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THE DETERMINATION OF ECONOMIC AND PUBLIC HEALTH BENEFITS ACHIEVABLE BY INCREASING REGULAR PHYSICAL EXERCISE

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Abstracts: There are various methods at our disposal to determine the direct expenses of the factors, which influence the state of health – such as inactive lifestyle –, but research studies aimed at comprehensively determining all direct and indirect expenses have not been conducted in Hungary, yet. We desired to remedy this deficiency with our research, which was prepared at the commissioned order and with the support of the Hungarian Society of Sport Science and the Department for Sport of the Ministry of Human Resources of the Hungarian Government. Using the factual data of OEP (National Health Insurance Fund) we determined the annual cost of illnesses, along with the extent of the cost of physical inactivity, (HUF billion), and we prepared an estimate of the possible amount of savings in Hungary (sick-pay, medication costs etc.), the methodology of which we adapted from international research projects, thus the resulting data in the case of Hungary will later be comparable to international data. International examples reveal the savings achievable by increasing physical exercise in a broad range, even though having conducted the research in different ways and time periods. All research projects concur about one thing, namely that the reduction of physical inactivity can result in significant savings. Our results have verified this statement statistically as well.

Key words: physical inactivity, costs of illnesses, opportunity for savings, the PAR method

Introduction

In the wake of the 2012 Summer Olympic Games the fact, that Hungary achieved the number nine ranking in consideration of Olympic success among all nations fills all Hungarian citizens with pride. It can be boldly declared that *we are a nation of sports*, preceding many nations, which have more robust economies. The divergence between competitive sports and recreational sports is also conspicuous in the course of the analysis of macro-economic and other indicators, from which the difference between a nation of sports and a sports-participating nation can be deduced as well. This is also supported by a correlation-level analysis illustrated in a correlation-matrix. The number of gold medals at the 2012 Summer Olympic Games, as a proxy indicator of the success of a nation of sports doesn't show a significant correlation with the proportion of the sports-participating population (r=0.08; P=0.721; n=23). Comparing the number of gold medals with further economic indicators (GDP in Purchasing Power Standards, activity rate), similarly not significant results is given. However, the average household expenditure for sports and recreational activities (PPS) shows a significant correlation (R=0.421; p=0.04; n=23) with the number of Olympic gold medals.

According to our calculation based on the Euro-barometer data, the population involved in regular sport activities as the proxy indicator of a nation of sports showed a significant correlation with several variables (activity rate, GDP in PPS, household expenditures on sports and recreation, land area usage for recreational purposes %), but not at all with the indicators studied by us (the number of Olympic gold medals in 2012, total number of medals, ranking according to medal-count in 2012).

It's well visible in the figure, that in those nations where sports activity is higher, households also spend more on sports and recreational activities. Vörös (2010) established that theoretically a 4 percentage point increase of the proportion of the population who participate in sports could result in a 1 percentage point rise in the activity rate. Currently, when discussing the participation ratio data of the sports sector factual data is originated from Euro-barometer 2010. This indicates, that more than half of Hungary's population (53%) never participate in any kind of sports activity. 24% of the population participate in sports activities 1-3 times a month or less. Physical exercise 1-3 times a month or less has no health preserving effect, thus furthermore it can be stated about Hungary's population, that it's 77% physically inactive. (Euro-barometer 2010)

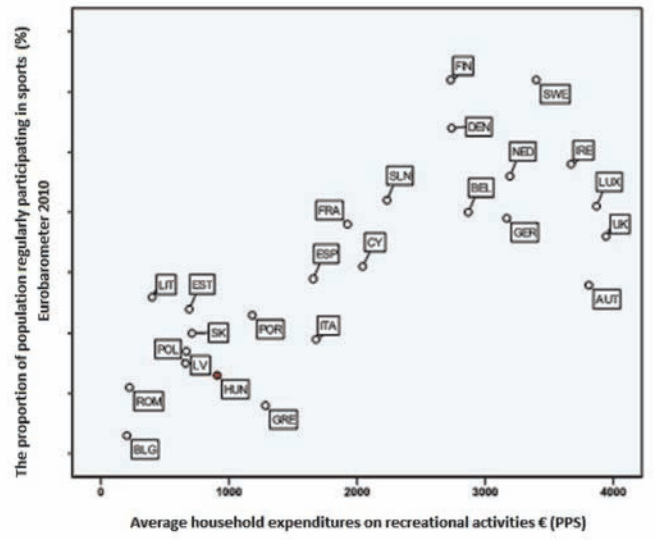

Figure 1: The correlation between household sports expenditure and sports activity in the European Union

Source: compiled by the authors

In the past the participants of sports was depicted in two large groups: one is *competitive sports*, the other is *recreational sports*, which have sharply different participants, goals and missions. It can be undoubtedly stated, that according to the Act LXXXII of 2011 – because of the Corporate Tax Allowance (TAO) opportunity – the competitive sports sector has been expanded by a new independent segment, *spectator sports (Figure 2).*

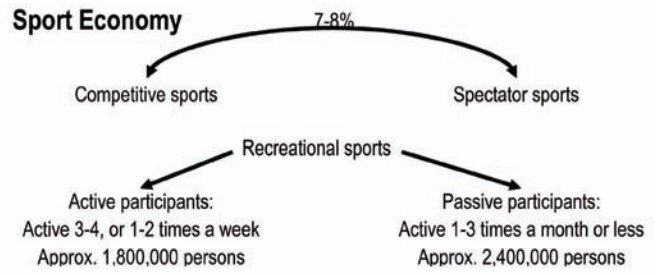

Figure 2: The participants of the sports-economy and their total numbers

Source: compiled by the authors

In Figure 2 the Hungarian society as a statistical population is illustrated. Due to the lack of factual data concerning the number of registered athletes in the competitive sports segment, we were forced to accept the 3% proportion, which originated from the data in the 2007 Healthcare Statistical Almanac about athletes who visited doctor's offices for the purpose of registering as athletes. This means, that in 2007, 3% of Hungarian society had athletes' registrations, thus were registered athletes. Recently the sector has shown an expansion considering the number of participants, which is partly due to the referred Act, since the corporate tax allowance for registered minor-league aged children, who appear in spectator sports has generated positive effects. This means, that we estimate the number of participants in competitive sports at 7–8%, and the total number of those participating in recreational sports is higher by magnitudes. The intensity of physical activity is most often used to determine the participants of recreational sports, but there are other fundamental-concept determinations as well (Szabó 2009).

It can be stated, that an average 4.2% of land area is utilized for recreational purposes in the member nations of the E.U. Hungary ranks slightly under the average with 3.05%, Northern-European nations are mostly in the leading group in this regard as well: the Netherlands 14.9%, Sweden 11.2%, Estonia 9.17%, Finland 6.5% (Vörös 2010) In connection to life-expectancy it can be observed, that there is a strong correlation between the proportion of the population who are "physically active"[1], which is illustrated by the rank-correlation coefficient.

$$\rho = 1 - \frac{6\sum_{i=1}^{n}\left[R(y_i) - R(x_i)\right]^2}{n(n^2-1)} = 1 - \frac{6\sum_{i=1}^{n} D_i^2}{n(n^2-1)} = 0{,}8$$

This means, that the nations which have populations with greater physical activity generally have higher life-expectancies, this also means, that the number of years of their healthy lives is higher, thus their quality of life is measurably (both under subjective and objective circumstances) better.

The nations possessing a better quality of life have a higher economic performance, their economic growth is faster and because of this, through the growth of the national economic performance, the improvement of the quality of life reduces poverty, although indirectly. The interconnection between the state of health, as one of the key factors of the quality of life, and the performance of a nation's economy is so strong, that Barro considers the population's state of health as one of the most important indicators of economic performance and economic growth (Barro 1997). The analysis prepared by Suhrcke and his colleagues (Suhrcke et al. 2005a; 2005b; 2008) determines, that an increase of the life-expectancy of the population by one year could induce an economic growth of 4% in each country. Nordhaus (2002) estimated the value of one extra year of life to be 3 million USD.

The interest in examining the quality of life is gradually increasing in Hungary as well, however Hungary is at the very beginning of the improvement of the quality of life. According to the WHO's statistics published in the May of 2010, the health-behaviour indicators of Hungary's residents (such as smoking, alcohol consumption, inactive life-style) are at the end of the rank list in Europe (WHO, 2010). The health protective effects of physical activity as well as recreational forms of exercise (such as the preventive effect in the case of certain forms of chronic diseases, cardio-vascular, motor disorders, diabetes, tumours) are supported by several Hungarian and international research studies. Through its direct anxiety reducing and mood improving effect, it

[1]The proportion of the population who are physically active indicates the strata of society, members of which are involved in physical activity in some regular intervals, so those individuals don't belong among them, who according to their own accounts never do any sports.

contributes to the maintenance of mental health, with which it improves the quality of life. As a matter of fact, sports are the most effective and, not least importantly, the cheapest method of stress management (Balogh et al. 2008). According to the estimates of Edwards – Tsouros (2006), physical inactivity is responsible for approximately 600,000 deaths in the European Union and it leads to the loss of another 5.3 million healthy years of life as a result of premature disability and degradation of health.

Several researchers have dealt with physical activity and inactivity (Weiss et al. 2000; Martin et al. 2001; Katzmarzyk et al. 2000; Felderer et al 2006; Chenoveth 2005; BHF National Centre 2007; Ackermann et al 2008). Hungarian research projects reported most of all about what kind of demonstrable advantages regular physical activity, physical exercise have. In summary all of them state, that with the reduction of inactivity positive changes can be facilitated in the indicators of health care, the quality of life, welfare and the economy. Gémes in her 2009 work, using the large sample (n=12,634) health care survey of Hungarostudy, states, that among those, who had inactive life-styles (didn't participate in sports at all) it occurred more often, that they couldn't perform their jobs, and were on sick-pay more. The author states that those who had inactive life-styles were also hospitalized more, as opposed to those who were active. (Gémes, 2009).

Research questions and assumptions

In the course of the research, which provides the basis for this study our two main objectives were, to compile mathematical formulas, with the help of which the burdens of illnesses in Hungary can be circumscribed numerically, and to determine the extent of savings in sick-allowance, which could be achieved by reducing inactive life-style. In this paper the following the research questions are tackled: what is the annual cost of illnesses, along with the extent of the cost of physical inactivity in Hungary, (HUF billion)? How much can be possibly saved from this amount (sick-pay, medication costs etc.) with the increase of physical activity in Hungary?

To answer the research questions the following assumptions are used about the Hungarian economy: 1) the labour market is over-supplied and suffers from frictions, 2) the commodity market is over-supplied, 3) performance expectations in companies are based on groups, 4) an average people work 230 days of the year and 5) the basis of loss is the GDP per capita.

Materials and methods

A broad spectrum of international research studies illustrates the savings, which can be achieved by the reduction of inactivity, the size of which is hardly negligible. In the following table the data prepared by similar methodology is presented (Table 1).

In the U.S. half a million premature deaths annually are attributed to inactive life-style and obesity, which result in at least $ 100 billion in health care expenses (Myers 2008). According to a preceding earlier research study the lack of recreational physical activity generated a loss of $ 24 billion (in 1998 dollars), which represented 2.4% of health care expenditures at the time (Colditz 1999). It is important to emphasize, the measurements of the economic burdens of physical inactivity still shows a large diffusion, thus it's risky to make direct comparisons between nations, since each country employs different methodologies.

Table 1: The monetary benefit achievable with the reduction of physical inactivity in various nations

Countries	The burdens of physical inactivity	Benefit achievable with the reduction of inactivity
Austria	No data available	€ 254 million
Norway	€ 980/person/year	No data available
Finland	No data available	€ 1200/person
Switzerland	€ 1.76 billion	€ 1.76 billion (direct expenses) + € 910 million indirectly
United Kingdom	No data available	£ 8.2 billion
USA	USD 21.6 billion	USD 1.3 billion (proportion of inactive population reduced by 5%
Canada	CAD 2.1 billion	CAD 150 million (level of inactivity reduced by 10%)

Source: compiled by authors

Research studies similar to the data shown above have not been conducted in Hungary, more precisely, estimates considering the comprehensive cost savings achievable with the reduction of inactive life-style have not been calculated yet.[2] Only the Sport XXI. National Sports Strategy indicates, that in case of the increasing of the proportion of sports participating population from 10% to 15% Hungary could realize savings of HUF 1.1 billion annually (Sport XXI. National Sports Strategy, 2007). However, this calculation is obsolete, so in the present study it is updated based on current economic data.

In the course of our research project the economic effects of regular physical activity is statistically described in an indirect way. However, difficulty was caused by the fact, that in scientific literature practically every research group – both in Hungary and abroad – define regular physical activity in a different way. Consequently, when cross-checking the unbelievably scarce statistical data this fact should always be paid attention to, and regular physical activity has to be defined (sports activity) very strictly. Because of the motley interpretation of physical activity, we can only consider the level of physical inactivity as original and acceptable facts (this is interpreted the same way by everyone), since this exercise deficient life-style defines the lack of physical activity (exercise), which is necessary for the preservation of health.

[2]The diploma theses of Roland Hécz (2009) is the sole pioneering attempt, which examined the economic burdens of physical inactivity originating from the lack of recreational sports activity, expressively for the case of illnesses.

In the course of our research project we treat as relevant fundamental data – the currently latest editions at our disposal – the Euro-barometer 2005 and 2012 data, the OEP 2009 data, the ONYF (Central Administration of National Pension Insurance) 2009 data and the data of KSH (Central Statistical Office). Beside these a nation-wide large sample questionnaire study (n=1158) was conducted, which data is also utilized .

For the examination of the national economic burdens of inactivity, the national economic burdens of illnesses have to be the staring point, because inactivity is one of the most important risk factors of a number of illnesses and deaths. On the national economic level illnesses have direct and indirect burdens. Considering the indirect burdens in the case of illnesses and inactivity as indirect costs is invalid, because in the result of the loss of work caused by the illness the point is exactly, that there isn't any resource-sacrifice, thus costs can't arise from it either. In contrast to this the lost production still results in a loss to the economy and society, thus it has to be considered as a burden.

In the direct costs of illnesses we included the treatments directly connected to the illness, medications and other compensations. In Hungary the direct costs are fundamentally financed by OEP, however the cost of sick-pay and the private costs should not be disregarded, which are outside of OEP's financing, but which directly burden members of society. Therefore these are also included among the indirect burdens as these constitute losses to the economy or to the society as a result of the loss of work performance. However, it's important to emphasize, that long term loss of production is only possible in the case of under-manned professions and very special cases. To perform the calculations, the current conditions in Hungary has to be integrated into our assumptions, thus the assumptions stated in the research questions and assumptions section are used. The calculations were inspired by a similar calculation used in a study by Kollányi-Imecs (2007), however we replaced their assumptions with the above mentioned, we broadened and tightened formulas and we corrected the data, which since have become facts, thus there is practically no congruency between the two studies, other than the data concerning sick-allowance.

The bulk of direct costs are paid for by the Hungarian government through OEP because of social security. Costs related to medications, hospital care, treatments and sick-allowance can be found here. The other portion of direct costs is related to private expenses, which members of society spend on health care products, out-patient care or on gratuity. While the third portion of direct costs is paid for by corporations, when they finance sick-pay without compensation, these values are presumably underestimated, because in the absence of data we could only account for the mandatory sick-pay before employees enter the sick-allowance system. Based on this we couldn't consider those cases, when the employee is on sick-pay for such a short period of time, that he doesn't enter the sick-allowance system at all.

From among indirect burdens the loss of production caused by illnesses or disability are calculated first, in which we assume a 6 month friction period, in other words, when someone exits the labour market, the corporation employing him finds an employee capable of similar performance within 6 months (including labour search, selection and training). On the Hungarian labour market there is a strong over-supply with the exception of a few under-manned professions, on the individual, as well as or the corporate level we could certainly find a case, in which this assumption doesn't hold true, however on the national economic level in our opinion we are still overestimating the friction period, since filling most available jobs takes a shorter time than this.

In calculating losses of work performance the assumption about the commodity markets is crucial as the performance of companies does not depend on their employees' production but it depends on the sales of their products and services. Since there is significant over-supply in the commodity markets there is no guarantee that the additionally manufactured products and service can be sold. The fact that the performance expectations of companies are not based on the individual level should also be faced, but on the group or the organizational unit. Therefore if someone drops out from the group for a short period of time his performance will be compensated by the other members of the group (in most cases with continuous, unpaid, overtime). Unfortunately we can not compute the effect of stress or decrease in free time because of the coworker's sickness. Annual working days are defined in 230 days, as holidays and vacations had to be also deducted. The basis of loss of production is the GDP per capita, as this is the most reliable aggregate measure and with this the added value is included in the national level and do not care on the performance distribution of companies. If only the average daily wage would be taken into consideration than the income of the company would be disregarded. The decrease of wage because of sick-pay is another type of economic loss, as this amount is not disposable for the household, therefore decreases the national economic performance. Other economic burden is the presenteeism which is the phenomenon when someone works under illness and therefore performs worse which concludes in loss of operation. It has to be taken into consideration however the organizational unit level performance, which means real losses are accounted only in positions of sales or partner relations.

The savings on sick-pay with the decrease of physical inactivity can be measured with the PAR-method (Population Attributable Risk) and its versions are used in most international researches.

$$PAR = \frac{P \times (RR - 1)}{1 + P \times (RR - 1)}$$

The Summary Relative Risk (RR) means the number of the recipients of sick-pay allowances in the physically inactive population. Prevalence (P) means the prevalence of physically inactive population in the full population. We made a survey research to determine the Summary Relative Risk. We were unable to make a representative research among the Hungarian adult population due to lack of time and resources, but we think our results suitable to estimate tendencies, because these

are based on large sample. We used the classical paper and pencil method (n=383) and the online data recording (n=775) to create the primer database. The database consists of 1,158 records covering all the country.

To calculate per capita measures population data from KSH are used. To calculate economic value the net present value method is used with valorized perpetuity of national level savings (Illés 2002).

Results and discussion

In 2005 the economic burdens of illnesses was more than 2 526 billion HUF, which was 11.49% of that years GDP. Direct costs accounted almost 83% of the economic burden and the sick-pay allowance (97 billion HUF) was less than 5% of direct costs. The significantly less indirect burden was more than 430 billion HUF, which is 1,97% of the Hungarian GDP in the year of 2005 (see table 2.).

Table 2. Economic burdens of illnesses in Hungary in 2005

	Economic Burdens of Illnesses in Hungary in 2005	**Total Sum (million HUF)**	**Whose burden is it?**
Direct costs	Medicine	348,869	NHIFA (OEP)
	Medical devices	44,132	NHIFA (OEP)
	Family doctor treatment	62,917	NHIFA (OEP)
	Dental treatment	21,689	NHIFA (OEP)
	Outpatient treatment, CT, MRI	119,695	NHIFA (OEP)
	Care centre nursing (without SID)	9,287	NHIFA (OEP)
	Artificial kidney treatment	16,775	NHIFA (OEP)
	House nursing	3,086	NHIFA (OEP)
	Inpatient treatment	411,492	NHIFA (OEP)
	Patient transport	6,276	NHIFA (OEP)
	Spa	4,759	NHIFA (OEP)
	Governmental health expenditures	109,429	NHIFA (OEP)
	Sick-pay allowances	97,024	NHIFA (OEP)
	Disability pensions	257,350	CANPI (ONYF)
Private expenses	Out-of-pocket expenditures	507,039	Individual
	Expenditures of absenteeism	73,675	Employer
Indirect burdens	Organizational and other costs of Health Insurance Administration	28,120	NHIFA (OEP)
	Friction costs of absenteeism	272,573	Employer
	Earnings reduction due to sick-pay	62,512	Employee and State
	Friction costs of disability	50,772	Society
	Presenteeism costs	18,957	Employer
	Total sum	2,526,427	

Source: compiled by authors

To 2009 the economic burdens of illnesses increased to 3 019 billion HUF, which was 11,6% of that years GDP. Direct costs accounted 84,25% of the economic burden and the sick-pay allowance (101 billion HUF) was less than 4% of the direct costs. Indirect burden increased to 475 billion HUF, which is 1,83% of the Hungarian GDP in the year of 2009 (see table 3.).

The increase of the economic burdens unequivocal, but behind the nominal and GDP proportional growth there is a 4% decline in the real rate if it is corrected by the inflation. The causes of decrease can contain several factors, but one of these is the decrease of physical inactivity (the increase of physical activity). Since in the Eurobarometer it can be seen that in 2005 60% of the Hungarian population never do any sports, and this measure decreased in 2009 to "only" 53%.

Table 3. Economic burdens of illnesses in Hungary in 2009

	Economic Burdens of Illnesses in Hungary in 2009	**Total Sum (million HUF)**	**Whose burden is it?**
Direct costs	Medicine	343,175	NHIFA (OEP)
	Medical devices	46,352	NHIFA (OEP)
	Family doctor treatment	77,612	NHIFA (OEP)
	Dental treatment	22,652	NHIFA (OEP)
	Outpatient treatment, CT, MRI	129,282	NHIFA (OEP)
	Care centre nursing (without SID)	4,194	NHIFA (OEP)
	Artificial kidney treatment	22,934	NHIFA (OEP)
	House nursing	3,818	NHIFA (OEP)
	Inpatient treatment	410,432	NHIFA (OEP)
	Patient transport	5,861	NHIFA (OEP)
	Spa	4,038	NHIFA (OEP)
	Governmental health expenditures	112,729	NHIFA (OEP)
	Sick-pay allowances	101,571	NHIFA (OEP)
	Disability pensions	632,101	CANPI (ONYF)
Private expenses	Out-of-pocket expenditures	548,400	Individual
	Expenditures of absenteeism	79,255	Employer
Indirect burdens	Organizational and other costs of Health Insurance Administration	48,959	NHIFA (OEP)
	Friction costs of absenteeism	285,656	Employer
	Earnings reduction due to sick-pay	66,046	Employee and State
	Friction costs of disability	55,035	Society
	Presenteeism costs	19,867	Employer
	Total sum	3,019,968	

Source: compiled by authors

The 7% percentage point increase in physical activity is likely to manifest in better health conditions and less absenteeism (the average sick-day per employee was decreasing with almost 1 day in this period – exactly with 0.87 day). The decrease in the real value could be a good sign, but it is not enough because of the decrease of the GDP, as according to our opinion the economic burdens' proportion to GDP has to be considered. The society and the government should focus on project, with which the physical activity can be increased, since its effect can be measured in percentage points of the GDP, through the decrease in illnesses.

It should be examined as well that who and how much bore from the burdens of inactivity (see table 4.). Most of the economic burdens were born by the state in 2005 and in 2009 as well through the National Health Insurance Fund Administration and Central Administration of National Pension Insurance. The governments involvement was 61% in 2005 and 65% in 2009, while the individuals' burden decreased from 22,5% in 2005 to 20,35% in 2009 and the employers' burden also decreased from 14,46% to 12,74%.

Table 4: Economic burdens of illnesses in Hungary in 2005 and 2009

	2005 (million HUF)	2009 (million HUF)	Factors
NHIFA+CANPI (OEP+ONYF)	1 540 899	1 965 709	Direct costs and indirect burdens - State
Individual	569 551	614 446	Out-of-pocket expenditures and earnings reduction
Employer	365 205	384 778	Sick-pay, absenteeism, presenteeism
Society	50 772	55 035	Losses in production due to disability
	2 526 427	3 019 968	Sum
NHIFA+CANPI (OEP+ONYF)	60,99%	65,09%	Direct costs and indirect burdens - State
Individual	22,54%	20,35%	Out-of-pocket expenditures and earnings reduction
Employer	14,46%	12,74%	Sick-pay, absenteeism, presenteeism
Society	2,01%	1,82%	Losses in production due to disability

Source: compiled by authors

The economic burdens per capita have been calculated as well, which is shown in table 5.

Table 5: Economic burdens of illnesses per capita in Hungary in 2005 and 2009

	2005 (HUF)	2009 (HUF)	Factors
NHIFA+CANPI (OEP+ONYF)	152 753	196 130	Direct costs and indirect burdens - State
Individual	56 461	61 307	Out-of-pocket expenditures and earnings reduction
Employer	36 204	38 391	Sick-pay, absenteeism, presenteeism
Society	5 033	5 491	Losses in production due to disability
	250 451	301 319	Sum
NHIFA+CANPI (OEP+ONYF)	60,99%	65,09%	Direct costs and indirect burdens - State
Individual	22,54%	20,35%	Out-of-pocket expenditures and earnings reduction
Employer	14,46%	12,74%	Sick-pay, absenteeism, presenteeism
Society	2,01%	1,82%	Losses in production due to disability

Source: compiled by authors

From table 5 it can be seen that different illnesses caused 152 thousand HUF per capita for the Hungarian government in 2005 and 196 thousand HUF in 2009. Beyond this the individuals in Hungary born 56 and 61 thousand HUF in 2005 and 2009 respectively. Therefore illnesses cost 5 thousand HUF per month for the individual and 61 thousand HUF per month for the government in Hungary in 2009. Since however, not all economic burdens connected to illness can be blamed on inactivity, it has to be examined as well what kind of economic burdens emerged as a consequence of inactivity. The calculation of sick-allowance costs caused by inactivity was done based on our large sample questionnaire research study.

According to logistic regression there is significant correlation between regular participation in sports and the days on sickness benefit last year ($p=0.03$; $Exp(\beta)=0.760$). The numerically expressed effect of inactive life-style, calculated PAR indicator's values are shown in table 6. (With a 95% significance level determined confidence for the interval's lower and upper limits, and for its average)

According to the PAR indicator in 2009 of the total number of sick-allowance users 2.3–23.55% lead inactive life-styles, meaning, that with the 77% inactivity of the population, of the total number sick-allowance cases in an extreme case 23.55% can be attributed to physical inactivity. Based on this in 2009, HUF 16 billion could have been preventable, if the physical inactivity of the population had not been 77%, which the government could have used for other purposes. A 10% reduction of inactivity – in our opinion – could be an achievable, realistic objective, which could be seen drastically in the saveable costs as well.

According to Table 7 in the case of 67% inactivity an average HUF 14.07 billion could have been saved. Which means the costs of sick-allowance would expectedly, on the average, be nearly HUF 1.8 billion less with the reduction of physical inactivity by 10 percentage points, which in comparison to the costs attributable to life-style would mean an average 11.20% reduction (10.25%-14.33%). This in practical terms would result in the average saving of 573,175 sick-allowance days annually.

The current value of the annually realized HUF 1.775 billion sick-allowance savings can be easily calculated by using the valorised perpetual annuity formula, well known in the world of finance. As the assumption of the calculation let's take the current yield of government bonds on the market, as the yield-rate of savings, which at the March 13, 2012 bond auction was 7.29%, and let's estimate the growth rate of sick-allowance savings at 1%. The current value calculation is made by using the $PV=C/(r-g)$ formula, the value of which is HUF 28.22 billion.

Thus, a 10% increase of physical activity in Hungary would result in savings of over HUF 28 billion, if the savings' value yield is estimated at the current government bond yield and the annual rate of savings increase at 1%. The practical consequence of this is, that for the Hungarian government, under the mentioned conditions merely from an economic point of view, just through the savings in the sick-allowance, even an investment of HUF 28 billion this year would be worth it, for the increase of physical activity by 10%. Naturally, profits realized from other factors would also be added to this amount, such as the savings on the expenditures of the medication fund, the excess value produced by more motivated employees and the added value of production growth, which could be realized because of the increasing average age. If the expenditure reduction realized on sick-allowance would

Table 6: Calculation of Sick-Pay and Days of Sick-Allowances Assuming 77% Physical Inactivity

	unit	PAR value using data of empirical research (n=1158) in Hungary		
		RR lower limit	RR average value	RR upper limit
Sick-pay Allowances (PAR value with 77% physical inactivity inaktivity)	%	2,3	15,6	23,6
Number of sick-allowance days (32 800 000)	day	754 400	5 116 800	7 724 400
Health care expenditures (101 571 million HUF, OEP)	Million HUF	2 336	15 845	23 920

Source: compiled by authors

Table 7: Calculation Sick-Pay and days of Sick-Allowance Assuming 67% Physical Inactivity

	unit	PAR value using data of empirical research (n=1158) in Hungary		
		RR lower limit	RR average value	RR upper limit
Sick-pay Allowances (PAR value with 67% physical inactivity inaktivity)	%	2	14	21
Number of sick-allowance days (32 800 000)	day	646 290	4 543 625	6 932 492
Health care expenditures (101 571 million HUF, OEP)	Million HUF	2 001	14 070	21 468

Source: compiled by authors

be extended to the level of the entire economic burden with extrapolation, then the government could save HUF 34 billion annually, the economic value of which is HUF 545 billion based on the above described assumptions, while the population could save HUF 10.7 billion annually, the economic value of which is HUF 170 billion, which corresponds to HUF 17 thousand per person. In other words, if health care would be treated as a financial investment, then a 10% increase of activity would be worth HUF 545 billion to the Hungarian government, in which case the population would realize an additional HUF 170 billion and employers HUF 107 billion. From another point of view, economically it would be worth HUF 17 thousand to every resident, if physical activity could be increased by 10%, while the government could add HUF 54 thousand and employers HUF 10 thousand to this amount.

Medical experts have determined those illnesses (11 main types of illnesses) and their symptoms, the causes of which can be proven to be most closely connected to physical inactivity. We have determined, that as a result of certain illnesses more than 10 million patients (10,681,110) visited doctor's offices in the examined time period.

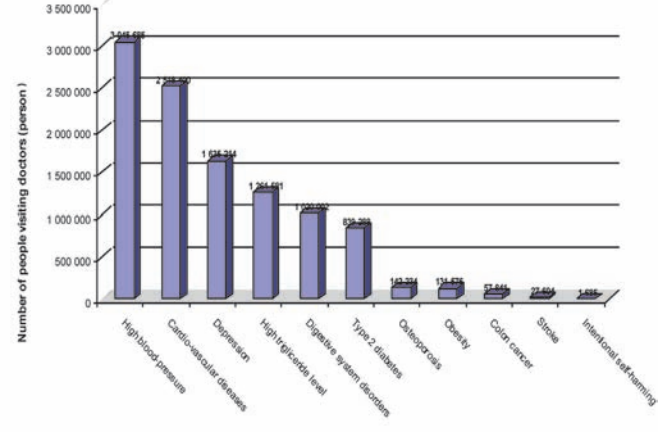

Figure 3: The number of people visiting doctor's offices (person) with regards to the examined illnesses (2009)
Source: compiled by the authors

According to OEP's data it can be stated, that more than one quarter of people (28.51%) requested medical services because of symptoms of high blood pressure (I10), 23, 57% because of cardio vascular diseases (I20; I21; I22; I23; I24; I25; I26; I61; I63; I66; I672; I674; I70; I74; I771; U9900; I801; I802; I803), 15.3% because of depression (F10; F13; F31; F32; F33; F34; F38; F39; F40; F41; F92; R45).

Considering international statistical data we can see, that in Hungary as well, metabolic syndrome has become a disease, which occurs in higher and higher numbers, on which regular physical activity has a beneficial effect.

This combination of symptoms can be considered a widespread disease, since today the "life-style disease" referred to as metabolic syndrome already threatens one out of six European adults. In connection with metabolic syndrome the illness burden data regarding obesity is introduced (E66; E67; E68), hyperlipidaemia (E78), high blood-pressure (I10), stroke (I64) and type 2 diabetes.

According to OEP's data it can be stated, that in 2009, in Hungary 5,305,734 persons visited doctor's offices because of the listed diseases. More than one half of people (57.40%) used medical services because of symptoms of high blood-pressure (I10), nearly one quarter (23.78%) because of high blood-lipids, 15.82% because of type 2 diabetes. The next figure illustrates the distribution of the costs of the services used (Figure 4)

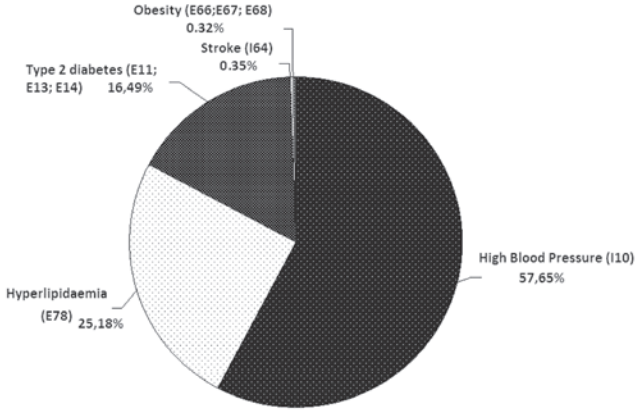

Figure 4. Distribution of patient visits of Metabolic Syndrome (2009)
Source: compiled by the authors

The listed simultaneous symptoms cost the government nearly HUF 131 billion in 2009 (HUF 130,925,805,773), among which the costs of *high blood-pressure* (HUF 75,479,094,691), of *hyperlipidaemia* (HUF 32,973,205,585), and of *type 2 diabetes* (HUF 21,588,136,789) were the highest. The number of sick-allowance days was altogether 906,743 days, 85% of which was caused by high blood-pressure, 13% by type 2 diabetes. The portion of medications and therapeutic equipment above

Social Security assistance is a cost, which appears on the expense side of individuals and households, about the structure of which the following figure (Figure 5) provides information.

It's well visible on the figure, that the individual medication cost contribution, which on the average is 30%, is 78% in the case of obesity.

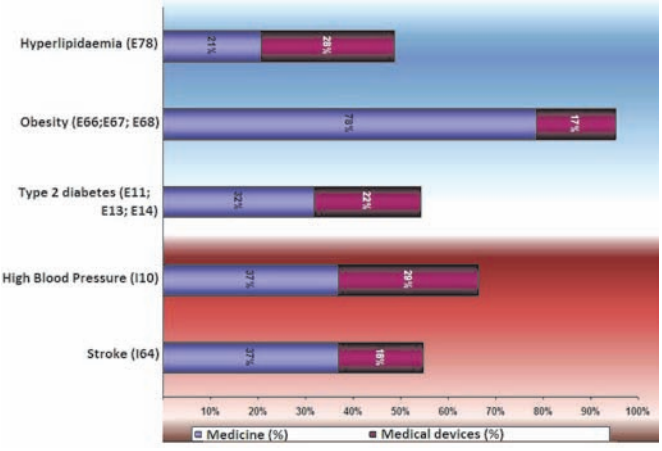

Figure 5: Personal Costs of Metabolic Syndrome in 2009 (%)
Source: compiled by the authors

According to a 2008 study the long term health care prospects of physically active obese people are better than those of physically inactive people with normal body weight (Brown 2008). It is a commonly known fact that the number of obese (overweight) people has doubled in Europe in the past 20 years. In Hungary, in 2009, according to OEP's data 131,576 people required medical services because of obesity, which caused a HUF 421.2 million cost to the government. Currently there is no registered anti-obesity medication on the market in Hungary, so we have to call the attention of decision makers and citizens to the fact, which have been supported by cost efficiency studies – and especially holds true in the case of obesity –, according to which preventing illnesses by increasing physical activity is cheaper, than the health improvement achievable with medications (Apor, 2010).

Summary and outlook

In the present paper we demonstrated our research results that minimum 28 billion HUF could be saved with 10% reduction of physical inactivity on the levels of the national economy, with additional benefits to the society and individuals alike. Paying attention to international trends, in nine member nations of the European Union official strategies have been prepared with the participation of governments and social partners for the preservation of employee health, which are expressly connected to the increasing of physical activity. The strategies placed great emphasis on advancing health preservation in the workplace and the general sense of well-being. Austria, Belgium, Denmark, Finland and Norway have made systematic efforts on the national and corporate levels to improve employee health, and have elaborated specific laws and expert policies to manage the problem. (The report of the European Foundation for the Improvement of Life and Work Conditions, 2010)

Therefore Hungarian government should introduce projects to increase physical activity with significant budget as these projects can have significant pay-off not only for the individual but for the government as well.

With the reduction of inactivity the population's state of health verifiably improves, which increases productivity and reduces the scale of social expenses connected the state of health, which has a positive effect on the nation's competitiveness.

Most important future research area would be developmental projects to increase physical activity and longitudinal research about their results according to the decrease in direct expenses and indirect burdens of illnesses.

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AN INVESTIGATION ON THE INTERNATIONAL TOURISTS' EXPENDITURES IN THAILAND: A MODELLING APPROACH

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Abstract: As a result of the increase in both the international tourists' expenditures and tourist arrivals to Thailand, there is a growing interest in determining the trend of international tourists' expenditures based on time-series modelling. In our article secondary data were used to produce forecasts of the international tourists' expenditures in Thailand between 2009 and 2010. The forecasting method is based on the ARFIMAX (0, 0.197, 0, 0.033) model. Furthermore, this method predicted that international tourists' expenditures in Thailand between 2009 and 2010 will have to contract and slow down. This paper seeks to determine whether the international tourists' expenditures are affected by other circumstances. The results of this study revealed that the international tourist arrivals to Thailand will also have to slow down. However, from the results, there is solid evidence to support such a claim.

Key words: Thailand; ARFIMAX (p,d,q,X) method; International Tourists' Expenditures

Introduction

Tourism was identified as important role for future economic growth and important industry to Thailand's economy. It contributes to Thailand's gross domestic product (GDP), affecting employment, investment, and foreign exchange earnings (TAT, 2006). In 2003, Thailand ranked the 15th in international tourism receipts (US$7.9 billion), accounting for 1.7% of the world total or 4.4% of the country's national product (WTO, 2005). International tourism is the fastest growing industry in Thailand (Chaitip and Chaiboonsri, 2009). The country has continuously experienced the growth in the number of tourists and revenues from the industry. The number of international tourists in Thailand was increased from 7.22 million in 1997 to 13 million in 2005. The revenues were increased from 299 billion baht in 1997 to 450 billion baht in 2005. During 1997-2005, Thailand faced many challenges. For example, the Asian Economic Crisis in 1997, the effect of September 11, 2001, the outbreaks of Severe Acute Respiratory Syndrome (SARS), the US-Iraqi War in 2003, and the Avian Influenza (Bird Flu), the Tsunami in 2004, and high oil prices in 2005. However, the ARFIMA(p,d,q) model was used by Mahendran and Pauline (2003) to model the tourist arrivals to Malaysia. This model was also used by Fong-Lin Chu (2008) to forecast the number of international tourists arrivals to Singapore. Based on these articles we might claim that that the ARFIMAX (p,d,q,X) model has not been used to forecast the international tourists expenditures in Thailand before. Consequently, this paper seeks to determine the trend of the international tourists' expenditures based on the so called ARFIMAX (p,d,q,X) model.

Research aim and objective

This research aims to develop and validate a predictive model that supports the forecasting of the international tourists' expenditures during the period of 2009-2010. On the other hand, we would like to measure the forecasting performance of the developed model.

Data of the research

The scope of this research based on secondary data between 2000 and 2010. Data about the international tourists' arrivals to Thailand and expenditures has also been collected from the period of 2000 and 2008. All data were collected from Tourism Authority of Thailand (Tourism Council of Thailand, 2009).

The research framework and methodology

Our research focuses on a multivariable analysis of the number of international tourists' arrivals to Thailand and the

expenditures between 2000 and 2008. An ARFIMAX (p, d, q, X) model was used in forecasting the international tourists' expenditures and arrivals to Thailand during the period of 2009-2010. However, this econometric technique has never been used in the previous studies in Thailand.

The general model of ARFIMAX (p, d, q, X)

The ARFIMAX model as follows: (see equation 1)

$$y_t = c_1 y_{t-1} + c_2 y_{t-2} + \ldots + c_k y_{t-k} + \varepsilon_t + d_1\varepsilon_{t-1} + d_2\varepsilon_{t-2} + \ldots + d_l\varepsilon_{t-l},$$

or

$$\left(1 - \sum_{i=1}^{k} C_i L^i\right) y_t = \left(1 + \sum_{i=1}^{l} d_i L^i\right)\varepsilon_t \quad (1)$$

And L is the lag operator $\{\Sigma^3_{i=1}(L^i)y_t = y_{t-1} + y_{t-2} + y_{t-3}\}$ as well as the ARMA with exogenous variables (Hurvich, and Tsay, 1989), or ARMAX (k,l) : (see equation 2)

$$c(L)(y_t - X_t'\beta) = D(L)\varepsilon_t, \quad (2)$$

where

$$c(L) = \left(1 - \sum_{i=1}^{k} C_i L^i\right)$$

$$D(L) = \left(1 + \sum_{i=l}^{l} d_i L^i\right)\varepsilon_t$$

The ARFIMAX (p, d*, q, X) model{p=k, d*=Fractional differencing operator, q=l} can be written (Degiannakis, 2008) in equation 3.

$$c(L)(1-L)^{d^*}(y_t - X_t'\beta) = D(L)\varepsilon_t, \quad (3)$$

where $(1\text{-}L)^{d^*}$ is the fractional differencing operator and d* Є (–0.5, 0.5) is the fractional differencing parameter.

The results of research

The results of various tests for unit root process

The Table 1 presents the result of both the ADF-unit root test (ADF-Test) and Phillip-Perron unit root test (PP-Test) (Phillips and Perron, 1988). Based on both ADF-Test and PP-Test (Doornik and Ooms, 2006) confirmed that both the expenditures and the number of international tourists have no unit root or stationary (see more detail at Table 1).

The results of various tests for long memory process

Table 2 shows the results of various tests (Torre and Lemoine, 2007) for long memory process based on R/S Test, Modified R/S Test and GPH Test of both international tourists' expenditures and the number of the international tourist arrivals to Thailand between 2000-2008. The test results are summarized in Table 2. For each test, the test statistics and its corresponding statistics are given. If the statistics value of R/S Test, Modified R/S Test and GPH Test is significant at 1% level or at 5% level then we can rejected the Null Hypothesis of no long-term dependence or no long memory process in time series data (Granger, 1980). Otherwise, if the value of a given test is not significant at 1% level or at 5% level then the Null Hypothesis of no long-term dependence or no long memory process in time series data can be accepted. Based on both the R/S Test and the Modified R/S Test, it can be confirmed that the time series of the international tourist's expenditures have a long-term dependence in itself, but the number of the international tourist arrivals to Thailand has no a long-term dependence or it is not a long memory process. The statistics value of the GPH Test of for this data was not significance at 1% or at 5% level. However, both the R/S Test and the Modified R/S Test confirmed that the data of international tourist's expenditures in Thailand has a long-term dependence in itself.

Table 1. Results of the unit root tests

Variables	ADF-Test			PP-Test		
	Constant with Trend			Constant with Trend		
				Level		
Expenditures	-4.75266	[1]**			-3.83786	[0]**
	I(0)				I(0)	
Number of international tourists				Level		
	-5.85744	[1]**			-4.33053	[0]**
	I(0)				I(0)	

* : significant at 5% level,
** : significant at 1% leve

From: own calculation

Table 2. Results of the various tests for long memory

The name of variables	R/S Test	Modified R/S Test	GPH Test
International Tourists' Expenditures	4.3473**	2.0872*	2.7637**
The number of International Tourist Arrival to Thailand	3.754**	1.9691*	1.6046

From: own calculation

Null Hypothesis : no long-term dependence or no long memory process.
For GPH test, Null Hypothesis: **d = 0** (d is the differencing parameter)
*: significant at 5% level, **: significant at 1% level

The forecasting models' selection based on concept of both the AIC (Akaike Information Criterion) and BIC (Bayesian Information Criterion)

Table 3 shows the forecasting accuracy of all the models based on ARFIMAX (p,d,q,X) between 2009 and 2010. The values of both Akaike Information Criteria (AIC) and Bayesian Information Criterion (BIC) were used for selecting the best model for forecasting the international tourists' expenditures. It can be seen from Table 3 that the best model is the ARFIMAX (0, 0.197, 0, 0.033) because both values (of AIC and BIC) are less than in the case of other models. Consequently ARFIMA (0, 0.197, 0 , 0.033) model was selected as the best predictive model for forecasting international tourists' expenditures in Thailand during the analyzed period (see more detail at Table 4. and Figure 1.).

