"THE SPORT CONSUMPTION IN PORTUGAL"

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THE SPORT CONSUMPTION
IN PORTUGAL

- Survey Presentation and Discussion -

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ABSTRACT

The main objective of the present paper is to present a survey designed to describe and to explain the extension and the structure of the demand of sport merchandise and sport services in Portugal. The Portuguese population is questioned for the first time directly on their sport expenditures. The presented survey contributes with representative and quantitative scientific data to understand the economy of sport. The results of this survey will help decision-making in Science, Politics, Economy and Sport.

In the beginning of this paper, the economic and non-economic sport demand determinants are briefly worked out and presented. Subsequently, the entire field research methodology is uncovered. Some results will be available at the international conference.

This paper is meant to be one of my background documents for my PhD studies in Sport Science at the German Sports University Cologne, in Germany, being at the same time the content of sport economics research at the Economic Policies Research Unit of the Faculty of Economics and Management of the Minho University in Braga, Portugal.
1. Introduction

The urgency of an inquiry to Portuguese individuals and households about their sport budget was one important conclusion of my literature research to find my PhD dissertation theme at the German Sports University Cologne. This was the first motivation to a big and unique empiric survey in sport economics in Portugal.

After having studied some impact analysis of sport in national economies and cost-benefit analysis I decided to approach my theme from the demand side point of view. I was interested in general demand of sport merchandise, also called sport products, sport articles and sport tools and in general demand of sport services (e.g. private training sessions, sport information, recovery baths, sport injury handling, sport insurances, etc.). As we are speaking of a wide approach of the term “demand”, I prefer speaking from consumption, thus, sport consumption.

Sport consumption may be passive or active. Active sport consumption is directly related to sports practice. Passive sport consumption is related to (i) sport live attendance, (ii) sport media audience and (iii) sport life style (sport image). Regarding this definition, it is from major importance to find out what are the economic figures behind each kind of these consumption types. But, it is very difficult to recognise clearly the boarders of each item. If we try to identify each sport consumption type by the sport budget – e.g. identifying the different groups of sport expenses –, it is almost impossible!
One example: you will never know if the sport (training) collection of a leisure athlete is in
tfact only the passive consumption of a certain “sport-life-style”. Is he or she trying
to show everyone how sporty he or she is? The answer to this question must come from
each one of those athletes. And here we have a problem. How is it possible to identify each
consumption plan? Are they quantifiable?

These are questions we will probably never answer completely. Now, let’s talk about some
things we can answer.

2. Sport Consumption Determinants

2.1 Economic and non-economic sport demand determinants

Economic and non-economic sport demand determinants may be easily deduced from
general economic literature. We find them in those chapters of economic demand theory
dedicated to the affecting factors of economic demand.

The individual sport demand is influenced by the following “classic” determinants: (i) the
income, well being, personal richness and possibilities of credit, (ii) the sport price and (iii)
the price of other goods, substitution or complement goods. Additionally, I consider
another two economic sport demand determinants: (iv) time and (v) sport supply.

The collective sport demand is influenced by the following determinants: (i) the income
distribution, (ii) the number of potential sport consumers, e.g. by regions, and (iii) national
disposable income.

In the economic literature, often other economic determinants that influence individual and
collective demand are mentioned. Adapting them to sports, we identify: (i) the sport supply
and the supply of other goods, (ii) the information on a sport good or sport service and the
information on other consumption goods, (iii) the past sport demand and the past demand
on other goods, (iv) the public and individual expectations relatively to the economic
development, (v) the saturation point of the sport market and the market of other goods,
and (vi) the legal-institutional sphere, e.g. domestic EU-commerce restrictions or external commerce protection and its financial backing.

