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Are Riding Club Members Willing to Pay or Work for an Overall Quality Improvement?

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Abstract

This study examines the willingness-to-pay (WTP) and the willingness-to-work (WTW) of German riding club members for an overall quality improvement. Therefore, German riding club members were asked via an online questionnaire. As far as the author knows, this study is the first to include the concept of WTW in the amateur sport context. The results show that on average the participants would be willing to pay €117.39 and would be willing to work 30.39 hours per year if the quality were improved. An extrapolation comes to the result that all German riding club members together would be willing to pay €65,619,848 and would be willing to work 17,593,800 hours. Compared with the current aggregated membership fees and mandatory working hours, the potential surplus is €23,014,936 and 11,448,696 working hours. Moreover, the study can also determine factors that significantly influence the WTP and WTW.

JEL-Codes: C83, D12, L31, L83, M31

Sind Reitvereinsmitglieder bereit, für eine Verbesserung der Gesamtqualität zu zahlen oder zu arbeiten?

Zusammenfassung

Die vorliegende Studie untersucht die Zahlungsbereitschaft und die Arbeitsbereitschaft von Reitvereinsmitgliedern für eine Verbesserung der Gesamtqualität. Dafür wurden deutsche Reitvereinsmitglieder anhand einer Onlineumfrage befragt. Nach dem Wissen der Autorin ist diese Studie die erste, die das Konzept der Arbeitsbereitschaft im Rahmen des Amateursports verwendet. Die Ergebnisse zeigen, dass die Reitvereinsmitglieder durchschnittlich dazu bereit wären, 117,39 Euro zu zahlen und 30,39 Stunden pro Jahr zu arbeiten, wenn die Qualität erhöht würde. Eine Hochrechnung kommt zu dem Ergebnis, dass alle deutschen Reitvereinsmitglieder zusammen bereit wären, 65.619.848 Euro zu zahlen und 17.593.800 Stunden zu arbeiten. Verglichen mit den aktuellen Mitgliedsbeiträgen und Pflichtarbeitsstunden ergibt sich somit ein potentieller Überschuss von 23.014.936 Euro und 11.448.696 Arbeitsstunden. Darüber hinaus kann die Studie Faktoren bestimmen, die einen signifikanten Einfluss auf die Zahlungsbereitschaft und Arbeitsbereitschaft haben.

Im Internet unter:

http://www.wiwi.uni-muenster.de/io/forschen/downloads/DP-IO_01_2014.pdf

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Are Riding Club Members Willing to Pay or Work for an Overall Quality Improvement?*

1. Introduction

In Germany it is possible to conduct a riding school and to belong to the German Equestrian Federation[1] as a non-profit sport club or as a private firm (cf. Wicker/Weingaertner/Breuer/ Dietl 2012, p. 342). In this study only non-profit riding sport clubs are examined. Relevant aims of non-profit sport clubs, with regard to their members, are member loyalty, member acquisition and member satisfaction (cf. Nagel/Conzelmann/Gabler 2004, p. 58). Currently, non-profit riding clubs, which belong to the German Equestrian Federation, seem to be incapable to achieve these aims, because the number of memberships is decreasing in the last years (cf. Deutscher Olympischer Sportbund (DOSB) 2008-2013). The probability to resign the riding club membership[2] is influenced by the member's total satisfaction, which is in turn influenced by different service quality components (e.g. club culture, club management or price/performance) of the riding club (cf. Kiefer 2013, p. 16). This means that improving service quality and thus also total satisfaction could decrease the probability to resign the membership. However, for improving different service quality components riding clubs need in all probability money and/or labour, which is not always available. One possibility to get money and/or labour is to increase the membership fee and/or to increase the number of mandatory working hours. Thus, information about the willingness-to-pay (WTP) and the willingness-to-work (WTW) of riding club members for an overall service quality improvement could be relevant to the riding clubs.

One aim of this study is to analyse whether riding club members are willing to pay and/or willing to work for an overall service quality improvement. Moreover, the study pursues the goal to identify factors which determine the WTP and the WTW of riding club members and extrapolate the total value of WTP and WTW for all German riding club members. Riding

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[1] The German Equestrian Federation is the national governing body for equestrian sport and horse breeding. With 708,890 members, the German Equestrian Federation ranks on place nine among German umbrella organisations in 2013 (see DOSB 2013).