Table 3. Accuracy comparison of the different forecasting models based on arfimax (p,d,q,x) model between 2009 and 20

	ARFIMAX (0,d,0)	**ARFIMAX (1,d,0)**	**ARFIMAX (0,d,1)**	**ARFIMAX (0,d,0)**
Const	-	-	-	-4532.62
				[-1.07]
d	0.197***	0.28***	0.33**	0.17**
	[2.69]	[2.71]	[2.33]	[2.11]
X	0.033***	0.034***	0.0342***	0.038***
	[22.5]	[17.19]	[15.40]	[9.05]
AR	-	-0.15	-	-
		[-1.08]		
MA	-	-	-0.22	-
			[-1.14]	
AIC	20.3473709	20.3576992	20.3542351	20.3581646
BIC	27.97854	30.53088	30.5278	30.53166

From: own calculation

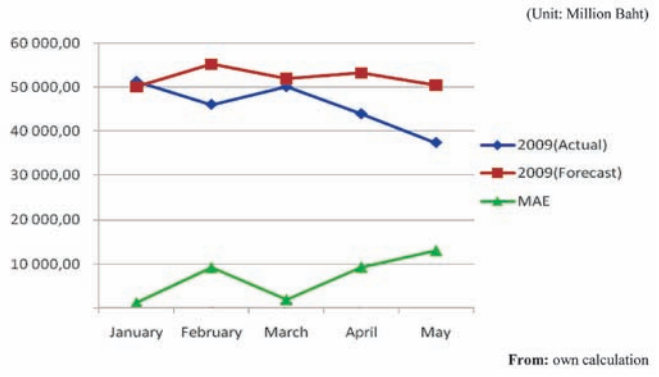
* : significant at 10% level, ** :significant at 5% level, *** :significant at 1% level, X: Number of International Tourists Arrival to Thailand. Endogenous variable : Expenditures of International tourists in Thailand.

Table 4. Forecast of the expenditures of international tourist arrivals to thailand between 2009 and 2010 based on arfimax (0, 0.197, 0, 0.033) (unit: million baht)

Month/Year	**2009 (Actual)**	**2009 (Forecast)**	**MAE***	**MAPE* (%)**
January	51,289.33	50,112.01	1,177.32	2.30
February	46,069.96	55,233.29	9,163.33	19.89
March	50,094.28	52,005.99	1,911.71	3.82
April	43,935.01	53,232.02	9,297.01	21.16
May	37,400.20	50,488.53	13,088.33	35.00
June		43,964.59		
July		42,104.59		
August		41,383.02		
September		45,396.30		
October		41,576.69		
November		32,016.56		
December		38,932.68		
Total	**228,788.79**	**546,446.27**	**6,927.54**	**16.43**
Month/Year	**2010 (Actual)**	**2010 (Forecast)**	**MAE**	**MAPE (%)**
January		38,235.52		
February		40,936.21		
March		44,644.74		
April		40,178.21		
May		43,531.02		
June		38,277.93		
July		32,710.70		

From: own calculation

*: (MAE: Mean Absolute Error, MAPE (%): Mean Absolute Percentage Error)



From: own calculation

Figure 1. Forecast of the international tourists' expenditures in Thailand for 2009 based on arfimax (p,d,q,x) (unit: million baht)

Concluding remarks

This study presents the basic features of the unit root process and long memory process along with the ARFIMAX (p,d,q,X) models including a selection of significant extensions and applications. Consequently, the procedures are used in an original way to demonstrate the flexibility of the approach and the applicability to the tourism industry. In our article we also investigated the fractionally integrated behavior of the international tourists' expenditures and the number of international tourists arrivals which was stationary but exhibits long-memory process over the year 2000 to year 2009. The empirical results showed that the inclusion of the time-varying volatility in the absolute return performed better in one-year-ahead forecast and estimation of the international tourists' expenditures in Thailand during the specified period. An integrated approach to tourism policy analysis and problem resolution is also required, in which the relationship among tourism establishments, tourists, the environment and rural development are openly considered. The number of international tourists' arrivals to Thailand will significantly affect the international tourists' expenditures and tourism development. These developments demand a long-drawn-out possibility of analysis across tourism disciplines. Social scientists can catch the lead in expansion the scope and providing a meaningful investigative framework for interdisciplinary analysis. The issues involved should be high on the agendas of the tourism establishment and education systems. More education about tourism is needed for further enhancing the public understanding. The results of the tourism research and education will have a broader applicability and provide benefits to a number of firms or organizations.

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THE PRESENT OF EQUINE TOURISM IN HUNGARY IN REFLECTION TO AN EMPIRICAL RESEARCH

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Abstract: In the last years the necessity of developing equine tourism in Hungary has been called for by experts. Moreover, the government has spent a significant amount on constructing equestrian facilities all around the country, and has published equestrian brochures in order to attract foreign guests. On the contrary, little attention is paid to equestrian life inside Hungary, though it would be essential to create a Hungarian equestrian audience, so that more and more horse riders could regularly exercise different riding activities. A more economical operation of equestrian facilities is vital in order to achieve a busier domestic equestrian life, since it is currently self-supporting: it is covered exclusively by the incomes of horse riding. A reinforced financial support of the sector, however, would provide countless additional advantages for the economy. Moreover, enriched riding opportunities drive people back to nature, promote environmental awareness, and provide regular horse riding opportunities for a high number of riders. The present study aims at introducing an empirical survey research in the framework of which participants of Hungarian equestrian life and their features of touristic demand were investigated.
The results of the research show that Hungarians riding on a regular basis are mostly attracted by affordable European riding holidays and riding study visits.

Key words: equine tourism, equestrian life, horse riders, developing opportunities

Introduction

Equestrian culture has a long tradition in Hungary and Hungarians are considered as a riding nation in Europe. Furthermore, several inventions and innovations in the world of riding are linked to Hungary. For tourists visiting the country, riding attractions, such as "csikós" riding shows in the "puszta" (plain regions of Hortobágy and Bugac) have always been of special interest. Riding enthusiasts may also visit Hungary with the aim of learning riding, show jumping, carriage driving, they may take part in riding or carriage tours and hunting.

At the beginning of the twenty-first century, amongst the various branches of tourism, experts consider hard tourism to be of the widest perspective, in which equine tourism may have a principal role in sport-related travelling and may become the most significant attraction of tourism in Hungary. (Hungarian Government ad hoc committee, 2004).

It is therefore not surprising that the Kincsem National Equestrian Development Programme, ratified by the Hungarian government in February 2012, supports all measures taken in order to develop the equine sector and equine tourism. Within the framework of the development programme a unique Hungarian model of the sector is to be created, which is characterized by an increased amount of trails, adequate quality assurance, and high standards of infrastructure and services related to tourist attractions. A fundament of the above mentioned model is the fact that, with regards to developing equine tourism, Hungary is from several perspectives in an advantageous position compared to the neighboring countries. On the one hand, its geomorphological configuration, water and climate favour equine management and riding. On the other hand, the climate which in several parts of the country is sub-mediterranean, provides smooth weather conditions for outdoor activity from early Spring till late Autumn. Since forests and the soil are of exceptionally high quality, there are few rocky, uneven trails and dirt roads, sand-textured soil and loan are typical, the Hungarian landscape is especially compatible for outdoor physical activity of any kind (Hungarian Tourism PLC., 1998). Most importantly, land is predominantly state-owned, therefore off-road riding, even considering the strict regulations of the currently binding forest act (Act No. XXXVII/2009 on forests, on the protection and management of forests) is available. It is a general trend all over Europe that off-road riding is less practiced by riders due to the high proportion of railed-off private property. According to Hungarian Tourism PLC. (Magyar Turizmus Zrt., 1998), in Western European countries limited spaces deprive riders of the incomparable sensation of freedom. Hungary is especially appealing for riders arriving from Western Europe due to the fact that the network of dirt roads in agricultural areas does not notably obstruct cross-country riding. This exceptional opportunity must be taken into consideration in the development of equine tourism.

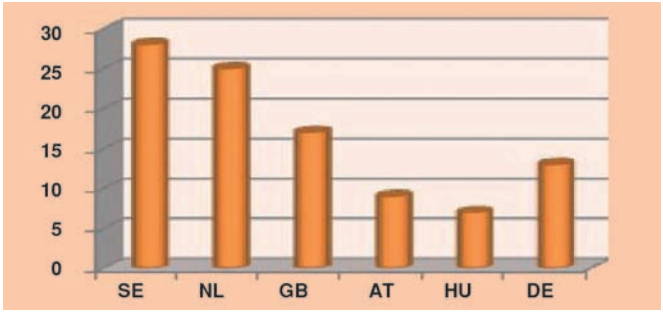

Figure 1. The number of horses per 1,000 people in 2009

In order to achieve tangible improvements, several requirements must be fulfilled, for instance the appropriate number of horses available, or an outstanding infrastructural background. Currently almost all equine-related Hungarian indices are far behind the EU average proportion (Carolina Liljenstolpe, 2009), so is the number of horses compared to the population (see Figure 1). Improvements are therefore inevitable, since equine tourism is centered around horse-related services. The services include riding lessons, therapeutical riding, cross-country, harness racing, driving lessons, and horse carriage tours. During riding shows tourists have no direct contact with horses. Visiting studs or stables, reining and lectures on horses and riding are regarded as horse shows. Therefore the guest mentioned first is an active, the latter is a passive sport tourist.

Demand for equine tourism is shown by local and foreign riders, „hobby-riders" and horse enthusiasts. Riders are well trained members of a riding club who are interested especially in high level riding competitions and cross-country riding and are horse owners. Since riders are in the position to form and express their opinion concerning horse tourism, they play a strategic role in boosting it. Hobby-riders have adequate riding knowledge. Although they are interested in races, equestrian traditions and horse shows, they are most motivated by taking part in tours ranging from an hour till several days of length and by developing their riding abilities. Horse enthusiasts are those with a great love for horses who, thus, prefer to stay more distant from horses, but are pleased to get on horseback or participate in a carriage tour from time to time. They are most interested in watching riding shows, taking riding lessons and going on riding trips of maximum an hour. Furthermore, they generate significant demand by being present in high numbers in the audience of different races and it is rewarding for them to spend their free time in a country where they may gain new information about horses and equestrianism (Hungarian Tourism PLC., 1998).

In the 1990s 80% of clients of the Hungarian equine tourism industry came from abroad, mainly from Austria, Germany, Italy, Switzerland and Holland. According to data collected by Hungarian Tourism PLC. in 1998, the result was 3 100 000 potential guests. As the results of several surveys conducted by the Hungarian Equestrian Tourism Association (Magyar Lovas Turisztikai Szövetség) in 2000 show, the proportion of domestic and foreign clients was almost equal, 50–50%. In 2004, 90% of clients of Hungarian equine tourism were Hungarian youngsters aged 18 or under. As shown by the related data, almost 8000 children spent over a week in Hungarian riding clubs and schools.

Price-value proportion, as well as in other services, is a determining factor. Riding holidays are about 20% cheaper in Hungary than in Western Europe and prices of other equestrian services are 40–50% lower. A great professional acknowledgement for Hungarian equestrian tourism is that according to a ranking of journalists of the international magazine, Harpers (2002), 2 of the 5 most outstanding equestrian tours are in Northern Hungary and in the Northern part of the Great Hungarian Plain.

In Europe Great Britain and Ireland have excellent trekking and off-road facilities and alternative services are also available. In Ireland 250 riding holiday centres were created in a few years with EU financial support and more than 100 000 equine tourists are hosted annually. Spain and Portugal have gained a leading position in equine tourism thanks to the significant German interest in the Spanish equestrian culture and riders use Spanish horses and saddles (MLTSZ, 2004).

South America is also an attractive destination for European and Hungarian riders due to the fact that the landscape and the style of riding are so different from what they are used to, for example pampa riding in Argentina, cowboy camping in Chile, or riding trips in the Ecuadorian Andes, where special hacks can be completed in not only English saddles, but also in a Western saddle or in its classical version, the vaquero saddle. Australia is also a stakeholder on the market (MLTSZ, 2006) and lately Iceland has gained popularity with its expensive geyser, waterfall and whale watch riding trips.

To what extent are Hungarian riders present in equine tourism? What opportunities and ideas do they have concerning the field? How much are they attracted by equestrian programmes inside and outside Hungary?

The present study intends to introduce the Hungarian demand for equestrian services by presenting the results of a survey research. As additional information to the survey research, semi-structured interviews were conducted with experts of tourism working for Pegazus Online Media LTD (Pegazus Online Média Kft).

Methods

The tool for data collection was a survey containing thirty closed questions. Respondents had access to the survey via the most popular equestrian homepage, www.lovasok.hu, powered by Pegazus Online Media LTD. Visitors were motivated to fill in the questionnaire by an instant win game. The homepage has on average eight-ten thousand visitors a day. The 252 respondents who filled in valid questionnaires confirmed to be involved in horse riding on a regular basis and most of them own a horse. Data was entered in an Excel chart and was processed with basic statistic calculations.

Semi-structured interviews were made personally, at pre-arranged appointments with experts who have been working for several years on the market of equine tourism as intermediaries between service providers and clients.

Results

Although official statistical data are not at our disposal, service-providers confirm that the number of women participating in equestrian sports is significantly higher than that of men, which fact may be the reason why 89.7% of respondents were female. In the experts' experience women are emotionally more linked to horses than their male counterparts, they love the animals more and are more motivated to care for them. Consequently, riding is becoming a feminine sport.

As Figure 2 shows, most respondents belonged to younger generations, 53% were students and only 6.4% were over 40. Interviewees also pointed out that younger generations are more involved in equine activities. However, a reason for the high proportion of young respondents is that they are more frequent users of the internet than older people.

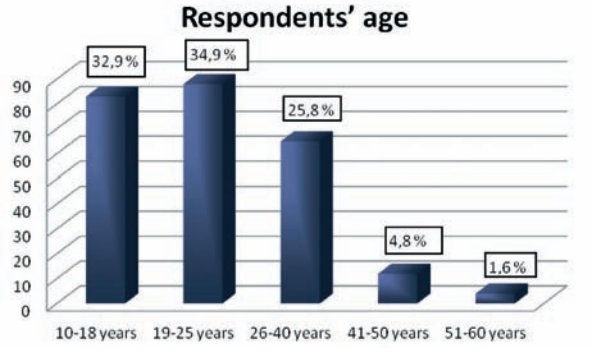

Figure 2. Respondents' age

Respondents lived predominantly in villages and towns (see Figure 3). Riding centres and trails are mostly located outside urban structures and therefore provide easier and more regular access for citizens living in the countryside. As the data show, more than half of riders, meaning those who ride at least three times a week, own at least one horse, and are present in equine tourism as service-providers.

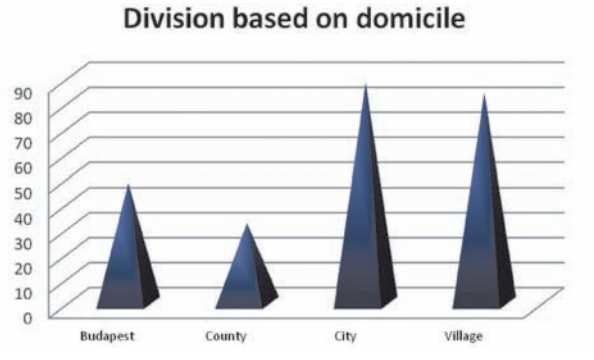

Figure 3. Division based on domicile (n)

Mapping the touristic habits and demand of Hungarian riders was started by inquiring where and what sort of sport touristic event they had taken part in before. As the data reflected, almost one third of respondents had participated in domestic equine tourism events, in the first place in riding tours or riding races in different parts of Hungary. 71% are planning to participate in similar events in the following three years, and most of them would spend not more than 30000 HUF there.

From the perspective of service providers it is essential to know how far riders are willing to travel to take part in equestrian events. Few respondents (only 19%) stated they would travel exclusively inside Hungary. 44.5% would be pleased to travel in Europe, and 36.5% would travel even further if they could afford to (see Figure 4.).

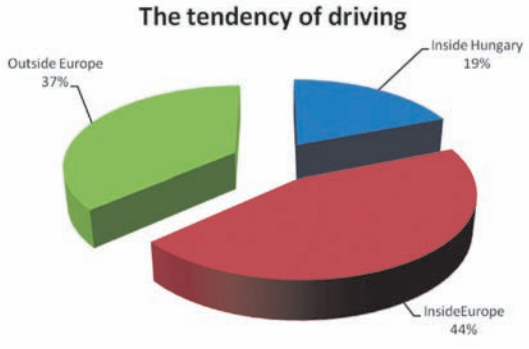

Figure 4. The tendency of driving

The following part of the questionnaire investigated equine touristic habits and requirements abroad. Only 20% of respondents had taken part in equine programmes abroad before, and the destination in all cases was a European country. Participation proved to be partly of a passive nature, as tourists were attracted by equestrian galas, horse shows, exhibitions and horse fairs. Active participation meant engagement in riding camps, holidays or races.

Researchers were also eager to know what other horse-related events are interesting for riders. Surprisingly enough, 64.3% responded they would take part with great pleasure in riding courses, which suggests that riders are highly motivated to study and gain new riding experience. It is, however, not astonishing that 60.3% said they would love to watch riding or harness races, which are the most spectacular and exciting riding events, and the majority of respondents are involved in these fields. Many riders (55.5%) are interested in riding exhibitions and fairs abroad, and half of respondents would visit foreign studs with pleasure. Between 40-50% are keen to take part in riding trips, visit mare and stallion parades and horse shows and more than 30% would gladly attend riding camps and auctions. Considering that trotting and galopp races are not remarkably popular in Hungary, it is not surprising that only 11.9% of respondents are keen to watch them (see Figure 5).

Almost half of respondents (46%) are planning to take part in equestrian activities abroad within the following 5 years. 54.4% said they would travel to Austria. Their choice can be explained by the fact that for Hungarian riders nearby and lower cost, though less special places are more affordable than distant, expensive and exotic countries. In the second place Spain was mentioned, then Romania, Germany, France, Italy and England. Some respondents underlined Iceland, Ireland, Australia and The United States as attractive destinations.

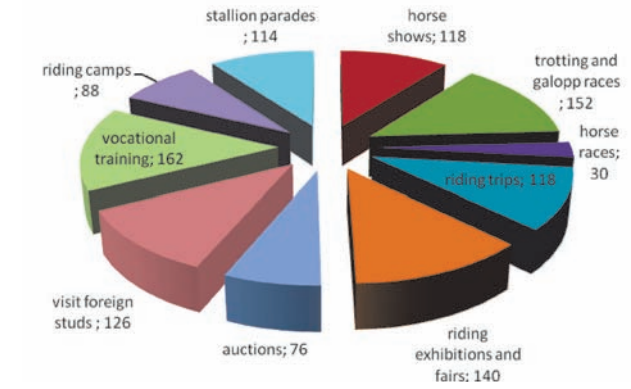

Figure 5. Horse-related events are interesting for respondents

Apart from the given answers, the following locations were pointed out: Holland, Africa, The United Arab Emirates, Scottland, Sweden, Switzerland, Mongolia, Argentina and New-Zealand. Information was also collected on respondents' solvency. 49.2% of respondents would spend between 51 000–150 000 HUF on traveling, an amount which would cover costs of participation at a riding holiday exclusively in a neighbouring country. A high proportion (34.9%) of respondents would spend less than 50 000 HUF, which would only cover costs of a riding holiday inside Hungary. 11.9% of respondents could afford to spend 151 000–350 000 HUF on a journey abroad. As the low percentage as well as the interviewees confirmed, only better-off riders can devote considerable amounts on unique, exotic journeys.

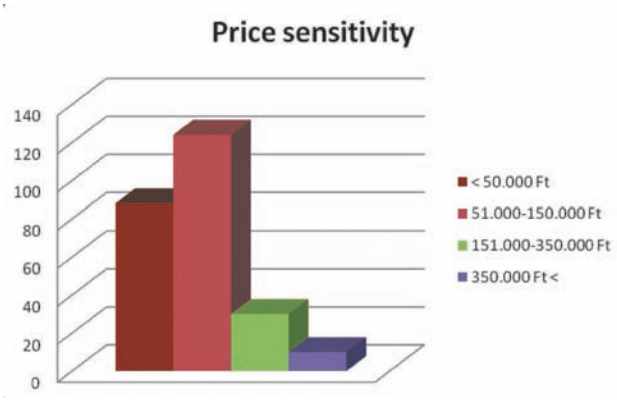

Figure 6. Price sensitivity

Discussion

As the results of the research show, a small proportion of Hungarian riders are present at equine tourism. However, experts believe that the number of guests may increase in the future. As one of the interviewees confirmed, most riders who participate in equine tourism are present as service providers (they possess one or more horses, are trainers or ride leaders). Riding opportunities for beginners or less experienced riders are available in almost all regions of Hungary. The regions of Alföld (the Great Plain), Kisalföld (Little Plain), Északi-középhegység (North Hungarian Mountain) are suitable for riding and driving all year long, and Dunántúli-középhegység (Transdanubian Mountain), Dunántúli-dombság (Transdanubian Hills) and the Western borderline of the country are similarly adecuate for the mentioned purposes. The Észak-Alföld (Northern part of the Great Plain) offers a wide range of equestrian services, such as riding, driving, riding hacks, hunting, dressage, showjumping, military, volting, trails, therapeutical riding, races, visiting studs and riding shows (Incze-Hevessy).

As a result of globalisation, international riding news travels fast, and the latest news on equine tourism can be consulted online. Riders are offered extremely attractive equestrian programmes, such as riding holidays in Europe and overseas. Though participants are required to have a high standard of riding skills, the results of the survey show that these journeys are really attractive for Hungarian riders, especially due to theunique surroundings and the different riding style. Unfortunately, in the current economic crisis a limited number of riders is in the position to pay for them. Hungarian riders, however, show enthusiasm about riding holidays inside and outside the country, the latter destinations are in Europe and near Hungary. Respondents show interest in riding-related courses, exhibitions, fairs and competitions, however, also in these cases price can discourage participation.

Conclusion

The study investigated features of Hungarian riders' participation in equine tourism. The topic is up-to-date as the National Equestrian Development Programme, which has been ratified this year, defines certain product-specific goals with regards to equine tourism as well. The achievement of goals can be promoted by collecting information on the expectations and ideas of current and potential clients. Highlighted goals of the programme are increasing participation in equestrianism and equestrian tourism, broadening the pool of riders and multiplying persistent demand. The development of equine tourism is a milestone in conserving national equestrian traditions, since it includes not only teaching riding techniques, but also all aspects of equestrian traditionsand equine culture. Essential requirements, such as improving the conditions of accommodating guests, infrastructural development and the construction of trails attractive for foreign audience, must be fulfilled in order to take a step forward. At present Hungarian equestrian service providers work in isolation, though a cohesive touristic product, complemented by additional services which are not linked to weather conditions, is the basis of a successful equine touristic sector. As for the education of experts, it is worth noting, that equestrian culture educators have been trained since 2005 at Semmelweis University, Faculty of Physical Education and Sport Sciences. The course gives students a complex knowledge of sport, entrepreneurship and management, in order to have qualified riding experts working in different positions for the promotion of the Hungarian equestrian industry. The importance of expanding therapeutical riding services must be emphasized, as a further opportunity for the sector to boost. Experts

specialized on hippotherapy are trained by Hungarian Riding for the Disabled Federation (Magyar Lovasterápia Szövetség). Hungarian equestrian life can only be promoted in the future through the complex and parallel improvement of all equestrian sectors mentioned above.

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SUCCESS FACTORS OF INTERNATIONAL SPORTING EVENTS IN DIFFERENT REGIONS OF EUROPE

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Abstract: Sport events always played an important role in human life from the ancient Olympics and marathon races to today's modern Olympics, World and continental championships. In our days these remarkable sport events come to the fore because participants of the sporting world effectuate even more, greater and more varied ones. Furthermore, the competition for organisation between cities and countries is becoming more and more intense (Zeman 2005). The organisation of international sporting events is an extremely complicated and multiple task. The organising committee has to manage the duties and activities, to co-ordinate the participants' work, to satisfy the needs of international sport association(s), sponsors and other stakeholders. Within the frame of the research we reveal the success factors of international sporting events in different segments of Europe, and in addition to this compare the event organization practices of analysed regions along the identified success factors. In this study we represent the results of a quantitative research, where organizers of World and European Championships – organised between 2000 and 2008 in different European countries – were asked and statistical analyses have been applied. According to our results beside the essential technical and task oriented areas the human aspects of organisation, the partnerships, co-ordination and communication are all-important factors. Especially in countries of East-Central Europe, where organisers have to pay more attention on selection, control of partners as well as on continuous communication with them in order to assure accurate performance in time.

Key words: success factors, task and relation orientation, international sporting events, Europe

Introduction

An international sport event today is a social phenomenon, which became part of our life and culture. Beside sport delegacies and official attendants, there are crowds of supporters and spectators arriving at World and European Championships, who get fascinated by the tension of competitions and the intense experience of sport triumph. During their stay, the so-called sport tourists coming to competitions not only to buy entrance tickets and merchandise, but they also spend money on accommodation, food, travelling and sightseeing, which increases the income of local economy, particularly of the service industry (*Dreyer* and *Krüger* 1995). Motivation to participate are pleasant or curative stress, supporting the national team, interest in players and aesthetics (*Bresler* 2011). Major international sporting events, like Olympics, World and European Championships are the focal points of interest, their preparation and implementation are constantly followed by the media and news reports. The positive effects, economical incomes and social respects of a successful event can be felt not only by the organising sport associations and local athletes but also by host towns, regions or even countries (*Nyerges* and *Petróczi* 2007).

It is a wide-ranging and extremely complicated task to organise such huge sporting events, to manage the duties and activities, to co-ordinate the participants' work. Therefore, it is inevitable to apply the methods of project and event management in order to realize successful and efficient events. But it is not obvious at all which areas of the organization are decisive and crucial during the accomplishment of an event. The purpose of the study is to identify and evaluate factors that support the successful management of international sporting events. Furthermore the comparison of events organised in different regions of Europe in point of the identified success factors.

Previous findings on success factors

The large international sport events are unique combinations of time, setting, management practices and people's needs (*Getz* 1997). They have well confinable parameters, like the fixed deadline, competition rules, numerous stakeholders and environmental aspects, which allow comparison (*Haase* 2004). The organisation and management of sport events is one of the most developed businesses in our days. In this sector the competent and committed professional work assures quick success and considerable profit (*Graham* et al. 1995). However, the work of organisers involves numerous difficulties and uncertainties as well, like managing of extensive relationships, enormous resource allocation and wide range of risks. For that very reason academic and operative experts of sport event management try to disclose areas, which require special interest and investment.

As we mentioned earlier, it is an exceptionally complex task to organise international sporting events, European and

World Championships. High level organisation requires a variety of management – especially project management – methods, techniques and skills. Appropriate application of management methods and best practices can often secure the success of organisation. But what kind of methods and techniques can facilitate the organisation?

Project success factors considerably determine the project result; they are specifics and conditions with great influence on the successful implementation of the project (*Lim* and *Mohamed* 1999). Whereas critical or significant success factors (CSFs) are those ones that shall must be realized in order to ensure project success. As a matter of fact they are those management areas that need special and permanent attention so as to guarantee a good chance for success (*Boynton* and *Zmud* 1984; *Szabó* and *Gaál* 2006).

As far as the researchers on revealing factors of projects' success are considered; the first studies focused on identification of factors influencing a project's success or failure based on empirical researches (*Baker* et al. 1988; *Pinto* and *Slevin* 1988). On the strength of the comparative analysis of earlier studies Gemünden and Lechler (1997) elaborated a conceptual success factor model and in it they grouped factors into categories like context, participants and functions. Cooke-Davies (*Cooke-Davies* 2002a), in his empirical research on revealing „real" project success factors, studied success-inducing elements at three different levels: at the level of project management activity, project and organization. In latest years researchers seem to focus more on the relationship between success factors and results achieved by the project implementation. On project performance in terms of schedule, cost and quality goals the commitment, coordination and competence of project participants are crucial factors (*Jha* and *Iyer* 2007)

Table 1. Findings on success factors of previous studies

Publication	Findings on success factors
Baker et al. (1988)	Coordination and co-operations; adequacy of project structure and control, project uniqueness, importance and public exposure; success criteria salience and consensus; internal capabilities build up
Gemünden and Lechler (1997)	Project context: importance, complexity, project environment People: top management, project leader and project team Project functions: participation, planning and controlling, information and communication
Cooke-Davies (2002a)	Clear and doable project goals; well-selected, capable and effective project team; adequate resourcing; effective planning and control; good risk management; stakeholder commitment and attitude; appropriate project strategy
Jha and Iyer (2007)	Project manager's competence; Top management support; Monitoring and feedback; Favourable working conditions; Commitment of all project participants; Owners' competence; Interaction between project participants; Good coordination among project participants; Availability of trained resources; Regular budget update

Source: self-editing

Experts who analysed specially the areas of successful event management identified the extensive, all-round project planning and controlling; the effective and committed leadership; the management of human resources; problem solving; handling of relationships and co-operations with sponsors, media, authorities, publicity etc. as key factors of success (*Waeffler* and *Pfister* 2008).

According to analyses of previous studies defining success factors, two groups of factors can be defined: success factors that represent the technical part of project management, like project conception (clear and attainable goals), planning, structure, control, risk management; and the human side of it, like a competent and committed project team and project leader, client consultation, communication, co-operation and participation. This approach dates back to the task orientated and relation orientated categories established within the frame of researches of personal management at Ohio and Michigan Universities. Researches done at Ohio and Michigan Universities had similar results concerning the definition of task orientated and relation orientated managing styles; however, it largely differed in a way that researchers of Michigan considered the two categories exclusive (*Likert* 1961) whereas according to researchers of Ohio the two kinds of managing styles may coexist (*Fleishman* 1953). Hence, according to the results of Ohio State University and further researches (*Blake* and *Mouton* 1985; *Ulrich* and *Fluri* 1992) based on these results successful managers shall complete two objectives. On one hand, they shall accomplish the appointed aims by effectively structuring activities and actively managing resources and processes. On the other hand, they shall complete the objectives concerning relationships, fulfil the demands of workers, and that of team integration by encouraging participants and applying adequate managing style (*Blake* and *McCanse* 1992).

Methodology and sample of the research

We applied empirical research to define the success factors of international sporting events. In order to raise an extensive database we asked the presidents or general secretaries of organising committees of all World and European Championships organised between 2000 and 2008 to take part in the questionnaire. In the course of the survey we gathered information from organisers of World and European Championships held in Austria, the Czech Republic, Germany, Hungary, Poland, Slovakia; Slovenia and Switzerland. The respondents answered in three main subjects – general information, organisational characteristics of the event and results of the event – altogether in 22 themes, which contained further sub-themes.

Altogether we received 104 completed questionnaires, which constitute a return rate of 33.4%. Among participating sport movements the proportion of Hungarian (37%) sport associations was the highest, but German (21%), Swiss (12%) and Austrian (9%) associations had considerable representation as well. Approximately half of the analysed sport events were held between 2006 and 2008, but sport competitions organized between 2003 and 2005 also represented an extensive proportion. Taking the duration of

sport events into consideration, some 40% of analysed events had duration of 1 to 4 days, and about 50% of 5 to 10 days. Among examined sport events 24% was organised as a junior or youth championship and 76% for adult athletes. Most of the analysed sport events were organised in Olympic individual (59%) or in Olympic team (20%) sports, however the sport of examined events was diversified. Athletic, handball, ice-hockey, pentathlon and canoe were represented in major ratio.

Table 2. Characteristics of research sample

		Analysed events (n)	**All events (N)**
Year	2000-2002	18	71
	2003-2005	38	123
	2006-2008	48	117
Duration	1-4 days	44	131
	5-10 days	49	145
	11- days	11	35
Sport	Olympic individual	62	180
	Olympic team	21	58
	Non Olympic	21	73
Place	East-Central Europe	87	226
	German cluster	17	85
Total		**104**	**311**

Source: self-editing

The statistical analysis of the collected dates was carried out by the Grafstat 3.41b and SPSS programs. In order to define success factors of sport events we made factor analysis. In the course of the analysis we grouped indicators of success in order to create factors, which describe the behaviour of each indicator. According to the rules of classification we identified a variable as a part of the factor when its factor loading was over 0.4. The rotation of latent variables was carried out by Varimax rotation, in order to get independent factors. Towards revealing possible correlations and deviation between organizational characteristics of East-Central European countries and countries of German culture cluster we applied variance analysis (ANOVA). Our reason for doing variance analysis was to see if there are any differences between analysed European regions on mean of factor values (*Field* 2005).

Results of the study

During the factor analysis of success factors of international sporting events six clusters were separated. The first factor is the *objective and task planning*. It indicates the detailed development of objectives and task-structure as well as the actualization of plans for the organisation activities. This area contributes to the fundamentals of the organisation: the organising committee should define the content and priority of aims, which compose the basis of planning and evaluation; they must develop the tasks included in the process of organization and collect the activity-structure, which indicates who, what and when to realize; on the basis of objectives and tasks the detailed plans can be further elaborated. The next factor, *contract strategy*, includes the financial conditions of sub-contracts as well as the responsibilities shared among organisers and sub-contractors. In the course of the preparation and implementation the organising team has to work together with several enterprises. They should consider and work out the details of financial terms and responsibilities to be able to account for the correct implementation. The third factor is *leadership*, which contains variables connected to competence, commitment, scope and responsibilities of the leaders and the members of the organising committee. It indicates the importance of competent and committed participants, who are experienced, good specialists and inspired to organise the event. The detailed elaboration of scope and responsibilities prevent the overlap or even any lacks of execution. The fourth factor, *organisational culture*, includes cultural characteristics of the organising committee, such as information sharing and communication within the committee, the level of support of teamwork and organisational learning. These soft areas cannot be considered as important and essential parts of the organising work, although they constitute the basics and provide a framework for the organisers' everyday action. The fifth factor is *co-operation and communication*. It is the co-operation and communication with direct stakeholders, such as contractors, sponsors as well as international and national associations. Because the parties are absolutely necessary for the successful implementation the organising committee has to do its best for the effective collaboration. The sixth factor, *partnership*, contains collaboration and conversation with indirect stakeholders, such as national and local authorities, the city and its inhabitants. The indirect stakeholders do not have immediate influence on the planning and operation of the event, however they are able to sustain the success of championships – through taking over tasks and responsibilities – or even set back the organisation – through denial of permits.

These six factors determine the success of international sporting events. Among the identified factors *objective and task planning* and *contract strategy* represent the task oriented approach of management, while the other factors: *leadership, organisational culture, co-operation & communication and partnership* can be settled as relation oriented areas. The results of the analysis verified the assumptions of the study, according to which not only the technical, task oriented factors are essential in organising successful sport events but also soft, human oriented factors are determining. The results of factor analysis verify, that the theories represented by the Ohio State University and their followers (*Blake* and *Mouton* 1985; *Ulrich* and *Fluri* 1992) can be fully proved in the case of management of international sporting events as well. Previous studies of project success (*Cooke-Davies* 2002b; *Kendra* and *Taplin* 2004) also revealed that the technical factors and human oriented factors of management can be separated, which complement each other and support the effective implementation.

Table 3. Success factors of international sporting events

Success factor	Variables	Factor loading					
Objective and task planning	Development of task-structure	.743					
	Development of objectives of the event	.462					
	Actualization of project plans	.353					
Contract strategy	Responsibility shared among organisers and sub-contractors		.910				
	Financial conditions of sub-contracts		.873				
Leadership	Competence of OC leaders			.599			
	Commitment of OC members			.560			
	Division of scope and responsibilities			.431			
Organisational culture	Support of teamwork				.839		
	Support of individual efforts				.725		
	Communication within the OC				.702		
	Organizational learning				.674		
	Information sharing within the OC				.456		
Co-operation & communication	Communication with contractors					.854	
	Communication with sponsors					.654	
	Communication with the international sport association (project owner)					.636	
	Control of contractors					.627	
	Selection of contractors					.508	
Partnership	Partnership with local authorities, the city and inhabitants						.943
	Partnership with national authorities						.444

Extraction Method: Maximum Likelihood. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations.

Source: self-editing

During the research we compared the factor values of international sporting events of East-Central European countries (Czech Republic, Hungary, Poland, Slovakia and Slovenia) and the German culture cluster (Austria, Germany and Switzerland) as well. The purpose of the analysis was to reveal possible similarities and differences in the organisation activity of an advanced and more developed region of Europe and a segment which try to close up.

According to the results of variance analysis (ANOVA) it is verifiable, that in the comparison of success factors of different segments of Europe statistically significant (Sig. 0.073) differences appeared in the case of the co-operation & communication success factor.

Table 4. Average factor value and standard deviation

	East-Central European countries	***German culture cluster countries***
Mean	0.14684	-0.20417
Std. dev.	0.12280	0.14880
N	57	38

Source: self-editing

Regarding the co-operation & communication factor the analysed East-Central European countries showed higher factor values (mean 0.147) than the events organised in Germany, Switzerland and Austria (mean –0.204). In the analysed East-Central European countries the recovery of suppliers and partners, the progressive control of their performance as well as the continuous communication with partners, sponsors and project owner require more effort from the organisers than in countries of German culture cluster.

Conclusion

Throughout the research our main objective was to determine success factors of international sporting events in order to define areas that play a crucial role in the successful organisation. The observations on the task and relation oriented success factors bear significant practical importance. The variables of success factors represent in details the existing activities as well as the tasks to development. Our findings confirmed that in the work of organisers the task oriented factors, such as the development, control and actualization of aims and activities, as well as the delivery of required resources are essential, because these areas constitute the basis of the event organization, the division of tasks and the control of activities. On the market of international sporting events the fight for the organising rights is becoming more intensive and the events are also becoming more massive and complex. In the organisation, co-ordination and implementation of events, the application of various management tools and methods are vital.

At the same time the results of factor analysis draw our attention more to the role of human factor and relation orientation. In the successful implementation of sport events the leaders and members of project team as well as the partners, contractors and authorities play an important role. The competence, commitment and organisation culture of these groups are indispensable in the effective work and in the efficient, trouble free organisation. In the preparation and implementation of international sporting events, where the deadline of the project cannot be modified and delayed, the leadership, organisational culture of the organising committee as well as the co-ordination and communication with partners, stakeholders seem to be more important than the technical dimension of organisation. Furthermore, it is reasonable, that every techniques and methods used during the organisation needs to be applied by members of the organising committee.

Consequently, they necessitate an appropriate leading, supporting culture in favour of good performance.

The findings confirm our presumption about the adequacy of task and relation oriented theory of Ohio State University in case of international sporting events. The results are also congruent with the conception of Cooke-Davies (2002b) who defined the human and technical dimension of project management and emphasized that the aggregation of the two dimensions is crucial to the realization of successful projects.

The accomplished empirical study offers us a comprehensive view about the sport event management of studied East-Central European countries and the countries of German culture cluster. In the case of co-operation & communication factor the analysed East-Central European countries showed higher factor value than the events organised in Germany, Switzerland and Austria. After evocating the content of this factor - selection and control of contractors, communication with contractors, sponsors and the project owner – the result which can seem unexpected at first is in fact not. In the analysed East-Central European countries the delivery of the required resources, assets and buildings as well as the control of the partners' work require great attention and coordination from the organizers. After the establishment and the maintenance of relations the continuous communication and control is indeed a relevant task for them. Unfortunately the signed contract is not enough assurance for the precise and punctual performance in many cases. While in the case of sport events organised in Austria, Germany and Switzerland it is not a concern for the organizers, because the state or the city takes more considerable part in the organisation, especially in infrastructural investments and developments.

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THE PLANNED DEVELOPMENT'S EFFECT ON THE PERFORMANCE IN ICE HOCKEY

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Abstract: The sports are growing everywhere in the world, so there is no other way to maintain or to increase the level of quality just the strategic planned development (GÉCZI, 2012), because thousands of specialist are working hardly on the better results worldwide. The aim of this study was to monitor the ice hockey players' physical development in Hungary since 2007, focusing the results after opening the federations' Methodical Center (MC). One can see a remarkable development during the last years in the domestic ice hockey, which is perceptible following the sport performance and results. The first step of the planned development was the reform of the curriculum in the coaches courses (from 2004 continuously) at every level, the second step was the opening our MC in 2010, where the Hungarian players and experts (coaches and officials) can develop their skills and their knowledge about the ice hockey. We examined the effect of the above mentioned procedures, comparing the national try-out test running events (10 m, 60 m, 6×9 m, 400 m, 1500 m) by the best twenty U18 players (N=80). According to the opening of the Methodical Center, we used the data from 2012, 2009, 2008 and 2007.

Key words: planned sport development, Methodical Center, testing, development

Introduction

Ice hockey is one of the fastest sports, which required condition, coordination, and also psychological and mental abilities by the players (VESCOVI, 2001). Also, ice hockey is characterized by high intensity skating, rapid changes in velocity and duration, and also hard body contact (MONTGOMERY, 1988). The success in this sport mainly depends on the player efficacy, and also on other issues, like understanding, communication, cooperation (FELTZ & LIRGG, 1998). There are also positional differences of anthropometric and fitness measures of off-ice hockey tests (BURR et al., 2008). Examined the highest level of university ice hockey (NCAA DIV I.), Peyer et al. (2011) found that the test of leg press, chin-ups, bench press, and repeat sprint performance were significantly correlated with +/− score in their study. The International Ice Hockey Federation (IIHF) tries to develop the sport in every country, as well as in Hungary. The Hungarian Ice Hockey Federation (HIHF) committed to the planned development, and tries to pick up the best practices from the big hockey countries. There is no other way to maintain or increase the level of quality in a sport just the strategic planned development (GÉCZI, 2012), because thousands of coaches, officials are working on the better results worldwide. The observer can see a remarkable development during the last decades in the Hungarian ice hockey, which is perceptible following the sport performance and results. The first step of the planned development was the reform of the curriculum in the coaches courses (from 2004 continuously) at every level, the second step was the opening our MC in 2010, where the Hungarian players and experts (coaches and officials) can develop their skills and their knowledge about the ice hockey. The MC located in a facility which has two ice rink, so all the national team programs can run without any disturbance of the normal training order of a club. MC has two main functions, firstly it can warrant the best possibility to the players of physical development lead by well educated coaches, secondly to give place of the coaching courses also the further education programs of coaches and officials.

Methods

We tried to measure the effect of the Methodical Center on the players' results, so we presumed that their physical preparation will show us significant differences. In our investigation the test value was in every case the test results of the previous year (4 years, 2007, 2008, 2009 and 2012) of the national try-out test running events best 20 records (N=80). The best 20 players' results were chosen, because the total number of the players and their preparation level had yearly big differences. In two years there were more clubs, which misunderstood the criteria of the requested players, so they sent all players they had. So the yearly 20 best results were compared to each other, and also to the 2012 year results. We used by the scientific investigation the t-test, which allowed the needed comparison of data. We searched the answer, if

the results are differently from the earlier results, before the Methodical Center was opened in 2010. The preferred data was the results of the year 2012 (we thought it was enough time to change to the right physical preparation); we compared to these data the previous year's data. All players that attended this try-out test were preselect and sent by club coaches to participate in the study, so year by year altogether 60–70 U18 players did all off-ice motor tests, and from these players' results we picked up the 20 best results of the year. The collected data was performed by 254 athletes.

The diagram below shows us the circumstance of the investigation, which database was compared to the others and which way.

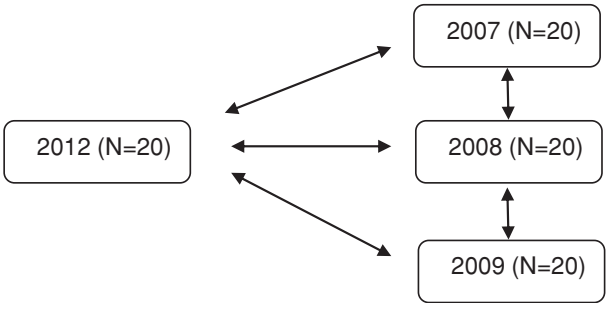

Figure 1. The database (N=4x20)

You can observe afterwards that the arrows will show us the significant difference by the tests ($p < 0.05$). If the data are not significant differ from each other, we don't use arrows.