The individual and collective sport demand determinants are further influenced by the following non-economic determinants, see also Heinemann (1995): (i) the sport institution itself, (ii) the sport preferences or other preferences: motivational structure, instrumental expectation or not of the personal utility of sports consumption, subjective benefit interpretation of the satisfaction of the consumers needs, (iii) other demographic variables: e.g. age, school education, profession, sex, geography, civil state, nationality, number of children, etc., (iv) the sport participation rate and structure: type of physical activities, number and intensity of practised activities, (v) the current and future sport trends and sport fashions, e.g. fitness and aerobics, (vi) the sport cultural and historical circumstances of one country or region, (vii) the external influences, e.g. weather state, sport injury, etc., (viii) the internal influences, e.g. own health, sport ability, sport performance, etc., and (ix) the discovery of new sports by chance or their “natural evolution” into new sports, e.g. sky surfing and base jumping.

2.2 Determinants of “The Sport Consumption in Portugal”-Survey

The chosen methodological approach – traditional mailing inquiry – will not allow us to collect data about all economic and non-economic sport demand influence factors. My study includes seven main independent variables, which will be compared with the amount and the structure of individual and household sport budgets – thus, the sport related expenses –, the dependent variable. They are:

1. **Money**: mainly the monthly income,
2. **Time**: amount and availability of free time,
3. **Supply**: types of sport supply,
4. **Institutions**: non-profit, for-profit, state and households, e.g.: club, school, university, firm, family, institutions with lucrative purposes, institutions of social charity, etc.,
5. **Motives**: instrumental and non-instrumental utility expectations,
6. **Demography**: age, education, gender, geography (place of living), civil state, nationality, number of children, etc.) and

7. **Sport**: sport participation (types of physical activity, number and intensity of physical practice).

To benefit of passive or active sport consumption there is necessarily a minimum of time and a minimum of money that must be spent. It will be really interesting to discover from what time threshold or money threshold sport goods are no longer demanded. Income and price are the main rational determinants of any type of consumption expenditures. Thus, income and time are our most important variables in order to explain economic sport demand. I consider that the demand is also determined by the supply. A new supply can exactly create an outstanding demand by the re-allocation of sources. In this study sport supply and sport prices is only possible to be delineated from a subjective point of view.

Today, sport is produced and presented at the market by different types of (sport) institutions, competing for sport consumers. Each institution has its specific and different interests and objectives. This must influence the sport consumer behaviour. In consequence sport consumers develop own expectation, own utility curves, they use passive or active physical activity consumption e.g. to lose weight, to be busy, to be social, to shape the body, to win, to belong to a group and even to be able to make career in Politics or Economy. This shows us degree of ‘instrumentalisation’ of sport. Sport is continuously exchanged through non-sportive activities and merchandises: the new dangers source to sport.

Playing basketball is much more cheaper than going over the *green* with one’s new golf shoes. The physical activity, its intensity and frequency, also determine the sports costs. A resume of all these survey variables and their interrelating is represented in the following scientific model:
Economic Sport Demand Influence Factors (Viseu 2000b)

3. Survey Presentation

My research interests go towards the understanding of the individuals’ and households’ leisure and sport consumption habits. I am not interested in their wishes or opinions. To avoid as much as possible socialized behaviour, I decided to approach this research subject by asking people about their annual expenditure on sports and leisure. These leisure and sport expenditure analysis was disaggregated enough to permit not only a global statement, but also the explanation of the sport budget’s constituent parts.
In the construction of the questionnaire I “forced” individuals to remember their sport consumption behaviour of the last twelve months. In this way, I tried to know more about what they really did (!) and not what they would like to have done.

Sport consumption is exposed to seasonal bias. This is probably quite true for active sport consumption. One of the objectives of my survey “The Sport Consumption in Portugal” is to get hard data supporting this assumption. But, if we think about passive sport consumption through media audience, it is probably more dependent to the media coverage of live sport events like the Olympic Games, European and World Championships, when compared to every day’s media business of sport. As the first field research period is related to April 2000, we can keep in mind the period from April 1999 to March 2000.

3.1 Questionnaire’s Construction and Definition of Sport

The questionnaire starts with one introduction letter and one sports list page. It is further divided in questions about (A) leisure time, sport participation, sport motivation, sport substitution rate, sport live attendance, fan articles, media audience and sport expenditures, (B) leisure and sport facilities and general statements, (C) sport injuries and (D) demographic data. All these groups of items can be put in relation to the different types of passive and active physical activity consumption. All of them contribute more or less to these consumption types.

