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Consumer preferences for riding lessons in Finland, Sweden and Latvia

Tienhaara, A.¹, Pouta, E.¹, Lunner Kolstrup, C.², Pinzke, S.², Janmere, L.³ & Järvinen, M.¹

¹ MTT Agrifood Research Finland

² Swedish University of Agricultural Sciences

³ Latvia University of Agriculture



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Abstract

Services by equine sector offer a new livelihood for farms around cities, but studies focusing on the demand for these services are limited. Knowledge of the clients' preferences enables systematic development of the riding services. We examined a riding lesson choice, and attributes affecting it, in Finland, Sweden and Latvia using a choice experiment method. The latent class model revealed three distinctive consumer groups in each country: one with low interest in lessons, one with recreational focus and one interested in skills. Based on the model, we estimated willingness to pay for a riding lesson with different attribute combinations.

Key words: equine sector, riding lesson, choice experiment, preference heterogeneity

1. Introduction

Equine sector has found its place on the urban – rural fringe (Elgåker 2012) and horse stables offering riding services are an important rural livelihood around cities (Franklin & Evans 2008). The equestrian sector contributes to the production of new services by combining social needs of urban population with natural opportunities of rural areas. New demands for leisure services provide an opportunity to restructure farming beyond the industrial model based on pure commodity production. By responding to these demands, equine sector can provide new livelihoods as traditional agriculture does not have opportunities to grow via intensification of production on these areas. In equine firms, traditional agricultural functions have been replaced by new ones that add a consumption-oriented component to formerly production-oriented agriculture (Zasada 2011, Marsden 1999).

Discrete choice modeling has been used to research empirically the consumer choice and applied also to quantify the importance of service characteristics in rural tourism, hospitality and leisure (e.g Crouch & Louviere 2000, Kelly et al. 2007, Hearne & Salinas 2002). Some of these studies have had riders as members of respondents, but the focus has been on recreation services in general (Colombo et al. 2009, Christie, Hanley & Hynes 2007, Albaladejo-Pina & Díaz-Delfa 2009). Albaladejo-Pina & Díaz-Delfa (2009) showed that the probability of lodging at a rural house is affected positively when the house has the possibility of hiring horses. Christie et al. (2007) studied riders as one of the forest user groups and determined the attributes that are important in horse activities in forest. They found the provision of ‘dedicated carriage driving’ facilities to increase the utility of recreation while surprisingly the provision of ‘dedicated long distance routes’ reduced the utility of riding. The provision of general facilities such as parking, toilets, play areas and picnic areas increased utility while the added provision of a café/shop reduced it. Beyond these few studies, we found none focusing only on riders as clientele and their demand for riding services.

The possible clientele of the equine services is changing at the same time as the population on urban-rural fringe changes. Knowledge of needs and wishes of possible new and current clients is important for the systematic development of the services in equine sector. In our study, we are interested in the most typical riding good, a riding lesson, and in the attributes that affect the choice between riding sites. We use choice modeling approach by focusing on stated choices as some attributes of interest are new and not supplied at present. The aim of this study is first, to measure riding lesson choice in Finland, Latvia and Sweden among potential clients for riding schools. Second, we model the riding lesson choice by taking into account the clientele heterogeneity i.e. we define the various consumer segments in each country. Third, based on the consumer preferences, we provide willingness to pay estimates for the most interesting riding lesson types.

Contradictory to previous studies that take riding environment and its quality as a public good, we focus on producing information of a market good which supply can offer livelihood particularly on rural areas around cities. The results of our study will benefit the equine sector in developing their services to correspond clients’ preferences. The analysis of heterogeneous consumer groups is a necessity for market segmentation and for tailoring and marketing services for each segment. Furthermore, our cross border comparison allows us to discuss about the phase of development in the riding sector in each country and possible roles of equine sector in providing tourism services.

2. Riding in Finland, Sweden and Latvia

This study was conducted as a part of the EU-funded project, InnoEquine, which aimed to promote the competitiveness of the equine industry in Finland, Sweden and Latvia, i.e. countries of the Central Baltic Sea region. This implied that three rather different countries regarding riding activity were involved. The riding activity and conditions in each country provide background for the riders’ preferences and the possible consumer segments.