Results

First of all, we collected the best 20 players test results by events of the national try-out test to eliminate the weak performers' results, right after we created the means of those records.

The mean of best twenty results was summarized yearly, so there were athletes who only once, but there were players who two or more times appeared in the ranking.

Table 1. The mean of the best 20 results in seconds by tests

Year	60 m	10 m	6×9 m	400 m	1500 m
2012	7,91	1,71	13,94	63,36	342,17
2009	7,94	1,74	14,81	65,13	357,21
2008	8,03	1,75	13,89	66,09	356,3
2007	7,97	1,76	13,91	64,43	351,83

The tests

60 m run test: was measured with digital watches combined with photocells to avoid the mistakes of the human hands and eyes. The coaches need to know their players' results of the 60 m run, because it is very good indicator of the athletes highest velocity by run.

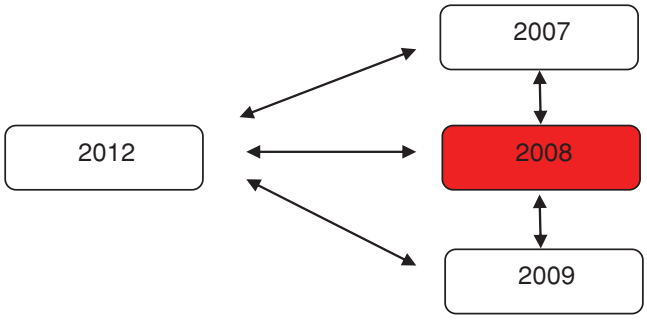

Figure 2. The result of the 60m running test

The results are separated from each other. The worst value was the result of the 2008 with 8.03s mean. The t-test values were the following ($t_{2012\text{-}2007} = 3.64$; $t_{2012\text{-}2008} = 4.43$; $t_{2012\text{-}2009} = 3.54$; $t_{2007\text{-}2008} = 4.12$; $t_{2008\text{-}2009} = 4.31$). Obviously, the 2008 years' results were in addition of the bad weather condition of the test. Also, we can recognize that the results were significantly better year by year, so the players were more and more well prepared to the try-out test.

10 m run test: measured the first ten meter of the 60m run, we got information about the acceleration of the athletes. Acceleration is a determining factor of the ice hockey players, the faster players are the better players. We used the same digital watch with the photocells on the gates than before we wrote down.

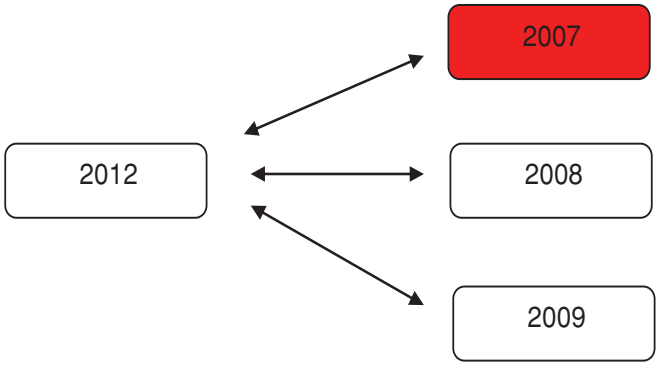

Figure 3. The result of the ten meter run

The results are not separated from each other except the result of the year. The t-test values were the following ($t_{2012\text{-}2007} = 3.452$; $t_{2012\text{-}2008} = 3.23$; $t_{2012\text{-}2009} = 3.12$), p less than 0.5 in every case. The coaches of the clubs nowadays prefer the dry-land workout as well, not only the on-ice practices. This results show that the examined players in 2012 were significantly faster than the players before.

6×9 meter run agility test

The time of the transition from one direction to another is essential factor of a good ice hockey player. Ice hockey requires adequate agility, what we can measure with this test.

The result of 2012 was significantly better than the results of 2009, also we could see difference between the results of 2009 and 2008 ($t_{2012\text{-}2009} = 3.75$; $t_{2009\text{-}2008} = 4.02$).

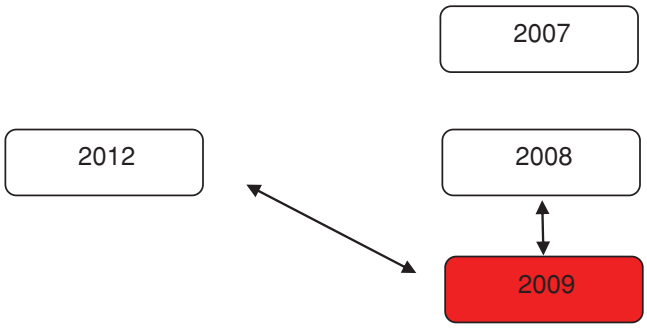

Figure 4. The results of the 6x9 meter agility run

400 meter run test: we measured in an official track and field stadium; the surface of the track was granulated rubber. By this test we didn't use the digital watch, just handy watches.

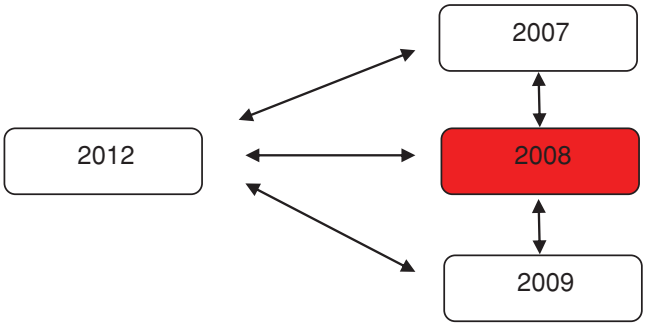

Figure 5. The results of the 400 meter run test

We can observe differences year by year. The worst results were the data of 2008, the t-test values are the following ($t_{2012\text{-}2007} = 5.01$; $t_{2012\text{-}2008} = 6.23$; $t_{2012\text{-}2009} = 4.86$; $t_{2007\text{-}2008} = 4.43$; $t_{2008\text{-}2009} = 3.93$).

1500 meter run test: 3 and 3/4 circuits on the official track was the last test of the national try-out test. We let them enough rest time before the event. The results give us information about the players' stamina and coping skills too.

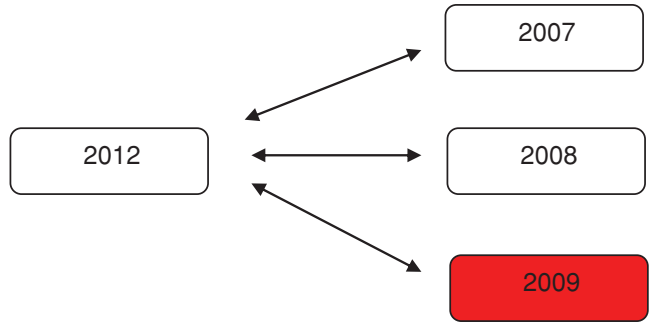

Figure 6. The result of the 1500 meter run

The results didn't differ from each other year by year, but if we compared to the results of 2012 we can see the supposed differences. In this case the results of the 2007, 2008 and 2009 are pretty similar (observing the standard deviation as well). The t-test values are the following ($t_{2012\text{-}2007} = 7.14$; $t_{2012\text{-}2008} = 7.98$; $t_{2012\text{-}2009} = 8.21$).

Discussion

The financial cost of the time on ice is very high, that is why the off-ice preparation and the checking of the off-ice work are more and more important in ice hockey. The certain tests and measurements are crucial to know the development of the young players. The practice on a track significantly influences the on-ice performance. Greer and colleagues (1992) studied the effects of off-ice training on performance measures related to ice hockey. Domer (2005) examined the off-ice speed and quickness for ice hockey, these kinds of skills provide dimension to overall athleticism. Also he justified, that the off-ice training could provide a much-needed break from the ice after a long season. Using off-ice tests to evaluate hockey players, the 40-yd sprint is the best predictor of skating performance (KRAUSE et al., 2011). Manners (2004) wrote down that strength and conditioning are crucial factors in the training programs with specific exercises;, for example balance, skating strength, power, and agility in ice hockey players. Goudreault's investigation (2002) showed that the muscle coordination patterns stayed the same albeit the velocity results in more muscle activation are increasing.

The success in ice hockey mainly depends on not only the player efficacy, but more on humbleness of the players, communication, cooperation, understanding, team efficacy and team performance (FELTZ & LIRGG, 1998). The performance of the team depends on the physical preparation of the players as well, which is measurable by the investigated tests. According to the related literature, most young players don't have the required skills and/or abilities to use psychological skills during the games (HUMARA, 2000). On elite level ice hockey requires adequate gift and talent that is assessed and developed by well-trained coaches (GÉCZI & BOGNÁR, 2004), good conditional (GEITHNER et al., 2006; GREEN et al., 2006) and coordination skills (WU, 2002), as well as tactical preparedness (CERNJUL, 1999). From these factors we measured more the conditional skills during the try-out test, but seeing the results of the 6x9 m agility run we can have information about the coordination skills too. Successful players demonstrate pretty high level of hockey sense (MARTELL & VICKERS, 2004) and good psychological characteristics (GÉCZI et al., 2008; LAUER, 2005). Besides ice hockey demands the athletes need well-trained aerobic and anaerobic energy systems and also an optimal body composition for ice hockey (GREEN et al., 2006). The test battery is adequate to examine the aerobic and anaerobic workout, so the coaches of the national teams and also the coaches of the clubs got feed-back about the stamina and dynamics of their players. The tests are nowadays very common in ice hockey in Hungary, so the development in that field is easily traceable.

Returning to our investigation, we can observe, that the results of the 2012 are differed from the other years' results. We can say that our presumed hypothesis is justified; the results of the ice hockey players show significantly the effect of the Methodical Center. The proper physical preparation will help the players to be better, and the faster, stronger athletes can achieve better results as a team at the world championships

Conclusion

According to our results, the Methodical Center of the HIHF helps the players to be better, helps the coaches to create better development. Testing, especially the try-out tests in the ice hockey are unconventional, began in the past few year. Our scientific paper about the changes of the test results justifies the necessity of the adequate dry land development and also verifies the effect of the Methodical Center on the workout of the physical preparation in the clubs. Practice needs the results of sports science, and of course sports science needs directions assigned by the practice. The practice and the science in the field of sport work for the same aim, to achieve better results, but neither can exist without the other.

Summarizing the findings it is recommended to do similar investigations with a broader sample, in more age groups or in more players. The results which were found in this examination are very useful for the Hungarian ice hockey because the physical preparation is essential to be competitive on world elite level. Coaches in ice hockey practice should know the exact method of measurements and have an appreciation of the results (GÉCZI et al., 2007).

It is also crucial in all sports to know the procedure of the scientific measurement, and to know the feedback from the players to the planned development program. The authors hope that this paper contributes some value to ice hockey in Hungary.

Ice hockey is one of the fastest team sports, requiring multiple skills and talent. A lot of years, humility, tolerance and work lie in a successful career in this sport. These kinds of players are developed in the youth programs in every country (IIHF, 2008).

The philosophy of the direction of the development depends on the knowledge and humility of those who are working in this spectacular sport. The happiness of the practice, the games and the training camps is the pedagogical tool for the coaches to develop their players, and the way for the players' successful career. Life-long learning is a basic criterion to be a very good and successful coach, and it is also a criterion for a good ice hockey player.

Ice hockey players should play in all the positions, because situations are always changing during a match, it is very important in ice hockey that the transitions of the game roles should flow continuously without any break to transform. Seeing an ice hockey match the left wing should defend on the right side, and the right defender should try to sore goal depending on the situation. For this reason, the modern development of the players is full with game role transitions, and the early period of the development means trying all the possible roles (goalie, defender, forward) in practice and matches.

At this stage the results of the games are not, but the performance of the players during the matches is important. The U18 players have different individual periods in their maturation that is why a lot of accelerated players are very depressed in the time when the less developed team mate is getting better than they are. A well educated and good coach knows the signs of these factors, and he/she is interested in all players' development, instead of achieving good results in early age (GÉCZI et al., 2007).

In sports there are a lot of athletes, who are disappointed after 6-8 years of practice who retire from elite sport, but they will be the next generations' parents or they will support the sport financially in the future if the retirement was not experienced with negative feelings. In Hungarian ice hockey the philosophical values involved are transmitted to individuals, who are playing ice hockey, not only ice hockey players. A lot of parents emphasize result but are not aware that this is secondary to players' development. If someone is very frustrated because of the result they cannot master the skills which are required at an older age and on the higher level of development. The learning of ice hockey should based on multiple and strong fundamentals, meaning that firstly the skills should develop and after that the motor skills to reach the adequate level. If the players own all the required skills and motor ability, the coaches can teach tactics and strategy for the players.

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FUTSAL FOR THE BLIND: A NEW OPPORTUNITY FOR HUNGARIAN PEOPLE WITH VISUAL IMPAIRMENTS TO GET ENGAGED IN PHYSICAL ACTIVITY

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Abstract: The proportion of Hungarian citizens involved in regular physical activity is extremely low and rates are even lower amongst people with disabilities. It is, however, undoubtedly easier to stimulate physical activity if a wide variety of different sports is accessible for them. Blind futsal was introduced by an NGO, Sports and Leisure Association for the Visually Impaired and it has been played in Hungary for only a year.

The present work, by introducing this special sport through document analysis and semi-structured interviews, aims at calling sport professionals' attention to the unexploited opportunities of adapting sports to blind people's special needs. The author also wishes to highlight the power of a civil initiative and the inmense effort people with visual impairments themselves make for improving their own sporting opportunities.

Key words: disability, social inclusion, adapted sport, football

Introduction

People who do sports on a regular basis not only experience an increased level of physical fitness, they also become more self-sufficient and are able to perform more focused efforts than before (Szekeres, Dorogi, 2002). The concept of becoming self-sufficient via sport may not make sense in all contexts. However, as regards people with disabilities, self-sufficiency, the mental and physical ability to look after yourself autonomously, is a key to social inclusion and equality. Furthermore, the means of sport raise awareness about disability and therefore contribute to social inclusion (Dorogi et al., 2006). Regarded the huge amount of benefits (physical, mental and social) that sport participation provides for individuals with disabilities, it tends to be easy to accept that 'Sports for people with disabilities are a great investment' as Dorogi et al. say (2006). Participation in regular sport activities helps the individual accept the fact of a disability, and success in sport is rewarding for the person, increments self-esteem and adds to general well-being. It is therefore important to involve the highest possible number of individuals with disabilities in physical activity. The target group's activity levels can, among other factors, be raised by providing a wide, colourful range of accessible sports which are fully adapted to their special needs. The more varied the sporting opportunities are, the more possible it is that an individual finds the particular sport which most suits his or her character, physical abilities, skills, lifestyle etc.

In Hungary sparetime sports are poorly accessible for people with visual impairments, and disability sports in general fail to have a long tradition. The concept of adapted sport is not known and widely accepted by sport professionals (Gombás, 2011), and future sport experts get no in-depth education on sport and disability (Osváth et al., 2007). As a consequence of the lack of professional attention, an extremely limited amount of literary resources tackle the field of accessible sport. The difficulties listed above are clearly explained by the historical fact that during the decades of state socialism (before the 1989-1990 change of the political and economic regime), disability was considered a deviation, for which the 'treatment' was segregation (Földesi et al., 2009).

The aim of the present work is to call sport professionals' attention to the fact that if the necessary adaptations are provided, even sports like football can be accessible for blind people. Through analysing the small amount of documents related to futsal for the blind, the article introduces the sport, which is almost unknown in Hungary. It examines how the game has been presented by visually impaired activists as a new adapted sport, and investigates challenges of spreading the game. A set of semi-structured interviews were conducted

(N=11) with players, the purpose of which was to gather practical information that serves as a solid basis when taking future action concerning the sport.

What Is Futsal for the Blind?

Terminology

In Hungary disability sports are a field full of question marks, and are almost unknown for a high number of experts. When entering this particular field one may feel uncertain about what to call it and what proper expression to use when referring to the individuals concerned. However, uncertainties concerning the most appropriate terms can be observed in numerous languages. The adapted version of football is referred to with several different terms, and it is debated which one is politically correct and which of the different terms reflects most properly the particular game. On the official website of the International Paralympic Committee (IPC) it is mentioned as football 5-a-side – the name refers to the number of team members. Similarly, the homepage of the Spanish Paralympic Committee mentiones the game as 'fútbol-5' (football-5), whereas in a Spanish-speaking video on the preparation of the best squads for the London Games it is simply named 'fútbol para ciegos' (football for the blind) (Paralímpicos TV, 2012). On the official International Blind Sports Federation (IBSA) homepage details of the game can be found under the name 'futsal for the blind' or 'blind futsal'. The prevailing rules of futsal for the blind were defined by IBSA, and adaptations are based on the FIFA futsal rules. Therefore the most precise name which also offers flexible use might be futsal for the blind. The official, though really informal sounding Hungarian name is 'vakfoci' (blind football) Debates on terminology may be endless as wording is a matter of political correctness, ethics, theory and so on, and therefore the present work cannot offer an ever best term either. It is, however, important to point out that 5-a-side football is the term that best meets the requirements of political correctness, as it determines the type of football by pointing out the number of team members, and not by focusing on the fact that players are people with a certain disability. On the other hand, a weakness of the term is exactly the fact that it communicates no additional, clear information about the game and why it is special.

The History of Blind Futsal

Although football is played with long traditions all over the World, futsal for the blind is a new adapted sport. The first World Championship took place no earlier than 1998 in Brazil. The following milestone was the recognition of the sport as a paralympic sport at the 2004 Paralympics in Athens. The most successful squads are those of Brazil, Spain and Argentina, however, at the 2008 Beijing Paralympic Games China won the silver medal in the finals.

Rules

The game is played by two teams, each with four outfield players and a goalkeeper. Differently from football played by sighted people, matches are played with no throw-ins and no offside rule (www.paralympic.org). Several conditions must be met in order for the game to be accessible for blind users:

1. Ball: futsal for the blind is played with a regular football with a sound system, e.g. tinny metal balls or bells located inside it.
2. Rebound walls: The game is played on a rectangular pitch of 40X20 metres and the two touch lines (the longer boundary lines) are marked with rebound walls which extend one metre beyond the goal lines on both sides and both ends of the pitch. The rebound walls are 1-1,2 metres tall and fulfil multiple functions: on the one hand, they help orientation. Moreover, the rebound walls provide safe playing conditions for the blind players. The height of the rebound walls is crucial: a smaller size would be extremely dangerous as the players might fall over it. Higher rebound walls, however, would hurt players' face or head knocking to them and would also modify the acoustics of the pitch. Last but not least, the rebound walls must be strong enough to remain solid even if players of higher body mass bang to them with great impetus.
3. Equipment: accidents in blind futsal do not occur with outstanding frequency. However, beginner teams report more injuries. In order to prevent injuries on the head, players may optionally wear a protective headband.
4. Sighted guidance: blind players' orientation on the pitch is promoted by sighted team mates. One of them is the goalkeeper who may also act as a guide. The goalkeeper is either fully sighted or partially sighted. Although according to the IBSA rules the goalkeeper may be a low-vision (B2) player, experience shows that most B2 players do not have a visual acuity that would enable them to be goalkeepers. A further important member of a team is the guide or caller who is standing behind the opponents' goal. The guide's duties are to signal the position of the goal and to instruct offending players of his or her team. As the composition of teams shows, futsal for the blind is actually an inclusive game, played by sighted and non-sighted people together.

Futsal for the blind in Hungary

A civil initiative

As mentioned in the introduction, the vast majority of Hungarian sport professionals are far from being well-informed about adapted sports. As a consequence, the sports which are considered accessible and appropriate for people with visual impairments are the ones perhaps know from press and media: judo, tandem biking and goalball (a game images of which many Hungarians have come across but have no idea what to

call). This limited list of options is definitely unsatisfactory for the people involved. The initiative of arranging regular blind futsal trainings was taken by blind and partially sighted members of a non-governmental organisation, Sports and Leisure Association for the Visually Impaired, LÁSS. Since it is an adapted sport played by a minority group, namely people with visual impairments, the questions the pioneers had to find answers for were of various natures:

1. Are there any coaches in Hungary who are open and enthusiastic to start working with blind players, and who are also willing to face the challenge being aware that no professional guidance from experienced coaches is at their disposal?
2. Since blind futsal is not only unfamiliar to sighted people but also to people with visual impairments, what is the most effective way of spreading information about the game and recruiting players?
3. What are the rules of the game and how could the team get in-depth information about how matches are played in real life?
4. Is there a football pitch that fulfils all requirements of the adapted sport, so is equipped with rebound walls and is suitable in size?
5. Where can special bell balls be purchased?
6. How can the team find volunteer sighted goalkeepers and callers?
7. Most importantly: what resources can the costs of the coach and the special pitch be financed from?

As a result of several months of research, the instigators of the Hungarian blind futsal project discovered that blind futsal coaching and refereeing seminars were held in Telki (Hungary) in 2010 in the framework of the IBSA Futsal Development Project Europe. The project is supported by UEFA and at the Telki seminars representatives of six Central and Eastern European countries got a first insight to the game (IBSA Futsal Technical Delegate). It must be noted that information on the Hungarian seminars was scarcely spread, and the news in Hungarian did not reach the target group at all. However, an English summary of the seminars published on the IBSA futsal technical department website lead the LÁSS team to one of the participants of the Telki seminar, their future coach, Richárd Benedek. The weekly trainings were started in the gym of the Kindergarten, Primary and Vocational School for the Blind (Budapest) in the Spring of 2011. Being much smaller than a futsal pitch and lacking rebound walls, although the gym was perfect for a start, it was incompatible for playing matches. Therefore, the first months of the training were dedicated to practising kicking techniques and to developing players' spatial orientation.

A further step towards real blind futsal was taken, when the team started training on an outdoor futsal pitch at the beginning of 2012 with the financial support of the Hungarian Football Federation, MLSZ, and the UEFA Grassroots Programme. Playing on the pitch meant new challenges to face for the players:

- as the pitch was significantly bigger than the gym, further progress in orientation was essential,
- a more focused endurance training proved to be necessary, as players quickly got tired of the increased distances they had to run,
- due to the increased distances among players, the goal and the guides, and the different acoustics of the outdoor pitch, players needed time to get used to the new auditory conditions,
- team members had to learn to cooperate, define roles and communicate more efficiently in the open space,
- the coach was facing the challenge of creating exercises through which blind players' safer and more self-confident movement on the pitch could be achieved.

Interviews with players

Data collection

As a part of investigating the status and future perspectives of futsal for the blind in Hungary, semi-structured interviews were made with the whole population of players (N=11). It is clear that data gathered from such a small sample may serve merely as the fundament of further comprehensive empirical research. Players' answers, however, call for the importance of spreading blind futsal in Hungary and, in the broader sense, for creating new sport opportunities for people with visual impairments. The interviews were conducted with the aim of gathering information on

- players' motivations for getting involved in the sport,
- challenges they face as pioneers of futsal for the blind in Hungary,
- benefits of joining the team.

The sample

As for their age, all respondents are between 18-35. 10 players were male, 1 female player takes part in the trainings with varying frequency. All respondents live in the capital city, Budapest, or in the agglomeration. As for their visual acquity, 5 players are totally blind (B1), 5 low-vision (B2) and there are no partially sighted players in the teams.

Results

Respondents take part in trainings with varying frequency, 6 of them take part in almost all weekly trainings, 4 reported to appear on the pitch on average twice a month, and 1 respondent on even less occasions. As for their motivations, differences can be detected among congenitally blind players' answers, and those of players who used to have better visual acuity. A congenitally blind player explained:

'Independently from being sighted or blind, children like running around and are attracted by balls. Football is therefore the most natural sport for them; it is not an artificial thing like golf or goal ball (a ballgame invented for blind people). When I was a child, we used to play football

with my blind classmates. We had no bell ball, so we simply put the ball in a plastic bag the noise of which could be heard during playing.'

Players who used to see perfectly or much better than at present, with no exception say that as they loved to play football in the past, the opportunity to play again overwhelms them. A respondent however also expressed his disappointment saying:

'I'm glad I can play again because I love team games. But I must admit that when I started playing futsal for the blind, I was really shocked and disappointed how hard it was – I often didn't find the ball or kicked in the air, and the game in general is much slower than sighted football.'

Players without exception stressed that futsal trainings are a perfect time for socializing: 'The trainings are a great beginning of the weekend. Meeting my friends and teammates helps me forget about the problems at work and so on.' Another respondent points out: 'I knew most of the guys before, but playing together is what has made us friends.' 'Football for the blind is so new in Hungary, that most blind people haven't heard of it, not to speak about sighted people. That's why it is our joint task with the guys to make it more popular, to advertise it I could say. And this is something the team can do and not individual players.'

Among the greatest challenges they mention orientation on the pitch:

'Players are moving around, often not slowly either. You really need to concentrate where you are and yes, sometimes we are lost if we don't concentrate.'

A further challenge is getting used to being blindfolded. According to the official IBSA rules, blind (B1) and low-vision (B2) players, meaning those who have some sight, should play in separate teams. However, in many countries, e.g. in Germany and Hungary, the two categories play together due to the low number of either totally blind players or players in general. It means players who use their sight in everyday life must learn to move on the pitch without seeing.

'It's really hard' says one B2 player 'and I'm not as brave as B1 guys. But the game is only fair if no one can see.'

When asked about the reasons for choosing futsal, visually impaired players' answers are supposedly not significantly different from answers which sighted players would give: 'I love playing in a team. I find sports like running really boring as there's no tactique or nothing, it is just a monotonous movement. In football you need to think and cooperate with your team.' However, answers show that for players with visual impairments there are additional benefits: 'Yeah, it's sometimes hard to get orientated on the pitch as it's so huge. But I'm sure in the long run this can help blind people's orientation in the street, too.' Another player stressed: 'With a white cane you must be considerate, you can't hurry in the street as fast as you want. Now on the pitch, of course you shouldn't run over the others, but you can finally move more freely.'

Discussion

In Hungary blind futsal is currently played on a regular basis only in Budapest, the game is not played in other parts of the country yet. LÁSS, with the moral and financial support of the Hungarian Football Federation, is making efforts to introduce the game all around the country. In the Spring of 2012 blind futsal festivals were organised in Szeged and Budapest, in December 2012 in Debrecen, and further similar events are foreseen in the Spring of 2013. Although the festivals give participants a taste of futsal for the blind and also serve purposes of popularising the game, it can only have a strengthened status amongst blind sports in Hungary if the number of players and that of regularly training teams is multiplied. Lacking opponents, the currently existing 2 teams cannot improve as much, as if training matches with various squads were available for them. An outstanding obstacle in spreading the sport is the high cost of constructing or renting football pitches with rebound walls. Moreover, the number of suitable pitches is quite low and many of them are located in distant, for blind people poorly accessible places. Since finding a suitable pitch is problematic in the capital city, it may nevertheless be even more of a challenge in the countryside. Finally, the necessity of trained coaches must be emphasized. As Nádas (2003) investigated, the number of qualified trainers amongst those working with people with disabilities in sport is remarkably low. Experts have no information and specialisation on how to train people with disabilities, and therefore many of them would never get engaged in disability sports. Futsal for the blind, as well as other adapted variations of football (e.g. powersoccer for wheelchair users), should be introduced to future coaches during their studies. Blind futsal cannot become widely acknowledged without sport experts' moral and professional support, therefore all possible platforms must be used for calling the attention of stakeholders, coaches, P.E. teachers to the importance of widening the perspectives of disability sports and, in particular, to the fact that adapting sports has almost endless prospects.

Conclusion

Engaging in regular physical activity improves people's quality of life. Futsal for the blind provides players new social contacts, a great amount of unforgettable experience and, of course, increased physical and mental fitness. Several players of the two Hungarian teams report that no other sport has ever been as attractive for them as futsal. It is worth pointing out that although the Hungarian teams appeared in press and media on several occasions, according to the paralympic news published on the HPC homepage on July 23, 2012, the Hungarian Paralympic Committee is unaware that futsal for the blind is regularly played in Hungary. It is therefore essential that the sport and the squads get more publicity, as a pillar of the sport may be the extent to which it is recognised and supported by public bodies. It is also remarkable that the

number of members with visual impairments in the Hungarian paralympic movement is decreasing. The reasons for the decline are definitely numerous and of a complex nature. It is, however, worth considering that attention paid to new adapted sports, futsal for the blind amongst others, may boost blind sports and as a consequence, a new talented generation with visual impairments may be able to prove their capability on both national and international scenes.

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A STUDY INTO THE AWARENESS AND ACCEPTANCE OF UTILIZING VINE BRANCHES IN THE MICRO-REGION OF GYÖNGYÖS

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Apstract: Every year, a significant amount of renewable dendromass is generated in Hungary. Various possibilities have been recognised by today that are not widespread yet. The greatest obstacle is frequently derived from the lack of the farmers' knowledge as without having the required knowledge obtained they can become distrustful or adequate efficiency will not be achieved during utilisation.
In order to improve the rate of utilisation, targeted information methodologies should be applied that comply with the farmers' knowledge. In this present study, the awareness and acceptance of vine-growers from the Micro-region of Gyöngyös related to the use of vine branches will be analysed based on the results of a questionnaire survey.
The survey was conducted in accordance with the number of wine-community members in personal interviews. The questionnaire contained questions about the farm, the use of vine branches as well as about the farmers.
Based on the results, information was obtained on the reasons for the use of by-products not being wide-spread among farmers as well as on the sources of information obtained. For the fragmented farms which are typical here it is important to know whether by-products are not utilised as it is not how they can be used or whether the vineyard is cultivated by others therefore the farmer lacks machinery. The level of acceptance was also studied by asking a question on the possible offer of the by-products for greater-scale site.
Our intention is to assist the generally badly off farmers to use the annually generated by-products in a reasonable way. This can be realized by various ways of providing information. By applying the results of the survey, adequate methods and knowledge can be provided for farmers.

Key words: renewable energy sources, vineyards, use of by-products, questionnaire survey

Introduction

It is extremely disadvantageous for Hungary from both energy security and climate protection considerations that more than 77 % of the fossil energy demand is covered by imported energy sources. The renewable energy production is very low, representing only 4.1% within the full energy consumption in 2005 and this figure was mostly achieved in an environmentally unsustainable manner (NÉS 2005). In the meantime, a significant amount of renewable energy, especially dendromass, can be obtained as a by-product from agricultural activities the present utilisation of which is not significant either and for most procedures it is limited to some reference plants only. The further higher scale of utilisation requires having ecological, technical and economic pre-conditions established (Kacz and Neményi 1998). However, the simple energy consuming nature of agriculture cannot be accepted. Therefore, an energy-producing agriculture should be established opening a new era in energy production (FVM 1999).

Energy supply based on local resources and structures results in energy security and lower exposedness. The use of by-products generated can facilitate a decrease of costs or even a small increase of incomes for those making their living from this sector as well as cut down the lack of capital for other potential biomass suppliers e.g. municipalities (Pintér et al. 2009).

In the country's different regions, with various physical and economic endowments, various crops are grown at a larger scale. After having them surveyed, the potential methods of utilisation should be specified as well as acceptance levels among farmers should be acquired.

Methods

Vine-growing is a characteristic agricultural activity in the Micro-region of Gyöngyös located at the southern foothills of the Mátra Mountains in which one of the highest rate of wasting energy is observed when the resultant vine branches are eliminated unutilised after grape pruning. Some initial efforts can already be witnessed for its utilisation which cannot be regarded as wide-spread. To achieve this, a new methodology should be elaborated prior to which, as a first step, knowledge about vine-growers, the endowments and the machinery fleet supply of their vineyards should be acquired.

Such information along with the level of the awareness about and the acceptance of the various methods of utilisation were gained by conducting a questionnaire survey (Baros 2004; Patkós and Baros 2004).

200 questionnaires were completed in accordance with the number of wine community members in the Mátra wine region. The questionnaire contained questions in three topics: the farm, the use of vine branches and the personal data of the farmers.

The questionnaire's most specific section is the analysis carried out about the use of vine branches, therefore it was further segmented. Vine-growers are expected to neglect utilisation for three reasons. In case of having inadequate information it is possible that they have not been informed about either this possibility or about its implementation yet. Another possibility is that farmers draw false conclusions from adequate information or they have negative experience. In the meantime, it is not always the vine-growers who cultivate their vineyards, machine cultivation is carried out by suppliers as farmers lack the machinery required.

Carrying out a further analysis of possibilities, it was expedient to study whether their machinery supply is correlated to the size of vine-yards. The methods for analysing the strength of the relationship by applying SPSS were as follows:

- Pearson's Chi-Square Test,
- Sequential Probability Ratio Test,
- Linear Relationship Analysis;

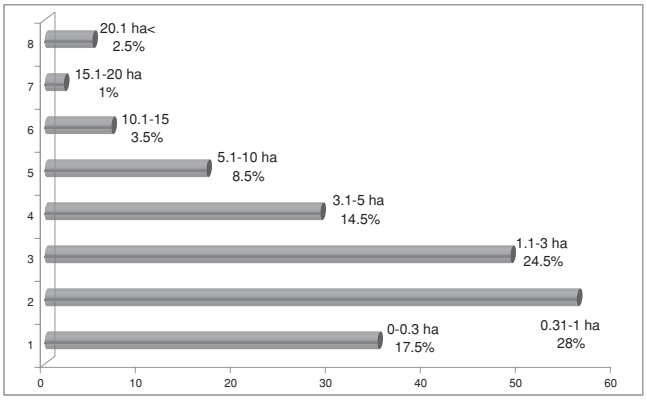
Results

At present, most of the vine growers in the Micro-region of Gyöngyös (51.5%) burn the vine branches at the edge of vineyards heavily polluting the environment. In a similar proportion, vine branches are returned to the soil even if farmers have to assume its extra costs. The number of respondents storing vine branches without elimination as they do not intend to pollute the environment and consider grinding harmful is insignificant (4.5%).

Mechanical works in the vineyards are carried out by suppliers in the micro-region (141 respondents), which primarily results from the structure of land being fragmented with vine-growers owning vineyards of the size between 0.1 and 5 hectares in most cases. 28% of vine-growers own only between 0.3–1 hectares of land (Figure 1). From the economic point of view, the wide-spreading of new technologies is greatly impeded by this as with such farm sizes the establishment of the machinery required is not possible.

However, the burning up of vine branches is not undertaken by all suppliers thus the task remains for the vine-growers, which results in a vulnerable situation in small-size areas.

Table 1 indicates the results of the analysis into the relationship between vine-growers' available agricultural machinery and the area of vineyards. The value of 26,286 Chi square at 0,000 fault is significant, which means that the relationship is accepted with a fault lower than 0,000×100=0,0%.



Source: Based on the results of questionnaire survey. (n=200)

Figure 1. The size of the respondents' vineyards (%)

Consequently, the larger the size of the vineyard is, the higher the likelihood of owning agricultural machinery is. This can be explained by the fact according to which for farms with an area exceeding 10 hectares, machinery cost paid to the supplier is so high that it is worth establishing a private machinery fleet, and also the incomes are generated that can cover the costs of purchasing machinery. On the other hand, with the increasing size of farms, time demand is proportionally higher, which means that permanent employment opportunities are created for the farmers.

Table 1. The results of the Pearson's Chi-square test

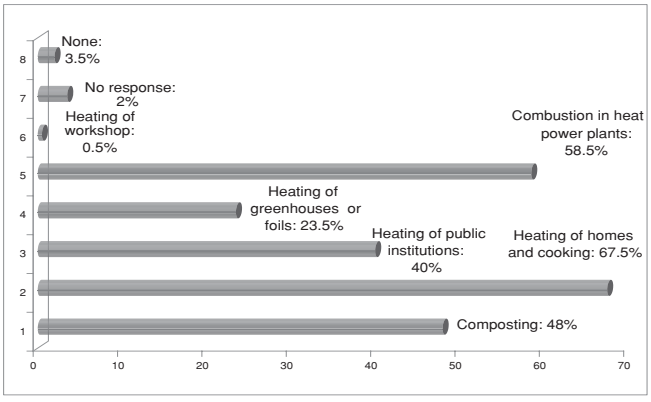
Categories	Value	Diversity factor	Level of significance
Pearson's Chi-square	26,28	2	,000
Probability ratio	24,898	2	,000
Linear relationship	26,084	1	,000
No. of valid cases (N)	200		

Source: Based on the results of the questionnaire survey. (n=200)

As indicated by the result on the vine growers' knowledge about the use of vine branches, 96% of the respondents have heard about some type of utilisation (Figure 2). In most cases, it is related to the heating of homes (67.5 %). This option was also selected by members from older age groups as they also used to carry vine branches to their homes.

Due to the various sources of information (TV, radio and printed press), 58.5% of respondents have already heard about vine branches burned in heat power plants whereas 40% were aware of its use in public institutions. Only 23.5% was familiar with using it for heating green houses or foil houses. Another way of utilisation, i.e. the heating of a workshop was chosen by one respondents, aiming at such utilisation.

In many cases Respondents, despite not knowing about the possibilities of utilizing vine branches, are informed that it is collected or transformed into some other status (Figure 3). Companies selling cubes arrived at some wine communities and carried out experimental baling for which vine-growers were also invited. This explains why 63.5% of farmers heard about vine branch balers. Nearly 50% are aware of chips and

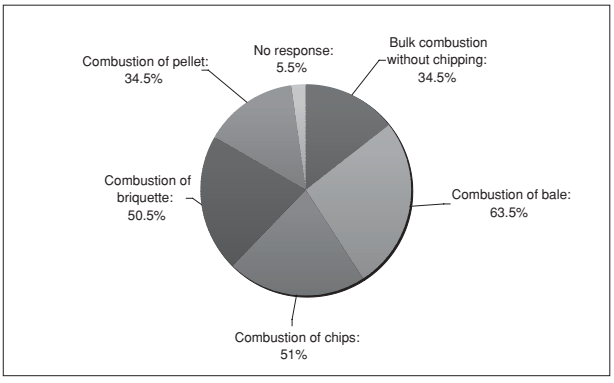


Source: Based on the results of the questionnaire survey. (n=200)

Figure 2. The level of knowledge on the methods of utilising vine branches (%)

briquette production whereas pellet production is somewhat less known (35%).

After the responses on the farmers' knowledge were received, questions were asked about their opinion about the use of vine branches. The majority of them associated it with the protection of the environment (68.5%) and, in addition to this, it is regarded as cheap energy resource (62.5%) and assume that it may be an applicable alternative in local energy production (57%). According to 45% of the respondents, this might have a high investment demand and the technology is also judged to be underdeveloped (39.5%). They assume that financial support should be provided for such implementations (43%). Some of the respondents also indicated that workplaces can be created, however political decisions were not found necessary.



Source: Based on the results of the questionnaire survey. (n=200)

Figure 3. The level of awareness of the use of vine branches (%)

The questionnaire survey ended with an analysis into the level of acceptance of utilizing vine branches. According to this, in case a plant utilizing vine branches was located in the respondents' neighbourhood, 84% would supply it. Significantly fewer people, 4.5% indicated the opposite. They are not opposing the idea itself, but they intend to utilize it independently in the future.

Some vine-growers would hand over the vine branches provided no additional cost arose and also consider it important to have the vine branches taken away from the vineyard as soon as possible. Otherwise they will not be able to launch the required springtime field work in time.

Conclusions

As indicated by the results, vine-growers, despite most of them representing older age groups are generally well-informed and are open to innovations. However it is also observed that the majority of them own small vineyards frequently not cultivated by themselves. Consequently, it is not worth establishing an own machinery fleet to utilize the vine branches. However, they are open for such utilisation. The arising problems are related to the organisation of tasks and the additional costs of implementation.

In the future, it is expedient to analyse bipolarity regarding the number of vineyards and the sizes of farms from the point of view of logistics. Thus, the steps of implementation should be planned in accordance with such findings.

In case the majority of land is owned by only some farmers, the vine branches generated can be collected by their own machinery fleet and can be transformed into a usable status. Small farmers can easily be convinced through personal discussions.

When lands can be segmented to small parts, tasks should be organised and implemented by suppliers. Such farmers can be informed by posting flyers, using loudspeakers and information evenings, among others.

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THEORY AND PRACTICE IN THE MANAGEMENT OF UNIVERSITY CHAMPIONSHIPS ORGANIZED IN HUNGARY

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Abstract: After the 1989-1990 political changes the aim of the Hungarian University Sports Federation was to follow its traditions of nine decades in foreign policy as well, therefore the organization of international competitions in Hungary was promoted. Up to now the study of the management of these international events was neglected in the Hungarian scholarly literature, although all university sporting events held in Hungary were successful and they were highly appreciated internationally. Taking the example of three university world championships hosted by Hungarian towns, the *objective* of this paper is to analyze how the management succeeded to solve the major tasks of the organizational work and how some management theories were implemented in its activity. In order to collect data the following *methods* were used: analysis of documents, in-depth interviews and participant observation. The *results* are presented on the basis of some theses of the event planning theory, the event management theory, and the situational leadership theory. More specifically, the issues of motives-decision-actions, consistency- coherency- harmony and these of the quantity indicators of event organization in connection of the three underscored world championships organized in Hungary are discussed. In *conclusion* it is stated that in the management the situation theory had to be taken into consideration the most in the leading process. It was proven that despite preparations lasting often for several years and expanding to every detail of requirements, the flexibility of the management was crucial to search and to find response to every critical situation.

Key words: organizing competitions, event planning theory, event management theory, situation theory

Introduction

Every experienced leader can verify that throughout their work they "dealt with uncertainty," and with the "essence of leading process" according to Thompson (Hanson, 2009). Because of the factors of uncertainty the decision-makers cannot foresee the potential success of a certain initiatives. Although the successful leading processes, the mechanism of problem-solving and decision-making has intrigued the experts since the beginning of scientific study of management, the study of the variable situations and their effect on successful management was put in focus only by modern management theories. According to Hanson (2009) the modern leadership theories explain the variable and situational nature of leadership as the key of the process. In this study I will analyze the management of three Hungarian organized championships through the above mentioned point of view.

After the 1989-1990 political changes the aim of the Hungarian University Sports Federation was to follow its traditions of nine decades in foreign policy as well, therefore the organization of international competitions in Hungary was promoted. Up to now the study of the management of these international events was neglected in the Hungarian scholarly literature, although all university sporting events held in Hungary were successful and they were highly appreciated internationally.

Taking the example of three university world championships hosted by Hungarian towns, the *objective* of this paper is to analyze how the management succeeded to solve the major tasks of the organizational work and how some management theories were implemented in its activity.

Methods

In order to realize the objectives of the paper a research was carried out with the help of the following *methods*: analysis of documents, in-depth interviews, and participant observation.

Documents in connection with the organization of the given three world championships, precisely: the dossier of candidature, the minutes of Organizing Committee' s meeting, the reports by the different sub committees and by the referees were analyzed from the perspective of the theoretical foundation of the managerial work.

In-depth interviews were made by key persons in the management (n=5), leaders of sporting delegations ((n=7)

and athletes (n=8). The guidelines of the in-depth interviews focused on what experiences of the interviewed persons got in the events concerning the activity of the management.

Participant observation was possible because the author of this paper was involved in the organizational work of all three examined world championships as a high level sports officials in Hungarian University sport, and, in this capacity, he was member in several decision making bodies related to the world championships held in Hungary.

World Championships for Students

The Status of World University (College) Championships

Since the beginning of the last century universities organized international sports events. Hungary not only participated in these contests but also held the 1935 World University Games (equivalent to present-day Summer Universiade). From 1959 the different university sports venues were organized under the International University Sports Federation (FISU). After creating a unified competition program and regulations in sports the International Olympic Committee recognized the FISU among other worldwide acclaimed sports organizations. By taking into consideration the length of the academic year the Summer and Winter Universiades are organized biennially. While the aforementioned games are organized in every odd year, the World University Championships in every even-numbered year. As a sports federation, the FISU has shown unique development for the past sixty years as an organization and also by the success it achieved during this time.