The definition of sport is one important and also polemic procedure in this kind of studies. Thus, sport was submitted to a strict definition. We have chosen a wide approach and speak from „leisure and physical activities“, because we wanted also to motivate the general population, including people without any kind of active or passive physical activity consumption habits. Therefore, we also include in our list some leisure activities. The physical activity itself is defined as a motion action practiced with or without regularity, aiming high performance or pure leisure and recreation, related to all types of institutions (clubs, schools, companies, etc.) or completely out of any institutional system (do-it-yourself-sport).
This wider approach gives us later the opportunity to easily compare our results with the results of other sport participation surveys, by restricting the comparison variables to the other survey’s definition or sports list. Our list was (in alphabetical order of the portuguese words):

1 'acrobática - acrobatics'
2 'aeróbica – aerobics/fitness'
3 'aeronáutica - aeronautics'
4 'aikido - aikido'
5 'andebol - handball'
6 'atletismo - athletics'
7 'automobilismo - motoring'
8 'badminton – badminton'
9 'ballet - ballet'
10 'basebol - baseball, softball'
11 'basquetebol – basketball'
12 'bilhar - billiard, snooker'
13 'boccia - boccia'
14 'bodyboard - body board'
15 'bule - bole'
16 'bowling - bowling'
17 'boxe - boxing'
18 'BTT - cross biking'
19 'bungee jumping - bungee jumping'
20 'caça - hunting'
21 'caminhada – walking'
22 'caminhismo, caravanismo - camping'
23 'canoagem - canoeing'
24 'capoeira - capoeira'
25 'ciclismo - cycling (road, slot, hall)
26 'cicloturismo - touristic cycling'
27 'cinema - cinema'
28 'coleccion. art. desp. - collectioning sporting articles'
29 'columbofilia - pigeon sport'
30 'correr - jogging'
31 'cricket - cricket/croquet'
32 'danza moderna - modern dance'
33 'dança popular - traditional dance'
34 'dança de salão - classic dance'
35 'dança moderna - modern dance'
36 'dança popular - traditional dance'
37 'dança latina, americana, africana - latin, american, afro dance'
38 'dominó - domino'
39 'ed. física - physical education'
40 'equitação - riding, dressage'
41 'esgrima - fencing'
42 'espeleologia – speleology’'
43 'equipe - ski'
44 'esqui aquático - water ski'
45 'fotografia subaqu. - underwater water photography'
46 'fotografia - photography'
47 'full-contact - full-contact/theta box.'
48 'futebol americano – American football'
49 'futebol 5 - soccer 5, indoor soccer'
50 'golf - golf'
51 'gatebol - gatebol'
52 'gimnástica de manutenção - health gymnastics'
53 'gim. desporthiva - sport gymnastics'
54 'gimnástica rítmica desp. - rhythmic sport gymnastics'
55 'goalball - goalball'
56 'golf, minigolf - golf, minigolf'
57 'halterofilia - weight lifting'
58 'hidroginnástica - water gym, aqua-jogging'
59 'hipismo - riding sport'
60 'hóquei em campo - field, hall hockey'
61 'hóquei em patins - roller hockey'
62 'jogos de cartas - cards'
63 'jogos de praia - beach games (DON'T CONSIDER BEACH SPORTS)'
64 'jogos de sociedade - society games'
65 'jogos populares - traditional games'
66 'jujitsu – jitsu'
67 'judo - judo'
68 'karaté - karate'
69 'karting - karting, kartcross'
70 'kayak polo - kayaking polo'
71 'kungfu - kungfu'
72 'lacrosse - lacrosse'
73 'luta - lute (greco-roman)'
74 'luta de animais - animal fighting'
75 'mergulho - diving'
76 'montanhist. - montaineering/trekking'
77 'motociclismo – motocycling/motocross'
78 'motorjunta - motonautics'
79 'musculação - strength training'
80 'nat. manutenção - health swimming'
81 'natação - swimming'
82 'nat. salvamento - life saving'
83 'natação sincronizada – synchronized swimming'
84 'orientação submarina. – underwater orienteering'
85 'orient – orienteering'
86 'paintball - paintball'
87 'parapente - paragliding'
88 'páraquedismo - parachuting'
89 'patinagem artística – roller skating'
90 'patinagem em linha - inline skating'
91 'pedestreanismo - pedestrianism'
92 'pentatlo moderno - modern pentathlon'
93 'pesca - fishing'
94 'polo aquático - aqu polo'
95 'rugby' 96 'remo - rowing/indoor rowing'
97 'salto para a arma - water ski's'
98 'skateboarding - skate boarding'
99 'squash - squash'
100 'surf - surfing'
101 'taekwondo – taekwondo'
102 'taichichuan - taichucchini'
103 'ténis - tennis'
104 'ténis de mesa - table tennis'
105 'tiro - shooting'
106 'todo-o-terreno turistico - tourist all wheels'
107 'tourada - tourada/bull race'
108 'trampolines – trampolining'
109 'triatlão - triathlon/iron man'
110 'tumbling - tumbling'
111 'vela - sailing/regatta'
112 'voar papagaio - to fly a kite/powerkiting'
113 'volleyball - volleyball'
114 'windsurf - windsurfing'
115 'wrestling - wrestling'
116 'xadrez - chess'
117 'yoga - yoga'
118 'outra 1 - other 1'
119 'outra 2 - other 2'
120 'outra 3 - other 3'