2.1 Finland

It is estimated that in Finland there are about 150 000 riders (Suomen Ratsastajainliitto 2012). Finnish outdoor recreation survey (Sievänen & Neuvonen 2011) shows that riders are typically young females. Adult riders are more often highly educated than the rest of the adult population. Active riders live more often on rural areas but follow the regional socio-demographic characteristics of population.

Of the growing horse population in Finland, 75 000 horses (Hippolis 2011), the share of riding horses is increasing. Horses used for riding are in many cases owned by the rider, as approximately 35 000 people in Finland own at least one horse (Suomen Hippos 2012). There are close to 16 000 stables in Finland, of which about 20% are business orientated (Hippolis 2011). The numbers presented are estimates, because Finland is lacking a comprehensive register of stable enterprises.

Riding lessons are the second most common form of business in the equine sector in Finland (Pussinen & Thuneberg 2010). Altogether the number of riding stables in Finland is around 1 000, of which about half are offering riding school services (Hippolis 2011). About 75% of all stables are located on farms, while the remaining stables do not have any agricultural operations beside the equine business. At the moment, the equine sector is growing, but generation change, lack of co-operation and amateurish operation of the stables have been recognized as major challenges (Lunner Kolstrup et al. 2013).

2.2 Latvia

Until recently, the equine sector in Latvia has been considered as part of the agricultural sector with main emphasis on horse breeding activities. Statistics show that the number of horses in Latvia has decreased about one third in last ten years and was 11 476 in 2012 (Latvia Agricultural Data Centre 2013). However, there is a lack of statistical data about using horses for recreation and tourism. In general, it can be concluded that the equine sector in Latvia is operated by the enthusiasts who are dedicated to horse breeding. However, increasing number of horses is used in sports, tourism, recreation and therapy (Paula et al. 2013). The small recreational riding enterprises have recognized that the number of the clients has to be increased in order to develop the business (Lunner Kolstrup et al. 2013). Two basic client groups have been identified; the regular clients who use the services on a regular basis and for several years; and occasional clients who use some of the services for different purposes (Paula et al. 2013).

Expanding recreational riding services, implying increasing number of horse owners, as well as more time and resources spent on horseback riding, is the objective of the equine industry in Latvia (Lunner Kolstrup et al. 2013). The owners of larger businesses, and those orientated to provision of tourism services, see foreign clients as their potential client group. However, this would require comprehensive development of customer services in equine industry.

2.3 Sweden

In Sweden, the demand for horse activities has been increasing until recently and new lines of business continue to evolve. During the past 30 years, the number of horses in Sweden has increased tremendously. Today, there are approximately 362 700 horses. About one million Swedes (11% of the population) are in some regular contact with horses and the various activities they generate (Löfqvist 2012). Around 500 000 Swedes ride regularly and the majority (85%) of them is female (Swedish Equestrian Federation, 2012). More than 80% of Swedish horse owners consider their horse ownership as a hobby and most of them use their horses for riding.

Horses and stables are mainly situated around residential areas, i.e. about 75% of horses and 66% of equine establishments are in urban and peri-urban areas (Swedish Board of Agriculture,

2011). There are approximately 600 riding schools and 1000 riding clubs with 200 000 members, 65% of whom are under 25 years of age (Löfqvist 2012).

Nowadays, riding schools are facing profitability challenges as they find it difficult to compete with other sport and leisure activities in recruiting children and young adults to riding lessons (Lunner Kolstrup et al. 2013). It is perceived by entrepreneurs that traditional riding lessons are not exciting enough for young people who are looking for new experiences. Adults are considered steadier customers who are willing to pay for shared or even private lessons.

3. Data and methodological framework

In the beginning of 2013, in collaboration with Swedish University of Agricultural Sciences (SLU) and Latvia University of Agriculture (LUA), Agrifood Research Finland (MTT) carried out a survey for the clients of equine sector focusing in particular to the service demand. The study examined the motives, satisfaction and service preferences of the riders.

Respondents to the survey were current and potential riders and people with horse related activities. The survey was limited to over 15-year-old respondents. In Finland, they were contacted in Helsinki International Horse Show and via the website of The Equestrian Federation of Finland (www.ratsastus.fi). All together 438 Finnish respondents, either current or potential clients of equine sector, responded to the survey.

In Sweden, the sampling was conducted with the e-mail list from Swedish University of Agriculture including staff and students at 4 campuses in Southern, Middle and Northern Sweden (Alnarp, Uppsala, Skara and Umeå). The survey was also available for respondents to answer via the equestrian web page, HästSverige (www.hastsverige.se). The people contacted were asked to respond if they were interested in horses and horse related free time activities. These two approaches produced 430 responses.

