农业旅游增长的可能性将随着家庭成员数量增多而提高。

假设17：农业旅游增长的可能性将随着家庭收入的降低而提高。

基于PLS的路径模型分析能显示外生潜变量之间的关系。

假设18：运动度假动机对自然度假动机有积极影响。

假设19：体验对信息有积极影响。

假设20：家庭度假动机对娱乐和夜生活度假动机有消极影响。

假设21：社会刺激对个体风险感知有积极影响。

假设22：社会刺激对经历有积极影响。

我们在2007年夏天的营销研究课堂上采用有监督的问卷搜集数据。用500个重复抽样的bootstrapping方法作t检验。61%的德国农业旅游影响因素被5个变量解释：经济价值(0.335***) (H7) 体验 (0.267**) (H3)，刺激形象 (0.204*) (H6) 组织 (-0.162*) (H11) and 出国度假 (-0.156*) (H12)。其他内生变量的方差解释如下：自然 24.3%，信息 14.1%，娱乐度假 13.8%，风险感知 5.8%和体验 2.4%。

除了团体和出国，没有其他旅游方式因子对拒绝假设有显著影响，社会刺激对个体风险感知有显著影响，但H2和H8被拒绝。除此之外社会刺激对体验影响也不显著。H4和H5被拒绝。最后没有人口统计因素显著解释样本。基于PLS的路径模型显示影响德国农业旅游的偏好，其中经济因素和体验是最为显著的。

关键词：最小二乘法，农场旅游，农业旅游，旅游者，偏好

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I. Introduction

Rural tourism is recognized as one of the world's largest and fastest growing industries (Skuras Petrou and Clark 2006; Veeck Che and Veeck 2006). This segment has shown a rapid growth also in Europe and this is particularly true for a subset of it: farm tourism or agri-tourism, which means "guests' lodging at working farms" (Van Huylenbröck Vanslembrouck Calus and Van de Velde 2006). As far as the panorama of the German farm tourism is concerned, we can state that, according to the product life-cycle theory, this tourist segment has recently reached the maturation stage with 1.6m tourists per year, which resemble almost 2.5% of the whole German tourist market. If we compare the figures of the

timeframe 2001-2003 with those of the years 2003-2005, however, German farm tourism has lost about 36% of its market share (Grimm et al. 2007). Several reasons have been proposed for this fall: firstly, the decrease in the birth rate affects directly the traditional target of German farm tourism, which are large-sized families. Furthermore, despite an increasing travel density of Germans, families with low and medium incomes - another traditional target of German farm tourism - have displayed in recent years a decreasing travel intensity. To cope with this situation, during the last years, several associations of German farm tourism - have started a massive campaign for repositioning this tourist market (Boggasch 2007). German farm operations have begun to specialize themselves

* Katia Laura Sidali: research assistant and PhD student Georg August University of Goettingen and Alma Mater Studiorum University of Bologna. / ksidali@gwdg.de

** Prof. Dr. A. Spiller: professor at the section of Marketing of Food and Agricultural Products, University of Goettingen.

according to different orientations: the target (children, the handicapped, senior citizens), the farm type (conventional agriculture, organic agriculture) and the activities (supply of fitness and wellness services, schools' laboratories). This paper aims to analyse the preference for German farm tourism among the German population. For this reason, we conducted an empirical study in Germany during summer 2007 and we applied a structural equation model based on partial least squares (PLS) to analyse the data. In the following chapters we will introduce the literature review and our conceptual framework. We will then outline the procedures we adopted and the results of the empirical analysis. In the final part some conclusions will be presented and a discussion will follow in order to draw the future directions of our research.