Member countries in 2010 was 157 (Figure 1.) In 2011 10.622 participants were registered at the Summer Universiade in Shenshen, China. In 2013, in Kazany, Russia the participants of the 27 championships will reach the number of the olympians of the London Summer Games.

While the 1962 World University Championship with its single sports program produced only one winner among the 98 participants, in 2010 six thousand students could contest in 27 championships. (Figure 2.)

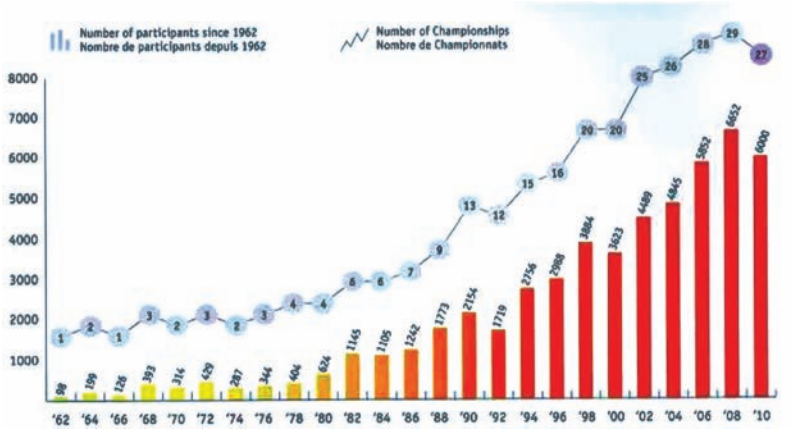

Figure 2. The number of participants and the number of championships of World University Championships through the years (FISU WUC statistics, 2010)

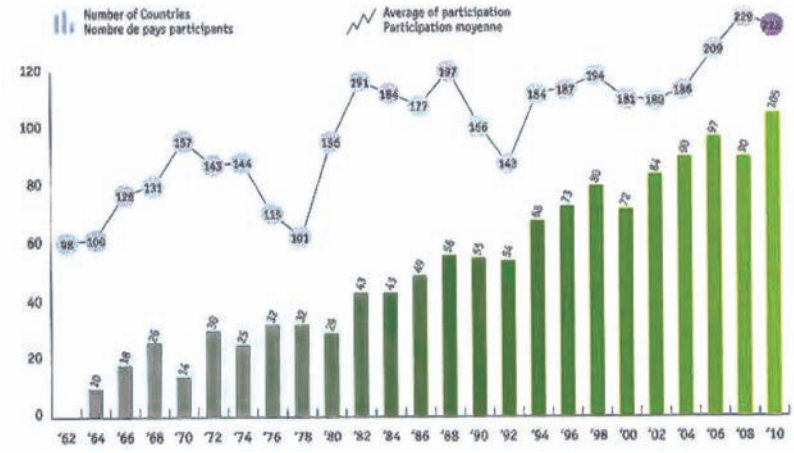

Figure 3. The number of participants countries at the World University Championships through the years (FISU WUC statistics, 2010)

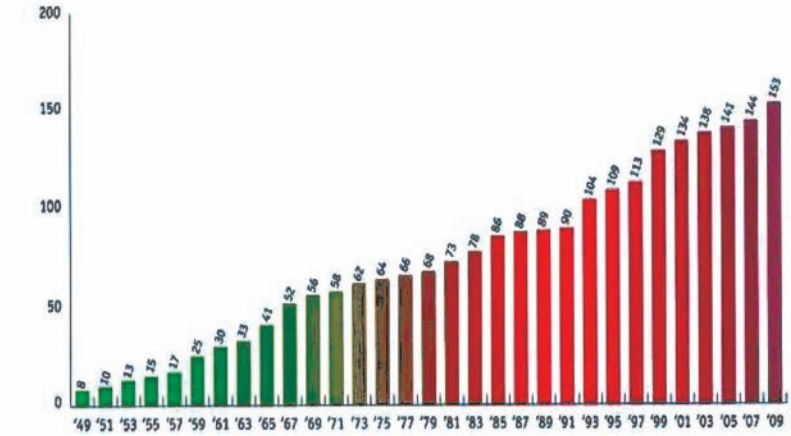

Figure 1. The number of member countries at FISU trough the years (FISU WUC statistics, 2010)

Until the mid sixties the number of participant countries did not exceed twenty, in 2010 their number reached 105. (Figure 3.)

World University Championships organized in Hungary

Since 1986 Hungary won the rights to organize ten WUCs in seven sports program that were held in seven university towns all over the country. Nine of these championships were coordinated by the HUSF including the active engagement of the author of the present paper.

In the period of 1990–2010, by taking into consideration the specific sports requirements, the aforementioned championships were organized among varied political and economical environments but with a fairly optimal infrastructure and circumstances. For the better comparison the topic of my analysis is the organization and management of the World University Championships in three championships: Men's handball 1996, Futsal 2002, Men's and women's handball, 2010, held in Nyíregyháza and in other towns of Szabolcs-Szatmár-Bereg county. I used multiple methods for data collecting through this research including document analysis, qualitative interview techniques and participant observation. (Table 1.)

Table 1. Championships in Hungary

Championships in Hungary		
Orienteering	1986	Miskolc
Table tennis	1990	Szekszárd
Men's handball	1996	Nyíregyháza
Orienteering	1996	Veszprém
Triathlon	2000	Tiszaújváros
Futsal	2002	Nyíregyháza
Table tennis	2004	Győr
Table tennis	2006	Szeged
Men's - women's handball	2010	Nyíregyháza
Rowing	2010	Szeged

Results and Discussion

Motivation – Decision – Action

The management including the classic theoretical theses of event organization can be found in every initiative. The HUSF motivation came after the successful organization of the first championship – the 1990 Table tennis WUC in Szekszárd. The decision about organizing a handball championship in 1996 was influenced by the fact, that the game was highly popular in Hungary, and also by the possibility for student players of the "B" team to compete on an international venue. In the process of choosing the locations the presence of sports-infrastructures, the ability of housing the participants, the receptivity of the county and city councils and the local popularity of the games were taken in consideration. The increase of tourism in the given regions moreover the further popularization of the games and the entertainment value were among the aims, too.

While in Szekszárd the theoretical and practical background were insufficient for the necessary tasks, not to mention the lack of time the organizers had (only seven months), contrary to the other venues where the events were arranged in harmony by the international standards regarding the time and other requirements. The responsibility and professionalism of the Organizing Committee of the Table tennis WUC proved that with enough motivation from the local institutions, the support from the University of Pécs's departments connected to social sciences can help us to overcome every unexpected situation no matter how high the requirements are (Hédi, 2007).

In December 1993 for the first time in the post-communist block the FISU Executive Committee meeting was held in Budapest. This not only served the long term interests of Hungary and university sports but also helped the country and the HUSF to be internationally acknowledged. We ought not to forget the importance of the openness and interest the western world showed towards our country during the years of the political changes in Central-Eastern Europe. In the course of granting the applications the FISU uses – though not officially – the following factors: the international rankings of the specific sport, participation in world championships, the activity and less importantly the success. In the above mentioned games (handball and futsal) the Hungarian teams participated two times with different levels of success in the World University Championships before the games were organized in Hungary. For several decades the Hungarian university sports have been greatly acclaimed internationally thanks to the participation and activity in these world championships.

In every case the same international norms and criterions are to be followed when picking candidates, so I am only going to mention the necessary state support, the professionalism of the sports associations, the declaration of the towns and universities about hosting the events, the other sponsors that cover the necessary costs.

The HUSF was a main actor in submitting the necessary applications. All three applications were granted by the FISU that proves the high professionalism of the HUSF even amongst the Sports Federation's ever increasing requirements. Looking back now, the last presentations were only formalities before making last decision about the organization of the championships.

Consistency–Coherency–Harmony

Due to limitations on extension I cannot aim to explore and present every temporal and spatial process of the organization in a detailed manner. All the Organizing Committees of WUCs held in Hungary came into existence, operated and functioned as an organization in the classic sense. Organizational culture in its context – according to Bakacsi – "…is not more than the conviction of collectively interpreted assumptions and values accepted by the members of the organization…" (Bakacsi, 2004.)

The structure of the Organizing Committees (OC) was developed in accordance with smaller or bigger variances and common event organizational principles, but primarily by taking into account the pronounced tasks (Nyerges and Petróczi, 2007). (Figure 4)

Variances and the pressure for change laying on an objective basis were evoked by the awaited number of teams, the emphasis shifts arising due to the new expectations of the international organization and last but not least by the changing circumstances and possibilities.

Figure 4. The common structure of Organizing Commitees (Source: Nyerges, M.-Petroczi, A. 20007)

According to Mintzberg (2009) the planning of organizations and the success of the organization itself may depend on consistency, coherency and on the harmony between natural structures.

The main aim of the structure is to harmonize the divided work. According to Drucker's idea the test of an organization's strength is whether it is capable of bringing out more from a human being than he seems to be able to do and whether it can bring forth his hidden talents in order to help others in evolving their abilities. These principles predominated during the formation of the organizing team, the preparing of scope of activities and the detailed lay. The organizing committees held meetings regularly from their establishment on, according to determinate schedule.

In case the OC is considered as an organization possessing an independent function and goal – and we attempt to do so – then from the five configurations set up by Mintzberg we found simple structure and adhocracy the most representative. (Figure 5.)

Name of event	Handball men, WUC 1996	Futsal UWC 2002	Handball men and women WUC 2010
Characteristics of configuration	SIMPLE STRUCTURE		ADHOCRACY
Main tool of coordination	Direct supervision		Mutual adaptation
COMPOSITION OF THE STRUCTURE			
Training	Significant		Significant
Formalization of behavior	Organic		Less formalization, organic
Planning and controlling system	Few		Moderate
Tools of contacting	Few	Moderate	Numerous
COMPOSITION OF THE SITUATION			
Technical system	Simple, does not control		Complex
Authority	Control of the first leader		Professional control

Figure 5. Characteristics of configuration of three University Championships according to Mintzberg

Quantity Indicators

In case we consider the classical ratio of quantity indicators of event organization – from planning to closing – according to which preparations require 60% input, the event itself 30% and tasks connected to windup 10%, based on our experiences it has been proven true. True, this does not indicate either the quality of work, or the amount of time and the effective organization of the competition, that is concentrated, expanded to every detail and cannot be contrasted (Nyerges and Petróczi, 2007).

At the analyzed events the leadership of the OC paid special attention to the main tool of coordination that is training. During this the range of tasks, temporally and spatially strictly defined of every group, was expounded and worked out. During the preparation of an event the tasks more or less altered in several cases and the presumed most optimal solution was chosen in every occasion according to the given situation. In this respect the smallest so called "input" was required by the fields of sports professions, as the organization went in accordance with the regulations and rules of international associations. Even the necessary modifications could only be implemented according to planned, announced and approved screenplays. The accomplishment of directions connected to health care, to the criteria of accommodation and to security guidelines happened similarly. In this segment the handling of volunteers and protocol tasks received special attention. Although the latter: the reception, accommodation, service of Hungarian (national, local, supporting circles) and international (officials, invited guests) VIP, and providing their programs, required flexible approach, creativity and exceptional attention, beyond the – in many cases strictly regulated – plans. Based partially on earlier acquired national experiences and last but not least on the international experiences, the involvement of volunteers on a higher level in the completion of tasks proved to be emphatic and indispensable. As a result of selecting and preparing trainings lasting for several months the work of the "strategic head" was helped by a team that was prepared professionally, knew local circumstances and culture, spoke the given languages on a high level and were committed to success.

Besides the above mentioned tasks, coordination was conducted by the supervision of the organizing committee and the upper leading control in the cases of the WCs of 1996 and 2002. Besides the well-prepared "operative seed" (leaders of the groups) only this leading method could fully guarantee the responsible solution of unexpected situations. In many cases the strategic head's direct intervention was needed due to the complex situation possessing several altering factors. From the several examples, we can mention here the situation in December 1996, when the journey of two teams to a venue in the countryside was withheld by an unexpected snowstorm. Even the available information and tools, the many outlined variations and methods proved to be insufficient for the proper solution at the venue. The final decision of the leadership was the applying of two power-type snow-sweepers, which were re-arranged from other, severely affected territories of the county. Contests were played with a slight delay, but according to the

program of the world championship. We can also mention the case of those competitors who were Europeans but came mainly from Islam countries, and who, after their late-night arrival, according to the decision of their leaders, did not occupy their appointed rooms at the accommodation. The decision was justified with the unacceptability of coeducational shower rooms and toilets at the end of the corridor of the college dorm, which were then common besides the double-bed rooms. Due to extension limitations we cannot go into details concerning the numerous consequences of this, starting with transportation through meals to security measures, not to mention the financial aspects of all of these. Despite its complexity, the situation could only be solved with a decision made by one person and as a result the members of the mentioned team were accommodated in a separate hotel and had meals separately. The expenses of the Organizing Committee rose, but naturally the guests' expenses of participation did not.

Regarding this method Hanson (2009) relevantly and effectively formulates in his basic thesis that there is no such thing as the best organization and the best leading method. Leaders rarely have the possibility to grab a problem in the beginning because generally there are plenty of unexpected problems and they originate from numerous situations.

Organizing Committees can be defined as open/adapting/ organic organizations that have to face changing relations. Here the re-evaluation of tasks and settings is completed with special knowledge and experience for the sake of efficiency and problem solving. Decision-making became the competence of those members of the organization who could handle them the best in a given situation (Hanson, 2009).

The above principles predominated mostly in the structure and later functioning of the organization of 2010. Due to firmly changed external circumstances and decreasing economic possibilities (narrowing sponsorships and state support) the organizing committee of the world championship could successfully organize the challenging event only with the formulation of a decision-making "operative seed" that was even more prepared and trained by the experiences of previous events. Numerous external and internal factors affected that the functioning of the organization showed the Mintzberg-characteristics of adhocracy. Unipersonal control shifted partially towards expertise control. The OC doubled the tasks originally with the intention of having even more sport-lovers seeing even more contests in more cities and venues of the county, but this also induced many insecure factors. The power of the prepared leading circle and the team-escorting professional volunteers was often maximally utilized, and was even surpassed by problems and situations originating from unexpected occasions. The discussed, modifiable plans did not worth anything, in most of the cases unipersonal decisions predominated. In the end problems narrowed down to the handling of transportation and sometimes of health insurance. Despite the hardships the appointed goals were achieved in every field, but the price was that the certain 30% border had to be exceeded significantly. The fact that after 1996 both the female and male university teams won a gold medal is a professional feedback to the original aims.

Conclusions

In *conclusion* it is stated that in the management the situation theory had to be taken into consideration the most in the leading process. It was proven that despite preparations lasting often for several years and expanding to every detail of requirements, the flexibility of the management was crucial to search and to find response to every critical situation. Without it there would have been no successful solutions and internationally recognized organizational achievements, whose positive reception was mirrored in the reports of the officials of the commissioning international federation (FISU) and in the manifestations of the participants. The organizer Hungarian University Sports Federation as an open system adapted well to environmental effects. Generally it gave adequate management-answers to the challenge of changing situations. Still, the media reception of the above mentioned events remained under the rightfully expected level. Despite the successes of Hungarian and international university sports, it did not experience being unheeded by the media for the first time. During the university world championships organized by Hungary average people were capable of deeds beyond the average. Inexplicably university sports, including quality sports still remain somewhat unfitting in the whole of Hungarian sports and unfortunately also in the system of higher education; although for example the WUC-successes achieved in handball (in 1996 the men's team won gold medal, and in 2010 a dual victory was achieved by the men's and women's team) contributed to a great extent not only to university sports but also to the successes of the whole branch of sport. This could be experienced in a measurable manner during the post-WC international efficiency or in the admirable achievement of the present Olympics. On the other hand the organization of the university world championships of the ten branches of sports, besides the gained organizational experiences, brought successes in sport diplomacy to university and college sports and at the same time to the whole of Hungarian sports.

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GUEST SATISFACTION SURVEY AT THE AQUATICUM DEBRECEN THERMAL AND WELLNESS HOTEL

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Abstract: Aquaticum Debrecen Thermal and Wellness Hotel is one of the most successful hotels in the North Great Plains region as well as in Hungary. The key to success lies in high level customer satisfaction. On the one hand only the satisfied guests will return to the hotel, on the other hand the guests' positive or negative opinions will be shared with thousands of potential customers immediately by means of the Internet. Consequently, exploring the main factors of guest satisfaction has never been so important as nowadays. An online questionnaire system was introduced to the hotel in 2010, which resulted in an increased number of customer responses, thus it became possible to analyse the various aspects of customer satisfaction in a greater detail. In the present study the critical factors of guest satisfaction are analysed. We investigated the guests' willingness to return to the hotel, and found that there is no significant difference between the guests' gender, age, permanent place of residence and the fact if they travel alone or with a company and their willingness to return to the hotel, i.e. guest satisfaction. However, business travellers' opinion significantly differs from the recreational travellers' views concerning their return to the hotel. Business travellers are less satisfied and less willing to return. Furthermore, we investigated whether the problems experienced by the guests in the hotel influence the guests' willingness to return to the hotel. We found that the guests who experienced problems are less willing to return. However, we also concluded that there was no significant difference in their willingness to return among those guests who experienced problems during their stay and these were efficiently handled, and those guests who did not experience any problem.

Key words: hotel, Aquaticum, questionnaire, guest satisfaction

Introduction

In the present study we are going to analyse the results of the guest satisfaction survey which was conducted in the Aquaticum Debrecen Thermal and Wellness Hotel between 25th August 2010 and 31st January, 2011. The four-star Aquaticum Debrecen Thermal and Wellness Hotel is situated in the first nature conservation area of Hungary, the recreational area of Debrecen, in the heart of Great Forest of Debrecen. The hotel is located in Aquaticum Medical and Bathing Centre, where thermal baths, outdoor pools, the indoor Mediterranean Pleasure Baths, a medical department, a wellness island, a Thai massage centre, a dental centre and restaurants offering Hungarian specialties offer complex services to the hotel guests.

In the air-conditioned hotel there are 56 double rooms and 40 apartments. The hotel is directly connected to the Mediterranean Adventure Spa via a heated corridor, which is a unique feature of the hotel. These days the hotel and the spa is a popular destination for the families with children.

On 25th August, 2010 a new internet-based questionnaire was introduced to the Aquaticum Thermal and Wellness Hotel. Those guests who submit their e-mail address to the hotel upon arrival will receive an online guest satisfaction survey one week after their check-out. The number of the completed questionnaires grew tenfold compared to the number of previously used paper-based questionnaires after the online survey had been introduced.

The aim of our research is to determine the critical factors that influence guest satisfaction and the guests' willingness to return.

Materials and methods

In the analysis 1103 questionnaires were included, which were completed by the hotel guests aged 18 and older between 25th August 2010 and 31st January, 2011. The questionnaires were not sent out to people under 18 years of age. Out of the 1103 questionnaires 40 were only

partially, while 1063 were fully completed, thus the exit rate was 3.6%. The answers of the respondents who did not fully complete the questionnaires were taken into consideration, as well. The respondents could skip questions according to their previous answers. For these reasons the total number of the respondents is not constant at each question, consequently it varies in the sample, too. During the survey period the number of the guests aged 18 and older was 4074 at the hotel, 52.6% of them (2142 people) submitted their e-mail address at the check-in. 51.5% of the ones who gave their e-mail address completed the questionnaires, which represents 27% of the population. After the primary data-collection statistical analysis was carried out by using the SPSS statistical software and the Microsoft Excel program.

The guests could express their opinion using a 5-point rating scale, where ”1”equals the worst while ”5” equals the best opinion. According to the statistical literature the scale we used can be regarded as an ordinal scale. (Blaskovits 1975; Huzsvai 2004) When exploring the related scientific literature we have found that this is the most widely used scale in tourism perception studies. (Tatoglu et al. 2002; Pizam et al. 2000; Lawton 2005; Haley et al. 2005; Ramchander 2004) The 1-to-5 rating scale provides an effective method for measuring the performance and analysing the data by the statistical methods used in the above mentioned studies if we accept the presupposition that the respondents regard the distances between the different ratings as equal. If this presupposition is accepted these scales can be treated as interval scales in the analysis. (Blaskovits 1975 cited by Lehota 2001)

The ordinal scale we have used is generally treated as an interval scale, for example when calculating the mean value of the students' marks in the schools. Several test theories, eg. the ones used in psychology to test attitudes and abilities follow the assumption that these scales are interval scales even if it cannot be empirically proven. (Horváth 1993) We have followed this assumption and treated our scale as an interval scale during the analysis.

Results and discussion

Demographic characteristics of the respondents

Figure 1 demonstrates the distribution of guests in the sample according to gender, while figure 2 shows the distribution according to age. 44.5% of the respondents were male (n=473), while 55.5% were female (n=590).

As Figure 2 shows the primary target group of the hotel is the age group between 25 and 44 years of age. These guests usually stay with their children at the hotel.

Figure 3 illustrates the distribution of the respondents according to their place of residence.

It can be clearly seen that the vast majority of the guests arrive from Budapest and the surrounding area. The numbers indicate that 67.1% of the respondents live in this region.

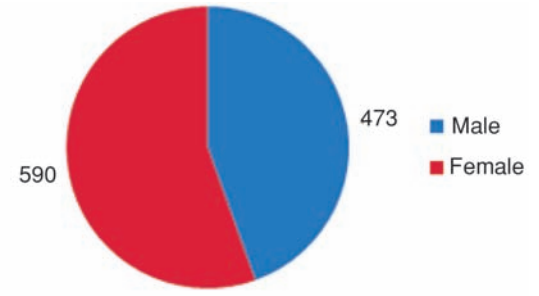

Figure 1. The distribution of the respondents according to gender
Source: Own database

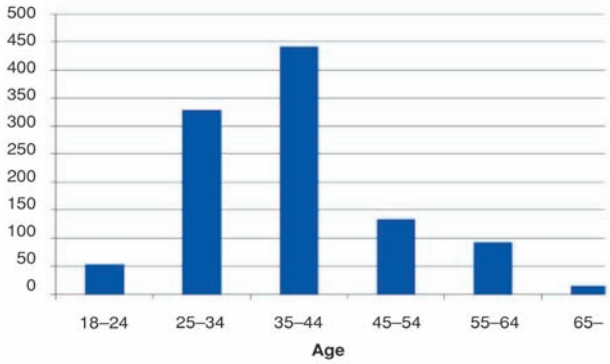

Figure 2. The distribution of the respondents according to age
Source: Own database

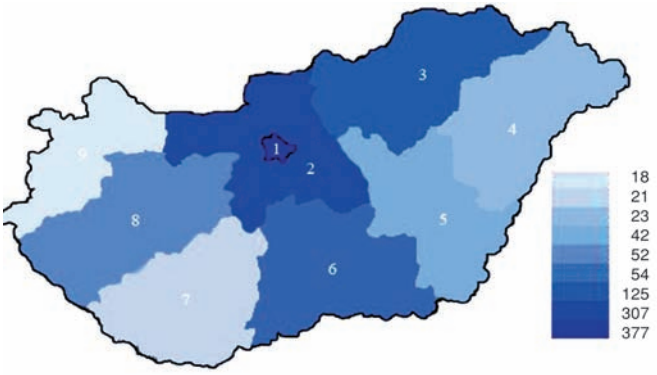

Figure 3. The number of guests according to their premanent address
Source: Own database

Marketing-based data

The first question of the guest satisfaction questionnaire was meant to find out whether the respondent was a returning guest. The answers indicate that 45.2% (n=499) had previously stayed at the hotel, while 54.8% (n=604) were first-time guests. (Figure 4)

Most of the returning guests had already stayed 2-4 times at the hotel. (Figure 5)

The vast majority of the respondents stated that ”holiday and recreation” were their main motives of travel (89.3%), only 10.7% identified themselves as business travellers. (Figure 6)

The respondents were also asked where they travelled alone or with a partner/family. As Figure 7 illustrates most of the guests stayed with their family at the hotel but the number of guests travelling with their partner is rather significant, too. (Figure 7)

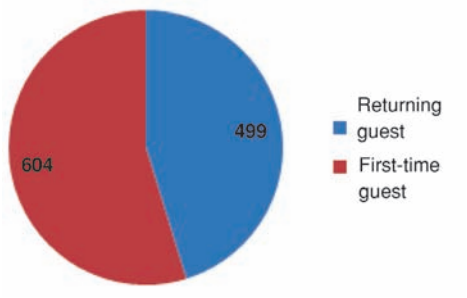

Figure 4. The distribution of the returning and first-time guestsSource: Own database

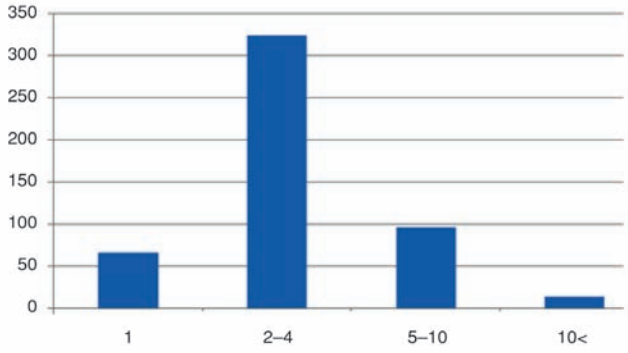

Figure 5. The number of previous visits among the returning guests
Source: Own database

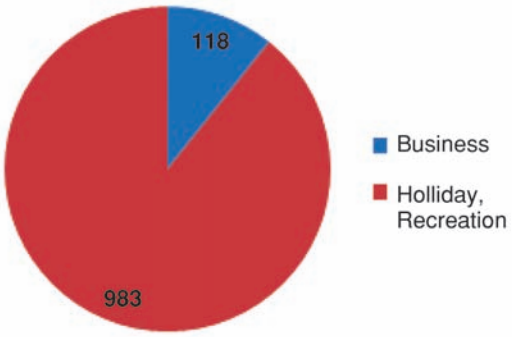

Figure 6. The main travel motives of the respondents
Source: Own database

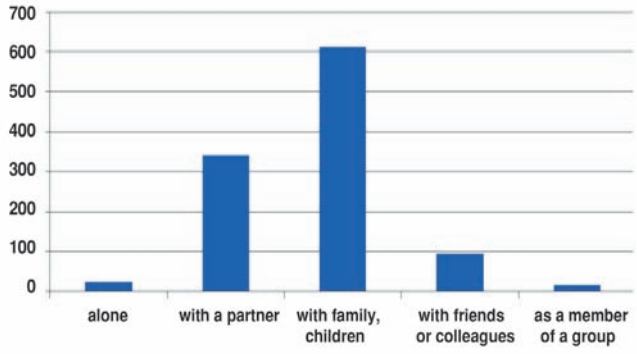

Figure 7. The distribution of guests according to the fact that they travel alone or with anyone else
Source: Own database

Investigation of guest satisfaction in relation to demographic characteristics and travel motives

Guest satisfaction is closely related to the guests' willingness to return to the hotel (Marriott 1997) and their willingness to recommend the hotel to their friends and relatives. If a hotel continously measures the guests' satisfaction and is able to increase satisfaction by appropriate measures, guests' willingness to return, their loyalty will consequently increase. (Temkin 2009)

For this reason we regarded the guests' willingness to return as the measure of their satisfaction and investigated its main characteristics. First of all, we investigated whether the willingness to return to the hotel differs among male and female guests. According to the null hypothesis there is no significant difference among males and females in their willingness to return. (In the analysis the significance level was 5%) Two sample t-test was used to test the hypothesis, On the basis of the test results it can be concluded that there is no significant difference between the male and female guests in their willingness to return.

Secondly, we have investigated whether the willingness to return varies with the age of the guests. According to the null hypothesis there is no significant difference among the various age-groups in their willingness to return. The one-way ANOVA test was used in the analysis. The results of Levene's test were not significant, thus the population variances are equal. Based on the ANOVA test the null hypothesis must be accepted, which implies that the guests' willingness to return does not differ in the various age-groups. Moreover, we have not found a significant difference in the guests' opinion, which would reflect the region where they otherwise live.

We have also investigated if there is a significant difference among the groups of guests depending on the fact that they stay alone at the hotel or with a partner/family/friends or colleagues. Based on the results of the ANOVA test we can conclude that there is no significant difference in this respect either.

As far as the travel motives are concerned the guests who stay at the hotel travel either for recreational or business purposes. According to the null hypothesis there is no significant difference depending on the guests' travel motives. We have used a two-sample t-test to test this hypothesis. Based on the results, this hypothesis must be rejected, as there is a significant difference in the guests' willingness to return: the guests who travel for recreational purposes are more satisfied and they are more willing to return.

Investigation of guest satisfaction relating to the efficiency of handling the guests' complaints

In the online questionnaire we also enquired whether the guests experienced any problem during their stay at the hotel. Our investigation showed that there is a significant difference in their willingness to return among those guests who experienced problems compared to the ones who did not.

Obviously, the guests who did not experience any problem were more willing to return.

If the guest had a problem and reported it to the hotel during the stay, we asked how satisfied he/she was with the handling of the complaint. We used a scale for the evaluation, where ”5” indicated „very satisfied” while ”1” meant ”utterly dissatisfied”. The figure below illustrates the means of the ”marks” given for the handling of the guests’ complaints. (Figure 8)

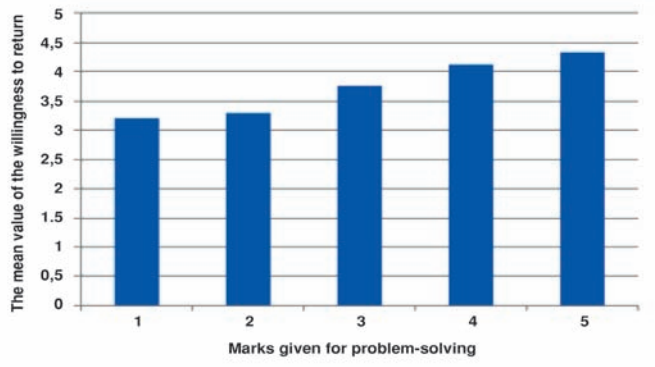

Figure 8. Willingness to return and the efficiency of handling the complaint
Source: Own database

It is worth noting that if the guest’s problem was efficiently handled (marked as ”4” or ”5” by the guest), the guest’s willingness to return is high (above ”4”). Consequently, we have examined if there is a significant difference in their willingness to return among those guests whose problem was efficiently solved (mark ”5”) and those guests who did not experience any problem at the hotel at all.

It can be concluded that there is no significant difference in their willingness to return among those guests who experienced problems during their stay and these were efficiently handled and those guests who did not experience any problem at all.

Conclusion

There is a positive correlation between guest satisfaction and their willingness to return to the same hotel according to the scientific literature . Satisfied guests are more willing to return, as well as the ones who claim that they will probably return were definitely satisfied with the hotel services. On these grounds we investigated the guests’ willingness to return to the hotel, and found that there is no significant difference between the guests’ *gender*, *age*, *permanent place of residence* and the fact if they *travel alone or with a company* and their willingness to return to the hotel, ie. guest satisfaction. However, business travellers’ opinion significantly differs from the recreational travellers’ views concerning their return to the hotel. Business travellers are less satisfied and less willing to return.

In the second part of our study we investigated whether the problems experienced by the guests in the hotel influence the guests’ willingness to return to the hotel. Not surprisingly we found that the guests who experienced problems are less willing to return. However, we also concluded that there was no significant difference in their willingness to return among those guests who experienced problems during their stay but these were efficiently handled and those guests who did not experience any problem. It has highly important practical implications for the hotel management as it highlights the outstanding significance of complaint management.

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LEISURE ACTIVITIES AND TRAVEL HABITS OF COLLEGE STUDENTS IN THE LIGHT OF A SURVEY

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Abstract: In our article we deal with leisure activities and travel habits of 150 college students from Szolnok. We have analyzed the relationship between the frequencies of watching TV, that is: the time spent watching TV and doing sports. Furthermore, we have also investigated the frequencies of travels, and main motives of choosing travel destinations.
We have found that college students have several hours of leisure time daily. Among the recreational activities, the ones that occurred predominantly are watching TV, doing sports, and travelling. It is interesting to note that the relationship between the frequency of watching TV and doing sports has not been significant while the relationship between watching TV occasionally and doing regular physical activity has turned out to be significant. Students who play sports for 1-2 hours a day spend significantly less time in front of the TV compared to their peers who do not do sports.
92% of the students travel at least once a year. The participants of youth tourism are quite price-conscious. In choosing travel destinations favorable prices play an important role.

Key words: free-time activities; youth tourism; travel motives; pastime habits

According to Bettina Pikó "lifestyle is such a frame of our life that includes our everyday activities, is closely related to our identity and determines our place within the society and smaller groups." (*Pikó 2005*) Therefore, it determines our personality, and inserts us into the society in different forms and ways. The category of lifestyle is a very complex concept. At the same time it is a treasury of opportunities, which force us to take decisions.

There is a wide variety of choices. In many cases it may cause several problems especially for today's young people. Making good decisions is not easy. Considering so many options we can unwittingly get confused in the process of decision-making.

A good example of this might be the possible problems of a career choice, which is perhaps t one of the most important decisions in young people's lives, because it is their first steps towards life in real life and at the same time it is also the time of closing a very important phase of their lives.

Man's life and lifestyle are highly influenced by the place where he lives, by the way of life, mentality and culture of the given country (*Barabás 2006*).

Leisure-time activities are closely related to one's way of life. These two are inseparable. The concept of leisure has already been identified by several researchers. The concept of leisure by Miklós Szántó is as follows: "Leisure time as a time frame is part of non-work frame, which is left off for activities which are beyond those material, that is economic, social, physiological constraint-based activities*."(Szántó 1967)*

Christine Reichlin defines leisure time as follows: "leisure time comprises all the activities in which individuals take part voluntarily either in order to relax or have fun, or to improve their social relations, or perhaps to continue advanced studies." (*Reichling 2007*)

In fact, both definitions reflect the same meaning, but in a different approaches to the subject. The first definition sees leisure time as time when individuals act freely, and perform what they want. The latter definition includes all the activities that an individual can pursue in his free time: recreation, entertainment, maintaining relationships and learning.

The latter activity offers a pretty wide choice: trainings in order to widen our knowledge, possibilities to improve skills in our existing hobbies or even trainings to improve our fitness; that is doing sports. It is also important to examine the connection among leisure time, travelling and tourism since they are inseparable. We can travel to our favourite destination only in our disposable free time.

Tourism can be divided into several smaller units. One of these units is leisure tourism.

"Leisure tourism comprises voluntary activities done in one's free-time outside one's permanent residence and is motivated by the human need for variety." *(Reichling 2007)* This form of tourism includes several activities. Primarily,

activities that belong here are the ones people do with pleasure in their free time: sports, excursions, different hobbies, visiting thermal baths.

It is not easy to identify who exactly belongs to this group. In one of the articles of *Trends in Tourism* the following issue has appeared: "According to the definition of the WTO the age-group of Youth Tourism are travellers between 16–26 years of age". *(Juray 2007)* Other definitions define the age-limit line differently. However, we can agree that this is the age-group which is able to travel independently, on its own merits, so from this point of view this categorization is totally acceptable. The younger representatives of Youth Tourism can travel only in the care of a parent or a teacher.

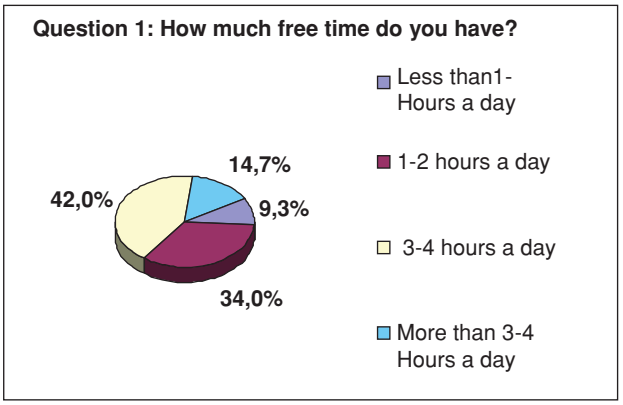

Figure 1. The amount of free time of the respondents

Research objectives

The main aim of the research is to describe pastime and travel habits of young adults aged 20-24 and to highlight their main motivations in choosing travel-destinations.

In order to achieve the main goal of the research we conducted a questionnaire survey, which is a type of primary research.

The research was conducted in the spring of 2009. (Borbás László, a college student, took an active part in carrying out the research in 2010.)

Hypothesis

In the case of young people, the time spent watching TV significantly influences the amount of time spent doing sports and taking part in cultural activities.

Furthermore, travel habits of young people are highly affected by their low discretionary incomes, so their motives of choosing a travel-destination are mostly influenced by favourable prices.

The socio–demographic data of the sample

We start the presentation of the sample by introducing the proportion of the male and female respondents. Only 22.7% of the respondents were male (34 people) and 77.3% were female (116 people).

All in all, we can say that 112 students out of 140 live in a town with more than 10.000 inhabitants the ratio of which shows around 80%.

Results

On the basis of the given answers only 9.3% of the students have less free time than 1–2 hours a day, but it is possible that there are also some of them who absolutely cannot afford to relax. They represent the lowest segment regarding the sample as a whole. The majority of young people can generally insert at least 1–2-hours' free time a day into their agendas. However, there are also the ones (42%), who can pursue some 3–4-hours' leisure activity a day and can freely live for their hobbies.

Slightly more than one third of the respondents have 1–2-hours' free time a day. 22 young people, i.e. 14.7% of the students have even more than 3–4 hours' available time per day.

A separate issue dealt with examining the question of who the students like spending their free moments with.

They could give several answers to this question. Overall, the vast majority of the students like spending their free time either with a partner or in the company of their peers.

Only 16 of the respondents, (equivalent to 10.7%) indicated in the questionnaire that they also like being alone in their free moments, but apart from this alternative they have chosen other alternatives as well, which proves that they do not totally cut themselves off from the world.

Answering the question, the respondents also "betrayed" whether they were living in a relationship or not. On the basis of the results it must be concluded that at the time of this interview slightly more than three-quarters (75.3%, respectively) of the 150 students surveyed had a boy or girlfriend whom he or she liked spending his or her free time with.

In addition, the students could indicate even family members, friends and/or peers as well. The answers given to this question showed a great variety. Nearly two-thirds of the respondents (65.3%) referred to their families in their answers. The number of students (82.7%) who spend their non-work time with their friends and girlfriends was outstanding. These figures also show that there are a lot of overlaps, i.e. the majority of students indicated more than one answers.

In some cases students underlined all the answers. Very few peers were identified (only 6 people, 4% of the respondents). The results of the research show that, young people like making friends with people who have much the same way of thinking, and belong to a similar or to the same age-group. There were only few students who had friends dominantly from the younger or the older generation.

Another issue pointed out how the students spend their leisure time. Relating to the matter we assumed that the students would indicate only pastimes which they often pursue. However, a lot of different answers were given. Almost one third of the respondents (32%) would spend their free time with their friends or family. Examining the answers separately,

33 respondents indicated that they enjoyed being with their friends in their free moments. 15 of the students interviewed liked being with their families in their disposable free time. Slightly more than 40% of the young people surveyed do sports with pleasure in their free time. Exactly 61 students responding liked doing sports. A very wide range of sporting activities were mentioned from football through riding to aerobics. On the basis of the research the most common leisure activity indicated by the students was doing sports.

Many of the respondents are also engaged in some cultural activities. The following activities were mentioned in this category: going to the cinema or theatre, reading books or listening to music. Only 10 out of the 150 students wrote that they go to the cinema in their free time. Only one student goes to the theatre on regular basis. However, 21% of the respondents (32 students) read a book if they can afford to do so. Within the range of cultural activities listed it became the most popular. 14 young people spend their free time by listening to music. In addition, singing and cultural studies were mentioned among the cultural activities carried out by the different students. All in all 59 respondents (39.3%) are engaged in some kind of culture-related activities.

A relatively large number of students (24 persons, i.e. 16% of respondents) chose travelling, touring and trekking, as active pastimes. Of course, these answers do not reveal whether they prefer travelling inland or abroad. However, since these activities are carried out in one's free time, it is more likely that they refer domestic trips, excursions, and hiking, because they require less travel time, and are usually cheaper as well. We have already discussed this topic in the section on Youth Tourism.

Besides the popularity of active recreational programs the passive activities do not fall behind either. In total, 47 students have indicated watching TV and surfing on the net, which accounts for 31% of the sample. The first one was chosen by 23 students and the latter one was indicated by 24 ones. 12.6% of the respondents, i.e. 19 people chose relaxation, as a free-time activity. 13 students considered sleeping as a recreational "activity". There were nine students who practiced some fun activities more regularly. Among them there were students who selected "partying".

Results of the questions related to sport activities

In the following section we describe the results of the questions related to sports. A separate question dealt with examining whether the students have opportunities for doing sports within their own permanent residences. The overwhelming majority of the respondents (134 persons, 89 3%) answered "yes ". 16 gave 'no' response. However, just over half the students asked (77 persons, 51.3%) took part in some form of regular sports activity. From that comes that although many people have the opportunity to take exercise, they do not do it for various reasons.

I have already written that about 40% of the students like sports. On the basis of this, it can be concluded that about 11% of the surveyed students do sports regularly, but they do not like taking exercise, they just do it under pressure (such as improving posture). Among the various sports activities aerobics seemed to be the most popular one. Nearly one third of the regular athletes (32.5%) do this sport. It means 25 people out of 77. It is not surprising that this sport appears only among ladies. Besides aerobics, running (13 people), football (11 people), cycling (9 persons) or swimming (also 9 people) are considered to be the most popular sports activities among students.

Of course there are other sports that the athletes do regularly, but they occur in small numbers. Six of the respondents train regularly in a gym. There were some other types of sports that were pursued by five students. These were: tennis, fitness and frisbee. Among the ball games handball (3 people) and basketball (2 people) were mentioned. The sample also included a student who does not despise martial arts. Tai-chi, Thai boxing and Taekwon-do were mentioned by three students. There is a student who has affection for such a sport as Pilates gymnastics. This sport primarily strengthens the muscles of the human body. (*www.idealistestsuly.hu/pilates.htm)*

There was a young man in the sample who is a fan of spinning and spin-racing. Dancing and folk dancing were also mentioned as popular activities.

Various winter sports were also evaluated in the assessment. Two of the respondents go skiing regularly. There was a student, who likes skating. A student who would sit on the saddle and go for a ride was also involved in completing the questionnaire. Someone pulls his bow and tries to shoot as many arrows in the target as he can. The other one loves walking outdoors. Another one lives for foot shuttlecock. This sport is the same as badminton; the difference is that instead of a racket the players forward the ball with their feet. *(www.labtoll.hu/Default.aspx?ID=sportagrol_jatekszabalyok.htm)*

There are students who, besides doing regular sports activities are also members of a sports club. Among those surveyed, only 11 people are members of such associations.

The figures revealed that 71 students out of 150 (47.3% of the total) sit in front of the TV screen on a daily basis, which is a good indicator of its popularity. Secondly, if we take into account the replies of the others, we can become even

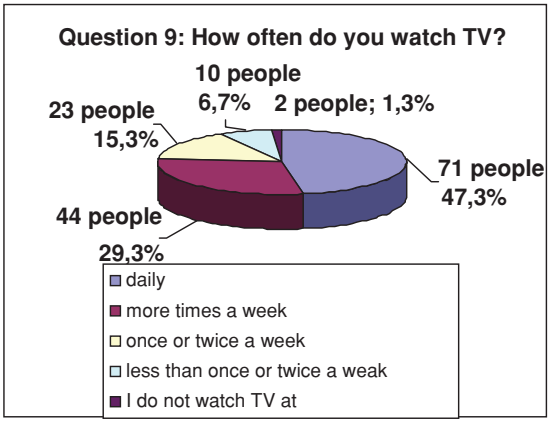

Figure 2. Frequency of watching TV

more convinced. 44 people watch TV several times a week. A further 23 students spend time watching TV once or twice a week. After the analysis of all these data, the results show that 138 respondents (92% of the total respondents) certainly sit in front of the TV at least once or twice a week. 10 students from the "residuals" sit in front of the screen less than once or twice a week. Two of the students do not show any interest at all in this recreational activity.