Definition of Sport (Viseu 2000d)

3.2 Definition of Sport Budget
The definition of sport budget was also not easy. As there were no national reference studies, we had to challenge the limits of traditional written postal inquiries based on a random sample of household’s telephone addresses. Under the designation of 'sport budget' we understand all the expenditures related to active and passive physical activity consumption regarding the previously defined physical activities. The following expenditures related to active or passive physical activity consumption are considered as belonging to the sport budget (expenditures with):

<table>
<thead>
<tr>
<th>Expenditure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>sport clothes</td>
<td>sport vacations</td>
</tr>
<tr>
<td>sport shoes</td>
<td>contributions to non-profit organisations</td>
</tr>
<tr>
<td>sport devices</td>
<td>sport donations</td>
</tr>
<tr>
<td>sport machines</td>
<td>contributions to for-profit organisations</td>
</tr>
<tr>
<td>sport property</td>
<td>personal training</td>
</tr>
<tr>
<td>sport injuries handling</td>
<td>personal sport development</td>
</tr>
<tr>
<td>sport nourishment</td>
<td>live sport attendance</td>
</tr>
<tr>
<td>sport insurances</td>
<td>transportation to live attendance</td>
</tr>
<tr>
<td>sport gambling and sport bets</td>
<td>sport literature</td>
</tr>
<tr>
<td>sport shares</td>
<td>sport information</td>
</tr>
<tr>
<td>transportation to physical practice</td>
<td>sport channels</td>
</tr>
</tbody>
</table>

Definition of Sport Expenditures (adapted from Viseu 2000a)

3.3 Methodological Approach

We used the traditional written mailing inquiry with a high degree of standardization in order to get „hard“ quantitative and representative data. The research universe is the resident Portuguese population with 15 years of age and older, living in households with a telephone (80% of the Portuguese households have at least one telephone). The total sample is 25,000 households. Each household gets two questionnaires. This way we are not trying to increase the return tax, but the return tax’s quality (e.g. number of male and female cases).
The return tax in traditional mailing inquiries is about 3%, but Conseur – the European consumer rights association co-operating in this study by its national dependency Edideco – has obtained better results in Portugal in the past. We are counting with 5% to 10% return tax, thus with a total sample over 1000 questionnaires.

In order to obtain a valid and representative national database, we will evaluate some variables according to their fitting with the national statistical demographic census of the National Portuguese Statistics Board (INSTITUTO NACIONAL DE ESTATÍSTICA). If necessary, we will weight the variables geographic distribution, gender and age. After weighting these variables, they should correspond to the national distribution. Weighting of the variable sport participation rate has to be considered if our final sample shows increased bias in physical activity consumption habits. We know that 27% to 33% of the Portuguese practice sports. One last possibility we will have to study is the weighting of socio-economic variables of the households and individuals. Both the sport participation rate and the socio-economic variables weighting are complex procedures, they will have to respect different definitions and purposes of secondary data sources.