[2] Hereafter, the term riding club members refer to members of a riding club that belongs to the German Equestrian Federation.

clubs are particularly useful for answering this research questions because many equestrian sport clubs request, besides the membership fee, mandatory working hours. This means that the concept of working for the riding club or mandatory working hours is familiar to riding club members. The data is collected using a nationwide online survey of German riding club members and using the contingent valuation method (CVM). 523 riding club members have participated in the survey. As far as the author knows, this study is the first to include the concept of WTW in the amateur sport context.

This paper is organised as follows: The second section provides a literature review. The third section explains the collected data and applied method. Empirical results are presented in the fourth section. In section five results are discussed before conclusions are drawn in the sixth section.

2. Literature Review

The aim of the CVM is to determine the value of a (public) good that is not traded in the market such that no market price exists (cf. Mitchell/Carson 1989, pp. 2-3). Therefore, the CVM detects people's maximum amount of money they would be willing to pay for a (public) good improvement by using survey questions (cf. Mitchell/Carson 1989, p. 2). For this detection, a hypothetical situation is given in the survey. For example the participants are asked to state their WTP for a specified public good improvement (cf. Mitchell/Carson 1989, p. 2). Although CVM has been criticised for its hypothetical bias, differences between willingness to pay and willingness to accept, and problems of scope and embedding (see Hausman 2012), CVM is more flexible than other methods and "in many applications, the CVM is the only methodology that can be used due to the non-existence of related markets, large non-use values, or a significant of uncertainty about the outcome of the policy" (Whitehead/Blomquist 2006, p. 111). Economists use the CVM to determine the value for a broad range of goods such as air and water quality, recreation, or toxic waste dumps (cf. Mitchell/Carson 1989, p. 12).

However, the CVM is also applied for estimating the value of sport goods (see Johnson/ Whitehead/Mason/Walker 2007, p. 553). The study of Johnson and Whitehead (2000, p. 49) was the first that analysed a sport good with the CVM. The authors estimated the value of sport goods for two sports projects: a new basketball arena for the University of Kentucky and a minor league baseball stadium. Most sport studies that used the CVM referred to professional sports (e.g. Johnson/Groothuis/Whitehead 2001, Johnson/Mondello/Whitehead,

2007), hosting mega sport events (e.g. Walton/Longo/Dawson 2008, Preuß/Werkmann 2011), or sporting success (e.g. Wicker/Prinz/von Hanau 2012, Wicker/Kiefer/Dilger 2013), but there are also studies which have their focus on amateur sports (e.g. McCarville 1991, Johnson/Whitehead/Mason/Walker 2007, Wicker 2011, Wicker/Hallmann 2013).

One Canadian study (McCarville 1991) analysed the WTP levels of participants and non-participants in aerobics classes for this recreation service. Moreover, the impact of providing cost information about the aerobics class on the stated WTP was examined. The findings showed that the overall WTP levels were raised by providing cost information, but not significantly. However, aerobics class participants were influenced significantly more by providing cost information than nonparticipants (cf. McCarville 1991, p. 93).

Another Canadian study analysed the WTP of households for improvements in the extensive sport and recreation programs (cf. Johnson/Whitehead/Mason/Walker 2007). The result showed that the annual WTP is $18.32 per household. The authors calculated the net present value of the aggregated WTP discounted at 4%, 5% and 6% in perpetuity for the Canadian households. The lowest bound of the aggregated WTP was $78,414,143 (discounted at 6% in perpetuity) and the highest bound was $321,369,440 (discounted at the 4% in perpetuity) (cf. Johnson/Whitehead/Mason/Walker 2007).

Another study (Wicker 2011) analysed the WTP of German non-profit sport club members. The findings showed that German non-profit sport club members are willing to pay €265 on average for an annual membership fee. Furthermore, the study reported that the current membership fee, personal income, education, years of participation and level of performance have a significant impact on the stated WTP. The impact of the variables current membership fee, personal income, education and level of performance is significant and positive whereas the impact of the variable years of participation is significant and negative (cf. Wicker 2011, p. 163). The average current membership fee of equestrian sport club members is €151.93 and their stated WTP is €240.83 on average (cf. Wicker 2011, p. 162).

