Segmenting and sizing the angling market – the case of Denmark

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Overview

1. Defining and delimiting angling
2. Segmenting and sizing the angling market
3. Some characteristics of angling tourists - Comparison of angling, cycling, and other tourists
4. Regression model of leisure tourists' spending
5. Summary / conclusion and discussion

Research questions:

1. How can the angling market be defined, segmented and sized?

2. How can the spending of leisure tourists be explained or modelled, including angling?

Recreational fishers

1. Anglers – fish with rod and line ←

2. Leisure fishers – use nets, fish traps and hook lines

Each type – with some exceptions – require a license (in DK)

Segmentation model and sizing (1)

1. Anglers who have their permanent address in the fishing municipality   50%

2. Same-day visiting anglers (from other parts of the country)   11%

3. Overnight anglers staying at non-commercial accommodations   5%

4A. Domestic anglers, who stay at commercial accommodations   16%

4B. International anglers, who stay at commercial accommodations   18%

Total, excluding trolling: 1 bn. DKK 2015/2016   +Trolling: 100 mill. DKK

Segmentation model and sizing (2)

1. Those aged 18-65 who bought one of three different angling <u>licenses</u> (annual, weekly, daily).

2. Those aged 18-65 without a fishing license who fished <u>at least twice</u> a year.

3. Those aged 18-65 without a fishing license who fished just <u>once</u> a year.

4. Those aged 7-17 or 66-75.

Each of the 4 segments are sub-divided into domestic and foreign anglers.

About 4% of the Danish population aged 18-65 or 7-75 fish regularly. – <u>M</u> / f

Total, excluding trolling: ~1 bn. DKK 2015/2016   +Trolling: 100 mill. DKK
                                                        +Leisure fishers.

Coastal tourists vs. city tourists

	Length of stay	**Spending per night per person**
Coastal tourists	Long	Low
Big city tourists	Short	High

Coastal tourists vs. city tourists

Averages per travel group per holiday

	Persons	Nights	Person-nights
Coastal	2.8	8.5	24.1
Big cities	2.1	3.8	8.0

Anglers vs. cyclists – in coastal areas

	Coastal Mean	Anglers Mean	Cyclists Mean
N	5334	989	940
EUR_ppp_night	81,63	64,42	73,50
DKK_ppp_night	607	479	547
Nights	8,1	9,8	9,9
Persons	2,8	2,5	2,6
Income_level_0_1	58%	53%	59%
Hotel_0_1	10%	1%	6%
Camping	24%	27%	34%
Flying_0_1	2%	0%	1%
M28_Angling	19%	100%	0%

Anglers vs. cyclists – in coastal areas

	Coastal	Anglers	Cyclists
Nights_only_1	3%	0%	1%
Nights_only_2	8%	2%	4%
Persons_only_1	9%	8%	6%
Persons_only_2	51%	**63%**	60%
A06_Relax_0_1	72%	76%	76%
A26_Restaurant_0_1	42%	39%	41%
M07_Nature	74%	**91%**	87%
M10_Good_eating_place	46%	**59%**	51%
M12_Gastronomical_exp	7%	10%	11%
M24_Bringing_the_dog	22%	**48%**	27%
M25_Walking	43%	66%	66%
Info_40_4_Internet	30%	28%	31%

Modelling tourism spending (€ ppp night): The dependent and independent variables – Average coastal = index 100

Variable	Anglers	Cyclists, not angling
Info_40_4_Internet	92	
M25_Walking	154	
M24_Bringing_the_dog	222	
M12_Gastronomical_experiences	140	
M10_Good_eating_places	128	
M07_Nature	124	
A26_Restaurant_0_1	93	
A06_Relax_0_1	105	
Persons_only_2	122	
Persons_only_1	92	
Nights_only_2	27	
Nights_only_1	6	
Flying_0_1	21	
Camping	116	
Hotel_0_1	12	
Income_level_0_1	92	
Persons	90	
Nights	120	
EUR_ppp_night	79	

Legend: Cyclists, not angling (yellow); Anglers (blue)

Modelling tourism spending – coastal only:

Model		B	t	Sig.	VIF		
3	(Constant)	43,45	10,6	0,000			n=5334
	Nights	-0,70	-6,7	0,000	1,2	1	
	Persons	-1,34	-3,4	0,001	1,5	1	
	Income_level_0_1	38,16	11,2	0,000	1,1	1	
	Hotel_0_1	37,11	13,6	0,000	1,5	1	
	Camping	-14,72	-9,1	0,000	1,1	1	
	Flying_0_1	20,81	4,3	0,000	1,1	1	
	M28_Angling	-7,85	-4,3	0,000	1,2	1	R2=0.23
	Nights_only_1	33,57	8,0	0,000	1,3	2	
	Nights_only_2	16,31	6,0	0,000	1,3	2	
	Persons_only_1	73,91	25,7	0,000	1,5	2	
	Persons_only_2	21,68	12,6	0,000	1,7	2	R2=0.32
	A06_Relax_0_1	-10,76	-3,6	0,000	1,2	3	
	A26_Restaurant_0_1	31,16	10,5	0,000	1,2	3	
	M07_Nature	-5,69	-3,3	0,001	1,3	3	
	M10_Good_eating_places	13,44	8,3	0,000	1,5	3	
	M12_Gastronomical_expe	15,41	5,7	0,000	1,1	3	
	M24_Bringing_the_dog	-8,26	-4,6	0,000	1,3	3	
	M25_Walking	-7,10	-4,3	0,000	1,5	3	
	Info_40_4_Internet	9,80	6,6	0,000	1,1	3	R2=0.38