II. Literature Review and Theoretical Framework

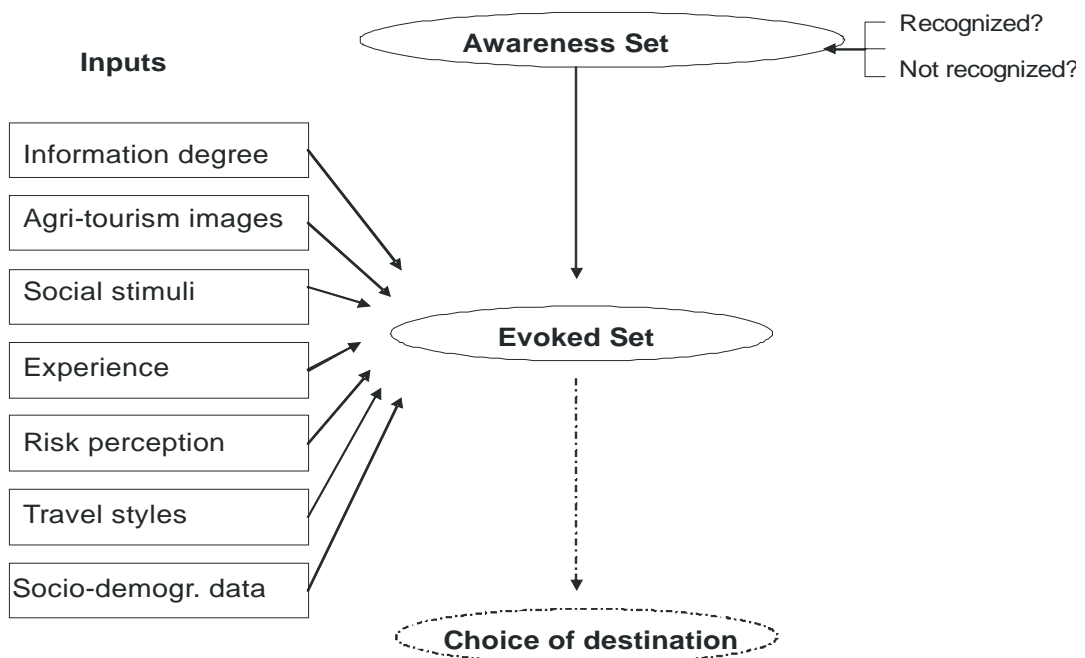
Many scholars have attempted to analyse the preference for a travel

destination by means of its perceived images because of their role in affecting the process of decision making and, consequently, the destination choice (Baloglu 1997; Beerli and Martín 2004; Gartner 1996). According to Aktas, Aksu and Cizel (2007) destinations with stronger positive images will have a higher probability of being included and chosen in the process of decision-making. Um and Crompton (1990) have emphasized the role of attitudes on the creation of travel images and on the choice of a travel destination. In their model, they showed the inhibitory or facilitating role of attitude's components in discerning among potential destination images and selecting a final destination. The current literature on German farm tourism has displayed several positive determinants on the preference for this particular tourist segment e.g. some images (such as the attractiveness of the natural setting, the perception of farm tourism as family and children friendly and the appealing prices) as well as negative determinants such as the risk to get bored or the overall belief that farm tourism is not attractive for

families/ individuals without children (Boggasch 2007; Grimm et al. 2007; Pevetz 1978; Wohlmann and Lohmann 1986).

As already mentioned, our research focuses on the preference for farm tourism and validates it by means of a path model based on partial least squares. For this reason, we developed a theoretical framework (figure 1) based on the findings of Um and Crompton (1990). In our model, we consider the preference

for agri-tourism as a continuous process which starts from the awareness set - all travel locations which individuals might consider as potential destinations - to the evoked set, which only shows the reasonable alternative ones (ibid). The evoked set factor included in our model aims to measure the degree of preference of farm tourism among other travel destinations. Thus, we can assume that the evoked set is positively correlated with the perceived image on farm tourism: the higher the score of the



Source: authors' representation based on Um and Crompton (1990).

Figure 1. Theoretical Framework

evoked set factor, the more positive is the image towards this segment and, as a consequence, the more probable the final choice of this tourist form (the broken line in the graph). The factors situated on the left of the model are supposed to affect the preference for farm tourism. According to Um and Crompton (1990), the symbolic component (information), the social stimuli and the physical exposition to the place (experience) play a mayor role in the formation of image. In our model the symbolic construct is split into two components: the degree of information which individuals have about German agri-tourism and the images of farm tourism, that they might keep in mind. According to the current literature (Lemke 2002; Opperman 1996; Wohlmann and Lohmann 1986) Germans might have four main different images of agri-tourism: (1) as a place to rest and receive new energy (traditional image) (2) as a place to enjoy fitness and wellness services and free one's own creativity (wellness image) (3) as an exciting place full of unusual experiences, where one can learn something new (exciting image)

and (4) as a destination with an appealing value for money (value for money). The 1st and the 4th images have been building the historical image of German farm tourism for years. On the contrary, both the 2nd and the 3rd images of agri-tourism correspond to the marketing efforts of the several agri-tourism associations who have been working hard for some years to reposition this niche market within the tourism sector. Social stimuli is a well known construct in the literature of consumer behaviour: it corresponds to the influence of social groups (Fishbein and Ajzen 1975) and has been identified by Beerli and Martín (2004) as "secondary organic information sources". According to the German literature (Opperman 1996; Wohlmann and Lohmann 1986), farm tourism has a very stereotyped image, which is characterized both by positive (it is the ideal holiday for families with children) and by negative elements (farm lodging can be noisy/dirty). Thus, we hypothesize that social groups might frequently contribute to the transmission of stereotypes related to farm tourism.

We also include experience as a factor influencing the image of agri-tourism, as this segment is characterized by a high rate of repeat guests (Lemke 2002; Oppermann 1996).

According to our hypotheses, the possibility that agri-tourism enters in the evoked set of an individual is higher:

H1: The higher the information degree about it.

H2: The lower the influence of the social stimuli.