Wicker and Hallmann (2013) analysed the stated WTP for participation and traveling to marathon events of German marathon runners. The results showed that the average WTP for traveling to a marathon in Germany is €270, for traveling to a marathon in Europe is €568 and for traveling to an overseas marathon is €1,429. Furthermore, the variables casual and health-conscious influence the stated WTP for traveling to a marathon in Germany significantly. Health consciousness, the number of weekly practiced kilometres and income have a

significantly positive impact on the stated WTP for traveling to a marathon event in Europe. In the overseas model the variables age and income have a significant impact (cf. Wicker/Hallmann 2013, pp. 278-279).

As far as the author knows, there is no study in the sport economics context, particularly in amateur sports, which includes the concept of WTW. However, some environmental and health studies asked for the WTW (or willingness to contribute labour), besides WTP questions (e.g. Casiwan-Launio/Shinbo/Morooka 2011, Echessah et al. 1997, Casey 2003, Abramson et al. 2011). WTW "is a measure of willingness to pay with time instead of money as the 'medium exchanged'" (Casey 2003, p. 131). This means that people, who are incapable to give money, have also the possibility to contribute something for a good's improvement (cf. Abramson et al. 2011, pp. 3-4; Casiwan-Launio/Shinbo/Morooka 2011, p. 461).

The results of one study (Echessah et al. 1997, p. 245) showed that the gender of the household head had a significant impact on the stated WTP and WTW for controlling tsetse flies. In detail, the stated WTP is significantly higher and the WTW is significantly lower in households headed by females than in households headed by males.

Another study (Casiwan-Launio/Shinbo/Morooka 2011) found that age, gender, and household's income have a significant impact on the probability to be willing to work for the sustainability of a fishery reserve. The probability to be willing to work is higher for men than for women. In this study the age of the respondents has a negative impact whereas the impact of the household's income is positive.

3. Data and Method

3.1. Data Collection

The data[3] for this study were collected with an online survey from March 26 to November 22, 2013. An online survey was chosen because online surveys have several advantages. For example, it is easier to collect data for a broad mass and it is less expensive and faster than postal surveys (cf. Couper 2000, Couper/Miller 2008). Before starting the online survey a pre-test was conducted to test the length of the online questionnaire and the clarity of the questions (cf. Kuckartz et al. 2009). Afterwards, the online questionnaire was adapted. The online questionnaire contained questions about riding club assessment, riding behaviour,

[3] The data of this online survey were also used for another study (Kiefer 2013). However, the number of participants is different because some members answered during or after the completion of the first study.

WTP, WTW and socio-demographic information. Altogether the participants had to answer 53 questions.

Since, there is no file with contact possibilities of all riding club members, data were collected with a cluster sampling method. This means that riding club members were not contacted directly but via their riding clubs. An email was sent to the riding club boards with a request to forward the online questionnaire to their members. Therefore, names and addresses of the riding clubs were collected from the "Pferdebranchenbuch"[4] of the German Equestrian Federation. At that time, names and addresses of 7,627 riding clubs could be found in the "Pferdebranchenbuch". Afterwards, email addresses or online contact forms were identified, if they were not already published in the "Pferdebranchenbuch". An online-based contact possibility was found for 5,585 riding clubs. A random sample of 1,600 riding clubs was taken from this data set. 57 email addresses were not valid or a transmission error occurred. In sum, 523 riding club members from 132 different riding clubs participated in the online survey. This means a response rate of 8.56% at the riding club level.

3.2. Variables

The aim of the study is to examine whether riding club members are willing to pay higher membership fees and/or are willing to fulfil more working hours in order to improve the overall riding club quality. To calculate the WTP and the WTW of riding club members, two hypothetical scenarios were included in the questionnaire. The first scenario is about the WTP for an overall quality improvement and was assessed with the following question: "Hypothetically, assume it would be possible, what is the maximum annual membership fee you would be willing to pay for an overall quality improvement in your riding club?"