A comparative analysis was performed between the frequency of watching TV and doing sports. The study has undergone a Chi2-test, whichgave the following results. 70 among those students who play sports regularly (77 persons) turn on the television at least once or twice a week (90.9%). While 68 out of those young people who are not engaged in regular sports activities (73 people, 93 %) watch television at least once or twice a week. We can see that there is only a slight difference between the number of students and the percentage. It turned out that this relationship is not significant ($p > 0.005$). This result shows that the more time we spend in front of the TV the less time we spend doing sports.

The results of the questions related to travel

The students' leisure activities include travelling and hiking as well. From the three questions belonging to this category we could learn the basic principles according to which the students choose their travel destinations, how often they can afford to relax, and what activities they enjoy doing while their travelling.

First, I present the method of selecting a destination, which is also illustrated in the form of a diagram. In this case students could choose from several alternatives.

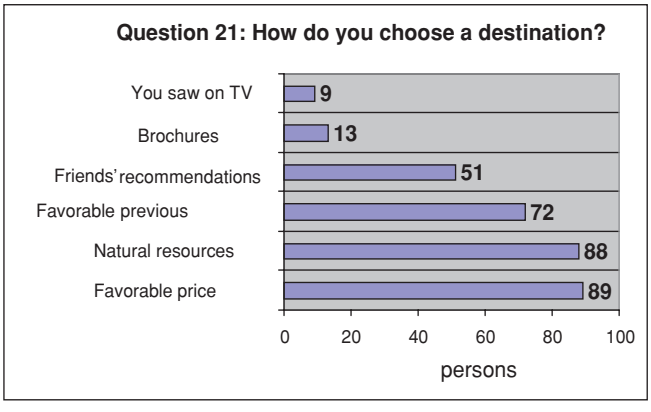

Figure 3. Different factors influencing the students' travel decisions

The results of this question show that the majority of the students interviewed are very price sensitive. Their discretionary incomes do not allow them the freedom of travelling anywhere in the world. 89 respondents asked consider favorable prices play an important role in selecting a destination. It gave 59.3% of the total. Similarly, the natural resources of the selected destination are also of a great importance since 88 students identified it in their responses. It shows that according to many respondents the chosen place should have sufficient tourist attractions. Students also take into account their previous positive experiences, since 72 of them (48%) chose this alternative. From that also comes that some of the students like to return to a previous well-established destination. However, since many students did not choose this variant, I think that many young people like visiting new places, which have not been previously visited.

They are not only influenced by their own experiences but by those of other ones as well. The respondents, slightly more than one third (51 people, 34%) usually ask their friends' opinions before making a decision, that is the personal recommendation of their friends is important to them. Only 13 people (8.7%) consider important what is written in brochures. Even fewer, only nine students select a destination on the basis of what they can see on TV. The role of this traditional marketing tools is decreasing. Much information can also be found on the Internet, and the so-called word-of-mouth recommendation can be also credible, if the explanation comes from relatives, acquaintances, and friends.

The research examining the travel habits confirmed the hypothesis propounded, according to which low prices significantly affect the young people's motives in choosing a destination.

We also inquired about the frequency of travels.

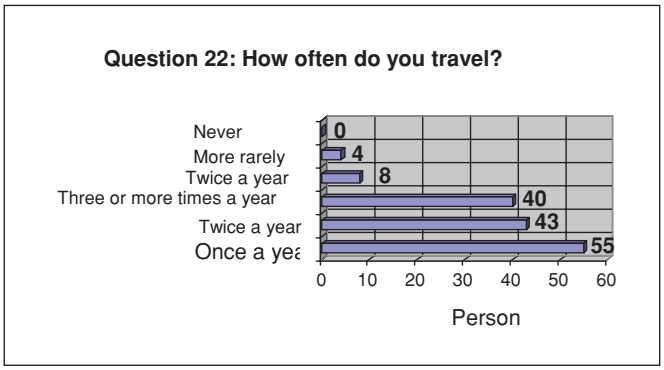

Figure 4. The frequency of travels by the respondents

Looking at the figure, it is clear that the vast majority of young people (138 people, 92% of respondents) plan a trip at least once a year. The figures do not indicate the length of the planned trips, but it is now less important. The point is that 36.7% of the respondents (55 people) go on trips once a year, 28.7% (43 people) twice a year, and 26.7% (40 people) three or more times a year. Eight students go on trips only in every second year and four of the students can afford a trip even more rarely.

There are not any respondents among the ones asked who have never planned any trips. It shows that everyone recognizes the benefits of these, and looks for the opportunity to go away somewhere certain intervals.

We also inquired about the activities they do while travelling. Interesting results were obtained. 37 students, i.e. 24.7% of respondents take their bikes with them on the trip, because they cycle during their trip. Of course, it is also possible that they rent a bike for themselves on the

spot. Furthermore, it can also be possible that they cycle to the destination and plan bike tours on the spot. Exactly 10% of the respondents, i.e. 15 of the students like fishing while travelling. 129 students, 86% of the respondents go to beaches. 114 students (76%) opt for swimming. Many more of them plan hiking tours while travelling (69 people, 46% of the respondents). In addition, many people "voted" (96, 64% of respondents) for trips in the nature. The students could supplement the given alternatives with their own answers as well. 33 of them did so.

Most of them are fans of cultural tourism (20 people).

It includes visiting local sights, going on sightseeing tours or visiting museums. Many of them do sports during their trips: swimming, skiing, horse riding. The list was amended by some more "extreme" types of sports: scuba diving, rock climbing, water skiing, canoeing. Six of them especially love having fun during their travels. Three of them tried out some wellness activities, such as a sauna or lie under the hands of a masseur to experience a type of a massage as well.

Summary

College students have several hours' free time a day. Among their recreational activities watching TV, doing sports, and travelling occur predominantly. The survey revealed an interesting fact, which shows that the relationship between the frequency of watching TV and taking part in a regular sport activity is not significant while the relationship between watching TV occasionally and doing a regular sport activity turned out to be significant. Students who play sports for 1-2 hours a day spend significantly less time in front of the TV compared to the ones that do not do sports.

This research confirms the increasing demand for Youth Tourism, since most of the age-group studied (92%) supported the need for various trips.

Since discretionary incomes of young people are low, favorable prices and low costs highly influence their travel decisions.

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TALENT MANAGEMENT BASED ON THERAPEUTIC WORK WITH A PROFESSIONAL HANDBALL TEAM

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Abstract: All athletes regardless of their age should get mental skills development that could be integrated into their normal training. Psychological training is essential for better performance because in sports the psychological factors play a very important role.
The aim of this presentation is to show the therapeutic work of a professional men's handball team and demonstrate the nature of the social environment and how it can have an effect on their performance. The author examines how a team forms, develops and works and what factors contribute achieving the optimum performance. The functions, structures, dynamics and goals of an adult team were analyzed and on top of that the focus was on the a three-month long therapeutic process and its results as well. In order to improve the self-awareness and team building, the players were asked to fill out following questionnaires: psychometric questionnaire of Keczeli1, Keczeli2 questionnaire about roles, tasks and responsibilities within the team and player-coach relationship and attention questionnaire (Pieron).
The conclusions of this work can be useful for further talent managment and develpoment.

Key words: handball, management, talent management, mental training

Introduction

Talent identification and development is extremly important in those countries where the natural resources are poor and the economic potential is relatively weak. It can be said that our country is an example for that. We hear a lot about the importance of sports talent however we rarely read or hear about successful trainings. It must also be said that a successful talent management at young age is not a guarantee for an successful adult sport career. Like with other areas of talent, sports talent is also depending on many factors. In most of the cases the theorists determine the talent in the connection to the performance. Sports talent care is something that never can be fulfilled.

The study describes a therapy work within a team and its influence on the team development and performance. The study focuses on the psycholocigal factors that can also affect the performance. A handball team works as a closed group with unique rules. Social connections, common values and communication could help or suppress players performance.

According to Berczik (Lénárt, 2002) a team has to go through four main stages of development: forming, storming, norming and performing. The coach plays an important role in carrying the team through the first 3 stages before their competitions (preparation time). Therefore the the performing stage could happen during the time of the competition. Team members should get the chance to get to know each other better because the performing phase and the competition happens at the same time. This can last for several months. It is necessary during the period of the competition that athletes achieve some common goals instead of focusing on their own. It is important to consider the basic aims and the principles of a talent care: supporting both talent related strength, weaknesses and other aspects (Balogh–Mező 2010).

According to Gabler and Ruoff 'those athletes who are considered talented in their sports, who have good enough physical and psychological conditions in the different stages of their life have more chances to reach high level of performance'. (Révész, 2008)

In the Havlicek, Komadel, Komarik és Simkova (Van Rossum – Gagné, 1994), a Czechoslovakian talent selection model, a multidimensional aspect of sport talent is emphasized. According to the model, revealing sports talent is influenced by: stable non-compensated factors (e.g. height), stable compensated factors (e.g., speed) and non-stable compensated factors (e.g. motivation). The motivation as a psychological factor can be the main key to the success of a team. Specific factors such as height cannot be modified but motivation can be improved.

Many external factors play a role in either supporting or breaking down talents. In many cases talent management is

identified by strength development which is though only one aspect of the talent management. The practice proved that the developement of a complex goal system is a good way for talent development and management.

According to Piros (2002),the definition of human resource management refers to those activities and management methods that deal with the selections, developmental workforce, performance measurements and the career management in the organization. It deals with human resource operations for rational and efficient use in order to achieve individual and organizational goals. (Hajós-Berde, 2007)

We can easily see from this definition that expression of human resources is mainly used in the working environment however it can be applied as well to a successful adult sports performance. The task of the management team is not only to set the goals for the organization but also to provide the material and financial resources for them without forgetting the needs of the employee. The therapeutic work was based on: performance measurement, workforce development and effective use of these results in order to achieve the goal of organization - and through it the individual goals.

During our life, we are all members of different groups, both big and small (e.g. handball team). Characteristics for a small group: *relative permanence* of the human relations; *continuity*, which refers to its performed activities, *group member's ideas about the group* which enhance the togetherness and tradition; *organization*, refers to task distribution and hierarchical relationships in a group (Bodnár, 2006).

A group is considered as a small group if the number is between 3 and 20 people. In a small group the members can make personal contact and mutually depend on each other. (FORSYTH, 1990)

The handball team works as a primary group. A type of a group is characterized by direct contact between the members. Each member can communicate easily with the others, their relationships are usually stable, they actively co-operate with each other and different kind of friend groups are formed. When these groups start to spend free time together, it will have an effect on their work and performance (Bodnár, 2006).

The structure of a team gives useful informations. Jacob L. Moreno Romanian-born American psychologist developed a method that can determine the status and the relations of an individual within a group. Basic assumption of *sociometry* was that the integration of the individual into a current group does not depend on the personality but the social status (Mérei, 1996).

Within the informal groups, a formal groups are created. The author calls this a hidden network that is affected by both choices and personal feelings towards one another. Creating sociogram is based on sociometry. When analyzing the sociogram it became visible there are players with central and peripheral positions. Probably those who are on the peripheral positions have no connection with the team and therefore get no informations. It shows the positions of individuals within a group. In an interactive team sport, players count on their team mates (including the substitute players and the coach). If players can not find right position within the team, it can cause poor performance on individual level and the team level as well. All kind of groups can face this problem and therefore it is important to spread our experiences. Focusing on that could become a relevant field for the talent development at a young age. Children have more potential to acquire different kind of techniques that are essential for adequate cooperation and communication in a community and to find the balance between their own common goals. Learning how to cope with communication problems, stress, dealing with failure and success should be taught to children and should not be a problem in adulthood.

The sample of the study and therefore the test results can not be considered representative, but (cautiously) conclusions can be drawn from-about the talent and resource management.

Methods

The study describes a therapy work of a professional men's handball team. External circumstances of the team were reasonably good. The leaders of the team ensured the necessary conditions for the operation and the team's financial situation was stable. If we consider the talent model of Gagné, stable non-compensating factors were given (team composition, height) as well as non-stable compensating factors (knowledge about the game, physical, technical prepairness, attitude, motivation, etc).

In the begining of the procedure it was necessary to define the starting point of the team. This was measured with different kind of questionnaires and by the team meetings. The focus of the therapeutic work was on the team's atmosphere, motivation, attitude towards the game and the issue of self-confidence. One of the crucial goals was to teach players the importance of monitoring and evaluation of their own performance and to show the relevance of their self-esteem.

Most coaches tend to see the team work as a mechanical formula: we had group x and added another group y as a motivational technique and result was z. However the practice has shown that the most effective way to unite a winning team is to make the players find the way to their common goal which is attainable and accepted by everyone.

The aim of therapeutic work was to explore the current situation and solve the problems in order to achieve the goal. The treatment plan was divided into three parts: the period before the playoffs (group exercises, testing, feedback of results, individual therapy), playoffs (group and individual therapy) and in the end of the year. The team completed the following tests:

- own sociometric questionnaire (Keczeli1);
- own questionnaire about roles, tasks and responsibilities within the team and player-coach relationship (Keczeli2);
- self-assessment test what was filled out after the games
- attention questionnaire (PIERON)

Results

The Keczeli1 sociometric questionnaire shows the sociogram of the positions of the members in the team. The focus is on the person's connections (mutual choices), the pattern of his position (star, chain, pair, isolate) and the center-periphery structure. Individuals who choose each other in one question are known to have made a Mutual Choice. Choices can be single, double and triple.

The focus is on cohesion index which refers to how strong the cohesion is between the players. It represents the number of players with a mutual connection within the team (in percentage terms). A higher number refers less lonely players. Figure 1 shows 66–67% cohesion rate which is not considered stable enough for a sport team. Five players have no connections.

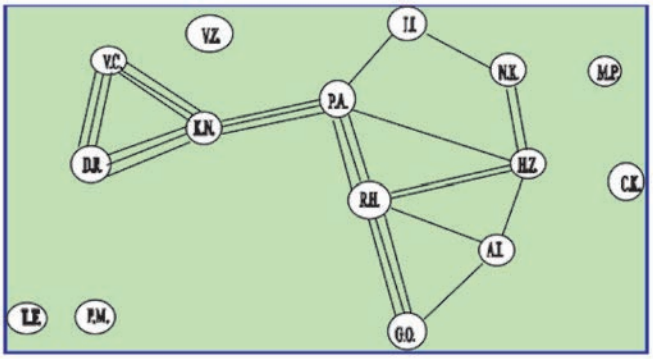

Figure 1. Sociogram of the team in the social aspect

Two players, G.O. (the captain) and A.I. (who speaks on behalf of the team) are peripheral and are not considered as the team leaders according to the other players. There is a member (P.A.) who (socially and functionally) achieved the team assumption as a leader without having the role. The danger of a situation when the wrong person is the leader, the team can only perform on an average level. Therefore the leader should be chosen by the team.

Based on Keczeli2 questionnaire, our doubts got confirmed about the roles, tasks and responsibilities within the team and player-coach relationship.

When evaluating the content of the questionnaires it became clear which players are the most effective and the most popular according to the team. Comparing the results of these two aspects, there are big differences in the ratings. Six players are professionally recognised by most of the other teammates. However only two of these players are actually popular and are situated between the top six players. We kept this fact in our mind during the therapeutic work in order to assist the otherwise well-performing players to be more accepted in the team.

Other important thing is that few players performed well functionally but their social rate within the team was very low. That could cause mixed feelings within the team and therefore the group could have passive resistance and reject everything that those players represent, even victory.

Another really important fact is that there are three players are neither socially nor functionally good enough for the team. They only got negative evaluation from the team.

The communication between the coaches and the players was very bad and therefore they had problems with their relationship as well. The players admitted the coaches' professional quality however they had some personal problems with them. These conflicts were unsolved and there were many the misunderstandings between them. This lead to a resistance of the team towards the coaches. The players ignored both the coaches expectations and their advices. The players were more busy analysing and criticizing the coaches' comments and actions than focusing on winning the game.

Attention has an important effect on the performance. Performance of a team can change from game to game and even during one game as well. We considered to complete an attention test with the players (PIERON) due to their unstable performance.

The Figure 2 indicates that the attention of the team is appreciably decreasing in different phase of the game. There is an analogy between our results and the coach's analysis. Since today's handball game is characterized by a very fast game, several minutes of low performances could be crucial.

During the therapeutic work it became clear to us that the team has a lack of self-knowledge and self-observation. Therefore one of our main tasks was to develop a criteria for the team. With the help of this criteria, players can evaluate their own performance during the game.

Coaches and the team management often evaluate the handball team performance but generally the players do not evaluate themselves. We believe the self evaluation is very important in many aspects.

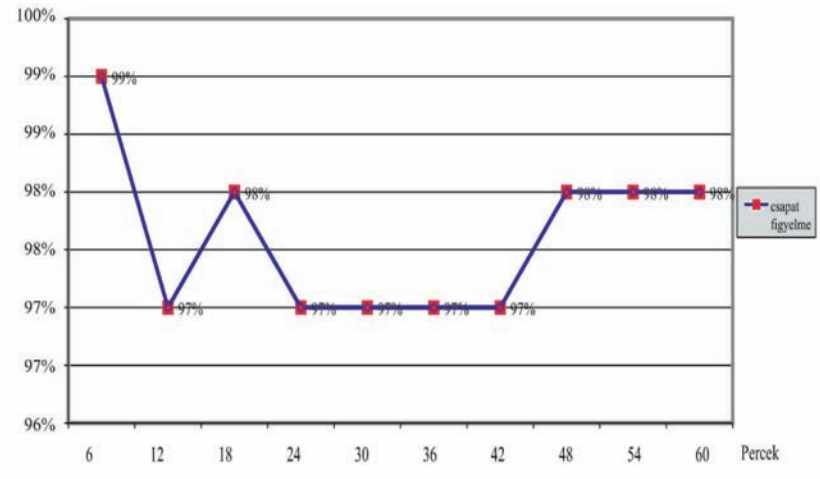

Figure 2. The team attention during one game

Figures 3 and 4 show how the players evaluated their own performance after winning and a losing. The aspects of the self-evaluation were the following: shape, tactician, technical

execution, motivation, concentration, confidence, composure, fighting skills and cooperation.

The Figure 3 illustrates player's self-evaluation after winning an important away game.

Figure 4 presents the self-evaluation of a losing game. The Players knew the opponents were very tough and the chance of winning was little.

By showing the two different self-assessment test results to the team, we could demonstrate the importance of faith and attitude before each game. When comparing the self-confidence and motivation of the players between the two games, a significant difference was recorded.

It has been shown what happens to the player's self-esteem, self-evalutaion and other psychological factors affecting their performance when winning or losing a game.

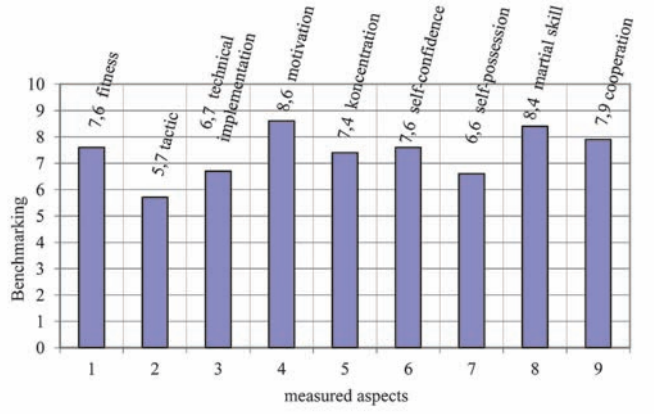

Figure 3. Self-evaluation of the team after winning

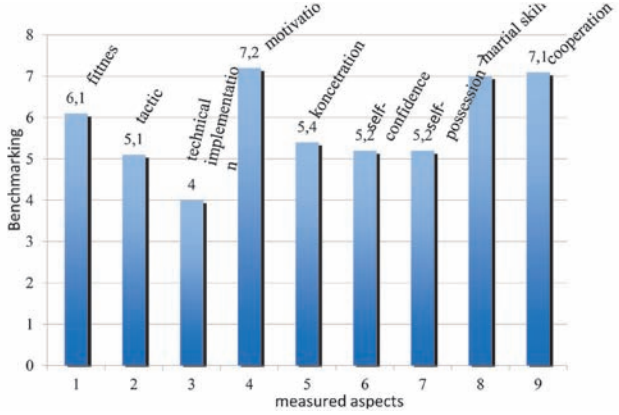

Table 4. Self-evaluation of the team after losing

Summary

The therapy work was based on filling out questionnaires and gathering information. The aim was to build up the team, develop self-awareness and gain better understanding between the team members. Team building is a comlex work and the attitude of the individuals and the team itself is very crucial. It is hard to change an adult personality because they tend to stick to old habits, models and roles.

First important objective was to improve the relationship between the players and the coach but it was only somewhat successful. The team understood however the importance of the concentration required to fulfill their tasks. They learned to keep their feelings and thoughts under control and they understood the fact that they should primarily focus on their own tasks.

Also another important task was the question about the of leadership within the team. It was solved with the help of the coach after interviewing the players. The most qualified player accepted to become the captain of the team and accepted also our help to become a better team captain.

The analysis of the therapeutic work shows the importance of the feedbacks about player's behavior and attitude. It is really important to clarify the goals and to know exactly who is responsible for the different tasks and roles in the team. Constant support, encouragment and giving realistic picture about the performance of the team has a crucial effect on the success. Finally it is very important to define the future goals as well.

Conclusion

All athletes and teams should need sports psychology training. Psychological functions and characteristics building up athlete's personality play very important role in the sports. If their regulation is adequate then it has positive effect on the sports performance.

With mental training, young talented athletes could handle failures. Low self-knowledge, unidentified and unsolved problems are considered difficulties in talent development and management. Talent management cannot be successful unless the children believe in their own talent. The impact on children when they fail could make them loose their motivation in something they are extraordinarily talented. That could be considred as a waste of resources.

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BICYCLE TOURISM IN HUNGARY

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Abstract: Side by side with the revaluation of a health-oriented lifestyle various kinds of axtive leisure activities and active tourism in particular have been gaining ground. Cycling, which is popular not only as a leisure time tourism activity but mainly within settlements, also as an environmentally-friendly and up to a certain extent, a highly practicable means of transport mainly in towns and cities in Western-Europe, has a privileged position within active tourism (SALAMIN, 2010). This article wishes to present the situation of bicycle tourism, the factors influencing the demand for it and the opportunities for and possibilities of improving it within Hungary by providing an evaluative analysis of the relevant sources of the technical literature. The most important finding of this secondary research-based study is that there is an increasing contention both internationally and within certain regions of tourist interest within Hungary although there is no detailed information available as regards the latter. Success on the market can only be achieved by following the good practices of internationally developed tourist destinations and by a concerted development and improvement of the infrastructure, services and target-group oriented marketing activities as well as attractions.

Key words: spending leisure time actively, bicycle tourism, development of tourism product

Introduction

By a survey of the terminological definitions of the technical literature dealing ewith bicyle tourism (e.g. FARKAS - BALOGH, 2001; PEETERS ET AL. 2007; EP, 2009; ÖM, 2010; EIJGELAAR ET AL, 2011) it can be claimed that there does not exist a uniformsystem of terminology and in a number of cases specialists define the scope of activities that belong within bicycle tourism in relation to the objectives of the assessment and on the basis of recommendations, specific market conditions, national conventions. All this means that there are few data available that would also qualify for the purposes of comparisons (EP, 2009) and we would rather have sporadic estimations, which makes a complex comparison of the area, which would also make an objective international evaluation possible, difficult.

The current market position of bicycle tourism in Hungary is difficult to understand both internationally and domestically. In the case of the latter it is mostly the market performance of the individual bicycle destinations that is difficult to compare.

Materials and methods

This paper provides market information on European and Hungarian cycling tourism demand and supply evaluating available and up to date statistics, reference literature. The timeliness of this topic is supported by the fact that the demand for active tourism is on the increase both in world and within it, also in European tourism (EIJGELAAR ET AL, 2011; ÖM, 2010). By an analysis of trends in the international demand it can be concluded that bicycle tourism is of a relatively high importance even on continents where constructed general and background infrastructure does not exist or only of limited availability (ÖM, 2010). In these countries it is rather the adventure aspect of cycling that dominates bicycle trips. Destinations that have a more developed infrastructure will highlight a healthy lifestyle (pl. LUOTO ET AL., 2000; GORDON-LARSEN ET AL., 2009; MENSCHIK ET AL., 2008) and tourism in their promotion.

In North-America, both in Canada (RTO8, 2011) and on the domestic tourism market of the United States there are higher and higher numbers of thematic routes, specific destinations, based on cycling experiences, being communicated to potential visitors. The data of the OUTDOOR FUNDATION (USA), published in 2011 say that the bicycle tourism market in the USA has undergone a considerable improvement over the past 10-15 years. Earlier this market was characterised by experts as "dormant" and with a rather limited demand (BHSI, 2011). The technical literature surveyed stressed the fact that it had clearly been the general revaluation of a healthy lifestyle that serve as the background to this market development (GORDON-LARSEN ET AL., 2009; MENSCHIK ET AL., 2008). The primary target groups of bicycle tourism can be defined on the basis of age and income position (RTO8, 2011).

As regards statistics, bicycle tourism in Europe is way ahead of the bicycle trip market provided by American citizens. On our continent there are approximately 2.8 million bicycle trips and excursions made every year, which contributes to the economy by an estimated amount of about €54 billion

(PEETERS ET AL., 2007). The number of bicycle tourists spending at least one night in commercial accommodation is up to 26.5 million, which makes up 3% of all trips made with the purpose of tourism by citizens of the EU (PEETERS ET AL., 2007).

How can Hungary be evaluated among the bicycle destinations in Europe? Who can become the primary target group of bicycle tourism in Hungary? What kind of market opportunities are offered to Hungary in the field of bicycle tourism? This essay aims to answer these queries on the basis of technical literature, current and available market information.

3 Results and discussion

It is characteristic that European bicycle tourists look for opportunities for bicycle travel within Europe (BASSETT ET AL, 2008) and are open to bicycle destinations primarily in their own countries and next those in neighbouring countries (EP, 2009). Given this fact, in the case of Hungary it is from the neighbouring countries and prominent sending areas in Europe from where we can calculate with bicycle tourists arriving. How can these tourists be characterized? What are their general motivations for travel are like? In the case of a complex product development that will also generate international incoming tourism it is answering these questions that constitute the primary task for areas receiving bicycle tourists in Hungary.

Trends in Sources of Demand in Bicycle Tourism in Europe

Primary motivations for European bicycle tourists are preserving their health (physical load), recreation (relaxing) and becoming familiar with new destinations (EP, 2009). At the same time these tourists set the basic requirements during their bicycle trips according to the following: safety, unambiguous road signs and easy orientation come first. Inexpensive yet versatile services, environmental considerations are not listed among the primary aspects of their choices of destinations (ÖM, 2010).

The largest market in Europe is Germany. According to research results 41% of germans cycle several times every week and 15% of them do so every day. This also has its effect of the tourism revenue of Germany since bicycle tourism generates € 9.2 revenue for the country (ADFC, 2011). Surveys claim that in 2009 49 per cent of the population, i.e., over 40 million people took part in one-day bicycle trips and 6%, i.e., went on bicycle holiday of over five days (ECF, 2010). The most favoured destinations were the bicycle routes along the great rivers, and the Rhine and the Elbe, in particular. The daily spending of German tourists ranges between € 62–70 (HUF 17–19 000), which means a considerable demand. The largest tourism exhibition in Europe, CMT in Stuttgart recognised the ever increasing importance of tourism in Germany (ÖM, 2010) and so organises a special cyclists' trade fair, exhibition so as to inform bicycle tourists. As regards the number of tourists visiting Germany, however, there are no precise data and there is no knowing what share of the market they have, although as a result of regional surveys their ratio can be put at 5–8% of the total German bicycle tourism market (ETI, 2007; ÖHLSCHLÄGER, 2007).

86.3 of Germans choose their own country as the destination of their holidays in 2011 but the importance of German bicycle tourists going abroad is also increasing. An example is Veloland bicycle route in Switzerland where about 3% of the total number of visitors come from Germany and the ratio of those spending at least two nights is 16% (ICKERT ET AL., 2005). 12% of bicycle tourists in South-Austria are Germans and their ratio of all bicycle tourists visiting the bicycle route along the Danube in Lower-Austria is about 30% (MANOVA, 2007).

Side by side with Germany and the Dutch, Austria can also be characterised with excellent demand figures. 70% of the population of the Netherlands cycle and currently, the ratio of bicycle holidays is at least of the same magnitude. The number of bicycle trips reaches 427 million, which generates an income of about € 350 million (MANOVA, 2007). The most popular sporting activity for Austrians is cycling, which is not the primary means of daily transport, however. For example, only 7% of the population use the bicycle for this purpose. The bicycle is mainly part of leisure activities. As a result the distance covered yearly on the bicycle is 187 km/person (FRANZ, 2012). Currently there are about 800 thousand cyclists recorded in Austria, about 600 thousand of whom use mountain bikes. So far there have been 60 000 trips on roads and in the vicinity of Vienna there are 70–100 persons/hour who ride the bicycle along different roads. Most of them belong to the 25–50 year age group (HUDSON, 2009).

Important cyclist destinations in Europe

The largest and fastest-growing target area is Germany, where bicycle infrastructure is growing at an ever increasing speed. In Germany, host and restaurants specialising in bicycle tourists have been coordinated by the franchise network Bett+Bike. In 2011 there were already 22 qualified bicycle routes and 5350 accommodation (BETT+BIKE, 2012) awaiting lovers of cycling all over Germany. 56.2% of bicycle tourists surveyed by ADFC always call at service providers that are members of the Bett+Bike network.

According to the German Cyclists Club (ADFC, 2011), however, the interest in qualified bicycle trips across countries, e.g. in Eurovelo routes as well, has been increasing for years. The Stretch of Eurovelo along the Danube in Austria is one of the most popular cyclists' destinations. In 2006 there were about 350 000 cyclists visiting this region and they spent about € 3.5 million in Austria (EP, 2009).

Destinations characterised with complex developments on offer in Europe are in the greatest demand (ADFC, 2011). France, the leader in recent years (e.g. Loire) and the runner-up Italy (e.g. Po) both have very well-constructed thematic

routes, which offer complex services. With their well-conceived, highly co-ordinated developments Switzerland and Austria managed to joined the ranks of the above two countries in the past few years. This closing up has b proved to be so successful that on the German market Austria has become the number one destination for bicycle tourists going abroad (ÖM, 2010).

Tourism offices in the German provinces are conducting exemplary work in the field of currently so popular bicycle tourism. In addition to printed materials they are addressing tourist demands by using more and more modern methods and internet-based route plans and GPS data are also available on their homepages (MTZRT, 2012b). In addition to marketing activities a lot of specialists also emphasise ta complex development of items on offer. For example 87% of Germans associate Mecklenburg-Western Pomerania with a place suitable for cycling holidays; the number of bicycle-tourism related bookings in Kirchzarten has gone up by 5-6%. In Totnau (Black Wood) in addition to new jobs incomes from tourism have risen by € 150,000, and St. Wendel (Saar region), which is famous for its races, made an increase of € 1.5 million in its turnover from tourism (ECF, 2010; ADFC, 2011). As regards these destinations the concerted development of tourism attractions, infrastructure, services and marketing is to be mentioned.

Cycling, as a Leisure Time Activity in Hungary

The demand for cycling as a leisure time activity has been dynamically increasing in Hungary since the early 1990s. One of the primary reasons is the fact that a health-conscious style of living has been gaining ground (ÖM, 2010). *Figure 1* demonstrates the figure for bicycle sales in individual yearly bicycle sales per thousand heads of population on the basis of the data from the European Cyclists' Federation. These data clearly show that Hungary is in the middle range with 30 bicycles sold per 1000 heads of population. The list is topped by member states whose citizens use the bicycle not only on their trips but also make use of this vehicle as a regular means of transport. Owing to city-transport related cycling experienced over the past few years a significant increase in bicycle purchases is expected.

Data for demand as regards bicycle trips are rather defective. In the basis of statistical data it seems that the primary motivation behind one-day trips, i.e., 2/3s of breaks is related to sports. Moreover, out of sport-related trips it is the ones with the aim of biking that are increasing most dynamically. On the basis of this the demand generated by bicycle tourism in Hungary can be characterised as a small segment of the market that shows a dynamic development.

Bicycle tourism generated demand trends in Hungary

As regards the European market for bicycle tourism, our country can be classified as one of the developing regions and services as well as catering provided to cyclists our tourism sectors are showing intensive developments (ÖM, 2010).

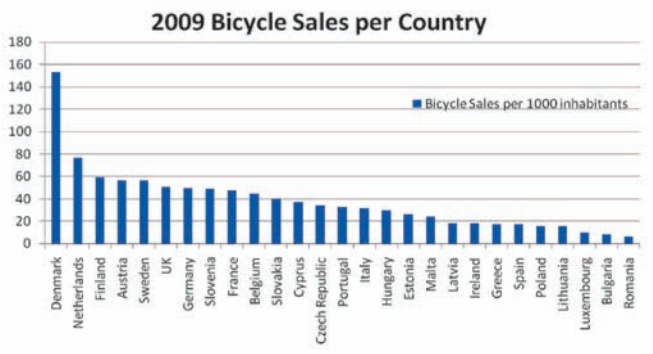

Figure 1: **Number of bicycle sales in European countries in 2009 (piece/1000 inhabitants)**
Source: ECF, 2010

Making bicycle trips are becoming more and more favoured and emphasising it and making people aware of its treasures (a healthy lifestyle, joint arrangement for the family, closeness to nature, environment-friendly characteristics) it is becoming more and more popular with Hungarian citizens (SALAMIN, 2010). Destinations also favour bicycle tourists because owing to the fact that they can carry only limited supplies (food, etc.) they rely on local products and services more heavily than any other branch of tourism. As a result the per diem spending of bicycle tourists exceeds the amounts that are usually experienced during trips (ÖM, 2010). This is highly beneficial for producers of local, provincial products and local service providers.

Primary target areas of domestic bicycle trips are hilly wooded regions and the areas of national parks. Demand-related surveys conducted in Hungary demonstratethat 70% of the bicycle tourists asked still primarily visit domestic destinations (SALAMIN, 2010), and since shorter bicycle trips are characteristic destinations near their places of residence are supposed to be preferred.

The demand aspect of our domestic tourism is also related to age and income situation. While cycling as a daily activity is also spreading strongly among those characterised with lower qualifications and incomes subjects of bicycle trips come first of all from the upper layers of the middle classes, typically from the younger age groups without children as well as the older generations which have already brought up their children (ÖM, 2010). Although these generations have partly different motivations they basically link their shorter trips to the activity of cycling with the aim of preserving and protecting their health.

Hungarian bicycle tourists highly prefer to choose their target areas on the basis of sights to see and the distances between the cyclist destinations and the distances between their places of residence, they like indulging in their sporting passion far away from traffic in relatively uninjured areas.

Priorities for product development in Hungary

Transport infrastructure development projects implemented over the past few years failed to bring the expected results in a number of cases (ÖM, 2010). The total of 2200 km bicycle

roads constructed can contribute to tourism only partly due to their width and providing access to natural beauties that are attractive to tourists (VÉGH, 2012). An example to note is the bicycle road in Szigetköz (an islan on the Danube near Győr), which is perfectly suitable for commuting but hardly for tourism as its width is not suitable for two-way traffic and from the Atlantic Ocean as far as the Black Sea this is the only stretch of Eurovelo route 6 where cyclists cannot ride side by side. In addition, those coming from the direction of Mosonmagyaróvár can no longer admire the river after leaving Halászi. Tourists would rather make a detour of 30 km if they can ride on wide enough roads across beautiful landscapes that are free from traffic (LACZÓ – SUDÁR, 2012). Of course the developments show considerable differences in their standards.

Within cross-border co-operation (CBC) projects the scope of services for bicycle tourists in certain regions, especially in Transdanubia, where the development of typically incoming bicycle tourism is also strong, could be enhanced with foundational as well as additional elements of service (ÖM, 2010),

Marketing activities aiming at tourists, providing precise and wide-ranging information still need improving and so in addition to current product development opportunities our most important task is to make cycling destinations in Hungary communicate strongly both on domestic and international markets.

The representative of the Hungarian Tourism Agency in Germany has been trying hard for years to provide information through different channels to as many people as possible about cycling arrangements and facilities in Hungary. This work is just starting to bring its concrete results. Among other things the German Bicycle Federation conducted an evaluation the bicycle tourism offers of 39 German, European and overseas tourism agencies in 2012. On the basis of the results there have been improvements as regards providing bicycle tourism information and offers in Hungary, Slovenia and Montenegro. Among the destinations surveyed Austria, Germany and Switzerland occupied the top positions (MTZRT, 2012b).

Another positive development in 2012 is that the bicycle road/route around Lake Balaton has been nominated as one of the 20 most beautiful bicycle routes by Bruckman Publishing, Germany. The Munich based publisher released its latest 168 page book for cyclists at the end of July, which introduces the 20 most beautiful bicycle routes in Europe, describing the trips on 6-8 pages. On the invitation of the Hungarian Tourism Agency the author took an eight-day trip on his own bicycle along the north-coast of the Balaton and summarized his own experiences about the destination in his book (MTZrt, 2012a).

Conclusions

The demand for bicycle tourism shows a dynamic development but on the supply side there is a strong competition between the different destinations both in Europe and Hungary. As regards the latter there is little comparable information available. Although Hungary can be classified as a developing region as regards bicycle tourism the examples of the top international destinations it becomes clear that long-lasting success can only be achieved by making a complex development on the supply side. This will require a concerted and complex development of infrastructure, tourist attractions, standards of services and target-group oriented marketing activities in future.

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A SURVEY ON TOURISM EXPERIENCES BY HUNGARIAN TRAVELLERS: TOWARDS GUEST SATISFACTION

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Abstract: In the 21st century experiences got great significance in the every-day life and in tourism as well. Human popularity can achieve very good and happy moments e.g. by shopping (complex experience in shopping centres) by common spare time activities in the nature and in towns, also by having vacation at a special destination.
Animation/entertainment is a sphere of hotel services that is to help the guests sparing their free time on holidays in a good atmosphere, by providing experienceful programs.
Good memories of a tourism service can make guests satisfied and build a returning clientele sphere. That is why it is awaited to map the (potential) guests' expectations and observations of services.
This paper discusses Hungarian tourists' experiences conducted in Hungary aiming to reveal the need for professional services focusing on the not-so-spread area, Animation.
The experiential dimensions of every-day life and tourism was studied by an own-edited questionnaire (N = 1000) in the half-year period of 1st August 2010 – 31st January 2011. This study was extended by quality of life since summer 2011 and I am going to compare the results of these two surveys with the aim of development suggestions in order to achieve a main level of guest satisfaction and a loyal sphere of clientele.

Key words: tourism, hotel services, animation / recreation, experience, guest-satisfaction

Introduction

As it was mentioned already in the abstract, surveying of my chosen areas are not so well-spread in the hospitality-tourism sphere. First of all, the animation / recreation / entertainment as a hotel service on its own, is presented only in some Hungarian accommodation. Since the author examined it in 2007, only 9.12% of the then net of hotels introduced this service to their guests. Nowadays the ratio is a little bit higher, but it is still not queried. In the 21st century not only hotels, but also camp sites has their own (mainly seasonal, for the summer time offered) entertainment program-series, such as the Balatontourist campings which are covered by the leading Hungarian national animation company the so called "Tiszta Dili".

The owners and operational leaders of accommodations decided by animation mainly on market-reasons (as the main competitors also has this service) and they would like to push the advantage of it: the happy returning clientele with a better quality of life, which covers children and adults, too.

Why can the animation service call forth these results, and how it is working? It can be understood if you take part in (well-organized) entertainment programs or survey the participants' satisfaction factors which stand in the centre of the author's main study. It is a still unhidden area of service quality management and guest-satisfaction.

Materials and methods

Definitions and background of the study

As many authors have disclaimed in our new century the marketers meet a sphere of more conscious clientele, who are interested in personalized and high-level quality, also in tourism. It is issued also in the hotel room furniture and the offered services.

Árva and Dely-Gray (2011) mentioned the new types of tourists as visitors of motorway-highway stations, participants of educational tourism and musical youth festivals. But, after the own experiences of the author of this article, it can be also grouped for those (Hungarian) tourists who expect the personal experience of holiday as wellness or family-friendly services.

All of them are participants of experiential tourism (which is a part of experience economy).

The term of "experience economy" was first published in 1998, by J. Pine and J. Gilmore. It was disclaimed that the experience economy is next generation of economy after the agrarian economy, the industrial economy, and the most recent service economy. The consumers are disposed to pay more only for those goods on the market that has still value and gives them experience. Goods and services are no longer enough on their own. The consumer needs something more, which can be named as the fourth supply form on the market as it can be seen on Figure 1.

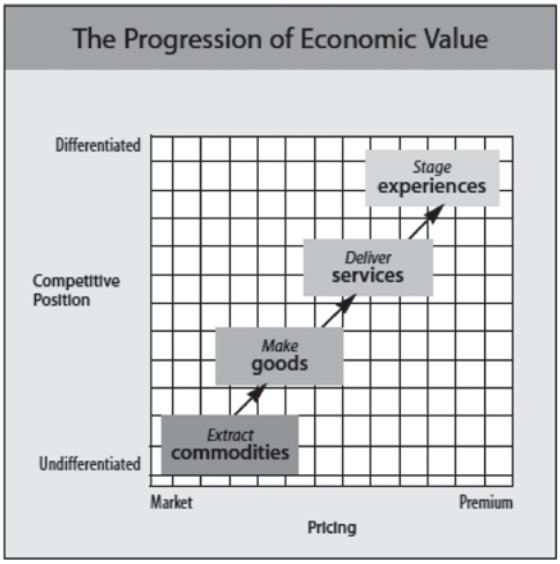

Figure 1. The Progression of Economic Value by Pine and Gilmore
Source: Pine, J. II – Gilmore, 1998, pp. 98.

This kind of economy has been realized also in the sphere of tourism. Some examples: the guest are much more pleased if they get a special atmosphere for their dinner in the restaurant (not only candle-light, but e.g. flambée) or high-tech services in the hotel (e.g. X-box or smart-phone or iPad-controlled services in the room), beside the off-line music played by radio, bigger fun can be given by the live-music or instead of watching TV is better to get a stage-production performed by a dance group or by the entertainment team.

The characteristics of experience (declared by Pine and Gilmore, 1998) can be found also in the games and shows in the frames of animation / entertainment:

- *customer participation*: the animation games can be organized only by the active participation of the guests, who are the players or racer at activities. They get much bigger experience if they take part in quizzes, children activities, guest-shows, etc. and not only watch them as an audience.
- *connection*: it means first of all as Pine and Gilmore stated that environmental relationship unites customers with the event or performance. In second it can be also mentioned, that in animation activities the participants play with each other in groups so they can build additional friendships.

If the guests are satisfied with the (animation) programs they feel that the service's quality is good or premium-level and they can await more visiting of the activities.

Customer satisfaction expresses that how the service suits the customers' expectations. If it surpasses the customers will be satisfied, if not, they will be unsatisfied.

As Kenesei & Kolos (2007) mentioned satisfaction has several business advantages: contri-butes to the competitive edge; the satisfied customers are not so sensitive to the competitor propositions, they consume more often and makes propaganda for the firm's better image.

In order to increase customer satisfaction, the company should identify those factors, having (some) impacts on it. It can be stated that getting to know the customers' (guests') prior expectations and – related to the former part – the functional dimensions of quality besides the performance level of services are the most important elements in this process.

Techniques and methods of examination

As it was declared above satisfaction is a judgement of service-value determined by the customers or guests after (or in some cases during) the consumption of the given service, e.g. hotel animation/entertainment.