H3: The higher the physical exposure to it (experience).

H4: The higher the wellness image of agri-tourism.

H5: The higher the traditional image of agri-tourism.

H6: The higher the exciting image of agri-tourism.

H7: The higher the perceived value for money.

Among the further inputs affecting the preference for German farm tourism, we include: the individual's own risk perception and the personal travel styles. As far as the former is concerned, there

is a general agreement that the choice of a holiday is also an economic activity, where usually the alternative is selected that minimizes risk and maximizes utility (Beerli and Martín 2004; Um and Crompton 1990). Regarding the travel styles, Dolnicar and Leisch (2003) affirm that they are a powerful strategic tool to segment tourist markets. Following their approach, we have created this construct merging together the vacation motives and the stated leisure activities of respondents. According to the German literature (Lemke 2002; Oppermann 1996; Wohlmann and Lohmann 1986), the typical traveller of farm tourism wants to enjoy nature, to practice outdoor activities and usually chooses this tourist segment because it is particularly family-friendly. As a consequence, vacationers who mostly spend their holidays in city trips or abroad, or set action and life night as a priority, will see farm tourism as unable to fulfil their needs. Finally, people who during their holiday do not want to bother about organization will probably opt for other tourist forms, as "all-inclusive" packages in this tourist

segment are not usually offered. Our further hypotheses affirm that the possibility that agri-tourism enters in the evoked set of an individual is higher:

H8: The lower the perceived risk.

H9: The higher the motive to enjoy a holiday in the nature.

H10: The higher the motive to enjoy a sport holiday.

H11: The lower the motive to have an organized holiday.

H12: The lower the motive to have a holiday abroad.

H13: The lower the motive of action and night life.

H14: The higher the motive to spend a holiday with the family.

H15: The lower the motive to spend a city holiday.

Finally, our model has some socio-demographics data. As we mentioned before, German agri-tourism has traditionally been the travel destination of large-size families, with low-to-middle income. For that reason, our final hypotheses are the following: the possibility that agri-tourism

enters in the evoked-set of an individual is higher:

H16: The higher the number of family members.

H17: The lower the family income.

Since in this study we use a path model with a PLS approach, we are able to state some interrelations among the exogenous latent variables:

H18: The motive of sport holiday has a positive influence towards nature motives.

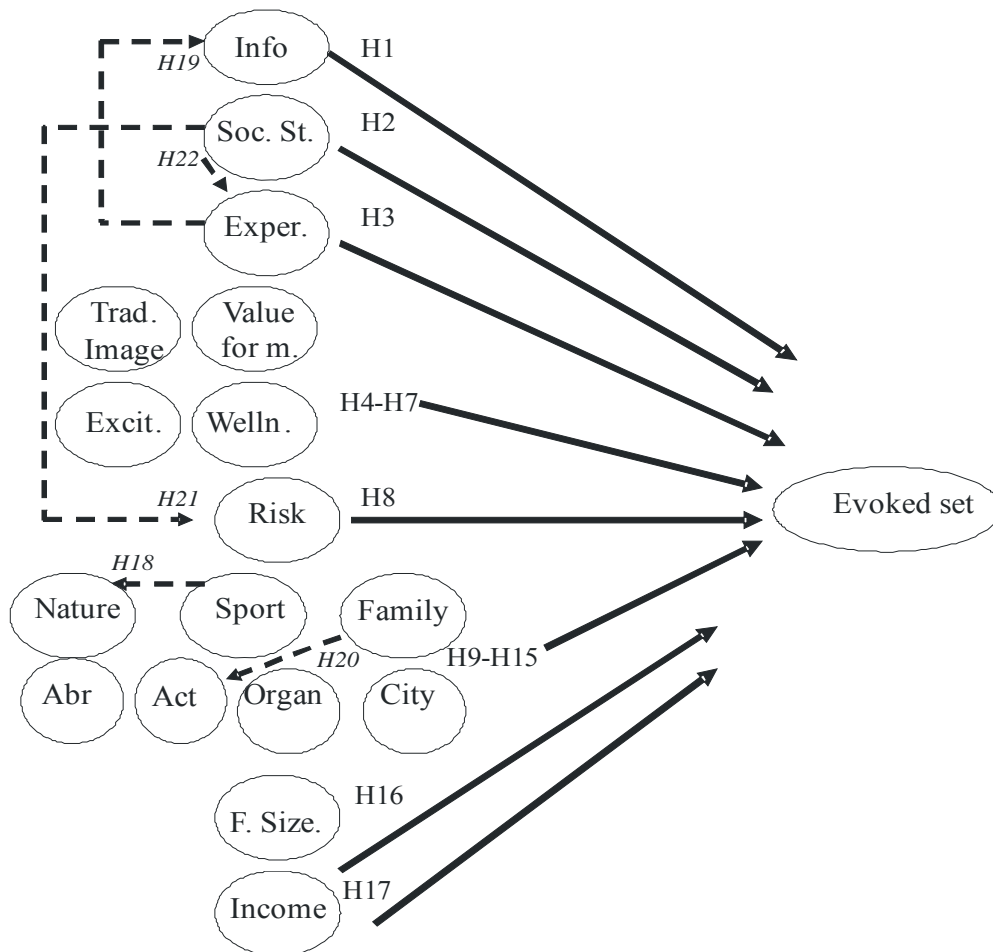
H19: The physical exposition to agri-tourism has a positive influence toward information.