Due to the fact that many riding clubs request mandatory working hours and thus the concept of working for the riding club is familiar to the members, one question about the WTW was included in the questionnaire. Furthermore, there are also members such as students, who are not able to pay a higher membership fee or could not decide to pay more, because they do not pay the membership on their own. With a question about the WTW such members have also the possibility to show their willingness to contribute something for an overall quality improvement. The WTW question was asked as follows: "Hypothetically, assume it would be

[4] Yellow pages with addresses around horses.

possible, what is the maximum number of working hours you would be willing to fulfil for an overall quality improvement in your riding club?"

Moreover, the respondents were asked to state their current membership fee (MF) and current number of mandatory working hours (MWH). It is important to know the membership fee and the mandatory working hours because it differs from club to club and even within a club and respondents use this information as a reference for the stated WTP and WTW (cf. Wicker 2011, p. 158). With the information about current membership fees, current mandatory working hours, WTP and WTW, a difference respectively a surplus was calculated (SURP_MF and SURP_MWH).

Because of non-linearity the natural logs of the variables WTP and MF and the root of the variables WTW and MWH were calculated (LN_WTP, LN_MF, R_WTW, and R_MWH) (cf. Backhaus/Erichson/Plinke/Weiber 2006, pp. 80-81). Moreover, the use of the natural logarithm for financial variables is an established method (cf. Wicker 2011, p. 162). After the transformation of the above-mentioned variables, differences between the variables LN_WTP and LN_MF respectively R_WTW and R_MWH were calculated (SURP_LN_MF and SURP_R_MWH).

Moreover, the survey asked for evaluating different statements on a five-point Likert scale (from 0 = not true to 4 = true). In detail, the respondents were asked to state their level of satisfaction with their riding club, to evaluate the membership fee's expensiveness and to assess whether they found good friends at the riding club (SATIS, MF_EXPEN, and FRIEND).

Riding behaviour was assessed with three questions. Respondents were asked to indicate whether they ride their own horse, a school horse, a riding participation or a "leasing-horse" (O_HORSE, S_HORSE, P_HORSE, and L_HORSE). Moreover, they were asked to state whether they participate in tournaments for their riding club (TOURP). The respondents were also asked for the number of years that they practiced equestrian sports (P_YEARS).

Furthermore, the questionnaire included questions about the socio-demographic characteristics (AGE, GENDER, EDU, and INC). Table 1 gives an overview about the variables used in this study and descriptive statistics.

Metric/ordinal variables	**Description**	**Obs.**	**Mean**	**SD**	**Min**	**Max**
WTP	Stated WTP for the maximum annual membership fee (in €)	393	117.39	82.59	20	500
LN_WTP	Log of WTP	393	4.58	0.59	2.99	6.21
WTW	Stated WTW for the maximum annual working hours	403	30.39	36.18	0	350
R_WTW	Root of WTW	403	4.86	2.60	0	18.71
MF	Current annual membership fee of the respondent	415	78.32	62.43	12	480
LN_MF	Log of MF	415	4.14	0.64	2.48	6.17
MWH	Current annual mandatory working hours of the respondent	416	10.75	17.13	0	150
R_MWH	Root of MWH	416	2.28	2.35	0	12.25
SURP_MF	Difference between WTP and MF (in €)	373	39.23	48.81	0	440
SURP_MWH	Difference between WTW and MWH	377	18.92	28.12	0	254
SURP_LN_MF	Difference between LN_WTP and LN_MF	373	0.44	0.36	0	2.12
SURP_R_MWH	Difference between R_WTW and R_MWH	377	2.53	2.53	0	15.94
SATIS	Level of satisfaction with the riding club	496	2.91	1.17	0	4
MF_EXPEN	Evaluation of membership fee's expensiveness	523	2.97	1.17	0	4
FRIEND	Evaluation of finding good friends in the riding club	513	2.91	1.26	0	4
P_YEARS	Participation in equestrian sports (in years)	469	17.26	11.20	1	50
AGE	Age (in years)	471	32.13	15.48	8	83
EDU	Educational level of the respondent (1 = no degree to 8 = doctoral degree)	463	4.36	1.87	1	8
INC	Net income of the respondents (1 = up to €500 to 9 = over €4,000)	296	3.86	2.20	1	9
Dummy variables			% of respondents			
O_HORSE	Respondent rides own horse	470	56.38			
S_HORSE	Respondent rides school horse	470	24.26			
P_HORSE	Respondent has a riding participation	470	18.30			
L_HORSE	Respondent rides a "leasing-horse"	470	1.06			
TOURP	Respondent participates in tournaments (1 = yes)	241	44.32			
GENDER	Respondent's gender (1 = female)	469	88.28			