Many experts have dealt with measuring service quality. Probably the most well-known survey is related to Parasuraman and his colleagues (1985, 1988 and 1990). In their study they listed 10 aspects of service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. This model is known as SERVQUAL. By these indicators they measured the gap between customer expectations and experience.

In the original SERVQUAL-questionnaire there were presented 22 statements on quality in order to be evaluated by a Likert-scale from 1 to 7. The author modified this questionnaire and declared 18 elements in 2010-2011.

Later the number of factors was reduced to 15 which can have role in the development of experience by animation activities.

In the categories the following service-elements of animation experience were divided:

- *Reliability* (originally 5 indicators): familiar game.
- *Empathy* (5 original indicators): the animateur (play-master) himself.
- *Tangibles* (4 indicators): equipment; place of game; pool-game; playing for music.
- *Responsiveness* (4): getting gifts; more winners.
- *Assurance* (4 indicators originally): activity lead in Hungarian; many participants (players); playing with friends.
- *Other* (differently from the original method, those indicators that cannot be listed in any above category): the game itself; activity lead in more languages; a few participants; good weather for the game; newish game; playing with new people; recurrence during the day (played more times, e.g. not only in the morning).

The survey was a quantitative research by questionnaire which was sent to the respondents by e-mail or was used in a printed version in face-to-face communication by the help of the entertainers/animateurs of Tiszta Dili Hungarian animation company.

During the first research between August 1st 2010 and March 31st 2011 and also in the second one which is not yet closed, between July 1st 2011 and 31st December 2011 'convenience sampling' was used. The first research resulted 1000 pieces of valuable questionnaires (Magyar, 2011), and the second one has yet 698 participants' opinion.

Data-procession was by SPSS Statistics 17.0 software. The data were weighted by the Hungarian population's statistics (by place of residence and gender) for being representative.

Results and discussion

As it was mentioned before it is necessary to map the guests' prior expectations and also the "feel" after consuming.

In my two surveys I tried to analyse the prior expectations, by giving the most meaningful deciding criteria by planning vacations. In the first survey I did not ask the participants to state a priority order, only to mention the five criteria which are important for them in planning. But in the second query I applied a five-grade Likert-scale for evaluating each mentioned services.

As it can be seen in Table 1, the priority of travelling consideration among the Hungarians has not a huge difference between the two surveys. Animation activities are still only on the 13th place before the last awaited service: local guide (N=32). Still the favourable prices and "hunting" for new experiences lead the role.

The experiences during the hotel stay were measured on a ranking scale in my first survey (the best experience was marked by 1, however, the worst by 10). Analysing these experiences it can be stated that by the first query for the Hungarian holiday-makers still the "conventional" services are experience-full, such as the experience from the location (3.88), friendly and helpful staff (3.33), and the cleanliness (2.63). However, the active leisure time relating services, such as the sports facilities (6.36), animation (7.04) and wellness (5.30) give not yet a so big experience factor for them, not like as e.g. in Austria or in the Mediterranean Region.

In the second survey I edited for this topic an open question, for which the participants should have answered in their own mind about their hotel-experiences both in Hungary and abroad.

The following order can be stood up in Hungary on the hotel-experiences:

1. *Experiences related to Wellness (and thermal) services*: n = 492
2. *Experiences related to F&B services*: n = 400
3. *Experiences related to the hotel room*: n = 352
4. *Experiences related to the staff*: n = 198
5. *Experiences related to the location*: n = 182
6. *Experiences related to other hotel services*: n = 153
7. *Experiences related to Fitness and sport services*: n = 100
8. *Experiences related to Animation*: n = 112
9. *Experiences related to facultative programs*: n = 110
10. *Experiences related to favorable prices*: n = 68
11. *Other experiences*: n = 41

In the second query there can be found another priority role among the Hungarians. The wellness experience dominates such as the satisfaction gotten by the F&B services, but unfortunately the active leisure time activities are still at the end of the list.

It can be stated that in animation programs in both surveys the most important factors are the persons who are responsible for this service and the "warm" environment of friends and relatives, beside the (good) characteristics of the games.

The other factors have not so relevant differences in these two surveys. The Hungarian participants at animation programs do not need so that there is an activity held also in the morning and in the afternoon, they need variety. They play not exactly for the gifts or placing, but for fun. They need more the new games than the familiar ones they played many times before. (Table 2.)

Table 1. Priority of Hungarian holidaymakers' travelling considerations

Priority of travelling considerations	Survey 1			Survey 2	
	answers	percent	place of order	priority (mean)	place of order
favourable prices	696	69,60%	1.	4,35	1.
looking for new experiences	691	69,10%	2.	4,30	2.
varied (facultative) programs nearby	587	58,70%	3.	3,52	8.
travelling with friends or mate	568	56,80%	4.	4,03	3.
water-front hotel	545	54,50%	5.	4,00	4.
nearness of green nature (e.g. woods, hills)	408	40,80%	6.	3,72	7.
travelling with family-members	422	42,20%	7.	3,95	5.
visiting former destinations with good feelings	317	31,70%	8.	3,20	9.
many (hotel) services included	207	20,70%	9.	3,81	6.
children / family friendly hotel services	107	10,70%	10.	2,31	12.
high-qualified hotel	63	6,30%	11.	2,42	11.
other respect	55	5,50%	12.	2,97	10.
hotel animation / recreation services	53	5,30%	13.	2,27	13.
local guide	32	3,20%	14.	2,00	14.

Source: own calculations

Table 2. Experience service elements of animation activities

Service elements	Value (Survey1)	Value (Survey2)
the animateur him/herself	4.17	3.97
good weather	4.04	3.40
playing with friends	3.94	3.84
the game itself	3.72	3.80
pool-games	3.59	2.82
music	3.59	3.64
new games	3.56	2.92
playing with new people	3.55	3.41
in Hungarian lead activities	3.23	2.81
many players	2.72	2.88
familiar games	2.72	2.25
more winners	2.71	2.39
getting gifts	2.69	2.29
recurrence	2.17	2.01
only a few participants	2.10	1.77

Source: own calculations

Conclusion and suggestions

Animation / Entertainment is already a service that is entered also to the market of Hungarian commercial lodgings, but it is still not so developed as in abroad. Among the holiday-makers there can be found those who already have participated in animation activities e.g. in the Mediterranean where there is a tradition of this service, so they could have got good impressions which they expect also at home. If they were satisfied they are pleased to talk to their friends about this newly service, and the providers employ own or rented animateurs.

We should focus on the guests' satisfaction factors and on the basis of them it is needed to provide such a variety of animation activities that meet the expectations not only in the hotel room but also in the active recreation and entertainment.

There can be found also good examples in the Hungarian market. The hoteliers can get proofed "packages" from routine-full animation companies such as the "Tiszta Dili" that entertains the guests of hotels, camp sites and spas in approximately 20 different places in Hungary in 2012. Their main advantage is the creative and personalized variety of programs, which are suitable not only for the children but for the teenagers and the adults, too.

In this intensifying market competition the hoteliers should provide their guest services that are always on higher level, because the clienteles are looking for premium quality for favorable prices. "All inclusive" is a challenge for them and animation can also help to be satisfied with the hotel services and the life itself.

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DIFFERENCES IN TRAVEL BEHAVIORS OFSMALL AND LARGE CYCLING EVENTS PARTICIPANTS

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Abstract: Tourism has been and will continue to be one of the biggest and most profitable industries in the world. Sport is obviously a very important aspect of society in many different ways: culturally, economically and socially. Like in the past, local authorities continue to regard all sporting events as a way of promoting and positioning their destination. Participation in sport events relates to tourism because it also involves travelling to host destinations. Therefore, the aim of our study is to compare participation in small and large sport-for-all events in relation to tourism in Slovenia. We analysed the factors determining differences in the travel behaviours of sport event participants and certain aspects of participation (travel behaviour, frequency of sport event participation, reasons for participation) at the largest cycling event in Slovenia (the Franja cycling marathon) and two smaller cycling events (the "Three hearts Radenci" recreational cycling marathon and the "Around the region of Prlekija" recreational cycling marathon). The study analysed the active participants of different cycling sport events. The sample of respondents consisted of 382 participants. We found that over the third of the participants take on the role of a sport tourist in their travels. They are also very sport-active in their leisure time. The majority of them are engaged in sport activities more than three times a week. The results indicate differences in travel behaviour and sport-active lifestyles among the participants of different types of small and larger sport events.

Key words: recreational cycling events, sport tourism, travel behaviour

Introduction

A number of theories aim to explain the growing popularity of cycling (Bull, 2006; Filo, Funk, & O'Brien, 2008). Mass participation in sport events is nowadays an indicator of this popularity, but it does not explain it. It is well known that for a long time sport events not only provide spectators with pleasure as they attend events. More and more sport events like running or cycling marathons allow people to also take part in these events. This happens in the form of various mass running, cycling or triathlon sport events which have been increasingly popular since the 1980s (Hanold, 2008, Fister & Fister, 2011). Interest in such sport events is high and still rising. Across European countries, sport participation, especially the 'mass sport events boom', is a topic of particular interest. Moreover, attention to sport trends has been growing in recent years. Previous years have shown us that interest in sport participation is on the rise. In Slovenia it has been recognised that never before have so many people been participating in sport. The fact is that attitudes to recreational sport have changed radically (Doupona Topič, 2010).

Illustrative of this is the fact that tens of thousands of participants are engaged in the biggest marathons around the world (Shipway & Jones, 2008). Participation in mass events is popular and trendy all over the Europe. It is crucial for participants that there is a crowd of like-minded people, making participation at sport events like a kind of social event and representing the reason and motivation to be active in their leisure time (Kaplanidou & Gibson, 2010). Sport events have become more than a passive or active way of spending one's leisure time. Besides the already known motives of relaxation and social interaction, they also invigorate feelings of ability, capacity, happiness, freedom and authenticity. These are what people strive for most in their leisure time (Rauter, Doupona Topič, & Vehmas, 2011). This is also one of the main reasons for participating at such sport events. The increasing number of participants and popularity of these sport events also promotes tourism because sport events clearly attract many sport tourists (Chalip & Costa, 2005). That also explains why the most popular of such events are not only sport-related events but also pose challenges for tourism. For example, participation in marathon events relates to tourism because it mainly involves a lot of runners who travel to the locations of those events. The rising number of participants and popularity of these sport events is also exploited by the tourism industry because sport events clearly attract many large numbers of tourists (Chalip & Costa, 2005). For example, the Berlin Marathon attracts over 40,000 runners from more than 100 countries

and consequently provides a large number of overnight stays. We should also take into account the attractive photos and snapshots of the most popular host destinations which are published in different media and function as excellent promotion for the destination.

The popularity of sport events can be regarded as a tourist attraction. Popular and well-known tourist destinations exploit the potential of sport events for the development of local tourism. From this point of view, sport events might play an essential role by promoting the destination and may become increasingly important for the economy – they can even impact on the development of a city, region or even country. This depends on the size and dimension of the particular sport event (Yusof et al., 2009).

Most research studies have focused on the economic effects of sport tourism relative to sport events, with little coverage of the participants themselves, although some of them along with the fact that sport events hold tourism development potential have led to researchers turning their attention to the participants of these events. In this study we address the issue of how we might classify and understand different types of tourists. Gibson and Pennington-Gray (2005) suggest to role theory from sociology and its subsequent use in tourism studies. Gibson and Yiannakis developing a typology (Tourist Role Preference Scale – TRPS) that included only tourist roles, those that are leisure roles rather than including general travel roles (Weed, 2009). Tourist roles in TRPS are operationalized as statements that identify the primary behaviors associated with a particular tourist role. They found that individuals appear to choose roles with similar characteristics such as novelty, risk, and spontaneity, and that it is usually possible to identify dominant role characterizing a particular vacation. This can also be applied to sport tourism. Some authors (Kaplanaidou & Vogt, 2007; Hallman & Breuer, 2010) mentioned that those people who travelled to the events and take part in the sport events have, according to the classification of Gibson (1998), all the characteristics of active sport tourists. Gibson developed a profile of the typical active sport tourist which distinguish sport tourist form other types of tourists are that they are more likely to be male affluent and college educated. It seems that we should add active sport tourists who travel for the purpose of participating in a sport event to a new category of active sport event tourists. Kaplanidou (2006) defined "active sport event tourists" as people who travelled with the purpose of actively participating in sport events.

The research focuses on differences among participants of large and small events as well as the potential of these sport-for-all events for tourism. The main goal of our research is to identify the travel behaviour of cyclists taking part in large or small sport-for-all events.

Methods

We analysed the factors determining differences in the travel behaviours of sport event participants and some aspects of sport participation in their leisure time. The sample of subjects consisted of 382 participants (cyclists) in three recreational cycling events in Slovenia: the largest cycling event in Slovenia (the Franja cycling marathon) and two smaller cycling events (the "Three hearts Radenci" recreational cycling marathon and the "Around the region of Prlekija" recreational cycling marathon). The study was conducted in July and August 2011 and based on a specially designed and adapted questionnaire by Rauter and Doupona Topič (2011). Adaptations were made according to the Tourist Role Preference Scale (Yiannakis & Gibson, 1992). The questionnaire consists of 30 items, which were answered using a five-level scale (Cronbach's Alpha = 0.848). Moreover, the questionnaire also verified the subjects' stratification characteristics (gender, age, education, income, marital status, number of children), their frequency of engaging in sport activities in their leisure time and of attending mass sport events as well as their related habits. With the help of the organiser of all three events a link to the online survey was sent via e-mail to all participants registered for all three cycling events (3500 registrated participants of the Franja cycling marathon; 850 participants of the "Three hearts Radenci" recreational cycling marathon and 720 participants of the "Around the region of Prlekija" recreational cycling marathon). The data so acquired were first analysed using descriptive statistics methods. The connections between individual categories of tourist roles and other variables were verified through a correlation. The statistical significance of the differences was established using an analysis of the variance and the chi-square test.

Results and discussion

The study's population was active cyclists who actively take part in sport events. The descriptive statistical analysis of their socio-demographic factors shows that most participants were middle-aged men, well-educated and mostly married. Seventy-eight percent of these were men and 22% were women. We did not find a statistically important difference between the male and female participants at the smaller or larger cycling events ($p=0.398$). The participants' average age in the present study is 38.76 ± 13.74 years. This reflects the actual age structure of active participants in different mass sport events and coincides with previous studies. The results of earlier research (Bull, 2006; Getz & McConnell, 2011; Hallman & Breuer, 2010) show that the most common sport event participants are middle-aged people whose priorities are comfort and quality.

The participants' social profile is also an interesting piece of background information. It hence follows that people in a higher social class in our research more frequently participate in various sport events. The results also show that the participants' monthly income is much higher than the average monthly income of citizens in Slovenia. Several previous studies (Lee & Bhargava, 2004; Mansfield, 2007) confirm that education and the related feeling of belongingness to specific social groups are extremely important factors for including individuals in different sport activities. Education level often

correlates with income level. Kaplanidou (2006) concluded that the participants of several mass sport events belong to a social class with a higher income. Getz and McConell (2011) bring together the higher level of participants with their age structure and also with the financial aspects of participation in such events.

Table 1. Socio-demographic characteristics of the cycling event participants

	Large cycling event[1]	**Smaller cycling events[2]**	**Sig.**
Gender			
Male	78.9%	77.2%	$\chi 2=0.146$ p=0.398
Female	21.1%	22.8%	
Age	38.47±15.91	39.07±11.08	F=1.82 p=0.67
Education			
Primary school	0%	0.1%	$\chi 2=11.28$ p=0.049*
Vocational school	4.1%	3.7%	
Secondary school	30.6%	42.6%	
College education	10.9%	13.3%	
University education	45.6%	34%	
Master's or doctorate	8.8%	5.3%	
Income			
Don't want to answer	15%	0%	$\chi 2=53.18$ p=0.000*
No income	5.2%	4.8%	
< 800€	15.6%	23.2%	
801–1400€	34.7%	50%	
<1401€	29.6%	7.5%	

Legend: 1. participants of the largest cycling event in Slovenia (Franja cycling marathon), 2. participants of two smaller cycling events ("Three hearts Radenci" recreational cycling marathon and "Around the region of Prlekija" recreational cycling marathon); Sig.– statistical significance (p<0.05*)

The entry fees and sometimes also the cost of travelling to the events are very high. A lot of studies (Cunningham, 2005; Daniels, 2007; Lee & Bhargava, 2004; West, 2009) connected the level of education with a higher standard of living. People with a higher education have better paid jobs and consecutively receive higher incomes. The results of our study showed there are statistical differences among the participants of larger and smaller cycling events in both the level of their education and their monthly income (Table 1). Results showed that almost a third (29,6%) of participants of large cycling event have monthly income higher than 1400€ in comparison with the participants of small cycling events (7,5%). One reason should be the level of entry fees which for the smaller events amount to around EUR 15 and for the larger event around EUR 35. The other reason for the differences is the destination (region) of the sport events. The smaller events take place in rural areas nearby two small towns. The larger event was organised in Ljubljana, which is the capital of Slovenia and also the most economically powerful part of the country.

Some previous studies (Kei, 2004; Mansfield, 2007; Nomaguchi & Bianchi, 2004) found that marital status affected the participants' lifestyle, especially their leisure time, which involved an engagement in sport activities. They found that single people devote more time to leisure activities. It does not matter whether this means engaging in sport activities, hanging out with friends or attending a cultural or sport event. The results of our study do not allow us to completely confirm the abovementioned results of the previous studies. Among the participants at all three events, 18.9% of them were single and 45.2% were married. We identified statistically significant differences between the participants of the larger and smaller cycling events depending on how many children they have (Table 1).

Marital status is not such an important factor for participation in mass sport events. Family status is more strongly associated with the reasons for participating in the mass sport events. Single people are looking for friendships and communication, while runners with a family and children are particularly looking for special additional side programs dedicated to their children (Best, 2010).

Table 2. Reason for participating in the cycling events

Participation on the sport events is for me:	**Large cycling event[1]**	**smaller cycling events[2]**	**Sig.**
Escape from everyday life activities	2.75±1.48	3.13±1.38	F=6.51; p=0.011*
Acquiring new friends	2.80±1.14	3.41±1.13	F=27.15; p=0.000*
Spending time with my family	2.17±1.68	3.13±1.28	F=57.26; p=0.000*
Helps me to refresh my mind and body	4.34±0.93	4.46±0.81	F=1.83; p=0.176
Allows me to seek new and different experiences	4.04±1.03	3.91±1.09	F=0.89; p=0.345
Enhances my status with my peers	1.99±1.06	2.16±1.22	F=1.93; p=0.166
Is a special kind of activity in my life	3.84±1.31	3.80±1.21	F=0.12; p=0.731
Helps me achieve my dreams and fantasies	3.90±1.18	3.70±1.12	F=3.02; p=0.083

Legend: 1. participants of the largest cycling event in Slovenia (Franja cycling marathon), 2. participants of two smaller cycling events ("Three hearts Radenci" recreational cycling marathon and "Around the region of Prlekija" recreational cycling marathon); Sig.- statistical significance (p<0.05*).

Shipway and Jones (2008) found that people attend sport events because they take a rest and refresh their mind from everyday life and obligations. Table 2 shows the importance of several reasons for participating in the cycling events. Refreshing the mind and body was the most popular reason for the participation among the cycling event participants. We also found statistically significant differences between the participants of the large or small cycling events in some reasons that belong more to the social aspects of participation. Participants in the small cycling events evaluated the importance of "spending time with family" and "acquiring new friends" higher than the participants in the larger cycling

event. The main reason for this might be that the participants in the smaller events represent a group of people who are more familiar with each other and more of them come from a rural environment.

Table 3. Frequency of event participation and of sport activity

	Large cycling event[1]	Smaller cycling events[2]	Sig.
FREQUENCY OF SPORT PARTICIPATION (%)			
Never take part in physical activity	0	0.5	$\chi2$=25.301 p=0.000*
1–3 times a month	2.6	3.3	
Once a week	4.6	15.9	
2–3 times a week	32.5	42.3	
More than 3 times a week	60.3	37.9	
FREQUENCY OF EVENT PARTICIPATION			
Number of events per year	7.91±8.76	7.81±7.68	F=1.03 p=0.902
TAKE PART IN MASS SPORT EVENTS IN A FOREIGN COUNTRY (%)			
Never	48.5	57.2	$\chi2$=7.13 p=0.068
Rarely (less than 2 times a year)	39.2	36.9	
Often	12.4	5.9	
Rarely	34	29	
Sometimes	14.4	17.2	
Often	5.2	2.7	
Always	1	0	

Legend: participants of the largest cycling event in Slovenia (Franja cycling marathon), 2. participants of two smaller cycling events ("Three hearts Radenci" recreational cycling marathon and "Around the region of Prlekija" recreational cycling marathon); Sig.- statistical significance (p<0.05*).

Table 4. The roles assumed by people while travelling or on holidays

Tourist role	All	Large cycling event[1]	Smaller cycling events[2]	Sig.
»SPORT TOURIST«	**39**	41.8	36.2	$\chi2$=1.343; p=0.146
»ANTHROPOLOGIST«	6.5	7.2	5.9	$\chi2$=0.306; p=0.365
»SUN LOVER«	5.5	3.6	7.4	$\chi2$=2.666; p=0.079
»ARCHAEOLOGIST«	5.5	4.1	6.9	$\chi2$=1.402; p=0.169
»EXPLORER«	4.5	4.1	4.8	$\chi2$=0.092; p=0.478
»THRILL-SEEKER«	7.1	5.7	8.5	$\chi2$=1.142; p=0.192
"SEEKER«	2.9	2.6	3.2	$\chi2$=0.122; p=0.482
»ACTION-SEEKER«	1	1	1.1	$\chi2$=0.001; p=0.675
»ORGANISED MASS TOURIST«	2.6	2.1	3.2	$\chi2$=0.466; p=0.359
»DRIFTER«	1.6	0	3.2	$\chi2$=6.257; p=0.14
»EDUCATIONAL TOURIST«	1.3	0.5	2.1	$\chi2$=1.902; p=0.178
»HIGH-CLASS TOURIST«	1.3	0	2.7	$\chi2$=5.200; p=0.028*
»JETSETTER«	1.6	0	3.2	$\chi2$=6.257; p=0.014*

Legend: % of those who defined themselves as one of the tourist types; participants of the largest cycling event in Slovenia (Franja cycling marathon), 2. participants of two smaller cycling events ("Three hearts Radenci" recreational cycling marathon and "Around the region of Prlekija" recreational cycling marathon); Sig.- statistical significance (p<0.05*).

We realised that for the cycling event participants sport activities are clearly an important factor of their leisure time. The research results reveal that the participants very often spend their leisure time by engaging in sport activities, just like when traveling where most of them take on the role of a sport tourist. The results show that the participants who took part in the larger cycling event are more often sport-active and also attend more sport events per year (Table 3). In addition, they participated more often in different sport events abroad in foreign countries. Based on these results, we can make a connection with the fact that among the participants of the larger cycling event there are also more of them who assume the role of sport tourists.

Based on the theoretical framework of Gibson and Yiannakis (2002) it is possible to identify the dominant tourist role, which was checked with the standardised questionnaire "Tourist Role Preference Scale". The results show that our participants assume different tourist roles on their travels (Table 4).

It is therefore not surprising that these people largely take on the role of sport tourists on their travels. In earlier studies, mass sport event participants were automatically categorised as sport tourists (Deery et al., 2004; Hallman et al., 2010; Kaplanidou & Vogt, 2007). We found that the share of those who take on the role of a sport tourist was 39%. Such a finding raises the question of how to classify more than half (61%) of our study subjects since all of them were active participants in the cycling events and did not assume a sport tourist role. The results show that, among the participants in the larger cycling event, there were bigger shares of those who take on the role of a sport tourist (41.8%) compared to the participants in the two smaller events (36.2%).Large cycling event »the marathon Franja« is organised in the capital of Slovenia and is definitely more attractive for tourist in comparison to the two small events in rural area. We have already indicated, that participation in mass sport events often be linked to the sport tourism. A lot of people travel to participate at attractive sport events, like a large very known cycling marathons. This might be the reason, that a share of sport tourist among the participants of large cycling events is bigger.

The results reveal that our cycling event participants assume different tourist roles on their travels which are not necessarily associated with sport related reasons (Table 3). Namely, 6.5% of the participants in our study enjoy learning about different cultures ("anthropologists") on their travels. Some of them take on the role of a tourist "sun lover" (5.5%)

who enjoy relaxing in warm places with lots of sun. The results indicate statistically significant differences between the participants of the smaller cycling events that cover the tourist role named "sun lover" (3.6%) compared to the larger cycling event (7.4%). The results also show that among the cycling marathon participants there were practically no "high-class tourists" who enjoy luxurious trips or those who prefer organised and guided tours.

Conclusion

Previous research about sport event tourism has shown the potential of sport-for-all events for developing tourism. Some research found that especially small sport events allow the possibility to develop unknown tourist destinations (Yusof et al., 2009). Earlier research into mass sport events does not discuss and define the participants of mass sport events separately. By separately discussing a participant in their role of a sport tourist from that of a participant who did not assume this role, we were able to better explain the characteristics of the sport event participants. To clarify this main goal of our research we relied on the theoretical background of role theory.

Using role theory and its application to tourism we can identify people with different motives and needs, different tourist roles. It was found that nearly 40% of the cyclists engage in sport activities during their travels and assume the role of a sport tourist. Among the participants in the large and small cycling events we were unable to find differences in the share of participants taking on the role of a sport tourist. In terms of developing sport tourism we cannot indicate whether small or large sport events are preferable. However, we are not in a position where we can carry out a lot of especially economic studies to identify the potential of sport event tourism and its impact on host tourist destinations. The results show that the typical cycling event participant was middle-aged, highly educated and had a higher income. A comparison pointed to the differences in the share of highly educated people among the small and large cycling event participants. People who attended the larger cycling event had a higher education level and a higher income. Like the share of participants with a higher education level among those taking part in the larger cycling event, they were also more involved in sport participation during their leisure time.

When conducting further research on sport event tourism it would make sense to employ more qualitative research methodology where the research would focus on questions such as: "Why and how do sport activities or active participation in sport events influence people's lives?

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RESPONSIBLE BEHAVIOUR OR BUSINESS? SOCIAL RESPONSIBILITY (CSR) IN SPORT MANAGEMENT

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Abstract: CSR has become increasingly important in today's business world and managers must consider not only the economic results of their decisions but also the legal, ethical, moral, and social impact and repercussions of each of their decisions. Some multinational companies' CSR activities even clearly represent applicability of CSR in sport management.
The aim of this study was to do a critical comparative analysis, present the changes, alterations in the traditional company philosophy, object-system; then to define the concept of CSR, its importance in sport, finally to analyze some of the top 20 World Food & Beverage Companies' (Coca-Cola, Danone, Nestle) CSR activities in sport management.
Similarly to the whole economics – beside traditional theoretical tendencies, parallel to them and not developing them – a new kind of company theory concerning the long-term balance problems of the natural environment and society is being formed.
Although the notion of corporate social responsibility (CSR) is prominent in some of the current discussions and investigations about the role of business in society, the concept – integrate social and environmental aspects in their business activity – is not new.
According to the websites and sustainability reports of the international parent companies and domestic subsidiaries, we can say, that the companies show similarity at several points with regard to social responsibility within the field of sport management. However we must emphasize that we can find in the domestic practice fewer examples. In this case probably the media plays important role, which prefer the news of scandals such as CSR-related initiatives. In the public the companies' CSR activities are even less known. Finally we can establish, that about the sport sponsorship the parent companies we have more information, their reports and websites are more transparency. In contracts, in the case of subsidiaries we can meet deficiencies.

Key words: traditional company philosophy, corporate social responsibility, sport management, food & beverage companies

Introduction

Sustainable development is the key problem of our age in the solution of which all players of economy and society must take part in. Without the most important fundamental units of the economy, the companies it is unthinkable to realize the paradigm shift that is indispensable for the profound reform of social-economic processes. These processes such as the methods of production, its technological solutions, the design of products and their distribution, the changes of the structure of customer needs, the development of the current society's lifestyle and values – and the list could go on for long – should be reformed in a way that they correspond to the global ecological and social restrictions. Obviously, in all phases of the accomplishment of this huge, overall complex mission companies should play a significant role in, as well.

In the past three decades companies all over the world, but certainly above all in the developed countries have paid more and more attention to understanding the problems of sustainability and especially to the practical duties related to them. Owing to the characteristics of companies the emphasis

[1]A kutatás a TÁMOP 4.2.4.A/2-11-1-2012-0001 azonosító számú „Nemzeti Kiválóság Program – Hazai hallgatói, illetve kutatói személyi támogatást biztosító rendszer kidolgozása és működtetése konvergencia program" című kiemelt projekt keretében zajlott. A projekt az Európai Unió támogatásával, az Európai Szociális Alap társfinanszírozásával valósul meg."

was put on the former, the practice that is, and it happened in a mosaic-like way, that is to say certain elements of the solution of sustainability issues were integrated in the company practice mostly isolated from each other, accidentally. It seems that the expansion of sustainability factors of company policy has reached a critical level as a result of which the different sustainability means of companies are beginning to form an overall, more or less consistent system. All this reflects how companies have changed their attitude towards the natural and social environment and the ecological crisis and how it appears in the company object system more and more emphatically. This consciousness-raising process occurs in the form of a declared company philosophy more and more frequently and it may as well mean the fundamental transformation of the company image, the company concept, the tell-tale sign of which is the formation and spread of the concept of a responsible company in practice as well as in the theoretical literature of companies.

Corporate responsible behaviour increasingly gained attention in public debate, entrepreneurial networks, corporate communication and academic research (*Hediger* 2010). Today social responsibility goes far beyond the "philanthropy" of the past, it is about the business contribution to sustainable development and about proactive solutions to societal and environmental challenges (*Vasilescu* et al. 2010).

In our study we try to answer the following questions that our paper can articulate.

1. How shifts the traditional company philosophy towards the responsibility approach?
2. How define different literatures the concept of social responsibility?
3. What is the role of the sports management in the top 20 World Food & Beverage Companies' (Coca-Cola, Danone, Nestle) CSR activities?

Material and methods

By making use of the available Hungarian and foreign economic and company ethics literature, doing a critical comparative analysis we shall present the changes, alterations in the traditional company philosophy, object-system, in which companies integrate social norms and environmental values in their company philosophy beside their primary profit-motif.

In the conceptual clarification of CSR we relied on international special literature (*Hediger* 2010; *Perrini* 2005; *Smith* and *Westerbeek* 2009; *Walker* and *Parent* 2010).

For the analysis of Nestle, Danone and Coca-Cola Company we applied a comparative analysis based on secondary databases. We compared the companies' responsible attitude – e.g. financial support of sport programs, stimulation of companies' employees to take part in different sport and healthy life programs, how the companies' activities change as a result of foreign pressure – with the help of data gained from their web sites, reports, case studies in Hungary and in their homeland.

Transformation of company theory

"Traditional" contra „value-based" company theory

Literatures which deal with company theory are not uniform if company is a separate entity. We agree that company has own sense and this sense is more than the whole bulk of employee's and leader's sense. This own sense can we find in the philosophy of company and the study of this link up company theory. That's exactly why we found important to study the appearance of responsibility in company theory.

Next we shall summarize the aims and factors that distinguish the „value-based" company model from the traditional company model in five points:

1. The recognition of the importance of a moral attitude. In this respect companies do not deal with environmental/ social problems in the hope of or subordinated to profit, but because they consider it their moral responsibility. This philosophy points over sole benefaction. Companies endeavour to minimize their effects on the environment in a way that they try to integrate activities beneficent for the society in most of their daily concerns. For this reason the values of the companies – that have to form an organic part of the mission, strategy and operative plan of the company – need to give directions. In the strategic or operative plans with a consideration for their commitment for local, national or even global communities, value-based companies can realize their social, environmental and financial objects through their everyday decisions (*Pataki* and *Radacsi* 2000). Profit, moral, company self-interest and ethics often conflict. However companies must also understand that certain things are not done because they are beneficiary for us, but because we consider them right.
2. The acceptance the ideal of free market. Within the logic of market-economy they attempt to function in a way that their activities also increase the common good. How is all this possible? While the liberal concept of the economy suggests that ethics is not at all necessary in the economy because out of the individual, self-interest guided, profit-maximizing endeavours the „invisible hands" of the market system creates the common good (*Zsolnai* 2001), responsible companies think that the individual profit of enterprises, companies does not at all lead „automatically" to the welfare of the community. Companies must show commitment to common good in their decisions and deeds as well as undertake accountability. These companies suppose that the players of the economy have an untransferable and undisputable ethic responsibility in the question of the effects their decisions have on others. They must take responsibility for the prosperity of those communities – and not only their companies' – in which they live and work, let them be local or global, human or wider national communities (*O'toole* 1991).
3. The consideration of the problems of the environment and the society apart from financial concerns. In this case companies may take a respectable place in the community; their customers can become loyal to it. „Value-based"

companies win a kind of product-loyalty from their customers, because their appeal exceeds their products. As opposed to most trade transactions if we buy the products of a company we deeply believe in, it is more than mere purchase (*Choen* and *Greenfield* 1998). It has been proved that social participation does not necessarily have to be sacrificed for profit-maximizing as one can strengthen the other. The better they accomplish their commitment for social change in their business activities, the more loyal customers will be attracted and the more profitable they will become. That is, responsible management means such a decision making in which „decision makers choose rationally from among morally acceptable alternatives." In case of economic organization decisions morality means that the organizations take the impacts of their decisions on the affected natural environment and communities into consideration and recognizes eco-systems and humans as valuable entities.

4. Difference between profile and identity. The environmental moves of traditional companies are mostly – openly - done for improving image. Most companies haven't reached the point to re-evaluate their core activities according to ecological and social aspects. For the time being, environmental protection steps do not appear in their organizational identity. As opposed to them, „value-based" companies are committed to explore and solve ecological and social problems on each level of the organizational structure and activities (*Mirvis* 1994).
5. Society, natural environment and eco-systems are valuable in themselves. They find their existence and health important independent of the fact whether they have direct profit from them or not. Parties involved in the companies' activities are not treated as means or resources but as aims. They think that regulations and encouraging systems are necessary, but not sufficient for the company responsibility as a frame. "For this purpose the balance of ecological diversity, social welfare and prosperity of the economy are needed" (*Cramer* 2008, 396. p.). Companies organize their production processes and follow their environmental/ social effects taking these into account.

All in all we can say that companies have an indisputable and untransferable responsibility for their environment and for the society. Its recognition can be observed in a now forming and widely spreading company philosophy, which includes ecological restrictions and the face value of nature as well as social norms and also in a company theory reflecting these.

In the next chapter we narrow the "value-based" company theory and study corporate social responsibility from a specific aspect.

Corporate social responsibility in sport management

Although the notion of corporate social responsibility (CSR) is prominent in some of the current discussions and investigations about the role of business in society, the concept is not new.

As an important proponent, the World Business Council for Sustainable Development (WBCSD) defined CSR in general terms as *the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of live of the workforce* (*WBCSD* 2002). In an analysis of different interpretations of CSR from the business community, Hediger (2010) emphasizes that according to Holme and Watts (2000) CSR is no longer seen to represent an unproductive cost or resource burden, but, increasingly, as a means of enhancing reputation and credibility among stakeholders. Accordingly, they understand CSR as representing the human face of the highly competitive world of commerce and globalization.

For the European Commission (2001), *CSR is a program where companies decide voluntarily to contribute to a better society and cleaner environment*. It is seen as an option where, along with their prime responsibility of generating profits, companies can contribute to social and environmental objectives, through integrating corporate social responsibility as a strategic investment into their core business strategy, their management instruments and their operations.

Likewise, Perrini (2005) define CSR as the responsible behavior of companies is a concept in the framework of which companies integrate social and environmental aspects and considerations in their business activities volunteerly and they form their relationships with their partners accordingly.

For Walker and Parent (2010), CSR *implies that businesses are responsible for assessing their wider impact on society and regardless of specific labeling*, the concept has been applied to how managers should handle public policy and other social issues.

Accordingly, Waddock (2004) claims that CSR *is the subset of corporate responsibilities that deals with a company's discretionary relationships with its societal and community stakeholders*. These demands on businesses to address and respond to social concerns have become an instrumental aspect of the majority of modern business models (*Walker* and *Parent* 2010).

The different definitions are similar in that regards that healthy and sustainable balance among economy, society and environment must be created in the business. The „triple bottom line" terminology which is frequently used in CSR communication means just the same. It means that companies' comprehensive achievement can be analyzed, and value if we know how their contact and contribution is to economy, qualitative environment and the social capital.

Sport have the power to unify people beyond cultural, social, ethic and religious barriers and sport industry has definitely become one of the new players of modern national and international markets. CSR is now a strategically important area of focus for sport related bodies and companies which find the sport important, but has rarely been evaluated and explored in the sport management research arena. Sport organizations and sport managers need to be aware of developments about CSR and its strategic importance in sport just as corporate managers in other industries (*Filizöz* and *Fisne* 2011).

CSR has become increasingly significant for a wide range of organizations and for the managers that work within them. Because of the unique role of sport in society and an increased recognition of the ability for sport to address social issues, there is a close integration between CSR and sport. Smith and Westerbeek (2009) present seven features to use sport as a vehicle for deploying CSR (*Filizöz* and *Fisne* 2011). These features are as follows:

- The popularity and global reach of sport can ensure that sport CSR has mass media distribution and communication power.
- Sport CSR has youth appeal. Children are more likely to engage in a CSR program if it is attached to a sport organisation or a sport personality.
- Sport CSR can be used to deliver positive health impacts through programs and initiatives designed around physical exercise.
- Sport CSR will invariably involve group participation and therefore aid social interaction.
- Sport CSR can lead to improved cultural understanding and integration,
- Particular sport activities may lead to enhanced environmental and sustainability awareness.
- Participating in sport CSR activities can provide immediate gratification benefits.

In the next chapter we examined what kind of CSR activities in sport are used by the analyzed companies.

Results and discussion

The Coca-Cola Company

'Coca-Cola's' as a leading food industry company affects the lifestyle of consumers, so one of the pillars CSR's activities to popularize health-conscious behaviour among consumers. Because of this, the company sponsors many events both on a global and local level. The company has long been associated with global events such as The Olympic Games, The FIFA World Cup, Rugby World Cup and Special Olympics. Coke has also been linked to world's fairs and national exhibitions since 1905.

In our case study, we would like to introduce briefly these programs. 'Coca-Cola' was the official sponsor of the Olympics 2000 Games held in Sydney maintaining an unbroken presence at the games since 1928. The company has already contracted to sponsor both the Summer and Winter Games through to 2008. One of its brands, Schweppes Abbey Well, is the official water for the London 2012 Olympic Games. 'Coca-Cola' also sets out to support football at every level of the sport. On a global basis 'Coca-Cola' has been a sponsor of the World Cup since the 1978 tournament in Argentina. 'Coca-Cola' has also become the long-term sports sponsor of the Rugby World Cup. The Company has been a sponsor since 1995 (*Internet 1*).

The Coca-Cola sponsors more than 280 physical activity and nutrition education programs in more than 115 countries. In all, millions of people have participated in Coca-Cola–sponsored activities in their communities. In 2008, it sets a goal to have at least one physical activity program in each of the more than 200 countries where the Company operates by 2015.

The Company sponsors the following nutrition education programs:

- *South Korea*: *Coca-Cola Health Camp*. The Coca-Cola Foundation provided a $200,000 grant to continue our support for this program, which will provide 550 youths in Seoul, Gyeonggi and Incheon with programs that teach healthy behaviors to the increasing numbers of Korean students at risk for obesity and weight-related health concerns. The camp complements the Coca-Cola Health Class program, which its Foundation funded in 2008 and 2009 and which has benefited more than 24,000 students to date.
- *Italy: The Modavi Project*. In Italy, the Coca-Cola Foundation sponsors A Scuola inForma' ("At School InShape"), which aims to educate Italian high school students about the importance of balanced nutrition and exercise. The program has a presence in eight regions of Italy and reaches more than 11,000 students in 64 schools. It is overseen by Modavi, an Italian nongovernmental organization (NGO), and informed by the dedicated support of nutritionists, psychologists and sports trainers.
- *China: Balanced Diet – Active Living.* Coca-Cola China launched this program with China's Ministry of Health in 2009. The program delivers science-based health information to the public, promotes a "walking day" on the 11th of every month, sponsors awards at universities to encourage students to practice healthy living and uses social media to facilitate an exchange of ideas for living a balanced and healthy lifestyle.

Beside the good nutrition, physical activity may also play an important role in a health lifestyle, so the Coca-Cola would like to motivate people to the sport with the following projects:

- *Copa Coca-Cola™:* Copa Coca-Cola is one of its largest, longest running and most successful physical activity programs, reaching young people around the globe. Started in Mexico in 1998 and soon expanded to countries worldwide, Copa Coca-Cola is a program of youth football (soccer) tournaments in which teams of boys and girls ages 13 to 15 compete at the local, state and national levels to determine the top youth football (soccer) team in a given nation. The national tournaments culminate in a World Cup™-style international tournament each summer. To date, more than 1 million young people have participated in Copa Coca-Cola in Mexico alone.
- *United States: Triple Play*. The Company helped the Boys & Girls Clubs of America develop the Triple Play program to nurture the well-being of the bodies, minds and spirits of club members. The after-school program uses education and activities to encourage participants to eat a balanced diet, become more physically active

and engage in healthy relationships. A two-year study of more than 2,000 children ages 9 to 14 showed that Triple Play succeeded in getting them to exercise more, eat in a more balanced way and feel better about themselves. The study found that Triple Play kids in the study increased daily exercise to 90 percent of the federally recommended amount of daily exercise, which is 60 minutes a day for children, while their peers outside the program decreased daily exercise to 78 percent of the recommended amount. To date, Triple Play has helped more than 1 million children learn the importance of physical activity and proper nutrition.

- *Netherlands: Mission Olympic.* Mission Olympic, the flagship school sports program in the Netherlands, helps keep teens active through interschool competitions in 18 different Olympic sports. Nearly half of all secondary schools in the Netherlands participate, making Mission Olympic the largest sports program in the country. Long-standing partnerships include the Netherlands Olympic Committee, the Association of all Teachers Physical Education and MTV. Its aim to have 400 schools participate in Mission Olympic by 2016.
- *Peru: Coca-Cola Sports Clinics.* Over the course of 33 years, this program in Peru has provided 90,000 people with specialized physical training, including health and diet recommendations (*Internet 2*).

We can see, that the Coca-Cola parent company really pays attention to the active healthy living across physical activity and nutrition education programmes. They handle the question of sponzoration surpassingly, as we see their programs.

The domestic firm plays an important role in the history of sports sponsorship too. The domestic programs' password: "Fit for the Future". As a responsible company it contributes to the spread of healthy lifestyle in Hungary. We can find many examples of this: Firstly, we must mention that from 2008 the Guideline Daily Amounts have been appearing on the Coca-Cola products in order to better inform the consumers. In addition the company voluntarily agreed to not advertise in the media and in the time scale, which are addressed to children. Furthermore the company not engages direct sales activities in primary schools. We must point out The Coca Cola Hungary Testébresztő Program, which is one of the most popular initiatives of the Company. On the one hand the Program inspires employees and costumers to regular movement, on the other hand it emphasis the balanced diet. Coca-Cola Testébresztő Programme has been supported so popular events such as the Tour de Pelso, swimming across the Balaton, the Women's Movement Festival, Move to Hungary!, Coca-Cola Women's Running Gala. The program in numbers: in the last seven years the program has been moving more than two million people in 450 places and it has been supporting more than 500 events associated with active lifestyle. Under the Program the company's employees can participate in sport events for free in their spare time. Moreover this program has workplace stations where employees can take a part in health screening for free too (*Internet 3*).

As the related facts above show, the subsidiary like the parent company encourages the importance of the active lifestyle with the support of promoting especially sports events.