H20: The motive of family holiday has a negative influence toward the motive of action and night life.

H21: Social stimuli have a positive influence towards individuals risk perceptions.

H22: Social stimuli have negative influence towards experience.

Figure 2 displays the final path model used in the further analysis.



Info = Information, Soc. St. = Social stimuli, Exper. = Experience, Trad. Image = Traditional image, Value for m. = value for money, Excit. = Exciting image, Welln.= Wellness image Risk = risk perception, Abr = Abroad, Act = Action, Organ = Organisation F. Size. = number of family members

Source: authors' representation

Figure 2. Representation of the Path Model

III. Research Design

Data are initially analyzed using univariate descriptive statistics, including the

frequencies and mean ratings, while factor analysis condenses, among other, the travel motives and leisure activities with the aim of reducing their dimensions and identifying the most important travel

styles. We further apply the PLS approach for the estimation of the structural equation model.

IV. Data Description

Data for this study were gathered via administrated questionnaires during the summer 2007 within the frame of an academic “marketing research” course. Each of the students interviewed 10 people using common demographic criteria as a guideline (gender, profession, age etc.). Because of time and financial restraints the sample was not supposed to be representative. The data were analysed as follows: for the statistical description of the sample all 567 usable questionnaires were used. For the multivariate analysis a two-stage data-cleaning took place. Firstly, 46 responses belonging to individuals who “had never heard about agri-tourism” were erased. A second data-cleaning occurred by the preference items. Respondents were asked to rank seven leisure destinations (see table 1) ranging from one (the most appreciate destination) to seven (the least appreciate destination).

In order to build the evoked set factor we then merged the former item with an interest statement. The latter aimed at exploring to which extent respondents consider German agri-tourism an interesting vacation. Inconsistent responses between the two items were cancelled (n=51). The final number of available questions for the multivariate analysis was 470 cases, with 115 respondents who scored agri-tourism among the first 3 destinations, 135 who ranked it at the 4th or 5th place and 220 who scored it among the last 2 destinations.

V. Demographic Profile of Respondents

Respondents are on average 41 years old. 30% of the respondents come from a rural area (villages up to 5,000 inhabitants) followed by 23% coming from a little city (up to 30,000 inhabitants) and 15% from a medium-size city (up to 150,000 inhabitants). On average, the family size is 2.8 people, whereas the largest family size is 7 people. With a percentage of 53%, women are slightly overrepresented. As far as the tourist behaviour is

Table 1. Overview of Constructs

Constructs	Sample item and measurement ¹
<i>1. Travel styles</i>	
Organisation	Degree of appreciation of accommodation form: 1. Hotel ² In following we would like to know if you agree with the further statements: on holiday, 2. I am looking for comfort 3. I want to be sure that the weather is good (enough sun/enough snow) 4. it is important that everything is organized and I do not have to care about anything
Sport	In following we would like to know if you agree with the further statements: on holiday, 1. I want to play outdoor sports (cycling, trekking, horse riding) 2. I want to exert myself physically and I play sports Favourite tourism form: 3. Sport holiday ²
Nature	Degree of appreciation of tourist form: 1. Holiday in nature ² In following we would like to know if you agree with the further statements: on holiday, 2. an unspoiled nature and natural landscape play a major role for me 3. when choosing a holiday destination, environment protection plays also a role for me
Constructs	
Family	In what extent do you agree/disagree to the following statements: 1. When choosing a holiday destination, it is important to me that there are offers and care for the children 2. In my life family plays a major role 3. When choosing a holiday destination, the family influences me at most
Action	Please tell us your opinion about the following statements: on holiday, 1. I put much emphasis on night life 2. I like going to discos/bars 3. I look for a flirtation 4. When choosing a holiday destination, are my friends who influence me at most
Abroad	1. How often do you use the plane in order to go on holidays ³ ? 2. Holiday abroad ² 3. How often do you go on holiday abroad ³ ?
City holidays	In following we would like to know if you agree with the further statements: on holiday, 1. I dedicate myself to visiting cities 2. On holiday, I visit museums/ art expositions. Favourite tourism form: 3. Cities journey ²