Dependent Variable: EUR_ppp_night   Source of survey data set: VDK 2014

Modelling tourism spending – Explanatory power

Coastal only: n=5334. R2=0.38

Big cities only: n=1488. R2=0.39

All of DK: n=6752. R2=0.52

Dependent Variable: EUR_ppp_night

Source of survey data set: VDK 2014

Analysed by: Centre for Regional and Tourism Research, CRT, www.crt.dk

Coastal anglers, sea trout, Bornholm

Coastal anglers, Bornholm

Sea trout, fishing day, Bornholm

Sea trout, fishing day, Bornholm

Trolling for salmon, Bornholm

Trolling for salmon, Bornholm: 350 boats !

The gender aspect of tourist activities, notably angling

Angling is very much male oriented – in Denmark.

In the coastal areas, only surfing is more male oriented, according to a national tourist survey.

Age	Total	Males	Females
0-6	2,0	2,7	0,7
7-17	6,1	8,0	2,0
18-65	**4,3**	**7,5**	**0,5**
66-75	3,1	5,6	0,4
76-...	0,7	1,4	0,1
All	3,6	6,6	0,7
7-75	4,0	7,3	0,7

Percentage of the (Danish) population who fish regurlarly (2012)

Source: Based on a national general survey about sports and leisure activities (Idrættens Analyseinstitut, Denmark, 2012).

Conclusion

Segmentation is key to sizing leisure and tourism markets

The regression models explains how each of a number of variables affects the total spending per person per night.

Thank you for your attention !

Questions, comments ?

Abstract (1/2)

Segmenting and sizing the angling market – the case of Denmark.
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In Denmark, recreational fishing is composed by two distinct parts: anglers, who fish with a rod and line, and leisure fishers, who use nets and fish traps and hook lines. This paper focuses on angling, fishing with a rod and line. The paper uses two different segmentation models, and accesses the size of each segment, and hence the total size of the angling activity at the national level.

The first segmentation model comprises five segments: 1. Anglers who have their permanent address in the fishing municipality (domestic). 2. Same-day visiting anglers (from other parts of the country). 3. Overnight anglers staying at non-commercial accommodations. 4A. Domestic anglers, who stay at commercial accommodations. 4B. International anglers, who stay at commercial accommodations. 1. About 50% of the national angling market value, i.e. spending by the anglers, is accounted for by anglers who have their permanent address within the boundaries of the fishing municipality. 2. About 11% of the spending is accounted for by same-day visiting anglers. 3. About 5% by anglers staying in non-commercial accommodation at friends-and-relatives. 4A. 16% is accounted for by domestic anglers staying at commercial accommodations. 4B. Finally, the remaining 18% of the spending on angling is accounted for by international anglers, generally staying at commercial accommodations.

Based on national general surveys among domestic and international tourists staying at commercial accommodations it is estimated that angling (fishing with rod and line) accounts for about 2% of the activities undertaken by leisure tourists in Denmark, measured in time. Anglers spend slightly less than the average holidaymaker in Denmark per night. But the anglers tend to stay for more nights than the average leisure tourist. The income level of anglers tend to be a little below the average for tourists in Denmark. So, spending by angling tourists per night is known with some certainly. Furthermore, the number of bednights for leisure tourists (after excluding nights by business travellers at hotels) is known. Thus spending by segments 4A and 4B is estimated. Using other pieces of facts and assumptions the value of the remaining segments 1-2-3 is estimated. The value was estimated to 1 billion DKK (1 € = 7.46 DKK), plus depreciation and maintenance of trolling boats, worth up to another 100 million DKK.

A second segmentation model consisted of four general segments, each subdivided into domestic and international anglers, i.e. 8 specific segments in total. 1. Those aged 18-65 who bought one of three different fishing licenses (annual, weekly, daily). 2. Those aged 18-65 without a fishing license who fished at least twice a year. 3. Those aged 18-65 without a fishing license who fished just once a year. 4. Those aged 7-17 or 66-75. - According to a general leisure and sports survey, about 4% of the Danish population aged 18-65 or 7-75 fish regularly. – The spending per segment, and thus total spending on angling in Denmark was estimated, also according to this segmentation and estimation method. The total was just under 1 billion DKK (1 € = 7.46 DKK), plus the spending on trolling boats mentioned before. The fact that the same result can be reached using two different segmentation and estimation methods indicates that the market value (total spending) is indeed about 1,1 billion DKK p.a. including trolling.

Key words: Angling; fishing tourism; coastal tourism; Denmark