In Latvia, the survey was conducted as face-to-face interviews and self-administered questionnaires on 9 stables. In addition, responses were collected via internet at regional tourism agencies and via 40 partnerships of local communities. Furthermore, 50 customers responded in Zemgale-horse networks web pages. With these methods 457 responses were obtained from Latvia.

The descriptive information of the data is presented in Table 1. As the survey was designed for people with horse related activities and especially riders, the data is not representative of general population. A pilot survey was conducted in November 2012, before the actual study, to test the questionnaire. The pilot study had many open ended questions so that the respondents were able to comment the questionnaire and give suggestions for improvement.

Table 1. Descriptive information.

	Finland (n=438)	Sweden (n=430)	Latvia (n=457)
Female, %	98	91	89
Age, mean	36	34	30
White collar workers, %	64	55	81
Family size, mean	2.6	2.3	3.4
Living in town or city, %	53	50	64
Household income (median)	50 000 – 59 999 €	300 000 – 399 999 SEK (36000–48000 €)	3000 – 4999 LVL (4200 – 7200 €)
Share of horse owners, %	69	57	32
Riding frequency, mean per year	265	98	231
Total expenses for horse activities, € per year	8200	5200	2200

3.1 Choice experiment and CE design

In this study, we examined a riding lesson choice in Finland, Sweden and Latvia using a choice experiment method. Choice experiments (CE) are often used to test new products and to analyze the relative importance consumers assign to product characteristics. A choice experiment consists of several choice sets with two or more alternative goods described by their attributes. The respondent is asked to choose one of the alternative goods based on the differing attribute levels. A status quo option is often included in the choice set. In choosing between the alternatives, the respondent is assumed to consider the utility from the choices and select the alternative with the highest utility. According to Lancasterian consumer theory and random utility theory, these choices reveal consumer trade-offs between the attributes of the products (Lancaster 1966).

In the questionnaire, the respondents faced different choice sets, each set containing two riding lesson alternatives and a no-choice option. The riding lessons had several attributes and the level of attributes varied across the alternatives. The riding environment had four levels: riding field (baseline), riding field and bridle paths, riding field and indoor arena, and riding field, indoor arena and bridle paths. Also natural environment had four levels: pasture (baseline), meadows and pasture, forests and pasture, and forests, meadows and pasture. The level of teaching varied from no teaching to amateur and qualified teachers. Horses were either easy to ride, hobby level or highly trained. One way distance to the stable in time varied from 15 minutes to 1.5 hours. The price attribute varied in Finland from 10 € to 70 €, in Sweden from 100 SEK (8 €) to 800 SEK (66 €) and in Latvia from 3.5 LVL (5 €) to 35 LVL (50 €). To examine potential new added value for the lesson, we included focus attribute, so that the stable was focusing either on horse welfare, customer convenience or developing horsemanship. The attributes and their levels are presented in Table 2.

Table 2. Different attribute levels in the choice experiment for the riding lesson.

Riding environment	riding field	riding field and bridle paths	riding field and indoor arena	riding field, indoor arena and bridle paths
Natural environment	pasture	meadows and pasture	forests and pasture	forests, meadows and pasture
Teaching	no teaching	amateur teacher		qualified teacher
Horses	easy to ride horses	highly trained horses		hobby level horses
Focus	no focus	developing horsemanship	horse welfare	customer convenience
One way distance in time	15 minutes	30 minutes	1 hour	1.5 hours
Price	10 €	...		70 €

Given the seven attributes and their varying levels, a large number of different riding lessons could be constructed. To reduce the number of alternatives and to obtain efficient design, we employed Bayesian D-efficient design using Ngene-program (v. 1.0.2) (ChoiceMetrics 2010), to allocate the attribute levels to the choice situations in the choice experiment. Efficient designs aim to generate parameter estimates with as low as possible standard errors, and thus produce the maximum information from each choice situation (see e.g. Rose and Bliemer 2009). In defining the efficient design, we used priors from pilot study and Bayesian priors in those cases the pilot did not provide feasible priors. The final design contained 17 blocks (sub samples) and each block had four different choice sets for each respondent. Table 3 shows an example of the choice setting.

Table 3. An example of the choice setting.