Table 1: Overview of Variables and Descriptive Statistics

3.3. Data Analysis

Checking the data for content validity and plausibility was the first step. To reduce hypothetical bias, respondents that stated an unrealistically high membership fee or a lower WTP than current membership fee were excluded from the sample. Thus, a total of 4 cases were excluded. For the data analysis IBM SPSS Statistics 22 was used. The second step was to extrapolate the average WTP, WTW, amount of membership fee and numbers of mandatory working hours. This step was taken in order to calculate the potential surplus of membership fees and (mandatory) working hours to the German riding club members. Therefore, the total number of German riding club members in different age groups served as the basis (cf. Ipsos 2001). Age groups can be considered as a good basis because the age structure of the sample is comparable with the age structure of the overall riding club members (cf. Ipsos 2001). To identify factors which determine the WTP and WTW, four OLS-regression models were computed in the third step (a methodological introduction is given by e. g. Cameron/Trivedi 2009). The variables LN_WTP, R_WTW, SURP_LN_MF, and SURP_R_MWH represent the dependent variables. The riding club assessment, riding behaviour, and socio-demographic variables served as the independent variables

4. Empirical Results

4.1. Sample Structure and Descriptive Statistics

The descriptive statistics are displayed in Table 1. 88.28% of the respondents are females and 11.72% are males. On average, the respondents are 32.13 years old and their educational level is 4.36 (4 means “advanced technical college entrance qualification”). The average net income of the respondents is 3.86 and indicates an amount between €1,501 and €2,000. The respondents pay on average a membership fee of €78.32 and have to fulfil 10.75 mandatory working hours. With regard to their riding behaviour, the descriptive statistics show that 56.38% of the respondents ride their own horse, 24.26% ride a school horse, 18.30% have a riding participation, and 1.06% ride a “leasing horse”. 44.32% of the respondents state that they participate in tournaments for their riding club. On average, the respondents practise equestrian sports for 17.26 years. The respondents tend to agree that they are satisfied with their riding club (M = 2.91), that the membership fee is cheap (M = 2.97) and that they found good friends at the riding club (M = 2.91). Comparing the sample characteristics[5] age, gender

[5] There is no comparison of the income because the cited market analysis is from 2001 and includes the household net income in D-mark.

and type of horse with overall riding club members the results indicate that the sample can be considered as representative (cf. Ipsos 2001). With regard to the WTP and WTW questions, the descriptive statistics show that 86.74% of the respondents were willing to pay more than their current membership fee and 82.32% were willing to work more than their current mandatory working hours for an overall quality improvement. On average, the respondents were willing to pay €117.39 and were willing to work 30.39 hours. This means that on average the respondents were willing to pay €39.23 more and were willing to work 18.92 hours more. The stated WTP range from 20 to 500 Euro and the WTW from 0 to 350 hours.

4.2. Extrapolation of WTP and WTW

The extrapolations of WTP and WTW are displayed in Table 2.

Age group	**Number of riding club members**	**Annual membership fee (in €)**		**Annual mandatory working hours**	
		Mean	Total	Mean	Total
14-19	201,600	73.96	14,910,336	12.54	2,528,064
20-29	78,400	71.14	5,577,376	10.07	789,488
30-39	145,600	70.13	10,210,928	8.59	1,250,704
40-49	72,800	99.57	7,248,696	14.84	1,080,352
50+	61,600	75.61	4,657,576	8.06	496,496
Total	560,000	76.08	42,604,912	10.97	6,145,104
Age group	**Number of riding club members**	**Annual WTP (in €)**		**Annual WTW (in hours)**	
		Mean	Total	Mean	Total
14-19	201,600	119.36	24,062,976	38.24	7,709,184
20-29	78,400	105.44	8,266,496	28.01	2,195,984
30-39	145,600	105.00	15,288,000	25.97	3,781,232
40-49	72,800	142.87	10,400,936	31.36	2,283,008
50+	61,600	123.40	7,601,440	26.37	1,624,392
Total	560,000	117.18	65,619,848	31.42	17,593,800