2. <i>Social stimuli</i>	How is agri-tourism evaluated by your friends/familiars/work colleagues...? <ol style="list-style-type: none"> 1. out-in 2. ridiculous/proper 3. interesting/not interesting 4. strange/normal
3. <i>Experience</i>	Previous experience on agri-tourism ⁴
4. <i>Information degree</i>	<ol style="list-style-type: none"> 1. Degree of information about agri-tourism⁵ 2. Agri-tourism is... Known-unknown
5. <i>Agri-tourism images</i>	
Traditional image	<p>Agritourism is...</p> <ol style="list-style-type: none"> 1. relaxing-stressful 2. comfortable-uncomfortable <p>In an agri-tourism one might:</p> <ol style="list-style-type: none"> 3. get new energy 4. get rid of stress
Wellness image	<p>In an agri-tourism one might:</p> <ol style="list-style-type: none"> 1. do something for ones health 2. practice some sport 3. free ones creativity
Exciting image	<p>Agri-tourism is...</p> <ol style="list-style-type: none"> 1. varied 2. exciting <p>In an agri-tourism one might:</p> <ol style="list-style-type: none"> 3. experience something unexpected 4. learn lots of things
Value for money	<p>In following we would like to know if you agree with the further statements:</p> <ol style="list-style-type: none"> 1. If I consider value for money, agri-tourism is an interesting destination to me <p>Agritourism is:</p> <ol style="list-style-type: none"> 2. cheap-expensive
6. <i>Risk perception</i>	<p>When choosing agri-tourism as a holiday destination, one has to take especially into account that:</p> <ol style="list-style-type: none"> 1. It might be dirty 2. It might smell awful 3. It might be noisy
7. <i>Evoked set</i>	<ol style="list-style-type: none"> 1. Preference item: please rank the following vacations from 1 (the most favourite) to 7 (the least favourite)⁶ 2. Interest item: please state your degree of agreement towards the following statement: - German agri-tourism is an interesting travel destination to me.
8. <i>Soc.dem data:</i>	
Income	Ordinal (unit: €)

Number of family members	Metric (unit: individuals)
¹ If not otherwise indicated, all sample items have a five-point Likert scale ranging from +2 “strongly agree” to -2 “strongly disagree” ² Five-point scale ranging from +2 “I appreciate very much” to -2 “I do not appreciate at all” ³ Five-point scale ranging from +2 “always” to -2 “never” ⁴ Five-point scale ranging from +2 “more than 3 times” to -2 “never” ⁵ Five-point scale ranging from +2 “very well informed” to -2 “very little informed” ⁶ The seven destinations to be ranked are: city holiday, wellness-hotel, wellness farm tourism, abroad holiday, farm tourism, safari, rural tourism	

Source: authors' calculation

concerned, the average propensity to go on holiday is one to twice yearly, and the average duration is one to two weeks. The propensity to spend a holiday abroad is displayed as followed: 36% state that they often go on holidays abroad, followed by 31% who only sometimes do so and 17% who go on holiday abroad quite rarely. All in all, the leisure behaviour of the sample displays a high similarity with the one of the whole population (Grimm et al. 2007).

VI. Questionnaire Design

Each of the constructs of our model is measured with a block of indicators (questionnaire items) displayed by table 1. The first construct refers to the travel styles and consists of items, which focus both on vacation motives and on leisure

activities. It is partly derived from the analysis of Dolnicar and Leisch (2003). For the constructs 2 to 4 we base our work on Um and Crompton (1990), whereas the constructs 5 and 6 are largely derived from the available literature on German agri-tourism ranging from the 1970s to the present day (Grimm et al. 2007; Lehle 1982; Lemke 2002; Lender 1997; Oppermann 1996; Wohlmann and Lohmann 1986). Our dependent variable, the evoked set, aims to measure the degree of appreciation of “German agri-tourism” (construct 7). With exception of the ranking item, the measurement of the majority of constructs is based on a (positive-to-negative) five-point Likert scale ranging from “strongly agree” to “strongly disagree”, with “neither agree nor disagree” as a midpoint. For the construct regarding the four agri-tourism images,

both sets of items related to the “typical activities in an agri-tourism” and “perceived images of agri-tourism” are included. Referring to the latter, the semantic differential measurement is adopted, where each response is located on an evaluative bipolar (positive-to-negative) dimension, using a five-point Likert scale. All blocks of indicators are formulated in the reflective mode.

VII. Results of Pls Estimation

In the following, the results of the model testing will be presented. This includes the test of (1) the measurement model and of (2) the structural model. The former measures the relationships among (exogenous and endogenous) latent and

observed variables; the latter explains the relationships among the exogenous latent variables and the endogenous latent ones.