Stable characteristics	Riding lesson A	Riding lesson B
Riding environment	riding field, indoor arena and bridle paths	riding field and indoor arena
Natural environment	meadows and pasture	forests, meadows and pasture
Teaching	no teaching	qualified teacher
Horses	highly educated horses	easy to ride horses
Focus	developing riding skills	customer convenience
One way distance in time	15 minutes	1 hour
Price	30 €	50 €
I would choose	()	()
I would choose neither of these riding lessons ()		

3.2 Statistical methods

Econometric preference analysis based on CE data is typically conducted using a conditional logit model (McFadden, 1974). However, the model unrealistically assumes homogeneous preferences, or tastes, among consumers. In order to account for differences in consumer preferences, without any *a priori* knowledge of the sources of heterogeneity, the latent class model has been recommended over other modeling alternatives, such as random parameters and covariance heterogeneity models (Colombo et al. 2009). Compared to alternatives that focus on individual level heterogeneity, the latent class model is superior in explaining preference heterogeneity at the segment level. As we were interested in possible consumer segments, a latent class model was used in this study. It assumes that consumers belong to heterogeneous latent classes based on their differing attitudes and perceptions of product attributes (Swait 1994). These differences are reflected in the segment-specific choice behavior of the consumers. The latent class model reveals both the consumer segments and the relative preferences for product characteristics in each consumer segment (Hu et al. 2004, Vermunt and Magidson 2005). For modeling latent class model, we used Latent Gold –program.

In this study, we wanted the consumer classes to be determined based on the choices respondents made in the choice experiment. Hence, the individual (socio-demographic) characteristics were set to be inactive, so that they did not affect the latent class model. The best model having the optimal number of consumer classes is selected by using model fit criteria. In this study, we used the Bayesian information criterion (BIC). The estimation was conducted separately for each country.

Willingness to pay (WTP) is a measure for indicating the maximum monetary contribution an individual is willing to make in order to balance for a rise in his utility. WTP estimates can be calculated for different products of interest following Boxall and Adamowicz (2002).

The relationship between the individual characteristics and the latent classes was only examined *a posteriori* of the actual estimation of the latent class model in order to describe the heterogeneous consumer classes (Vermunt and Magidson 2005). The most probable class for each respondent was determined in the latent class model estimation. The class memberships were then modelled using a logistic regression model for each consumer segment in order to compare each segment with the rest of the data. The characteristics of the respondents, such as their socioeconomic characteristics, consumption habits and attitudes, were used as independent variables.

4. Results

The conditional logit models for each country provided the baseline for understanding the effect of different attributes on riding lesson choice. In all three countries, all attributes except natural environment effected significantly on riding lesson choice. The models also provided general impression of the importance of the quality attributes in three countries. The results showed the importance of teaching over the countries, as in all of them the effect of qualified teacher was strong. In Sweden, the focus of the stable was even stronger than the effect of teaching, if the focus was either horse welfare or developing horsemanship skills. Also in Latvia, these two ways to focus the operation of a stable increased considerably the probability of choosing a lesson. In Finland, the effect of highly trained horses exceeded the importance of focus. Although the quality of natural environment did not have significant effect in Sweden and Latvia and had unexpected negative effect in Finland, the versatile riding environment increased the choice probability in all countries. In all countries, the effect of price followed the assumption that the increase in price decreased the probability of choice. In Finland and Sweden, the effect of distance was significant and followed expectations that longer distance decreases the probability of choice, but the coefficient of the distance variable was non-significant in Latvia.

Beyond these one class models our aim was to analyse the heterogeneity among riders' preferences and in particular whether we could find rider segments that differ in their preferences. Based on BIC, we found three consumer segments in each country. In Sweden and Finland, also solutions with two classes were possible, but we ended up with three class solution for all countries to allow similarities in the class profiles between countries.

The latent class models reported in Table 4 show that the consumers were not alike. Even though there were some differences between Finland, Sweden and Latvia, the three consumer segments in each country can roughly be characterized as "low interest in lessons", "recreation" and "skills". These segment names are interpretations based on coefficients in latent class models but also the socio-demographic and activity profile presented in Table 5.