Table 2: Summary of Extrapolation Results

The extrapolation results show that the aggregated annual membership fee of the German riding club members is €42,604,912 and the aggregated annual mandatory working hours are 6,145,104. The aggregated WTP and WTW for an overall quality improvement of German riding club members are €65,619,848 and 17,593,800 hours. Thus, the results indicate a potential surplus of €23,014,936 and 11,448,696 mandatory working hours. Mean values were calculated with the aggregated results as a basis. Therefore, German riding club

members pay an average annual membership fee of €76.08 and have to fulfil on average 10.97 mandatory working hours per year. The mean value of the annual WTP for the German riding club members is €117.18 and of the annual WTW is 31.42 hours. This indicates that the average potential surplus is €41.10 and 20.44 hours. Riding club members between 40 and 49 years are paying the highest average annual membership fee (M = 99.57) and are willing to pay the highest membership fee for an overall quality improvement (M = 142.87). The highest mean value for the annual mandatory working hours can also be found for riding club members aged from 40 to 49 years (M = 16.67). However, with regard to the average annual WTW, the youngest age group (14-19 years) is willing to fulfil the highest number of working hours (M = 38.24).

4.3. Regression Analyses

The results of the two WTP-regression models are presented in Table 3. The models fit the data with an adjusted R^2 of 0.729 and 0.139 respectively. Moreover, both models provide similar results and support therefore the robustness of the models. The variable LN_MF has a positive significant impact on LN_WTP at the 1 per mill level. This means that a high current annual membership fee increases the WTP. Satisfaction (SATIS) with the riding club has a negative impact on both dependent variables at the 1 per cent level. This indicates that the higher the satisfaction with the riding club is, the lower is the WTP for an overall quality improvement and the lower is the difference between the current membership fee and the WTP. Moreover, the evaluation of the membership fee's expensiveness (MF_EXPEN) significantly influences both dependents variables (at the 1 per cent level and 1 per mill level). If the current annual membership fee is evaluated as cheap, LN_WTP and SURPL_LN_MF are higher. The factor FRIEND has a positive impact on LN_WTP. The significance level is 5 per cent. The type of horse has no significant influence on the dependent variables. This result could also be observed for the factor TOURP. The factor P_YEARS significantly affects the dependent variables in both models at the 10 per cent respectively at the 5 per cent level. Regarding the socio-demographic characteristics of the respondents, the factors EDU and INCOME are statistically significant at the 5 per cent level respectively at the 10 per cent level. A higher education and a higher income level lead to a higher WTP and a higher surplus. In contrast, gender and age have no significant impact. With regard to the standardised regression coefficients, one can see that LN_MF has the strongest impact in the WTP model (0.863). In the surplus model the factor MF_EXPEN has the strongest impact

(0.317). In both models the factor SATIS has the second strongest impact with the standardised regression coefficients of -0.125 and -0.218.

	LN_WTP		**SURP_LN_MF**	
		Std. Coeff.		Std. Coeff.
Constant	1.053***		0.160	
LN_MF	.787***	.863	-	-
SATIS	-.061**	-.125	-.065**	-.221
MF_EXPEN	.060**	.123	.097***	.317
FRIEND	.042*	.093	.025	.092
O_HORSE	REF	-	REF	-
S_HORSE	-.004	-.003	-.092	-.107
P_HORSE	.082	.057	.039	.046
L_HORSE	.134	.035	.160	.070
TOURP	.039	.035	.064	.093
P_YEARS	-.004^{+}	-.087	-.005*	-.179
AGE	.001	.017	.000	.010
GENDER	-.058	-.036	-.062	-.064
EDU	.024*	.075	.032*	.164
INC	.030*	.114	.022^{+}	.096
Significance	.000		.000	
N	225		225	
Adjusted R^2	.729		.139	
Note: $^{+}$,*,** and *** denote significance at the 10 per cent, 5 per cent, 1 per cent and 1 per mill level respectively.				