VIII. Measurement Model

In order to check whether the indicators of each construct measure what they are supposed to measure, tests for convergent and discriminant validity have been performed. Regarding the indicator reliability, construct loadings have been examined. All loadings are significant (see table 2), which leads to the next step. According to Dibbern and Chin (2005) and Chin (1998b), significance tests have been conducted using the bootstrap routine with 500 re-samples. In order to measure the construct reliability and validity two

Table 2. Measurement of the indicators' reliability

Items	Loading	T statistics
f17_uadb_intere_1 ← Evoked set	0.93	82.43
umk_13_uadb_1 ← Evoked set	0.91	55.41
f17_adb_preis ← Value for money	0.97	50.41
f18_abwe ← Exciting image	0.87	27.84
f21_out ← Social stimuli	0.86	26.44
f4_natur ← Nature	0.85	22.99
f18_aufr ← Exciting image	0.86	20.52
f21_unin ← Social stimuli	0.85	19.28
f8_natur ← Nature	0.83	18.97

f20_stre ← Traditional image	0.82	17.68
f9_outdo ← Sport	0.89	16.16
f21_laec ← Social stimuli	0.82	15.68
f15_info ← Information	0.87	14.92
f9_nacht ← Action	0.86	13.17
f18_ents ← Traditional image	0.76	12.96
f22_stin ← Risk perception	0.86	12.95
f18_gemu ← Traditional image	0.79	12.40
f5_hotel ← Organisation	0.81	12.31
f10_flug ← Abroad	0.87	12.30
f8_kinde ← Family	0.84	12.00
f19_ener ← Traditional image	0.76	11.94
f21_komi ← Social stimuli	0.78	11.88
f8_komfo ← Organisation	0.78	10.98
f4_fern ← Abroad	0.81	10.22
f18_beka ← Information	0.81	9.60
f9_pub ← Action	0.80	9.05
f11_fami ← Family	0.78	8.81
f22_saub ← Risk perception	0.79	6.55
f8_gutwe ← Organisation	0.65	6.36
f8_flirt ← Action	0.69	6.10
f19_auss ← Exciting image	0.65	6.04
f8_sport ← Sport	0.73	5.75
f22_laut ← Risk perception	0.73	5.65
f8_organ ← Organisation	0.64	5.54
f12_urla ← Nature	0.59	5.51
f3_ausla ← Abroad	0.70	4.76
f4_sport ← Sport	0.65	4.55
f19_spor ← Wellness image	0.88	4.41
f9_sight ← City	0.89	4.20
f4_stadt ← City	0.84	4.07
f11_freu ← Action	0.57	4.02
f36_fami ← Family	0.58	4.00
f19_lern ← Exciting image	0.56	3.84
f18_prei ← Value for money	0.60	3.82
f19_gesu ← Wellness image	0.68	2.64
f9_musee ← City	0.67	2.44
f19_krea ← Wellness image	0.61	2.35

indices have been employed: respectively (1) the composite reliability (CR) and (2) the average variance extracted (AVE). Whereas for the former the current literature estimates a threshold of either 0.7 (Dibbern and Chin 2005; Götz and Gobbers 2004) or 0.6 (Bagozzi and Yi 1988), it is expected that the AVE should not be lower than 0.5 (Homburg and Giering, 1996); thus meaning that at least 50 percent of measurement variance is captured by the construct (Chin 1998a) (see table 3).

The discriminant validity of the construct items has been checked by means of the Fornell-Larcker criteria (Fornell and Larcker 1981). The results of this discriminant validity assessment are displayed in table 4. Discriminant validity is given when the shared variance among any two constructs (i.e. the square of their intercorrelation) is less than the AVE of each construct (Fornell and Larcker 1981). In this data analysis, there is no correlation between any two latent constructs larger than or even equal to the square root AVE of these two constructs. Consequently, discriminant validity is supported, meaning

that we can be confident that all constructs in the research model are indeed measuring different concepts.

IX. Structural Model

The explanatory power is examined by looking at the squared multiple correlations (R^2) of the main dependent variable (evoked set), as well as at sign and significance of the path coefficients. The latter are analogue to the standardized beta weights in regression analysis. The corresponding t-values are assessed using the bootstrapping method with 500 re-samples. In our model 61% of the degree of appreciation of German agri-tourism (evoked set) is explained by five independent variables: value for money (0.335***) (H7) experience (0.267**) (H3), exciting image (0.204*) (H6) organisation (-0.162*) (H11) and holiday abroad (-0.156*) (H12). The variance explained (R^2) for the other endogenous variables are the following: nature 24.3%, information 14.1%, action holiday 13.8%, risk perception 5.8% and experience 2.4%. An overview can be inferred from