Danone

Danone takes into account the interests and values of the society in a way, that pays respect to the business partners, suppliers, employees and the environment. This is evidenced by the fact that from this year, Danone is also a member of the community of Good CSR. Danone devotes special attention to the healthy diet and the sport in its CSR activities. For that reason several nutrition and sport programs are attached to the Danone name. In our study, we highlight some of the most important events. Following the 1998 FIFA World Cup in France, Groupe DANONE decided to create an international football tournament for kids. The Danone Nations Cup, which was created in 2000, involves 2.5 million children from 40 countries. This international soccer tournament, approved by FIFA, brings together junior teams (boys and girls ten to twelve years of age). Its figurehead and sponsor is Zinedine Zidane. All of the revenue from the tournament is donated to the ELA (European Leukodystrophy Association) (*Internet 4*).

We can read in Danone's Sustainable report (*Internet 5*), that the Company sets up the product information services and healthy eating educational programs (labeling, website, brochures, teaching kits, events, etc.) and promoting physical exercise contributes to government efforts to encourage healthy lifestyles. These activities target consumers, employees and other groups, including health professionals.

Several other programs for the general public were also launched:

- "Learn how to reduce your cholesterol" in France, an online guide for people with high cholesterol;
- "Healthy Alphabet," an educational kit for pre-school teachers in the Czech Republic

  Danone considers the improvement of the employees' health and well-being. Several initiatives are being implemented to achieve these objectives:
- to provide basic medical insurance and other benefits to all employees (Dan'Cares program);
- to prevent stress at work and improve working conditions;
- to ensure the health and well-being of group employees by promoting best practices linked to good nutrition and a healthy lifestyle.

The Dan'Cares program was introduced to achieve Danone's dual economic and social project. It has an ambitious target by 2013: Danone's 100,000 employees will be entitled to health insurance covering basic care: hospitalization and surgery, maternity care, medical consultations and pharmacy services. In 2010, the program started with an audit carried out in 15 countries and in 56 subsidiaries representing 85%

of Danone employees (excluding employees of Unimilk companies); this audit enabled the welfare systems in each country to be assessed and improvements made to ensure that employees receive high-quality welfare cover.

In the case of Danone we can find some kind of examples, which demonstrate the company's commitment to healthy eating and area of active recreation.

In Hungary the outstanding sports-related social program of the Danone is "Become a champion" Program. In order to the healthy eating, active spending of leisure time and health education the Danone launched an interactive, player education program cooperation with the local primary schools in Budapest, in 2012. In the program the 5th grade children's participate in entertainment, information-rich and healthy life-style related events – such as yogurt factory visit, and contest (*Internet 6*). Also the sport and the healthy diet are the central themes of the Danone Activia VIP program, which started on 1. of May in Hungary in order to give advice to the costumers about the healthy way of life. The program helps the physical-spiritual renewal and supports the following four areas: healthy eating, exercise, beauty, lifestyle (*Internet 7*). The carity jogging belongs to the Danone's sportsponsoring too, which is organized every year in December in Budapest, with the support of Danone Actimel. The event was called: The Santa Claus jogging. The organizers with the collected entry fees support the Foundation Csodalámpa, which complies with the wishes of the seriously ill children (*Internet 8*).

There is no question that the domestic company is really committed to the sport and healthy way of life, it can be proved by more than the number of sports and healthy nutrition initiatives.

Nestlé

According to its Sustainable Report, we can establish that Nestlé pays special attention to the sport and healthy lifestyle in its corporate social responsibility. We must emphasize its biggest and most famous Program, the Healthy Kids Global Programme, which started in 2009. The objective of the Program to raise nutrition, health and wellness awareness of school-age children around the world and it intend to implement the scheme in all countries where it operates. In 2011, Nestlé Healthy Kids programs reached more than six million children and pilot programs started in countries such as Belarus, Bulgaria, Czech Republic, Georgia, Jamaica, New Zealand, Nigeria, Panama, Serbia, Trinidad and Tobago. At the end of 2011, there were 65 programs operating in 60 countries and another 21 are in the pipeline for 2012 to 2014 (*Internet 9*).

Gleaning the healthy kid official website we can state that a highly interactive and attention-surface waiting for the kids and adults too. For instance in the menu "My Home" we can find articles about healthy eating, calculators, recipes and in the menu "My School" the children can learn about the food pyramid (*Internet 10*).

We can read on the Nestlé's website, that Nestlé sponsors one of the world's biggest youth sports development programmes for the next five years. As part of its commitment to nutrition, health and wellness, the company is to become the main sponsor of the International Association of Athletics Federations' (IAAF) Kids Athletics programme. The global initiative encourages school children to participate in athletics and educates them about sport and healthy lifestyle. It also aims to support the development of future athletes (*Internet 11*).

Nestlé knows that sustaining and growing a successful business has always depended on the fit and healthy employee. The global workplace wellness program covers the following four areas: nutrition, increased physical activity, mental resilience, health screening (*Internet 12*).

Nestlé emphasizes, that the children's health awareness education, consumer information, and occupational health belong to their social connections which is demonstrated by their Report.

The Hungarian international NUTRIKID is one of the Nestlé Healthy Kids national education program. Nutrikid program was launched by the Nestlé for 10-12 years old Students in cooperation the Hungarian Dietetic Association in 2003. Its main aim is to give assistance to the local schools in theme "healthy eating". On the interactive website many interesting reading materials, film and games wait for the kids and there is a separate menu item for adults too. In The 2010/2011 school year 800 schools ordered 52,000 Nutrikid workbooks. (*Internet 13*) Since 2003 more than 3,100 elementary school's 320,000 students learned with the Nutrikid program (*Internet 14*).

Several other eating and exercise program can we link to the Hungarian subsidiary. For example: In 2005 the company launched the Nutritional Compass program, which helps to the consumers to develop a good diet whit data on the product packing. The packing contains the following data: nutrient composition, the physiological characteristics of raw materials, nutritional advice, and culinary curiosities (*Internet 15*).

The third healthy lifestyle program of the Nestlé is the Lifestyle Centre, which are launched by the Company in 2005 together with the Hungarian Dietetic Association. The main aim of the Lifestyle Centre is to contribute more harmonious, more health-conscious lifestyle with personalized advice from experts. Virtually the Lifestyle Centre is an Internet service centre, where experts will help to answer the nutrition, physical activity and healthy lifestyle questions. Besides the advice of experts, the site offers useful articles, videos, tests, calculators in many topics, including healthy lifestyles, nutrition, health awareness, beauty treatments, family, child rearing. In 2009, the lifestyle portal was visited 400,000 times and the experts received more than 1,600 questions from a healthy, balanced lifestyle (*Internet 16*).

Nestlé thinks, that the health of the employees is essential to high-level business operations. Therefore in 2007 Nestlé introduced a global training NQ (NQ = Nutritional Quotient) program in Hungary. Since 2007, 821 employees participated in training on NQ. The objective of the program is to deepen the nutrition knowledge at the workplace in order to a good quality job. Moreover, since 2006, every year the company organizes screenings for employees in Budapest. In 2009,

the subject was the stress management at the workplace. In addition, the employees have some opportunities to perform a variety of measurements (body composition, blood pressure, blood sugar, cholesterol), and they can attend at counseling, which is connection with the healthy nutritional and the physical activity (*Internet 17*).

The foreign parent company and domestic subsidiaries social responsibility in many cases are similar in the area of CSR. This is probably due to the fact, that the parent company influences the CSR activities of the subsidiary. Their healthy diet and sports-related initiatives focus primarily on children as the next generation.

Conclusion

A new interdisciplinary company theoretical approach is necessary, as from ecological and social point of view it is an indispensable condition of the creation of a sustainable economy that other than financial considerations should be part of economic decisions.

Such companies can put their „different management" philosophy into practice in the name of their commitment to social responsibility. Profit deriving from it may encourage other companies that take the valorisation of environmental-social side with reservations in the company philosophy.

An important condition of the long-term viability and competitiveness of companies is identification with social responsibility taking, which has remarkably increased in the past three decades especially in the developed world. The players of the economy, such as companies have undisputable and untransferable responsibility for the society, the recognition of which can be observed in a now forming and widely spreading company philosophy focusing on ecological restrictions, the face value of nature and social norms and company theories reflecting them.

From the point of our view, by the conceptual clarification of CSR the main say is that companies integrate social and environmental programs in their business activity voluntarily. But the intention could be questionable. What kind of role plays the marketing, the persuasion or the coercion of parity? Though the limitation of these factors are almost impossible, there are companies whose projects' actual purpose is to emphasize the responsible behaviour for the society and the environment form their internal intention.

The analysis of parent companies' web sites reveals a responsible attitude, in that they really care for CSR in sport management. By each of the three companies, we found examples of responsible behavior towards the consumers and employees. The practical manifestation of responsible behavior in many cases can be linked to the company profile. We have seen that the food industry companies in its CSR practice emphasize the healthy way of life across different programs, especially for children as regard education programs, sport events, healthy nutrition.

All in all the analyzed domestic subsidiaries do not keep at so extensive responsible activities, like the parent company. Probably they have taken up the question social responsibility to the effect of international parent companies, but the social sensitivity of the subsidiaries still in its infancy.

The cause of this difference between the approaches may be that leaders think the awareness and expectations of Hungarian consumers and players of economy are underdeveloped. Another probable cause is that their financial circumstances do not allow them to take care of sport management.

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DIFFERENCES IN THE HUNGARIAN HOUSEHOLDS' SPORT EXPENDITURES[1]

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Abstract: The paper searches the differences between the groups of Hungarian households regarding the sport expenditures' presence in household budget and determining factors. I used the latest Household Budget Survey (HBS) of the Hungarian Central Statistical Office from 2008 which contains data of more than 7000 households. My methods were logit and probit models, where the presence of sport expenditures were explained in households' budget. The increase of the following indicators has a positive effect onto the possibility of the sport expenditures: income status, level of education, number of the children in the household, size of settlement. The region of the household is determining the presence of the sport expenditures too, however sex of the household's head does not play a significant role.

Key words: sport expenditures, logit and probit models, socio-economic factors, household budget survey

Introduction

The aim of the paper is to calculate the most important characteristics of Hungarian households with sport consumption. I analysed the socio-demographical factors, which differentiate the sport consumer households from the non-consumers and which have determining role at presence of sport expenditures in households' budgets.

There are some consumption-models in the international sport marketing literature, which analyse the basic determinants of sport consumption like socialisation, participation, attitudes and other internal (psychological, physiological) and external environmental (cultural, sociological) factors (Figure 1).

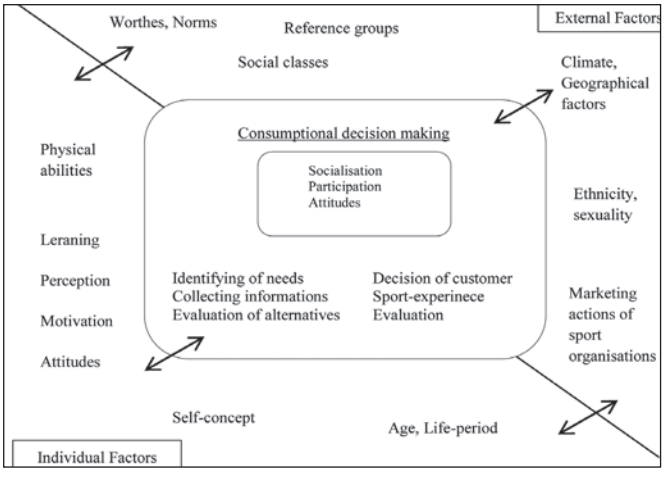

Figure 1. Consumer Behaviour in Sport
Source: *Mullin et al.* (2007)

These are complemented with the situational factors like physical and social environment, problem determination, time, former experiences (Figure 2). All these start and influence the decision making process of sport consumer.

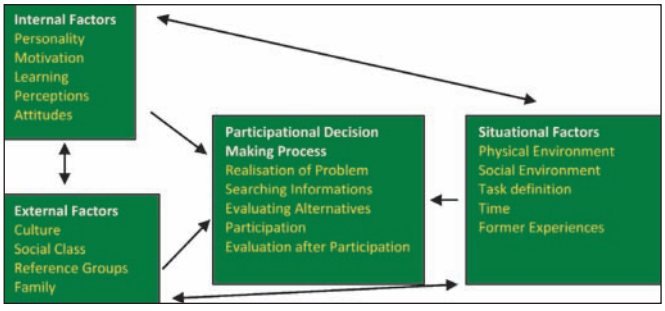

Figure 2. Influencing Factors of Decision Making Process in Sport Consumption
Source: *Neulinger* (2007)

I used the model of *Pawlowski* (2009) as a theoretical frame, who analysed the sport expenditures of German households (Figure 3). He takes into consideration the economic factors too by differentiating not only the influence factors both on demand and supply side but the socio-economical and demographical factors too, which affect onto the leisure time preferences. The interaction of them produces the leisure time demand.

The two most important influencing factors are the disposable free time and the disposable income on the demand

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side, which are the axes of a two dimensional coordinate-system in which the different household types can be placed. The shifting in this system is influenced by number and age of children in the household, social state of the household, educational level of the head of household and expenditures of the household.

I analysed the sport expenditures of Hungarian households based on the model of Pawlowski but only the aggregated expenditures, which contains the expenditures of passive and active sport too (Figure 3).

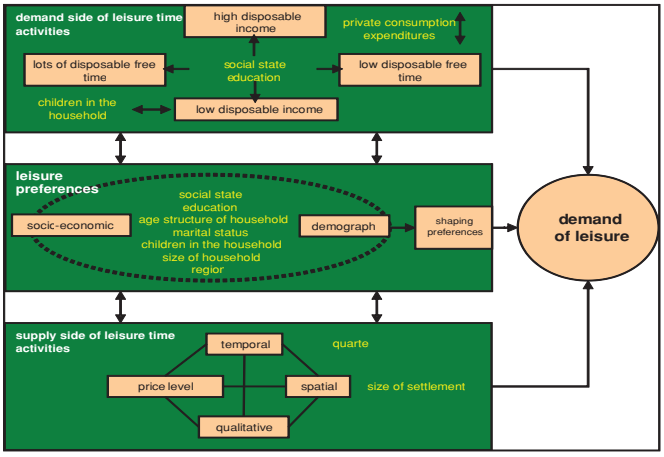

Figure 3. Theoretical Model of the Demand in the Leisure Time Sector
Source: *Pawlowski* (2009)

Database and methodology

Database of the analysis was the latest Household Budget Survey (HBS) of the Hungarian Central Statistical Office (HCSO) from the year 2008. It contains the data of 7 650 households, which means 19 637 people. The HBS is representative for the whole Hungarian population.

The database has detailed information about the composition of households in the following dimensions: type of settlement; regions; age, level of education, economic activity and sex of the heads of households; number of children under 20. It gives information about the income situation and the structure of expenditures in households' budgets.

The consumption structure of households' is following the Classification of Individual Consumption according to Purpose (COICOP) nomenclature. This paper uses the sport items of the 9th division, namely free time and culture (Table 1).

Table 1. Types of Expenditures Included in the Analysi

COICOP number	Type of Expenditure
92110	*Staple sporting and camping goods*
92311	*Accessories of staple sporting goods and musical instruments*
92312	*Reparation of staple sporting goods and musical instruments*
93210	*Sporting and camping goods*
94111	*Sport events, entrance fees*
94112	*Sport-, music-, dancing course*
94113	*Other leisure time services*

Source: HCSO (2000)

We wanted to know, what are the determining factors of spending sport or not. Firstly we had to identified all the households, which have sport expenditures in their budget. After that a binary variable was created, which was explained by different parameters of the households (independent variables). We used two similar regression models for this: logit and probit models.

Logit and Probit Models

The building of logit and probit models had begun with creating a binary dependent variable, which is

$$y = \begin{cases} 1 & if \quad y^* \rangle 0, when\ the\ household\ has\ sport \exp enses \\ 0 & if \quad it\ hasn't \end{cases} \quad (1)$$

where y = dependent variable, y* = latent variable. (*Maddala* 2004)

Dependent variable was analysed by dummy variables (sex, age, educational level, economic activity of the head of household's; type of settlement and region of the household, and number of children in the household) and a metric variable (net income).

There is a latent regression behind both of the models. Latent regression models the personal utility based on the decision between two alternate (y_i) (spend for sport [y_i =1] or not to spend for sport [y_i = 0]). The person takes into account the possible reachable utilities through of pondering of the decision alternates (U^a is at y_i =1 and U^b is at y_i = 0). The person will decide basing on higher utility of the alternates. He will spend on sport if $U^a \langle U^b$ and he will not spend if $U^a \langle U^b$. However these utilities are not observable, so we call y_i^* as a latent variable. Binary result of decision is observable only, which indicator is y_i = 1 if he spend for sport, and y_i = 0 if he does not. The latent spending willingness resultant from comparison of the alternates is:

$$y_i^* = U_i^a - U_i^b \quad (2)$$

so

$$y_i^* = \alpha_i^a + \sum_{j=1}^{k} \beta_j^a x_{ij} - \alpha_i^b - \sum_{j=1}^{k} \beta_j^b x_{ij} + \varepsilon_i^a - \varepsilon_i^b = \alpha_i + \sum_{j=1}^{k} \beta_j x_{ij} + u_i \cdot \quad (3)$$

The result of the observable real decision is:

$$y_i = \begin{cases} 1, & if \quad y_i^* \rangle 0 \\ 0, & if \quad y_i^* \le 0 \end{cases} \quad (4)$$

The probit and the binary logit models are both based on this latent regression. We get the followings based on this:

$$P(y_i = 1) = P\left[u_i \rangle -\left(\alpha_i + \sum_{j=1}^{k} \beta_j x_{ij}\right)\right] = 1 - F\left[-\left(\alpha_i + \sum_{j=1}^{k} \beta_j x_{ij}\right)\right] \quad (5)$$

where F is distribution function of u.

The appropriate possibilities are given by the maximisation of the likelihood function in both models, because y_i is a realisation of a binomial process:

$$L = \prod_{y_i=1} P_i \prod_{y_i=0} (1 - P_i) \quad (6)$$

The only difference between of the two functions is the different specification of the u_i error term. The error term is handled as standard normal distribution in the probit model and it is handled as a logistic distribution in the binary logit model.

The estimation of chance is the following after that: (*Székelyi-Barna* 2005):

$$\frac{P(y_i = 1)}{1 - P(y_i = 1)} = e^{\alpha_i + \sum_{j=1}^{k} \beta_j x_{ij}}. \quad (7)$$

So $P(yi = 1)$ is the following (which means, that the household spends for sport):

$$P(y_i = 1) = \frac{e^{\alpha_i + \sum_{j=1}^{\kappa} \beta_i x_{ij}}}{1 + e^{\alpha_i + \sum_{j=1}^{k} \beta_i x_{ij}}}. \quad (8)$$

Marginal effects of the independent variables are not given by the estimated coefficients of the models, but the partial derives of the possibility values by the single variables (x_j).

$$\frac{\partial P(Z)}{\partial x_j}. \quad (9)$$

These effects should not be corrected independent from the model types, they are compared with each other. The marginal effect is the change in the possibility of spending sport or not, when the dependent variable changes.

Based on the practical experiences there are not significant differences in the results of the two model types. Independent from this the estimated results of the two models are not comparable. The estimations from the binary logit model have to be multiplied with $\sqrt{3}/\pi$, to be comparable with the results from the probit model. After *Amemiya* (1981) the multiplying with 1/1.6 = 0.625 is a better transformation.

We used McFadden R^2 and the rate of correctly predictions to measure the goodness of fitting.

We used the SPSS 19.0 and GRETL 1.8.0 softwares for modelling process.

Results

Summarized and Average Sport Expenditures

I calculated the number of the households with sport expenditures in their budget of the HBS 2008. After that we calculated the ratio of them related to the full sample. There were 1 346 households with any sport expenditures, which means 17.59% from the full sample (Table 2).

I calculated the total value of the households' sport expenditures on national economy level after that (Table 3). Using the weight numbers of households in the HBS the result is, that the Hungarian households spend about 113.7 billion Hungarian Forints (HUF) for sport in 2008. The average value per household – which means more than 3.8 million households in Hungary – is barely HUF30 000 and it is HUF11 000 per person – total population is fast 9.9 million people – if we take into consideration the households without sport expenditures too.

Table 2. Presence Ratio of Sport Expenditures in all the Household's Budget

	Number of Households with Sport Expenditures	**Total Number of Households**	**Ratio of Household with Sport Expenditures**
Sport Expenditures	1346	7650	17.59%

Source: HCSO and own calculations

It gave a more realistic situation when I used only the households with sport expenditures (17.56%). The average sport expenditure of a Hungarian household is 173 000 forints in this case. The same value per person is HUF54 000 in a year.

I compared the value of total sport expenditures (HUF113.7 billion) to the total net incomes too. The total net income of the Hungarian population was over HUF9 000 billion from which they spent only 1.25% for sport. Comparing similarly the sport expenditures to the total expenditures (over HUF7 685 billion) it gave a 1.48% ratio.

The households with sport expenditures spent 7.25% of their budget for sport which is 5.9% of net income per person. These expenditures compared to the total expenditures are 8.6% and 7%, respectively. The difference between the values of households and personal ratio comes from the fact, that the size of households with sport expenditures is bigger than the size of an average household (2.6 persons/household).

Table 3. Summarized and Average Values of Total Sport Expenditures and Net Incomes, Ratio of Sport Expenditures Related to Net Income

	Total (million Ft)	**Average Values (Included All Households) (Ft)**		**Average Values (Included only Households with Sport Expenditures) (Ft)**	
		per Household	**per Person**	**per Household**	**per Person**
Total Sport Expenditures	113 666	29 838	11 492	173 005	54 491
Total Net Income	9 082 514	2 384 218	918 277	2 385 004	918 409
Total Expenditures	7 685 852	2 017 585	777 069	2 017 585	777 069
Ratio of Total Sport Expenditures Related to the Total Net Income	1.25%			7.25%	5.93%
Ratio of Total Sport Expenditures Related to Total Expenditures	1.48%			8.57%	7.01%

Source: HCSO and own calculations

Results of logit and probit Models

I have run the two models with GRETL, which gave similar results in the two models, because there were minimal differences between that. We have run the models without the variables of economic activity to eliminate the collinearity problem, because of the effects of them are possible included into other variables like age variable of the head of household's.

The two models are equal based on the goodness of fitting. (McFadden R^2: Probit: 0.212, Logit: 0.211) The number of correctly predicted items (83.7% and 83.8%), the likelihood-value and the rate of likelihood are fast equal too. Collinearity had been tested with Variance Inflations Factor, and it was not present at the models.

The scale of transformed coefficients of logit model is not different from the coefficients of probit model. This is right for marginal effects too. (Table 5)

I have run the binary logit model in the SPSS too. The advantage of its model is, that it calculates the rate of chance for the single variables too (Table 4).

models. It is interesting, that the households in this region spend with higher possibility for sport. The chance rate of the region shows, that it has a 1.3 more times higher chance than the reference region (Middle Hungary).

Educational level variables were significant at 1% level in both models too. The reference group was the less educated group (vocational school or lower). This had the lowest possibility of sport expenditures. There was a direct ratio at these variables, because the second level category (graduation) has the second highest value and the professionals have the highest level.

The chance rates are the followings: most educated heads of household have 3.1 and middle educated heads have 1.9.

There were two significant variables from the **children dummies**. These were 1 or 2 and 3 or 4 children in the household variables and both of them were on 1% level significant. There was no significant difference between the reference variable (no children) and the 5 or more children dummy. The households with 3 or 4 children had the highest possibility to have sport expenditures, and the households with 1 or 2 children have the second highest value.

Table 4. Rates of chance for presence of sport expenditures resulted from the logit model

Settlement (VILL)	**Exp(B)**	**Region (MDHUN)**	**Exp(B)**	**Age group (AGE65)**	**Exp(B)**	**Number of children (CHILD0)**	**Exp(B)**
BP	**2.871**	MDTRD	**1.299**	AGE24	**7.525**	CHILD12	**2.034**
CS	**1.778**	WTRD	**1.036**	AGE2534	**4.500**	CHILD34	**2.594**
OC	**1.371**	STRD	**1.024**	AGE3544	**5.110**	CHILD5	**1.495**
		NHUN	**0.778**	AGE4554	**2.754**		
		NGP	**1.230**	AGE5564	**1.623**		
		SGP	**1.007**				
Educational level (SCHOOL1)	**Exp(B)**	**Sex of the household's head (FEMALE)**	**Exp(B)**	**Net income category**		**Exp(B)**	
SCHOOL2	**1.899**	MALE	**0.997**			**1.408**	
SCHOOL3	**3.147**						

Source: HCSO and own calculations

The **variables of settlement** of the households' were significant in both models on the level of 1%. The marginal effects show, that the less possibility of sport expenditures is at households in villages, they are the base of comparison. The households in Budapest have the highest marginal effect and the half value of it have the households in county seats and the households in another city have the much less value. Both of the models show, that more smaller the settlement of a household has the less possibility of sport expenditures is in its budget.

Based on the rate of chance the Budapester households spend 2.9 times more, the county seat households spend 1.8 times more, the households in other cities spend 1.4 times more than the households in villages.

Only the variable of Middle Transdanubia from the **regional dummies** was significant on the level of 10% in both

The chance rate of households with 3 or 4 children was the highest, they spend for sport with 2.6 times more chance. The same rate at the households with 1 or 2 children was 2.0.

We can say, that the presence of children in household is improving the possibility of sport expenditures until a certain number of children. However it is not exactly sure, that 5 or more children in the household have not a positive effect on sport expenditures, maybe the variable was not significant because the low number of observation in this category. The households without children have the less possibility of sport expenditures. The reason is maybe the dominance of old and retired households in this category.

All of the variable of the **age of the household's** head were significant in both models on 1% level. The reference

Table 5. Summary Table about the Results of Logit and Probit Models

	Logit model				**Probit model**		
	Coefficient			*Marginal effect*	*Coefficient*		*Marginal effect*
const	-5.03328	-3.1458	***		-2.80202	***	
	(-24.3948)				(-25.9295)		
BP	1.0545	0.659063	***	0.134908	0.613483	***	0.149783
	(6.8427)				(7.094)		
CS	0.575509	0.359693	***	0.064282	0.326625	***	0.0714555
	(5.6226)				(5.7232)		
OC	0.31572	0.197325	***	0.0329759	0.183236	***	0.0379985
	(3.1765)				(3.3502)		
VILL							
CHILD12	0.709817	0.443636	***	0.078995	0.410096	***	0.089461
	(8.1333)				(8.2852)		
CHILD34	0.953213	0.595758	***	0.129812	0.537053	***	0.137208
	(6.3967)				(6.172)		
CHILD5	0.402412	0.251508		0.0462953	0.196375		0.043344
	(0.8884)				(0.7543)		
CHILD0							
REGIO_MDTRD	0.261936	0.16371	*	0.0280379	0.161757	*	0.0344248
	(1.6455)				(1.8064)		
REGIO_WTRD	0.0358199	0.022387		0.00357615	0.0415283		0.00836745
	(0.2167)				(0.4497)		
REGIO_STRD	0.0240163	0.01501		0.00238904	0.0269212		0.0053876
	(0.1404)				(0.2825)		
REGIO_NHUN	-0.25054	-0.156588		-0.0230995	-0.130189		-0.0243391
	(-1.6033)				(-1.4951)		
REGIO_NGP	0.206859	0.129287		0.021654	0.126231		0.0263095
	(1.3598)				(1.4774)		
REGIO_SGP	0.00651938	0.004075		0.000644746	0.0211332		0.00421131
	(0.043)				(0.2495)		
REGIO_MDHUN							
AGE24	2.01819	1.261369	***	0.369329	1.06787	***	0.332352
	(7.7237)				(7.2754)		
AGE2534	1.504	0.94	***	0.225612	0.774206	***	0.206937
	(9.6617)				(9.5808)		
AGE3544	1.63129	1.019556	***	0.236268	0.850539	***	0.221665
	(10.5898)				(10.7019)		
AGE4554	1.01316	0.633225	***	0.124133	0.486486	***	0.111449
	(6.8767)				(6.5587)		
AGE5564	0.484511	0.302819	***	0.0528796	0.206797	***	0.0435175
	(3.2014)				(2.7558)		
AGE65							
SCHOOL2	0.641361	0.400851	***	0.0712463	0.350531	***	0.0760186
	(7.5317)				(7.4128)		
SCHOOL3	1.14641	0.716506	***	0.1494	0.643086	***	0.158049
	(12.0409)				(11.972)		
SCHOOL1							
MALE	-0.0028723	-0.001795		-0.00028367	-0.011151		-0.0022082
	(-0.0322)				(-0.2252)		
FEMALE							
NINC	0.342202	0.213876	***	0.0337833	0.193141	***	0.0381561
	(10.7896)				(11.1112)		
Log-likehood value	-2806.227				-2802.841		
Likelihood-rate, χ^2 (21)	1505 [0.0000]				1511.77 [0.0000]		

in bracket: z-scores; *** significant on 1% level; **significant on 5% level; *significant on 10% level

BP: Budapest; **CS**: county seat; **OC**: other city; **VILL**: village; **CHILD12**: 1 or 2 children; **CHILD34**: 3 or 4 children; **CHILD5**: 5 or more children;, **CHILD0**: no children; **REGIO_MDTRD**: Middle Transdanubia; **REGIO_WTRD**: West Transdanubia; **REGIO_STRD**: South Transdanubia; **REGIO_NHUN**: North Hungary; **REGIO_NGP**: North Great Plain; **REGIO_SGP**: South Great Plain; **MDHUN**: Middle Hungary; **AGE24**: 24 or under 24 years; **AGE2534**: between 25-34 years; **AGE3544**: between 35-44 years; **AGE4554**: between 45-54 years; **AGE65**: 65 or more years; **SCHOOL2**: graduation or other middle educational level; **SCHOOL3**: diploma or higher education; **SCHOOL1**: 8 classes or less educational level; **MALE**: male head of household; **FEMALE**: female head of household; **NINC**: net income category

Source: HCSO and own calculations

category (head at the age 65 or over) has the less possibility of sport expenditures. The relationship between the age and the presence of sport expenditures is reversed, the youngest households spend with highest possibility for sport. Two middle aged categories have fast similar marginal rate, these are age groups 25–34 and 35–44.

The chance rates show a similar trend. The youngest age group has the highest rate (7.1), however the second highest rate is linked to the only third youngest group (35-44 years with 5.1). The group 25–34 years has a little bit lower rate (4.5), but the following groups show a falling trend.

The **sex of the head of households** variable was not significant in the logit nor in the probit models.

The categorical **variable of net income** was significant in both models. The higher net income results a higher possibility in sport expenditures, which is confirmed by the chance rate too. It is a similar result as our former research had that sport is a luxury good in microeconomical sense (*Paár* 2010).

Discussion

The two econometrical methods verified that almost all of the included socio-demographical and economical explanatory variables had a significant effect on the presence of sport expenditures in the household budgets. We have to know that there are a lot of other variables which have an important effect on the presence (e.g. sport socialisation, attitudes to sport, supply of sport, social environment etc.) but I have no possibility to use them from HBS. However it is noticeable that the two models were able to identify especially good the sport decisions of the households (over 83%).

My results confirm some of the former tendencies in the international literature (*Davies* 2002; *Downward* and *Riordan* 2007; *Humphreys* and *Ruseski* 2006; *Pawlowski* 2009). The results are similar to the former Hungarian results linked to physical activity (*Földesi et al.* 2008; *Gáldi* 2004; *Neulinger* 2007; *Szabó* 2006), however, my hypothesis was linked to sport expenditures not to physical activity.

I have different results too because sex variables were not significant, however, the literature suggested that households with man head spend with higher possibility on sport than household with woman head.

The range of consumers could be very different in active and passive sport consumption. So we would like to improve this research to analyse the active and passive sport consumption items in the households' budget. Another improving possibility is the analysis of the measure of sport consumption with the same explanatory variables.

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NEW APPROACHES TO YOUTH IN THRILL SOCIETY: SPORT PARTICIPATION AS FUEL TO BOOST OUTLOOK ON FUTURE AND CONCEPTS ON SELF

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Abstract: The theory of "thrill-society" (Schulze 1992) conceptualizes that increased economic status that allows the focus of daily life to switch from providing for physical needs to searching for a meaningful life and self-fulfilment. Combined with the expansion of education, it causes a smooth transition from traditionally inherited social positions and class-based hierarchy in society to a higher degree of social mobility, increased individualisation and diversification of life styles. Noting that, the actualization of this concept in Hungarian society came into effect only along societal discrepancies; still, the uncertainties and insecurities that accompany the process of 'thrill projects' collection are substantial. The purpose of this study was to examine the role of sport participation in the lives of young people, how sport may assist young people in coping with the *insecurities* and *uncertainties* created in the societal scene that is characterised by the combination of Schulze's "thrill-society" and the inheritance of political, economic and societal transition of Hungary. Specifically, this study aims to find differences between sport participants and non-participants in their perception of future on micro and macro level, their readiness to take risks and challenges, and their self-concept related to their own health, physical condition, and physical appearance. Stratified random sampling was applied to obtain an accurate representation of Hungarian youth population. Data were analysed by using cross tabulation, non-parametric and multidimensional statistical methods. The results showed that sport participants adopted a more positive image of the future, higher ability to assume risks and a more modern state of mind, as well as a more stable self-concept in comparison to non-participant youth. Also, it seems that the sporting contest may be as strong as socio-demographic positioning in the formulation of these life capabilities. It can be suggested that sport may assist youth with a stable and accountable value environment that reduces the variety of opportunities and provides resources to better deal with societal uncertainties; meanwhile it opens new avenues of personal freedom even in a "thrill society" that filled with deficits in transitioning societies.

Key words: thrill society, Schulze, sport participation, self-concept, uncertainties, insecurities, transitioning societies

Introduction

Schulze (1992a, 1992b), when theorising German society, introduced Schulze's theory is grounded on Beck's (1983) societal discourse about the changes that the German society went through as a result of the post-war industrialisation and economic growth. With the maintenance of social inequalities, this process caused an economic and social lift-effect in all societal segments (Kapitány 2002). All of these combined with the expansion of education, caused a smooth transition from traditionally inherited social positions and class-based hierarchy of society to a higher degree of social mobility and increased individualisation and diversification of life styles. Class-based life style scenarios were altered; societal and personal life stories could be reconstructed to allow for new bibliographical paths in comparison to the traditionally expected and inherited positions that existed in the past. In this way, the "need-society" that existed during the period of modern industrialism was replaced by a post-industrial "risk-society" (Beck 1983). These change, as Beck (1983) explained, resulted in the expiration of Bourdieu's (1984) class-based theory of French society.

In the context of an emerging "thrill-society," there was a simultaneous expansion of and access to the services and resources needed consumption, and this create possibilities for a more 'colourful' societal life and the construction of individual life-paths (Schulze 1992a, 1992b; Éber 2007; Éber 2008). The possibility for developing inner human qualities and abilities, a wider space of self-actualisation—as explained also by Maslow (1943), and the emerging need for inner 'adventure experiences' reduced the focus on materialistic security and fulfilling external expectations. This was

complemented by the field as postmodern values were given a high priority (Inglehart 1981, 1991, 1997; Schulze 1992a).

The dominant orientation that emerges in "thrill-society" is based on, the postmodern, adventurous and open personality of individuals and values representing 'self-direction', 'stimulation', 'hedonism' and 'achievement,' as outlined by Schwartz's value dimensions (1994). Furthermore, increased importance was given to freedom of choice, change, construction and re-construction of personal identities, life and career projects, interpersonal relationships, political affiliations, and also the human body. However, these life scenarios depended on investing the least possible effort and time in return for immediate and total quality of 'thrills' and results. The happiness and enjoyment-centered nature of 'thrill-society' constitutes a rejection of industrial 'need-society' values emphasizing hard work, struggle, endurance, asceticism, and delayed gratification. Considering the full range of possible thrill-projects, Schulze (1992a, 1992b) noted that individuals increasingly faced *uncertainty* and *insecurity*, because "thrill-projects" also involved the risk of failure, exposure of imperfection, endless life solutions, and innumerable alternatives and possibilities that clearly placed the responsibility for success on the individual. The associated fear of failure led to the development of conches and unconches restriction techniques and strategies in order to reduce the infinite number of opportunities and the feeling of uncertainty and responsibility for success of individuals.

Transitioning society of Hungary

The political and economic changes which emerged in Hungary sat the beginning of the 1990s caused a series of fundamental societal changes (Gazsó and Laki 2004; Gábor and Balog 1989). As a result of these changes, a consumption-based market economy, life style and value system have been adopted in all segments of society (Pikó 2005; Gábor 2002). The changes began to create new societal norms, to restructure priorities given to basic human values; this unfinished transition of values, however, has fulfilled the measures of value crisis across the whole societal structure (Bauer 2002; Laki 2006; Füstös and Szalma 2009). In this complex and sensitive situation there was not enough attention given to youth generations which was fundamentally impacted during this transitional period. The increased democratisation of the country created possibilities for young people to experience new forms of autonomy in society, but is also made them more vulnerable in a normative context that was more open and ambiguous (Bauer and Szabó 2009).

The fundamental changes in intergenerational relations that young people experienced in America during the 60s and 70s (Mead 1978), and in Germany during the 70s and 80s (Beck 1983) were detectable in the Hungarian society as a second wave added to the country's internal political and economic transition (Gábor 1992). In addition to the conquest of societal space for upbringing youth, adult generations went through an upgrading or underrating process based on their political or economic role in Hungary's state-socialism and in the transition process into the new era. Due to the delay of political jurisdiction by the new state, political conflicts have trickled down to families and the micro level of society, causing further detachment and independence among young people and the formulation of youth as a separate and identifiable life-stage segment of society. Also, traditional life-guiding structures disintegrated, which made it possible to seek achieved „pre-figurative" social positions in a context characterized by increased levels of personal autonomy. Parallel to this autonomy, however, the years spent in education have increased and entrance into the labour market has been delayed (Gábor 2006a). Furthermore, the time of establishing an independent life with marriage and family has also been postponed. The period of youth became the battlefield for possession of cultural capital, a process which has been determined by the personal level of parental economic, social, and cultural capital (Zinnecker 1986; Bourdieu 1983).

As stated, the trends that Western European youngsters experienced (Zinnecker 1986; Chisholm 1990; Beck 1983) also became detectable in the social position, life view, and lifestyle of Hungarian youth with *15 years delay*, following Hungary's transition from state-socialism to pluralistic society (Gábor 1992). The influences characteristic among Hungary's youth had its foundations in the individualisation processes experienced by German youth during the 1970s and 80s (Gábor 2006a), which began with a deepening of intergenerational conflicts and conquest of the societal space of youth and continued in the dissociation of trends and life-style habits (Beck 1983; Schulze 1992a, 1992b). The combination of the political, economic and societal changes during the transition in Hungary with young people's characteristic period of life resulted in the complex interrelation of value systems, life circumstances, and everyday life activities of youth fuelled with *uncertainties* and *insecurities*. The capacity of society being inclusive and employ the younger generation was so low that it created a crisis-like situation. Introducing fees for educational enrolment deepened inequalities of cultural capital, and entrance into the labour market was also blocked and created unprecedented levels of youth unemployment (Gabor 2002; Gazso and Laki 2004). The youth stage of the life cycle was also characterised by a postmodern life view and value system (Inglehart 1997; Bauer 2002). The constrained opportunities and the barriers experienced by youth during this time of transition were reflected in their value system, life style, and leisure activities, and thus, in their patterns of sport participation.

Previous studies reported similarity in the value preferences characteristic to Schulze's 'thrill-society' and those prioritised by young sport participants in Hungary; these preferences emphasized self-autonomy, preference for diverse and interesting life, creativity in dealing with challenges, and more intense interpersonal relations (Perényi 2010a; 2010b). During this transition in Hungary, participation in sports was one of the possible avenues that offered youth stability relative to their value preferences; thus sports provided young people with a site at which they could avoid the emerging materialism in economic decline which characterised this transition period—as described by Schwatz and Bardi (1997).

The aim of this study was to see if sport participation during this political and social transition in Hungary plays a role in the ways that young people understand and evaluate current conditions and envision the future. Further, does sport participation assist young people in a manner outlined in Schulze's "thrill-society" theory, as they cope with the *insecurities* and *uncertainties* faced in a society characterised by this type of change? And does sport serve as an accessible site at which individuals may gain assistance in meeting the challenge of living in a society where status choices are no longer ascribed and biographies are individually constructed? More specific questions are: In comparison with peers who do not participate regularly in sport activities, do participants

- see the future for themselves and their society in more positive terms?
- have a higher ability to assume risks as they cope with new challenges?
- develop more stable self-concepts related to their health, physical condition, and body when compared to non-participant youth?

Finally, do the differences between sub-groups remain along the categories of socio-demographic variables?

Materials and methods

The results of this study are based on data from the National Youth Research of 2008 (Ifjúság2008). Stratified random sampling was used to obtain an accurate representation of Hungarian young people (N=8000). The sample was representative for age, gender, and place of residency of the youth population between the ages of 15-29. Data were collected through structured personal interviews.

The data were analysed for sport participant and non-participant subgroups using SPSS 16. Frequency tables were used to compare the distribution of responses given by sport participants and non-participants and chi square used to demonstrate differences between the subgroups. In case of measures on Likert scale Mann and Whitney U test was conducted on data received. Also, lineal regression analyses were used to identify relationship to socio-demographic variables and participation in sports. The variables were operationalized for the examined questions as follows:

Self-consideration of future on personal and societal level about

- the country's economic level in ten years' time,
- the standard of living for own family over ten years' time,
- personal opportunities over ten years' time.

Data were categorized by using a 7-point Likert-scale.

Self –consideration about ability of taking risk and personal fear

- as someone who trusts in his/her own future or someone who is afraid of his/her own future; and self-consideration as someone adventurous,
- as someone open to assume new situations and risks or someone who is hesitant to take risks.

Data were categorized by using a 7-point Likert-scale.

Self-satisfaction on the personal level related to

- physical fitness level,
- physical appearance,
- physical health.

Data were categorized by using a 5-point Likert-scale. Data was collected on one of the four subsamples (N=2000) of this research, also designed to be identically representative as the whole sample.

Sport participation was measured based on the subjective response given to the question: *„Do you do sports or physical activities regularly outside of physical education classes?"*. Considering the large size of this dataset and that of sport club membership is very low in Hungry (0,5% in this present dataset), difference between amateur and competitive elite sport participants was not made in this study. Socio-demographic variables were entered in the model as continuous or dummy variables as listed in Table 4.

The distribution on sport participation showed 38% of the sample was a member of the sport participant subgroup, while 62% of the non-sport participant group.

Results

The results presented on the prospect of the two, sport participant and non-participant, subgroups. As outlined, frequency tables demonstrate the differences of the two subgroups in consideration attached to the future in ten years' time on personal, family and on societal level; on attitudes of assuming or rejecting risks; and on self-consideration of physical condition, appearance and health. Results also demonstrate how socio-demographic variables have a role in formulating the examined destinations, and taking part in sport plays a strong role in shaping life views and self-satisfaction.

Consideration of future on micro and macro level

The projection on the future by Hungarian youth, as a total population, was reported quite negative as 47% of the total population of this sample reported that the country's overall economic position will decline, 29% stated that it will have no change and only 24% believed in growth. Similar projection was given to the standard of living of people, as 48% of the respondents stated decline, and again less than one-fourth believes in growth. Interestingly, however, the positions on personal level showed a slightly more positive picture. A smaller proportion of youth (38 %) rejected improvements on personal situation, while 34% of the total sample projected no change, and 28% of youth believed in a better personal future (Bauer and Szabó 2009). During the period of 2000-2008 the proportion of those youth wanting to leave the country in order to work abroad, has grown from 11% to 70% (Máder 2011). Consequently, the discrepancies of societal transition in Hungary are well demonstrated by the growth of dissatisfaction about the future into fear about the future among youth in all examined levels.