Alternative-specific constants (ASC) in Table 4 showed that, in Finland and Sweden, class "low interest in lessons" had negative coefficients for both ASC1 (for lesson A) and ASC2 (for lesson B), hence respondents chose the no-choice option more often than lessons. ASCs showed that the two other classes clearly chose the riding lessons over the no-choice option. Also Latvian "low interest in lessons" class chose the lessons less than two other classes, but still had low positive coefficients for the lessons. Among all three classes, there were no significant differences between ASC1 and ASC2. This confirms that neither lesson A nor lesson B was favoured over the other.

In the latent class model for Finland, the class sizes were rather even although the class with low interest in lessons was slightly larger and the class with interest in developing skills slightly smaller. The classes had equal preferences for the quality of horses, distance and price but the preferences for the other attributes differed. In the "recreation" segment, both the riding environment and the natural environment had higher effect on the utility than in other segments. This segment also valued highly particularly the horse welfare as the focus of the stable but also customer convenience and developing horsemanship were important. Developing horsemanship was of importance also for the segment "skills". However, the attribute that affected most on their utility was the qualified teacher. This attribute was of some importance also for the segment of "low interest in lessons".

In the model for Sweden, the coefficients for natural environment and price were the same for all the segments. The preference profiles of the segments resembled those of Finland with some differences. The "recreation" segment preferred particularly the riding lessons with high quality riding environment with indoor arenas and bridle paths. For them, also the high quality horses and

short distance were of more importance than to other Swedish segments. Also in Sweden, there was a segment that was particularly interested in developing skills, as the coefficients for qualified teacher as well as developing horsemanship were on high level. Also the focus of the stable in horse welfare increased their probability of selecting the riding lesson more than in other segments. In Sweden the “low interest in lessons” segment preferred versatile riding environment, high quality of horses and teaching as well as the special focuses of the stable but only with customer convenience attribute their preferences were stronger than in either of the other segments.

In Latvia, the segments differed only in their preferences for teaching, focus, distance and price. Still, also in Latvia, we could identify a segment with interest in skills as there were riders that had high preferences for qualified teacher. The segment of “recreation” valued highly the customer convenience focus and for them the distance to the stable had even positive sign suggesting orientation for touristic rides. The “low interest in lessons” segment had higher negative coefficient for the price compared to the other classes, implying lower willingness to pay for a riding lesson. However, this segment of Latvian riders had rather strong preference for developing horsemanship.

The logistic regression models for each class (Table 5) provided information on the socio-demographic and activity variables that significantly associated with the membership of each class. Despite some differences, the classes had many similarities between countries. Class “low interest in lessons” was characterized by older age, urban living and lower education level. There were many horse owners among respondents in this class and they were often members in a riding club. Respondents in “recreation” class were younger and they had no or few children. Many lived on farms and had higher education. “Skills” class included more males than two other classes. Respondents in this class were older, had few children, lived often on farms and had lower education. This class had few horse owners, but many of the respondents were members in a riding club.

The latent class models for all three countries were used to estimate the price premiums for various types of riding lessons. Table 6 presents the relative WTP estimates for different riding lessons compared to a baseline product. This helps to see the value that different attributes add to the baseline product.

WTP estimates followed the preferences in the consumer classes. In Finland, “recreation” class had significant positive values for both riding environment and natural environment. This was reflected as positive WTP for higher levels of environment attributes. Among other classes and countries both of these attributes were not significant so the WTP estimates were not calculated for them. “Recreation” class in Finland, classes “low interest in lessons” and “skills” in Sweden and all three classes in Latvia had preference for horse welfare and developing horsemanship.

The preferences regarding teaching were clearly visible in the WTP estimates. “Low interest in lessons” classes in Finland and Sweden as well as class “skills” in all three countries had higher WTP for lessons that included qualified teacher compared to similar lesson with amateur teacher.

In Finland, “skills” class had only little additional WTP compared to baseline lesson. However, WTP for the baseline was already on a high level. This was the case also with “recreation” class in Sweden and Latvia, as the WTP did not differ significantly between the different lessons, but the baseline WTP was on a highest level within a country.

Table 4. Latent class models for riding lesson choice.