Table 3: Results of the Regression Models for WTP

The results of the WTW-regression models are displayed in Table 4. For these models the adjusted R^2 is 0.238 and 0.041 respectively. The variable R_MWH has a significantly positive impact on R_WTW (at the 1 per mill level). This indicates that the higher the number of current annual mandatory working hours is, the higher is the WTW. The factor FRIEND significantly influences the dependent variable in the WTW model at the 5 per cent level. This indicates that the higher the agreement with the statement “I have found good friends at my riding club” is, the higher is the WTW. The factor SATIS has no significant impact in both models. Riding a school horse has a significant impact on the WTW. The significance level is 5 per cent. Furthermore, TOURP and P_YEARS are not significant in both models. Being female has a significantly negative impact on R_WTW and SURP_R_MWH at the 1 per mill and 1 per cent level respectively. Regarding the other socio-demographic characteristics (AGE, EDU and INC) of the respondents, no significant influence can be observed. However, in contrast to the WTP models the sign of the variable income is negative. With regard to the

standardised regression coefficients, one can see that the amount of mandatory working hours has the highest impact in the WTW model and the gender of the respondents has the second strongest impact.

	R_WTW		**SURP_R_MWH**	
		Std. Coeff.		Std. Coeff.
Constant	5.680***		3.528**	
R_MWH	.392***	.372	-	-
SATIS	-.062	-.028	.121	.052
FRIEND	.294*	.146	.165	.077
O_HORSE	REF	-	REF	
S_HORSE	1.076*	.164	.838	.120
P_HORSE	.246	.040	.245	.037
L_HORSE	.482	.025	.428	.021
TOURP	.076	.015	-.193	-.036
P_YEARS	-.029	-.130	-.032	-.137
AGE	.000	-.002	.023	.122
GENDER	-1.733***	-.238	1.686**	-.217
EDU	-.072	-.048	.018	.011
INC	-.010	-.009	-.135	-.110
Significance	.000		.043	
N	230		230	
Adjusted R^2	.238		.041	
Note: $^{+}$,*,** and *** denote significance at the 10 per cent, 5 per cent, 1 per cent and 1 per mill level respectively.				

Table 4: Results of the Regression Models for WTW

5. Discussion

The total satisfaction with the riding club influences the willingness to resign the riding club membership. In turn, different service quality components of the riding club such as club culture, club management and price/performance have a significant impact on the total satisfaction of riding club members (cf. Kiefer 2013, p. 16). This indicates that improving service quality and thus also total satisfaction could decrease the willingness to resign the riding club membership. To improve the service quality components, the riding club needs money and/or labour. One possibility for the riding club is to ask their members for money or labour in terms of a higher membership fee or an increase of mandatory working hours. The results of this study provide evidence that a large part of riding club members are willing to pay or work for an overall quality improvement in their riding club. In detail, 86.74% of the respondents were willing to pay more than their current membership fee and 82.32% were

willing to work more than their current mandatory working hours for an overall quality improvement. On average, the respondents stated an annual membership fee of €82.59 and a WTP of €117.39. Consequently, the study identifies an average surplus of €40.75. However, the average annual membership fee, WTP, and surplus in the present study are lower than in a previous study (Wicker 2011). Nevertheless, there could be the possibility for the riding clubs to raise their membership fees and/or number of mandatory working hours for an overall quality improvement. However, the riding clubs should be careful with raising membership fees, for example by being transparent and providing information about costs incurred (cf. Wicker 2011, p. 164). One possibility would be to inform the riding club members for what improvement the additional money will be spent. Compared to studies about WTP for sporting success, the percentage of people with a WTP is very high (compare Wicker/Prinz/ von Hanau 2011; Wicker/Kiefer/Dilger 2013). One explanation could be that the scenario provided in the questionnaire is not so hypothetical than in the other mentioned studies.