The first outgoing questionnaires were sent in April 2000, 10.000 households got 20.000 questionnaires. In the middle of October 10.000 household more are getting also 20.000 questionnaires. Additionally, in this second field submission 5.000 households are becoming 5.000 questionnaires. These last 5.000 questionnaires are marked, so we can know more about the effect of sending two questionnaires at one address.

The updated telecom database addresses used in the first field research will be excluded in the second. In this way, we can identify (even testimony!) and avoid the possible seasonal sport consumption bias!

3.4 Main Survey Variables

The main sport economic consumption variables are questioned at the of part A. They refer to individual and household sport expenditure and include some explanations and notes for fill in:
### Definition of Sport Expenditures (adapted from Viseu 2000a)

These variables were introduced to the answering person by a question about the annual individual and household sport expenditures. The question was:

In the last 12 months, how much did you spend in expenditures related with physical/sporting activities? How much did the remaining members of your household spend all together (people that live in your household/are depending on your household)? [Please estimate approximately. If some of the items do not apply to your case/the case of your household, please don’t forget to write “0”. If you live alone, please leave the entire second column in blank.]

Before starting to answer the sport expenditure questions, we asked the questioned person...
please to concentrate on the subject and tried so to “force” them to be accurate:

| Note: think now on all the sport expenditures carried through by yourself and those of your aggregate. |
| If you don’t know how to answer, please ask someone that knows for help. |

On the right side we made two columns. One column for the answers concerning individual expenditure - *How much did you spend with yourself?* – and one other column for the expenditure of the remaining members of the family - *How much was spent with the remaining members of your (family) aggregate?*

To be sure about the accuracy of the previous answers, we decided further to include a control question with scale response from 1 (extremely incomplete answer) to 10 (extreme complete answer). To present the scale figures we draw a scale from 1 to 10 and identified clearly the extremes.

After this main questions concerning sport expenditure, we wanted people to state about the total amount of costs of each one of the activities that were indicated in question 2, the question about the exercised activities. This gives us a very general value, where possible tendencies can be shown up.

To complete the data collected through the variable ‘sport donations’, we had to ask people for the amount of time they have dedicated in the last 12 months to sport voluntary (without financial compensation). Here, the limitations of mailing inquiry were quite visible: we had to repeat a question about sport donations, because the first one was concerning money units and it would be too complicated to split the question and ask also in time units. In one personal interviewing situation this would be of course different.

The last specific questions about sport expenditure are related to physical activity habits and active and passive sport consumption expenditure of the younger (under 14).

3.4 Other Survey Variables
Other survey variables are: leisure time, exercised activities, practice frequency and time, activity partners and institutions, reasons and limitations of practice, preferences and substitution rate of physical activity consumption by other activities, live sport attendance rate and live attended sports, distance to live sport attendance, possession of sport fan articles, total amount and sports consumed through media, personal opinion about sport information in the different media and need of more or less sport information, total money spent with sports at the household, time dedicated to sport voluntary, number of young children involved in sports, personal evaluation of sport commodities, quantity of the (non-)existing leisure and sport facilities in the residence area, distance and transportation comfort to the most used facility, knowledge and satisfaction level about facilities, missing facilities, statements regarding individual characteristics and opinions (SPORT IMAGE, MEMBERSHIP IN SPORTS CLUB, ACQUISITION OF A SEASON TICKET, PRIME-TIME NEWS BLOCKS SPORT INFORMATION, SPORT OFFER INFORMATION, LOCAL SPORT QUANTITY AND INFORMATION, FACILITIES FOR PLAYING CHILDREN, PRIVATE SPORT FACILITIES AND MISSING SPORTS), sport injuries data and demographic data (number, gender, filiation and age of household members, personal BMI, civil state, education, professional situation, type of labour contract and schedule, sport related occupation, physical hardness of the main occupation, number of household members with income, personal liquid income, liquid income from other household members, area of residence and district.

4. First Gross Results

[[Few results will be presented at the conference!]]
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