MODELS FOR CHOICES	Latent class model								
	Finland			Sweden			Latvia		
	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
	<i>Low interest in lessons</i>	<i>Recreation</i>	<i>Skills</i>	<i>Low interest in lessons</i>	<i>Recreation</i>	<i>Skills</i>	<i>Low interest in lessons</i>	<i>Recreation</i>	<i>Skills</i>
Pseudo R ²	0.0538	0.2415	0.2339	0.0736	0.2126	0.4179	0.1389	0.1586	0.2678
Class Size	0.3832	0.3226	0.2943	0.4271	0.3893	0.1836	0.3564	0.3529	0.2907
CONSTANTS	(***)[***]			(***)[***]			(***)[***]		
No choice ^a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lesson A	-0.55	2.37	3.44	-0.84	2.96	1.76	0.61	2.47	1.41
Lesson B	-0.48	2.36	3.66	-1.22	2.97	1.82	0.69	1.92	1.73
ATTRIBUTES									
Riding field ^a	(***)[***]			(***)[**]			(-) [-]		
Riding field and bridle paths	-0.37	0.74	-0.39	0.26	0.52	0.23	0.32	0.32	0.32
Riding field and indoor arena	-0.08	0.90	-1.06	0.47	0.37	-0.15	0.13	0.13	0.13
Riding field, indoor arena and bridle paths	0.48	1.34	-0.90	0.89	1.23	-1.16	0.35	0.35	0.35
Pastures ^a	(***)[**]			(-) [-]			(-) [-]		
Meadows and pastures	-0.65	0.78	-1.12	0.29	0.29	0.29	0.08	0.08	0.08
Forests and pastures	-0.56	0.88	-0.48	0.30	0.30	0.30	0.10	0.10	0.10
Forests, meadows and pastures	-0.47	1.13	-0.90	0.32	0.32	0.32	0.16	0.16	0.16
No teaching ^a	(***)[***]			(***)[***]			(***)[***]		
Amateur teacher	-0.26	-0.17	0.22	0.93	0.11	0.45	0.31	0.60	1.30
Qualified teacher	1.30	0.05	1.69	1.68	0.39	1.90	0.84	0.26	2.83
Easy horses ^a	(***) [-]			(***)[**]			(**) [-]		
Medium level hobby horses	0.36	0.36	0.36	-1.11	-0.35	-0.20	-0.03	-0.03	-0.03
Highly trained horses	0.69	0.69	0.69	0.39	0.81	-0.66	0.34	0.34	0.34
No focus ^a	(***)[***]			(***)[***]			(***) [***]		
Customer convenience	-0.21	1.12	-0.90	0.41	0.31	-0.39	-0.56	1.05	-0.26
Horse welfare	-0.08	1.85	-0.26	1.03	0.48	2.11	0.39	0.51	0.87
Developing horsemanship	0.21	1.01	0.50	0.94	0.07	2.93	0.72	0.69	0.49
Distance	(***) [-]			(***)[*]			(***)[***]		

	-0.92	-0.92	-0.92	-0.80	-1.03	0.05	-0.93	0.59	-0.40
Price	(***) [-]			(***) [-]			(***)[***]		
	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	-0.10	-0.03	-0.03

Note : : ^a denotes reference level. (***) , (**) and (*) show Wald test for p-value at 1%, 5% and 10 % significance levels, respectively. [***], [**] and [*] show Wald test p-value for class independence at 1%, 5% and 10 % significance levels, respectively.

Table 5. Logistic regression models profiling consumer classes.

Class 1 <i>Low interest in lessons</i>			Class 2 <i>Recreation</i>			Class 3 <i>Skills</i>		
Finland	Sweden	Latvia	Finland	Sweden	Latvia	Finland	Sweden	Latvia
-	-	Mostly female	-	-	Some male	-	Some male	Some male
Older	Older	Younger	Younger	Younger	Younger	Older	Younger	Older
Higher income	-	-	-	-	Lower income	Lower income	-	Higher income
No children	Children	-	No children	No children	Children	-	No children	No children
Rural (non-farm) or urban area	Urban area	Rural (non-farm) or urban area	Farm	Rural (non-farm)	Farm	Rural (non-farm)	Farm	Farm
Lower education	-	Lower education	Higher education	-	Higher education	Lower education	-	Lower education
-	Horse owner	Horse owner	-	-	Non owner	-	Non owner	Non owner
Member of a riding club	Member of a riding club	-	Non member	Non member	Non member	-	Member of a riding club	Member of a riding club

Table 6. Relative WTP for differentiated riding lessons compared to baseline lesson (riding field, pastures, no teaching, easy to ride horses, no focus).