Table 3. Measurement of the Constructs' Reliability and Validity

Construct	Item	Loading	CR	AVE
city	f9_sight	0.84	0.85	0.65
	f9_museu	0.66		
	f4_city	0.89		
sport	f8_sport	0.73	0.80	0.58
	f4_sport	0.65		
	f9_outdo	0.89		
nature	f4_nature	0.85	0.81	0.59
	f8_nature	0.84		
	f12_envir	0.58		
organisation	f5_hotel	0.80	0.81	0.52
	f8_comfo	0.78		
	f8_weath	0.65		
value for money	f8_organ	0.64	0.65	0.78
	f18_price	0.61		
	costs	0.95		
family	f11_fami	0.77	0.78	0.55
	f36_fami	0.59		
	f8_kids	0.83		
action	f9_night	0.86	0.82	0.54
	f9_pub	0.80		
	f8_love	0.68		
abroad	f11_friend	0.57	0.84	0.64
	f10_flight	0.87		
	f4_abroad	0.81		
social stimuli	f3_abroad	0.70	0.90	0.68
	f21_strang	0.78		
	f21_ridic	0.82		
risk perception	f21_out	0.86	0.84	0.63
	f21_uninter	0.85		
	f22_noise	0.73		
information	f22_dirty	0.80	0.83	0.71
	f22_odour	0.86		
	f15_info	0.87		
exciting image	f18_known	0.81	0.83	0.56
	f18_change	0.87		
	f18_excite	0.86		
wellness image	f19_unusual	0.65	0.78	0.55
	f19_learn	0.57		
	f19_health	0.69		
traditional image	f19_spor	0.88	0.86	0.61
	f19_crea	0.62		
	f18_relax	0.76		
evoked set	f18_comfo	0.79	0.91	0.84
	f19_energy	0.76		
	f20_stress	0.82		
	interest	0.92		
	ranking	0.91		

CR=composite reliability; AVE=Average Variance Extracted. Source: authors' calculation

table 5. The results also allow us to test each of the proposed hypotheses.

With exception of organization and abroad, none of the others travel style factors (H9 to H15) seem to have any significant impact towards evoked set which leads to the rejection of the respective hypotheses. As expected, social stimuli have a significant influence on individuals' risk perception (H21 accepted), however neither the former nor the latter have a valuable impact on evoked set (rejection of H2 and H8). Besides, since the influence of social stimuli towards experience is not significant, also H22 has to be rejected. Experience influences information (H19 accepted) but the latter does not affect significantly the evoked set (H1 rejected). Both H4 as well as H5, referring respectively to the perceived images of German agri-tourism as a wellness destination and the traditional image of the German farm tourism have to be rejected. Finally, none of the demographic data included in the model explains significantly the variance of the factor evoked set. Therefore neither H16 nor H17 has been accepted. As far as the

interrelation between sport and nature (H18) and family and action (H20) are concerned, the stated relationship among these variables has been statistically confirmed.

X. Discussion and Conclusions

The focus of the present paper is to identify the factors influencing the preference for agri-tourism in Germany. For this purpose, we included in our path model an evoked set factor, which measures the preference for German agri-tourism. As expected, less than a third of the respondents of our sample (n=115) ranked German farm tourism among their first three destinations, in fact, 220 respondents rejected it, whereas almost a third (n=135) showed neither to prefer nor to dislike this segment. All in all, it appears that German agri-tourism still retains a rather neutral image which, according to Woodside and Lysonski (1989), may result from a lack of awareness of this market as a vacation form. The not significant impact of social stimuli and risk perception on the evoked

Table 4. Test of discriminant validity based on Fornell and Larcker (Fornell and Larcker 1981)

	es	nat	org	risk	soc s	well	exci	rela	act	abr	spo	city	exp	fam	inc	info	fam n	val
es	0.92																	
nat	0.34	0.77																
org	0.39	-0.32	0.73															
risk	0.25	-0.20	0.06	0.79														
soc s	0.33	-0.19	0.16	0.24	0.83													
well	0.18	0.24	-0.03	-0.22	-0.21	0.73												
exci	0.47	0.33	-0.19	-0.10	-0.34	0.28	0.74											
rela	0.44	0.36	-0.17	-0.38	-0.20	0.34	0.36	0.78										
act	0.19	-0.21	0.25	0.15	0.12	-0.03	-0.08	-0.10	0.74									
abr	0.34	-0.19	0.28	0.17	0.12	-0.01	-0.15	-0.11	0.29	0.79								
spo	0.18	0.49	-0.18	-0.08	-0.15	0.19	0.27	0.26	0.02	0.06	0.77							
city	0.18	0.03	0.12	0.03	0.12	0.10	-0.09	0.01	0.01	0.18	0.01	0.80						
exp	0.41	0.12	-0.11	-0.15	-0.06	0.16	0.16	0.24	-0.01	-0.02	0.09	-0.04	1.00					
fam	0.27	0.11	-0.04	-0.15	-0.20	0.06	0.20	0.27	-0.33	-0.19	0.10	-0.15	0.06	0.74				
inc	0.02	0.00	0.01	-0.07	-0.12	-0.04	-0.02	0.11	-0.30	0.04	0.00	0.04	0.04	0.23	1.00			
info	0.23	0.21	0.07	-0.30	-0.21	0.23	0.24	0.32	-0.16	-0.06	0.07	0.06	0.38	0.11	0.19	0.84		
fam n	0.08	0.06	-0.06	-0.07	-0.02	0.05	0.06	0.08	-0.09	0.01	0.00	0.04	-0.04	0.15	0.09	0.12	1.00	
val	0.58	0.37	-0.22	-0.25	-0.27	0.22	0.32	0.47	-0.12	-0.14	0.20	-0.06	0.24	0.14	0.08	0.26	0.03	0.81

es=evoked set, nat= nature, org=organisation, risk=risk perception, soc s=social stimuli, well=wellness image, exci=exciting image, rela=traditional image, act=action, abr=abroad, spo=sport, city=city, exp=experience, inc=income, info=information, fam n= family members, val=value for money