The market analysis of Ipsos (2001) came to the conclusion that riding clubs should pay attention to the older age groups because 33 per cent of potential riding club members are 40 and older and the average age of the German population is increasing. The findings of this study support the relevance of this recommendation because riding club members in the age groups 40-49 years and 50+ stated the highest average WTP. Of course, riding clubs should not lose sight of the other age groups, since riding club members between 14 and 19 years stated the highest WTW. There may be rather a need for a different treatment such as the option to substitute membership fees with additional working hours.

Another aim of this study was to determine factors that significantly influence the WTP and WTW. The current annual membership fee has a significantly positive impact on the stated WTP. This positive impact is in accordance with previous research (cf. Wicker 2011). This result is not surprising because members who pay a high membership fee have already a high WTP. Moreover, the club members use the information about their current membership as a reference price (cf. Wicker 2011, p. 158). Moreover, the variable MF_EXPEN has a significantly positive impact on the dependent variables LN_WTP and SURP_LN_MF. This means that riding club members who evaluated their membership fee as cheap are willing to pay more. Satisfaction with the riding club has a negative impact on the WTP and the surplus. The lower the satisfaction with the riding club the higher the WTP for an overall quality improvement. This result implies that dissatisfied riding club members are willing to pay for an overall quality improvement. Perhaps one can carefully say that there is the possibility not

to lose dissatisfied members by raising the membership fee and improving the overall quality. The factor FRIEND has a significantly positive impact on the WTP and WTW. This indicates that the higher the agreement with the statement “I found good friends at the riding club” the higher the WTP and WTW. One explanation could be that riding club members would like to do something for the community or at least for their friends. Moreover, this result is in accordance with the finding that club culture is very important for riding club members (cf. Kiefer 2013, p. 17). Riding a school horse has a positive impact on the WTW. A reason for the higher WTW could be that riding club members who ride a school horse have less work with their horse than members with an own horse, riding participation or “leasing-horse” and thus they have more time to work for the riding club and are more motivated. The negative impact of the years of participation in equestrian sport is in accordance with another German study (Wicker 2011). This study tried to explain the result with the argument “that knowledge and experience of prices increase with increasing years of participation” (Wicker 2011, p. 165). Moreover, Wicker (2011, p. 165) assumed that club members expected that the club should return something for their fees. With regard to the socio-demographic characteristics, the education and income level has a positive significant impact on the WTP and the surplus. These findings are in accordance with previous WTP research (e. g. Wicker 2011, Wicker/ Hallmann, 2013, Humphreys et al. 2011). The result that being a man influences the WTW significantly is in accordance with previous WTW studies (Echessah et al. 1997, Casiwan-Launio/Shinbo/Morooka 2011). One explanation could be that men are more interested in (heavy) manual labour, which is typical for riding clubs, than women.

6. Conclusion

This study examined the WTP and WTW of riding club members for an overall quality improvement. The results indicate that 86.74% of the respondents are willing to pay more than their current membership fees and 82.32% are willing to work more than their current mandatory working hours, if the overall quality will be improved. Therefore, a riding club could consider to increase membership fees and/or mandatory working hours and thereby try to improve the overall quality. Nevertheless, the results do not reveal whether this is a suitable way for all riding clubs. The extrapolation results lead to a possible surplus of €23,014,936 and 11,448,696 mandatory working hours. The variables LN_MF, SATIS, MF_EXPEN, FRIEND, P_YEARS, EDU and GENDER significantly influence the dependent variable LN_WTP. With regard to the dependent variable SURP_LN_MF, the variables SATIS, MF_EXPEN, P_YEARS, EDU and INC have a significant impact. In the WTW model the

factors R_MWH, FRIEND, S_HORSE and GENDER affects the dependent variable significantly. Being a man has significant impact on the dependent variable SURP_R_MWH.

One limitation of this study is that only riding clubs that belong to the German Equestrian Federation were included. It could be interesting to ask members of other (riding) sport associations or former club members. Moreover, the sample size in the regressions models could be enhanced. Another limitation is the cluster sampling method, because not all members of a riding club were contacted. The adjusted R^2s of the surplus models only explain 4.1% and 13.9% of the variation in the dependent variables. This result implies that future research should try to find more relevant factors. As far as the author knows this study is the first to include the concept of WTW within a sport context. Thus, it would be interesting to include the concept of WTW in other studies with such a context.

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