LATENT CLASS MODEL										
	Finland			Sweden			Latvia			Average WTP's
	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	
	<i>Low interest in lessons</i>	<i>Importance of recreational setting</i>	<i>Interest in skills</i>	<i>Low interest in lessons</i>	<i>Importance of recreational setting</i>	<i>Interest in skills</i>	<i>Low interest in lessons</i>	<i>Recreational riders</i>	<i>Interest in skills</i>	
WTP for baseline, €	81	124	165	124	226	175	21	99	73	
Lesson 1 Good environment *	-2.2%	8.8%	-1.0%	-	-	-	-	-	-	3.3%
Lesson 2 Good stable**, qualified teacher, developing horsemanship	28.7%	14.1%	3.2%	49.3%	5.3%	42.6%	18.8%	5.0%	41.6%	23.2%
Lesson 3 Good stable**, amateur teacher, developing horsemanship	10.2%	13.7%	0.6%	36.5%	4.9%	36.2%	14.2%	6.0%	14.5%	15.2%
Lesson 4 Good stable**, qualified teacher, animal welfare	27.0%	19.2%	2.7%	50.3%	5.8%	28.0%	16.0%	4.3%	42.8%	21.8
Lesson 5 Good stable**, amateur teacher, animal welfare	7.9%	18.9%	-0.025%	37.8%	5.4%	18.4%	11.1%	5.4%	16.6%	13.5%

* riding field, indoor arena and bridle paths, forests, meadows and pastures, no teaching, easy to ride horses, no focus

** riding field, indoor arena and bridle paths, forests, meadows and pastures, highly educated horses

5. Discussion and conclusions

This study revealed the important characteristics of riding lessons in Finland, Latvia and Sweden among the actual and potential clients for riding schools. The results were promising as in the choice experiment the clients were able to express their preferences in rational way. The selected attributes, riding environment, natural environment, teaching, horses and the focus of the stable as well as price and distance, all had importance at least for one segment of clients in one of the countries. The latent class model by segments revealed clear heterogeneity among the clients in each country. However, the identified consumer segments were surprisingly similar in all of the three countries.

There were no previous segmentations from Sweden and Finland facilitating comparison of our results. Instead in Latvia, there have previously been identified two client groups (Paula et al. 2013); the regular clients that have used the services offered by the stable for several years on a regular basis counterpart with skills oriented and less interested segments in our study. The second previously identified group of occasional clients who used some of the services for different purposes corresponded to recreation oriented clients in our results.

From the few previous studies, we can also compare with study by Christie et al. (2007) that found the provision of dedicated long distance routes surprisingly reducing the utility of riding. In our study, as in theirs, the riding environment was not the most important attribute for riders. In their study, the provision of general facilities such as parking, toilets, play areas and picnic areas increased utility while the added provision of a café/shop reduced it. Our study defined that the services increasing customer convenience were important attribute for one segment of clients.

It has been previously discussed that horse stables offering riding services are an important rural livelihood around cities (Franklin & Evans 2008). Our study confirmed this idea as half of the clients lived in cities. Our results also showed the importance of distance attribute in Finland and Sweden, however, in Latvia we also found a segment of customers who would be interested to travel longer distances.

Based on the consumers' preferences, we provided willingness to pay estimates for the most interesting riding lesson types. These were, however, not very promising for riding stables; if the base WTP was high, willingness to pay for extra services was rather low. This makes it challenging to find new profitable products.

In Finland, 75% of all stables are located on farms, while the remaining stables do not have any agricultural operations besides the equine business. For farms that provide equine services as one livelihood, it may be challenging to respond to specified consumer needs. Providing riding environment, particularly bridle paths, demands co-operation between landowners. Furthermore, cost-efficient investments in facilities for customer convenience demand creativity. Another challenge is to find qualified teachers, particularly on new topics such as teaching horsemanship. This as well as horse welfare issues are more general questions to be responded by education and counseling in the equine sector.

In Sweden, other types of challenges are met. The stables are mainly situated around residential areas, i.e. about 75% of horses and 66% of equine establishments are in urban and peri-urban areas which poses difficulties to offer high quality riding environment close to home. Other issue in Sweden has been challenges of recruiting children and young adults to riding lessons. In our results, younger riders in Sweden emphasize skills and recreation. This encourages stables to define new concepts for entertaining skill development.

Although we did not have information about foreign clients in our study, the results from Sweden and Finland can be used for developing the practices in Latvia where the price level may be appealing for foreign visitors. However, it would be an interesting topic for future research to analyze the demanded characteristics of touristic riding trips in a cross border demand study.

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