Source: authors' calculation

set may confirm this view. On the other hand, if we consider the factors which affect the evoked set at most, we can state that the appeal of German farm tourism is still based on its perceived value for money. The experience factor also has a significant influence on the evoked set. The magnitude of this impact is demonstrated in the literature by the high number of repeat visitors which affect German farm tourism (Grimm et

al. 2007; Lemke 2002 and Lender 1997). The current analysis has also aimed to shed some light on the perceptions of current and potential holidaymakers towards the new positioning of farm tourism. In fact, as already mentioned, farm operations in Germany have been trying in recent years to establish themselves either as a wellness holiday destination, which combines nature with the supply of fitness activities and body

care services or as a destination for a new type of holiday experiences, where people can learn from a variety of nature-related activities. The findings of the path model confirm partially this image-transition. Albeit moderate, respondents who have displayed a high preference for agri-tourism perceive it as an exciting vacation for unusual and learning experiences. In contrast, the traditional image of farm tourism as a place where vacationers can relax and enjoy the tranquillity and closeness to natural resources seems not to affect the evoked set significantly. Thus, this traditional image has been replaced by a more dynamic one. However, as shown by the value of the path coefficients, the efforts of some farm operations to specialize in wellness and fitness activities seem to be neither perceived nor appreciated. The difficulty of some leisure farm businesses to gain credibility as wellness partners might derive by the perception that agri-tourism facilities still lack of comfort, as the negative influence of the organization factor on the evoked set seems to confirm. Our article includes also some

limitations. Although the data used for the analysis share a high similarity with the leisure behaviour of the German population as a whole, the sample remains not representative. Besides, with regard at the results, income and family size seem not to significantly influence the preference for agri-tourism. Maybe, the inclusion of a richer body of socio-demographic data in a "social status" factor as well as its formulation in the formative way, could state an influence towards the evoked set. In the final part of our analysis, we suggest some practical management implications for this leisure farm industry: firstly, leisure farm businesses, which have specialized in a variety of learning activities, should keep on developing this strategy as well as providing up-to-date information on these (current information on the web, integration with tourist agencies in the region); secondly, farm operations, which have specialized in the supply of wellness services should cope with further investments, as this current repositioning seem not to affect the preference for farm tourism. In addition, a first visit to

the farm, maybe related to special event travel agencies should be boosted, as the attractions or included in package tours of direct exposition to the farm can provide

Table 5. PLS Results for Structural Model

Hypothesis	Path	t-value
H18: sport → Nature	0.483***	7.035
H19: experience → Information	0.376***	4.239
H 7: value for money → Evoked set	0.335***	3.699
H20: family → Action	-0.309***	3.405
H 3: experience → Evoked set	0.267**	2.958
H21: social stimuli → Risk perception	0.241**	2.653
H 6: exciting image → Evoked set	0.204*	2.422
H11: organisation → Evoked set	-0.162*	2.211
H12: abroad → Evoked set	-0.156*	2.009
H17: income → Evoked set	-0.088	1.206
H 2: social stimuli → Evoked set	-0.087	1.001
H14: family → Evoked set	0.093	0.979
H 5: traditional image → Evoked set	0.092	0.957
H22: social stimuli→ Experience	-0.058	0.521
H15: city → Evoked set	-0.054	0.709
H16: family members → Evoked set	0.050	0.705
H 1: information → Evoked set	-0.050	0.535
H 4: wellness image→ Evoked set	-0.040	0.494
H 8: risk perception→ Evoked set	-0.021	0.280
H13: action → Evoked set	-0.024	0.278
H10: sport → Evoked set	-0.020	0.233
H 9:nature → Evoked set	-0.004	0.039

***= Significant at 0.001 level (2 t-tailed test – $t > 3.291$); **= Significant at 0.01 level (2 t-tailed test – $t > 2.576$); *= Significant at 0.05 level (2 t-tailed test – $t > 1.960$). Variance explained: evoked set (61%) nature (24.3%) information (14.1%) action holiday (13.8%) risk perception (5.8%) experience (2.4%).

Source: authors' calculation

a return of visitors and, in this way, to favour a higher number of repeat guests.

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