In contradiction, dividing the youth population along the dimension of sport participation gives a different and interesting result. Data showed significant differences between the sport participant and non-sport participant sub-groups of this study in the consideration of the future on both micro and macro levels. Results about the "country's economic position in 10 years' time" showed that sport participants projects economic decline with 8 percentage points less than the non-sport participants; and it was also found that they also in bigger percentage believe in an economic increase (28.5). It must be noted, however, that in both subgroups the negative projections are represented by more subjects (39.2% on decline in comparison with 28.2% incline in the sport participant group). In consideration of people's standard of living similarly to the results given in connection to the economic position there are more subjects in both subgroups who projected decline over incline. The sport participant and non-sport participant subgroups, however, showed significant differences (p<.000). It was the consideration of economic position on the micro, personal and family, level where more subjects of the sport participant group projected positive changes (32.6%) than negative (29.3%), while non-sport participants did not follow this trend (Table 1).

Table 1. Distribution of consideration of future (%) by sport participants and non-participants N=(8076)

	sp	**nsp**	**total sample**
	country's economic position in 10 years		
decline	39.5	47.5	44.5
no change	27.0	27.5	27.5
increase	28.2	20.0	23.1
missing	5.3	4.8	5.0
χ^2= 87,127; p<.000; R= –.081			
	standard of living of people		
decline	40.2	49.0	45.7
no change	28.3	28.1	28.1
increase	26.9	18.8	21.9
missing	4.6	4.1	4.3
χ^2= 94,579; p<.000; R= .086			
	economic situation of personal level		
decline	29.3	41.3	36.8
no change	33.1	31.5	32.0
increase	**32.6**	22.6	26.4
missing	5.0	4.6	4.8
χ^2= 1,521; p<.000; R= –.114			

sp: sport participant; nsp: non-sport participant
Source: Computed by the author

In summary it can be suggested by the results that participation in regular sporting activities may add to a more positive life consideration in both macro and micro levels, as all three models showed significant differences between the two sub-groups. On the micro level, however, it should be emphasized that subjects in the sport participant group were the only who in larger proportion projected their situation on positive way rather than by a negative life view. It seems that a physical active, self-efficient life view may also have substantial effects on a person's outlook on the positioning of self.

Views on future and risks

During the past decade following the country's political, economic and societal transitions youth has experienced life situations that were unexpected and sudden, such as unemployment, economic decline, but also instability of living conditions and shrinking opportunities. This also had an effect on how youth positioned itself about forming a degree of belief on its future. It seems that youth in general does not see the future overwhelmingly positive, which is connected to the facts that fear about the future also has a negative mark on the willingness and readiness of taking risks. Again, the answer to the question whether sport may serve as a protective tool provided some interesting answers. It can be seen that youth taking part in sport (22.4%) with a higher percentage point surely believes in the future than those who do not participate at all (13.9). Similarly, there are in higher percentage those from the sport participant group who assumes risks and more adventurous. Results of chi square reports that there is a significant difference in the normal distributions of answers between the two subgroups (Table 2).

Table 2. Distribution of self-conception (%) of sport participants and non-participants about beliefs related to future and risks (N=8076)

trust in future						**scared of future**	
	1	2	3	4	5	6	7
sp	22.4	21.0	16.2	18.7	8.9	7.1	5.1
nsp	13.9	17.7	18.3	17.9	11.2	11.4	9.1
χ^2=1.893 R= .136 p< . 000							
assuming risks						**no risk taking**	
	1	2	3	4	5	6	7
sp	16.7	18.9	17.9	22.8	10.6	7.1	5.3
nsp	9.7	16.0	16.1	15.6	14.1	10.2	7.7
χ^2=1.558 R= .123 p< .000							

Source: Computed by the author

The results of the Mann and Whitney test showed that in both of the measured dimensions the two subgroups showed significant differences (Table 3). The mean ranks presented in Table 3. show that youth that are completely outside of the reach of sports and physical activities has a significantly more negative view in the projections related to the future, while those who participate in regular sporting activities are having more positive projections. It could be that the environment that sport is played, the feel of belonging to a sporting group on the macro level or to the community of one sport or sport as a whole provides a platform for more security and hope. Hope and effort are dimensions of sport in general of course; as trying one's own self, own abilities

may also provide inner strengths as well to fight obstacles of life also outside of sports. In relation to the evaluation of the results gained from answers related to risk it can be stated that sport participants are significantly easier take risks, they are more open to assume risks, do not fear risks, they are more adventurous in comparison to the non-participant sub-group. This also could be explained by that sport participation and its environments in general create riskful situations on several platforms; consequently in the sporting environment risk taking is detrimental. A sport participant in any level needs to face risks not only in the win/loss sporting terms, but also in time, costs, benefits, efforts, and also in possible injury.

Table 3. Differences of sport participants and non-sport participants in relation to future and risk, results of Mann and Whitney U test (N=6650)

	sp	nsp	p
fear of future	3060,45	3504,95*	.000
assuming risk	3608,41*	3150,95	.000

values refer to mean ranks; p< .000
Source: Computed by the author

In summary it can be stated that the previously found results in relation to social learning (Bandura 1997), the sporting environment may influence not only the value orientation of participants (Perényi 2010), but it also may assist in shaping a more positive life view, a more positive outlook on the future's prospective. It may also prepare youth to get close experiences with risks, and help them to develop an attitude that empowers them to face such risks and learn to be ready to fight them.

Attitudes on physical being

Uncertainties and insecurities of "thrill" society that is mainly provided by extended opportunities, but also related to human identity and the body itself (Bourdieu 1993; Bauman 1995), complemented by the economic, political and societal transition of a society gives a unique and complex reality for youth to live in Hungary. All these challenges hidden in daily activities, responsibilities and opportunities must be faced, and the coping processes dominantly dependent upon the individuals' own personal abilities. Whether sport participation has a role in developing these coping strategies and provides individuals with assistance in constructing their own identity and self has been addressed by numerous researches ending with diverse results (Besnier and Brownell 2012; Donelly and Young 1988; Helstein 2007). Most of these researches outline connections between the activity, sport, and the development identity and self-including the body. This present study also found significant relationship between sport participation and the level of satisfaction with physical condition, appearance and health. As the results showed young individuals who take part in regular physical exercise and sport by higher proportion will develop satisfaction with themselves in terms of their bodily strength as oppose to the non-sport participants. This may create a base for a bigger chance for sport participants to encounter satisfaction with their physical appearance as well. The combination of good physical strength and appealing appearance may also create a general feeling of good health. As it is demonstrated in Table 4 significant difference was found between sport participants and non-sport participants in all three examined detentions of self.

Table 4. Differences of sport participants and non-sport participants in relation to physical condition level, appearance, and health, results of Mann and Whitney U test (N=1865)

	sp	nsp	p
physical condition	1054.36*	832.01	.000
physical appearance	1011.03*	865.54	.000
health	1020.12*	858.51	.000

values refer to mean ranks; p< .000
Source: Computed by the author

In societal space

Social stratification is a characteristic to sport participation (Moens and Scheerder 2004; Perényi 2011; Gál 2008). Consequently, subjects positioned on different places of the societal hierarchy have different access to sport, and also develop diverse sporting habits in terms of tastes, choices, and circumstances. The question was whether sport participation as a platform for human interaction, and exchange surface of socialization processes in comparison to core socio-demographic variables would have a noticeable relation in shaping people believes, self-concept and self-satisfaction, as previous studies found in relation to human values (Perenyi 2010; Kavalir 2004; Mielke and Bahlke 1995).

The used linear regression modelling (Tenenbaum & Driscoll 2005; Székelyi & Barna 2005) examined these possible effects of sport involvement variables along with cultural and economic (SES) capital as well as age and gender variables, on the formulation of all the three main examined areas of this study. Variables of the three main areas, consideration of future, relation to risk taking and fear, and satisfaction of self, were entered into the model as dependent variables, which were measured as continuous variables; while socio-demographic variables and the 'sport participation' variable were entered as independent variables as continuous or dummy variables. In all three research dimensions the model showed that the independent variables contributed significantly to the explanation of the total variance of the dependent variables.

The results in Table 5. present the Beta (β) values, which give information about the direction and degree to what the socio-demographic and sport participation variables influence the formation of the three groups of dimensions of the dependent variables.

The model used in this study demonstrated that also projection, understanding and self-concept on micro and macro levels are socially stratified. The model also showed that sport participation took substantial role even among fundamental socio-demographic variable in formulating youths' consideration and self-evaluations.In the consideration of the future on micro and macro level economic status and sport participation showed the strongest relation. Formulating a positive attitude about the future and being open to assume

Table 5. Effect of independent variables on value PCs in linear regression (N=8076)

	gender	age	education	SES	sport part.
consideration of future:					
country	–.007	–.029	–.008*	–.053*	–.065*
standard of living	.015	.035	.083*	.059*	.067*
family	.014	.052*	.107*	.077*	.090*
beliefs related to future and risks:					
trust/fear of future	.052*	.112*	–.085*	.150*	.084*
assuming/rejecting risk	–.084*	–.090*	–.051*	–.072*	–.085*
self-consideration, self-satisfaction:					
physical condition	–.140*	–.031	–.049	–.024	–.182*
physical appearance	–.100*	–.022	–.020	–.079*	–.123*
health	–.041	–.088*	–.300	–.115*	–.123*

p< . 000 Values represent Beta (β),

Ranges on the socio-demographic variables: gender: 1) men, 2) women, dummy; age: 1) number of years, ascending; gender: education: number of years finished in educational institutions, ascending; SES: scores received from self-evaluation of status, ascending; ascending; sport participation: 1) non-participant, 2)sport participant

Source: Computed by the author

risks demonstrated connections to all the examined variables. Connections of the satisfaction about the self were more visible in case of gender, SES and the sport participation variable.

Discussion and conclusion

Sport participation among Hungarian youth carried a double mark on its trends. On one hand, the characteristics emerging from the class/based hierarchy of modern industrial society, as outlined by Bourdieu (1984), were tangible as societal inequalities in access to sport were reinforced and reproduced over Hungary's traditional years (Gál 2008, Perényi 2008 2010a). On the other hand, the diminished class/based trends of post-modern society allowed for individual diversity of sporting habits across hierarchical categories and for the development of new types of activities and methods of participation (Perényi 2010c). The modern and the post-modern characteristics of societal change parallel influenced the life scenarios of Hungarian youth. This phenomenon combined with a predominantly postmodern value priority, similar to characteristics in Schulze's "thrill society," created a more diverse sporting scene with expanded opportunities to participate.

Although previous research has found similarity in the value dominance of Schulze's "thrill society" (1992a, 1992b) and the value priorities expressed by young sport participants, this study found that the uncertainties and insecurities that were suggested as a threat in Schulze's "thrill-projects" were <u>not</u> a characteristic of sport participants in Hungary. The results of this study suggest that when compared to non-participant youth, sport participants adopted a more positive view for one's personal future and the future of society, also had a higher ability to assume risks and act in more adventurous ways in response to life's challenges, had a more stable self-concept representing their physical condition, their appearance, and their health.

It seems that the environment of sport, its system of rules, its norms and value priorities provide stability in the lives of young sport participants. The accountability and regularity of sporting contests teaches youth to adopt and comply with new rules and regulations. It gives both participants and their parents meaningful activities, goals, and regularity in organising leisure activities. It requires self-enhancement and autonomous decisions. The investment in time and effort necessary to become a member of a team and learn the movements of a sport reduces the available opportunities post-modern society; thus sport *may* function as a strategy to narrow the "everything is possible" theme characteristic in a „thrill-society".

At the same time, sport participation may create new opportunities to construct and experience the self on physical, cognitive, and psychological levels. Sport provides meaningful challenges and new resources to satisfactory „thrill projects". It provides the excitement of unforeseen outcomes, the challenge of overcoming personal boundaries. In contradiction, sports in the drama of winning and losing, provides the opportunity of the *'next time' and* teaches persistence and gives the opportunity for personal development. By doing so it also reduces the risks associated with „thrill-projects"; thus it reduces the feeling of *uncertainties.* Sport also exchanges *insecurities* for the feeling abilities, the attitudes of „what if"s and „I can try"s. Participating in sport, however, does not narrow the freedom of constructing the self, instead, it provides new avenues for personal freedom that may also create a life-view that is used in other areas of personal life.

The feeling of belonging to a club, team, informal group, reduces the loneliness often experienced in post-modern conditions, and provides platforms and opportunities for social interaction. It widens the social space around youth, provides opportunities for building inter-personal relationships and, in team sports; it reduces the degree of responsibility of decision-making at the same time that it teaches the responsibilities associated with team membership. Hankiss (2005) outlines the symbolism of the temporary but complete „rest" for the devastated post-modern consumer in the micro-environment created around a tennis match.

The individualisation of the sporting scene is also reflected in the change from preferring club-based organised sport to preferring individually conducted informal sporting activities. Also, diversification is noticeable as new alternatives for sporting and physical activities had replaced traditional sport forms. The number of participants in activities such as yoga, walking, roller-blading, mountain-biking, and home-exercising increased in statistically measurable terms in nation-wide representative samples as well. This shows that the need of Hungarian sport consumers for democratisation has passed the structural and organisational developments of the sport sphere; thus, youth require wider opportunities that may satisfy a postmodern hunger for „thrills".

It seems that sport loses its instrumental value content and gains goal/performance orientations in the process of thrill-projects (but it still *may* assist youth by providing a stable and predictable value environment that reduces the overwhelming variety of options and provides resources to deal more effectively with societal *uncertainties*; meanwhile it opens new avenues of personal freedom.

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INFLUENCE OF SOCIAL MEDIA ON TOURISM – ESPECIALLY AMONG STUDENTS OF THE UNIVERSITY OF DEBRECEN

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Abstract: Derive from the characteristic, decisions connected with travelling have high risk for the travellers therefore they try to collect more detailed information and thoroughly map decision alternatives in order to decrease uncertainty.
Wide spread of the Internet and rapid technological evolution have revolutionized all industries in the World especially tourism. Platform of tourism increasingly get to the Internet nowadays which is vitally important because tourism is an information-based and information-intensive industry. Thanks to development of the internet tourists have an opportunity to access such information and purchasing opportunities which were available with the help of intermediaries earlier. Providing wide range of possibilities, Web 2.0 fundamentally changed the way of tourists' information search behaviour and travelling decision making. This article collects some of the most significant new applications (social networking sites, blogs) in tourism – examine them from the two sides of tourism (demand, supply) – which principally based on active participation of users. Furthermore an offline questionnaire was made in order to survey the social media usage of the student (University of Debrecen, Centre for Agricultural and Applied Economic Sciences) during their leisure travel planning process. Although findings of the study reveal that vast majority of students use social networking sites every day, they don't really use these platforms during their trip planning process. Among students, friends and relatives are the most important and the most trustworthy source of information due to characteristics of sample.

Key words: Web 2.0, social media, social networking sites, blogs

Introduction

Wide spread of the Internet and rapid technological evolution have revolutionized all industries in the World especially tourism. Platform of tourism increasingly get to the Internet nowadays which is vitally important because tourism is an information-based and information-intensive industry. In order to reduce the high risk of travelling which derives from the experimental characteristics of holiday travel related purchases, travellers have to collect a lot of information (*Sirakaya* and *Woodside* 2005). At the same time proper information about selected destination can enhance travellers' confidence during the decision making process, assist them to make their best decision, therefore increase the quality of the trip. (*Gretzel* et al. 2007). Thanks to development of Internet and the variety of Information and Communication Tools (ICTs) – such as web technology, mobile technology etc. – tourists have the chance to access such information and purchasing opportunities which were only available with the help of intermediaries earlier (*Buhalis* and *Jun* 2007). Providing wide range of possibilities, Web 2.0 has fundamentally changed the way of tourists' information search behaviour and travelling decision making (*Buhalis* and *Law*, 2008). On the one hand, changes lead to travellers have become more independent, experienced, flexible and sophisticated in arranging their trips and on the other hand tourists have accessed countless reliable and appropriate information provided by more and more other users/travellers (*Buhalis* 1998; *Buhalis* et al. 2011). During information search processes, consumers increasingly rely on other travellers' experiences which decrease uncertainty, therefore information search is moving to online social media where people interact freely and easily exchange information (*Buhalis* et al. 2011; *Fotis* et al. 2012; *Yoo* et al. 2009). New online trends mean that tourists are having more control over their travel decision making process and exerting an influence on tourism related businesses to take new trends into account (*Cox* et al. 2007).

Literature review

What is Web 2.0?

Derive from the characteristics of Web 2.0 – several academic literatures, blogs articles attempted to define – it is a complex phenomenon. Its' complexity shows that Web 2.0 has got different dimensions of use such as technological, business-philosophical and sociological. Web 2.0 is a concept originally coined during a conference brainstorming session between O'Reilly and MediaLive International in 2004 who described it as "an attitude rather than a technology" (*O'Reilly* 2005). The key difference between traditional websites (Web 1.0) and Web 2.0 is the participation of the users. Web 2.0 sites have the ability to be the platform for users to interact and collaborate with each other, in contrast to other websites (Web 1.0) where users are limited to the passive viewing of content that was created for them (*Cormode* and *Krishnamurthy* 2008).

Milano et al., (2011) have similar opinion with O'Reilly (2005) about Web 2.0: Web 2.0 is "not really a technological advancement … rather identifies the changes occurred in the ways software developers and people make and use the web". More detailed definition have been created by Turban et al. (2011) whom determined Web 2.0 as "the second-generation of Internet-based services that let people collaborate and share information online *in perceived new ways such as social networking sites, blogs, wikis, video sharing sites, web applications, and communication tools"*.

From different point of view but with the similar conception, Sigala (2007) interpreted Web 2.0 which realise and exploit the full potential of the original concept and role of the Internet. The researcher in her article also added that Web 2.0 is the "*tools of mass collaboration*", when internet users actively participate and simultaneously collaborate with other users in order to create, use and share information.

Web 2.0 in tourism = Travel 2.0

Travel 2.0 is a term that represents the extension and customization of the concept of Web 2.0 in the tourism sector. Travel 2.0 describes a new generation of travel websites with new technologies which enable social collaboration among travellers where tourists can share their experiences with fellow travellers. Tourists regard this information as more trustworthy and beneficial rather than professional travel advice that's why travellers are becoming increasingly more interested in seeking the opinions and reviews of the fellow travellers (*Fotis* et al. 2012; *Leung* et al. 2011).

As far as the tourism businesses are concerned Web 2.0 provides unique opportunities to attain scores of people, to understand a market's reaction to their offering and to use this information in their business development (*Leung* et al. 2011).

Social media and tourism

Diffusion of the Internet and development of the ICTs contributed to the process that social media started replacing traditional sources of information. Consumers have changed they are becoming more sophisticated so they require more specialized media.

Although social media is very important all over the World there is still no agreed definition in the academic literature and it can be interpreted in many ways as we can find in the article written by Fotis et al., (2012): social media regularly identify as social software, social web sites, consumer-generated media, user-generated media, user-generated content websites, or even Web 2.0.

In my opinion Kaplan and Haenlein (2010) give a compact definition for this term involved most of the previously mentioned different interpretations: social media is "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content" (videos, photos, texts etc.). "*Web 2.0 has made available some technologies that… offer new and more efficient ways of communication by enabling users to make their ideas and opinions available to a potential audience of millions of people. This information is called User-Generated Content*" (*Chaves* et al. 2012).

In tourism, consumers' behaviour has always been influenced by development of ICTs, but Web 2.0 has completely changed how consumers design and consume travel related products (*Buhalis* and *Law* 2008). During the travel planning process social media get an important role, because it gives access to other travellers' experiences as an ultimate information source (*Chung* and *Buhalis* 2008; *Yoo* et al. 2011).

However, there is not yet an agreed term to describe social media, the academic literature also evidences a disagreement on the classification of social media according to Fotis et al., (2012). They collected the different grouping from several research works and they found that some of them propose just two, five, eight, or more then ten social media types.

Universal McCann (2008) proposes ten important platforms of social media, – Figure 1 – which encourage users and travellers to post and share their travel experiences, comments, opinions to serve as a source of information for other users (*Xiang* and *Gretzel* 2009, *Universal McCann* 2008). There are hundreds of platforms where Internet users can interact and share information with other users, starting from blogs, forums, wikis, video and photo sharing to social networks, virtual communities, chat rooms and pod-cast (*Universal McCann* 2008).

Figure 1: Key social media platforms
Source: Universal McCann 2008

According to the basic idea of Sigala (2007), this article deals with two of the most important social media in connection with the impact on tourism businesses and tourists. The article supports the influence of social media on both sides of tourism with different statistics.

Social networking sites

Social networking sites (eg. Facebook or IWIW: the second most important in Hungary) have digitalized human social connections. Nowadays people have more and more friends and trying to maintain their social connections through these sites, while face to face connections permanently decrease. Plenty of social media sites exist with different purposes and functionality. Social networking sites are key platforms where users can become members, create a profile, and build a personal network connecting them to other users with whom they share their own content (*Boyd* and *Ellison* 2007; *Kaplan* and *Haenlein* 2010; *Kietzmann* et al., 2011; *Xiang* and *Gretzel*, 2010).

Facebook was a closed network for students of a university a few years ago. After some years it becomes the most important social networking service on the world for people of all ages, and a good communications platform for businesses. One of the most popular and important social networking site is the Facebook in Hungary with its more than 4 million users in the country. The site has over 955 million monthly active users worldwide – it means if Facebook was a country it would be the third biggest country of the World after China and India – 552 million daily active users on average and approximately 81% of their monthly active users are outside the U.S. and Canada. The 2.5 billion shares and the 2.7 billion likes daily support the activity of the users of Facebook who upload additional 300 million photos a day (www.facebook.com).

In the tourism sector the world's largest Web 2.0 site (travel review site) is the Tripadvisor, serves more than 74 million users per month who seek advice about their travel plans and hosts more than 75 million real travel reviews and opinions. This site offers trusted advice from real travellers and a wide variety of travel choices and planning features with seamless links to booking tools (www.tripadvisor.com).

These two sites connect each other through a common application so called Tripfriend. The purpose of this cooperation is that tourists could collect proper information about the selected destination from their close acquaintance.

Impacts of social networking sites on tourists

Tourists in order to decrease the uncertainty derive from the travel decisions collect more and more indispensable information in connection with the travel. Altering tourists (consumer behaviour) trust even more in other travellers' opinions rather than official marketing advices due to the spread of social media sites and user-generated contents. Many tourists need to obtain confirmation of other users that they have planned the best trip. An opinion or recommendations from an acquaintance or friend have a huge impact on the tourists' travel decision making process (*Sigala*, 2007). An interesting study by Mandala Research LCC collected the most important surveys from different sources related to the impact of social media on consumers. The study revealed that social connection has a big influence on commerce decision; 83% of the respondents tell their friend when they get a good deal, 90% of people trust recommendations from their friends, 300% more likely to buy when recommended by friend, 1000% more likely to buy deal after seeing friend purchased it (*Mandala Research LCC*. 2010). Nowadays social networking sites have a huge impact on how tourists create, organise and share tourism experiences and to support this statement, some statistics were collected from different studies.

Funsherpa Infographics illustrated social media influence on US travellers, with more than half (52%) of travellers having changed their original plans after seeking their trip on different social media sites. 70% of the respondents updated their Facebook status during vacation, 76% post vacation photos to a social network, 55% 'liked' Facebook pages in connection with a vacation and 46% of travellers post hotel reviews after their trip (http://www.newmediatrendwatch.com/news/1065-us-online-travel-industry-to-be-worth-162-billion-in-2012).

According to World Travel Market 2011 Industry Report, social media altered the travel plans of more than half of the respondents who use it and more than a third of people changed their hotels as a result of what they found on social media networks (http://www.newmediatrendwatch.com/news/895-social-media-is-still-altering-the-travel-plans-of-more-than-half-the-people-who-use-it-in-the-uk).

According to an interesting study which revealed that 90% of pleasure travellers take photographs and that 45% of them posted their photographs online (*Lo* et al. 2011).

Király (2011) refers to a study made by Skyscannar which examined that how social network sites impact travelling attitudes. The result was interesting which claims that half of the participants select their next holiday destination by their friends' shared photographs. Furthermore, this study also revealed that 88% of the users always look at their friend's holiday pictures.

Murphy et al., (2010) examined the online sharing attitudes in general (video, text, photo etc.). 40-50% of the respondents frequently share texts and pictures while only 3% post videos. Respondents are more likely to share content on their own social media website than on a media sharing or review site.

Gretzel et al., (2007) conducted a comprehensive survey in connection with the impact of online travel reviews (user-generated content) on consumers. In order to find out the role and impact of online travel reviews in pleasure trip planning behaviour they asked 1480 users of tripadvisor.com. The key results of the study was that other travellers' opinions on online travel review sites were the most frequently used source of information (*Gretzel* et al. 2007). The below assignment contains the most important findings of the study in terms of the influence of the online travel review sites have on their users. Travel reviews have influence on respondents: (1) Learn about a destination and what it has to offer (2) Evaluate

alternatives (3) Avoid places/services they would not enjoy (4) Provide them with ideas (5) Increase confidence in travel decisions (6) Make it easier to imagine what a place will be like (7) Reduces the risk and uncertainty (8) Helps plan a trip efficiently (*Gretzel* et al. 2007).

According to Cox et al., (2009) the main limitation of this research is that the findings are connected directly to tripadvisor.com users, mostly from four countries (USA, Canada, UK and Australia) who are actively engaged in the use of user-generated contents. Examining the impacts of user-generated content on a broader range of Internet users may contribute to deeper understanding of the topic (*Cox* et al. 2009).

Impacts of social networking sites on tourism businesses

More and more tourism businesses use social networking sites to achieve better position in the competition for the grace of tourists. For instance creating a Facebook fan page enables different tourism businesses to easily, cheaply and quickly reach scores of people, interact with past and potential visitors, attend interaction with fans or even give opportunity for reserving their accommodation on the page. Almost everyone loves sharing experiences about their vacation. Past visitors' positive experiences and stories are genuine third party contributions which may encourage others to visit. It is a free of charge marketing tool for all tourism businesses (*Fotis* et al. 2012).

One of the activities that community members of Tripadvisor can do is post reviews about hotels, attractions, and restaurants. By analyzing the comments on the webpage, businesses are able to monitor and get better understanding what their guests like and dislike about them and even their competitors, which can help businesses to strengthen weaknesses and maintain and improve what visitors like (*Leung* et al., 2011).

One of the Funsherpa Infographics researches supports the power of social networking site; they found that 50% of US travel companies saying that direct bookings have been generated from different social networking sites. (http://www.newmediatrendwatch.com/news/1065-us-online-travel-industry-to-be-worth-162-billion-in-2012)

Cox et al., (2009) collected the potential benefits of consumer reviews for tourism businesses from different studies. The next assignment contains the most important findings of the studies in connection with the possible benefits that user-generated content can provide to business.

(1) Increases the likelihood of consumers having a good opinion of a business (2) Better search engine position of websites that contain UGC (3) Enhances cross selling opportunities for different products/services (4) Ability to convert consumers from 'observers' to 'purchasers' due to the trustworthiness of consumer reviews (increases in conversion up to 10% have been reported) (5) Increases consumer loyalty to websites that contain UGC to the ongoing development of content and dialogue on key issues (6) Provides relevant and up to date consumer feedback on products and services (*Cox* et al. 2009).

Blogs or Weblogs

Blogs (Weblog) are a type of website or platform formed by entries ("posts"), which are made in online journal style published on the World Wide Web and usually displayed in reverse chronological order. A typical blog combines text, images, links to other blogs, Web pages, and different media related to its topic. Anyone can create a blog by using free software offered for free of charge at several websites nowadays. Numerous examples of the topics exist in the tourism industry and some of the most popular blog platforms are Igougo, Travelplanet, Realtravel, Tripadvisor, Twitter (*Camilleri* et al. 2007; *Nagy* 2010; *Grotte* 2010).

Impacts of blogs on tourists

Blogs are becoming a very important information source for international travellers for getting travel advice and suggestions of tourism suppliers. Gretzel and Yoo (2008) have shown that "reviews play an important role in the trip planning process for those who actively read them. They provide ideas, make decisions easier, add fun to the planning process and increase confidence by reducing risk making it easier to image what places will be like". When reading and sharing one's travel experience through weblogs, this also creates the willingness to travel and visit the same destination.

Several statistics support the influence of online travel blogs on tourist decision making behaviour. For instance Universal McCann 2010 latest "The Socialisation of Brands" survey has revealed changes in the way that people are using the Internet to create and share information. The usage of different blogs in almost every examined area – especially tourism – has increased steadily from 2008 to 2010 as we can see on the second figure. Nowadays approximately every third of the people read travel related blogs for getting trustworthy information from fellow travellers.

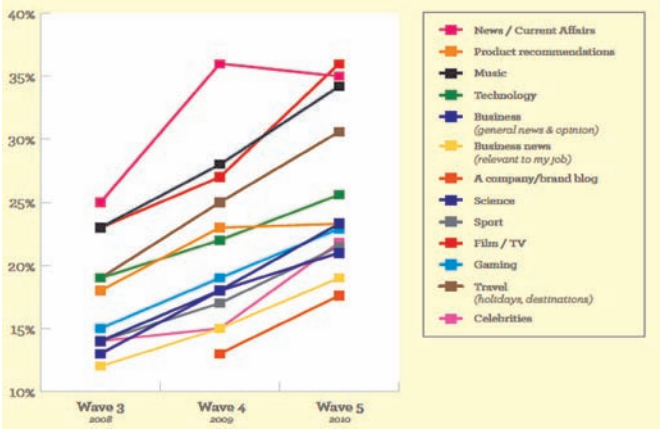

Figure 2: The most often read blogs amongst those who have read a blog in the last six month

Source: Universal McCann, 2010

Impacts of blogs on tourism businesses

Tourism businesses and destination management organisations pay even more attention to online travel blogs in order to (1) communicate with their guests, and enhance their loyalty, (2) create interest and appeal to their products or services, (3) conduct an easy, free, timely and reliable market research about travellers' preferences, (4) give feedback and maintain connection with current and prospective travellers in a very personal and informal way. Weblogs are becoming very important tools affecting information search since their links, content (using keywords regularly) and popularity influence the ranking of a company on a search engines (*Sigala*, 2007). Despite search engine optimisation it is vitally important to deal with the content of the blog. Blog posts should be compact, relevant and informative because of the fact that a regularly updated blog may help promote your tourism brand through the building of a community of readers and by increasing the number of search terms that may bring visitors to the site.

Materials and methods

Data collection and measures

An offline questionnaire survey, about the usage of social media during travel planning process, was conducted in 2012. During random sampling 240 students (BSc, MSc) from the University of Debrecen Centre for Agricultural and Applied Economic Sciences completed the questionnaire. Economic faculties were preferred during the selection such as tourism and hospitality or trade and marketing. Eventually the sample of the study consists of 221 students, who have taken at least one holiday trip within 12 months previous to the study. Only 14 questionnaires were incomplete and further 5 respondents haven't taken at least one holiday trip during the last 12 months. Analyzing of this age group is a part of my PhD research work which will examine additional age groups too.

The questionnaire included measures to provide socio-demographic characteristics, usage of the internet and social media behaviour. Several instances were used for explaining types of websites in order to increase the reliability of the responses. The questionnaire used not only the most famous social media examples from all over the world but also websites operating exclusively in Hungary such as iwiw.hu or utazok.hu.

Seven point Likert scale were used to measure what extent trust of the travellers in connection with the travel related information sources. Of the seven information sources, five were borrowed from Fotis et al. (2009), of four borrowed from Cox et al. (2009). On the basis of Fotis et al., (2012) the perceived level of social media influence on destination and accommodation choice was measured a 7 point scale ranging from "Not Influential At All" (1) to "Very Influential" (7) using the same information sources.

Results

Profile of the sample

Due to opportunities of the study the sample included students from the University of Debrecen Centre for Agricultural and Applied Economic Sciences represented the age group of 18 to 25. According to the gender, 60% were females and 40% males. The over representation of female respondents has been also observed in other studies (*Cox* et al. 2009; *Fotis* et al. 2012; *Gretzel* et al. 2007). Almost every five students (18%) have got a job along his/her study. Figure 3. shows the proportion of the ages among the respondents. Most of the students (66%) are in the 19 to 21 age group.

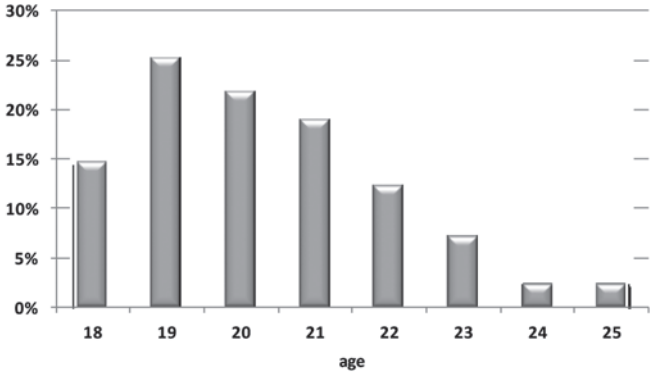

Figure 3: Proportion of ages of the respondents

Usage of the Internet and social media

As per the frequency of the daily use of the internet among the students, 58% use for 1 to 3 hours a day and almost every fourth (23%) of the students spend 3 to 5 hours on the internet every day. According to the latest survey of GfK Hungária, regularly internet users from 15 to 49 ages in Hungary use internet for 207 minutes every day. (http://www.barikad.hu/egyre_toebben_netezuenk_a_mobilunkon-20120710) Almost everybody (96%) uses the internet in their homes, and half of them use it on their mobile phone. 63% of the respondents are smartphone owner, and 86% of them use the internet on their devices for average 25 minutes every day. This is almost two times higher than the Hungarian (14 minutes) average because of the characteristics of the sample. It can be considered as a high result although the national study examined not only the age group of 18-25. (http://www.barikad.hu/egyre_toebben_netezuenk_a_mobilunkon-20120710)

Among students the most popular smartphone activities are visiting social media sites such as Facebook, LinkedIn or Iwiw (88%), searching information (78%) and visiting their e-mail box (65%).

As far as the social media are concerned the vast majority of respondents (96%) have visited at least one social media website during the last 12 months. 77% of the respondents visit some social networking sites (Facebook, LinkedIn, Iwiw) every day, 18% of the students several times a week. 82% of

the respondents visit photo and video sharing sites every day (41%) or several times a week. Analysis did not reveal any significant difference in gender, job and faculty of the students in connection with social media usage.

Additional interesting finding of the study is that significant difference was found between the level of use of different websites (visiting news websites and websites in connection with studies of the students) by gender. Men frequently visited websites for reading news (χ^2=15,559, p=,004) while women rather visited those websites which are needed for their studies (χ^2=14,986, p=,005).

Information sources of the travel planning

Students had to mark at least one information source what they used during the travel (leisure) planning process. As it can be seen in the following figure, friends and relatives are the most important source of information (84%), followed by information provided by travel guide books or travel magazines (47%) and only the third most important source of information is the opinions and reviews of other travellers (tripadvisor.com; utazok.hu), whereas social media sites are the least important among the information sources. Analysis did not reveal any significant difference in gender, job and faculty of the students in terms of information sources.

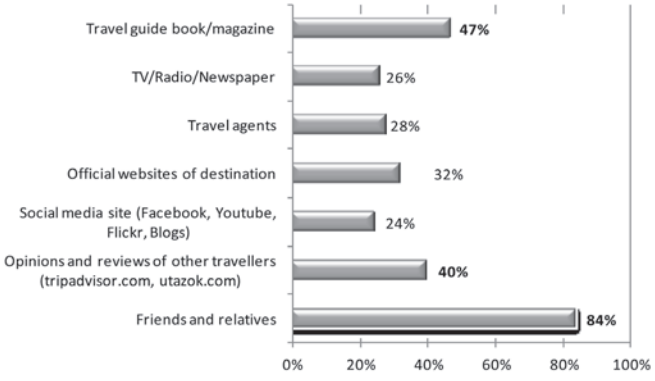

Figure 4: Information sources during the travel planning process among students

Trust of the students in social media and traditional sources of information

Students were asked to indicate their agreement or disagreement with seven statements in the form of 'I trust information about holidays provided by...' followed by the information source. As it can be seen in table 1. friends and relatives are the most trustworthy source of information, followed by information provided by official websites of the destination, whereas social media sites are the least trustworthy among the information sources. Fotis et al., 2012 in their study found that friends and relatives are the most trustworthy source of information, followed by information provided by other travellers in various websites and social media. According to Cox et al., (2009) in disagreement with the previous findings, the most trustworthy sources of information are the official tourism websites and travel agencies (*Fotis* et al. 2012).

Table 1: Level of trust of students in information sources

Information source	Mean	SD
Friends and relatives	6,18	1,13
Official websites of destination	5,07	1,36
Travel agents	4,78	1,51
Travel guide book/magazine	4,77	1,57
Opinions and reviews of other travellers (tripadvisor.com, utazok.com)	4,30	1,37
TV/Radio/Newspaper	3,96	1,51
Social media site (Facebook, Youtube, Flickr, Blogs)	3,76	1,23

The reason of the difference findings among studies is that the samples are different. Present survey deals with people age between 18 and 25 and most of them don't have an own earnings, and they don't have a great experience in travel planning process. In case of Cox et al. (2009) the sample was taken from the database of e-mail subscribers of a destination's official tourism website while in case of Fotis et al., (2012) sample of the study was taken from internet users residing in 12 F.S.U. Republics.

Social media influence on holiday plans

Students were asked to evaluate the level of the influence of information sources on holiday planning in connection with destination and accommodation choice. The perceived level of influence on destination and accommodation choice was measured on a 7-point Likert scale, where: 1 = Not influential at all, 7 = Very influential on the basis of Fotis et al., (2012). As means can be seen in Table 2., friends and relatives are the most influential sources of information at both planning process (accommodation, destination). Influence of each source of information in connection with accommodation choice is at higher level among students except social media. The reason of this result is that students rather use the information of these sites for selecting the destination than selecting the accommodation of their holiday. This result is in agreement with of Cox et al. (2009) who found that social media are predominantly used for information search purposes before the trip. As regards the official website of destination, the difference is significant, statistically support. It means that students rather use this source of information during the selection of accommodation. Analysis did not reveal any significant difference in gender, job and faculty of the students.

According to the basic idea of Fotis et al., (2012) – in order to survey changes in original leisure travel plans (destination, accommodation) – students, who visited social media websites while they were still planning their holiday trip, were asked in connection with their final decisions about their last holiday. Were there any changes in their original holiday plans (destination, accommodation) because of information found in social media websites?

Table 2: Level (mean) of the influence of information sources on holiday planning in connection with destination and accommodation choice

Information sources	Destination	Accommodation
Friends and relatives	5,75	6,01
Official websites of destination	4,00	4,53
Travel agents	3,30	3,55
Travel guide book/magazine	3,96	4,16
Opinions and reviews of other travellers (tripadvisor.com, utazok.com)	3,88	3,85
TV/Radio/Newspaper	3,32	3,33
Social media site (Facebook, Youtube, Flickr, Blogs)	4,01	3,89

In both cases – destination and accommodation choice – only 16% of the respondents claimed that there were few or significant changes in their original holiday plans. Vast majority of the students didn't make any changes or couldn't remember if they made any changes.

These results show that social media sites influenced almost every fifth of the students who used social media during the travel planning process. Although this age group of people "live" on social media sites, the usage of this platform – in order to planning their trips – is at low level. The two reasons of this result, which was not surprising, are (1) that they are inexperienced in organising their trips, because of their age group and (2) only a very few of them have a job, so they are not independent from their parents financially.

Summary

All in all, results of different studies show the importance of social media in tourism. On the one hand these platforms offer opportunities for tourists to express themselves, share opinions, reviews and experiences which other tourists may use as a reference in their travel planning. An opinion or recommendation from an acquaintance or friend has a huge impact on the tourists' travel decision making process, which even more alter the original plan of tourists.

Although findings of the study reveal that vast majority of the students use social networking sites every day they don't really use these platforms during their trip planning process. Among students, friends and relatives are the most important source of information (84%), followed by information provided by travel guide books or travel magazines during the travel planning process. The third most important information source during the trip planning process is the opinions and reviews of other travellers on travel review sites such as tripadvisor.com or utazok.com. Reliability of user-generated contents of these sites among students not as good as an information source.

In terms of reliability information provided by official websites of destinations, travel agents and travel guide books/magazines are more trustworthy for students than information provided by other travellers. During the holiday planning process the most trustworthy information for students is the information of friends and relatives.

In connection with the level of influence of information sources on holiday planning (accommodation, destination) only 16% of the students claimed that there were few or significant changes in their original holiday plans.

On the other hand social media and different Web 2.0 applications provide tourism companies, unique opportunities to easily, cheaply and quickly reach scores of people, understand a market's reaction to their offerings and use this information in their business development. Travel businesses use social media to achieve better position in the competition for the grace of tourists. According to Chaves et al., (2012) hotels need to monitor regularly the reviews on Web 2.0 sites which can serve as a useful decision support tool for the management. Thanks to the monitoring, experts can measure the perception of customers' satisfaction, and their expectations of the service provided by the hotel. Hotels "*can identify gaps and strengths in customer service, identify new ways to increase customer satisfaction and adjust operational strategies to minimise the differences between the expected and received*" (*Chaves* et al. 2012). Social media have a great impact on searching hit in connection with tourism and it leads that we can find even more updated information or opinions of tourists in the searching results. Opinions, reviews and recommendations of millions of (potential) tourists in different travel related social media web sites have exert an influence on the tourism industry to adapt to the Web 2.0 effect and to deal with the new needs and expectations of tourist.

Research Limitations

There are limitations in the study because findings on the one hand apply only to the specific geographical context (Hungary) and therefore cannot be generalized especially to other national markets with distant cultural characteristics (*Fotis* et al. 2012) and on the other hand a specific age group (18-25) were surveyed. It means that they are inexperienced in organising their trips, because of their age group and only a very few of them have a job, so they are not independent from their parents financially. As far as the sample size is concerned it will expand in the future in order to conduct a more exact analysis of the influence of social media on tourism.

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FACTORS OF SUCCESS. ATTITUDE DIFFERENCES OF ONE HUNGARIAN AND ONE SERBIAN TEAM'S YOUTH HANDBALL PLAYERS

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Abstract: Results of the Hungarian and the Serbian handball teams are similar on the international level (IHF rankings: Serbia 4. Hungary 5. IHF-10.03.2012.), however the general supposition is that the Serbian handball players are more successful and more acknowledged. This is confirmed by numerous Serbian internationals that play at high level in Hungary and other European countries and the results of the youth national teams. In this article we were searching for the influential factors behind the success of the Serbian team. While there are no considerable differences in physical performance and anthropometric parameters so we assume the main differences are in their relation and stance to coach and to training.
In our study we support an explanation for the reasons of the differences in the results between two nations youth handball players with an analysis of the attitude to the head coach and players relation to work and physical training. Our sample was chosen from one Serbian (Crvenka) and one Hungarian (Komló) youth team. The measurement was completed with a standard survey according to Hagger et al. (2007) Passes questionnaire.
The results show that the Serbian youth players have better relations with their head coach and have better stance for work and training, which might be an explanation for their better success.

Key words: motivation, attitude, success factors, coach, training

Introduction

In our days modern handball requires not only good technical and tactical preparation for being in a good shape but the mental-psychic factors have their significance as well. There are plenty of situations where the mentally and emotionally more stable athletes provide better performance, especially those at a younger age. The coach has a big part in the development and maintenance of emotional stability, because it is not common that young generation have their own qualified psychologist or mental trainer. Coach who supports the athletes' self-realization also gives them the feeling of appreciation and the fact that they are valuable part of the community (*De Backer*, 2011). Many times coaches are not aware of the fact that their attitude affects their players' progress and decision making ability, especially because of the impact of negative criticism. Unfortunately, it happens in many sports (*Walters*, 2012). Mental factors can be different in various nations' athletes' because of their different preparation, different way of approaching the game, not mentioning their different training methods. The Hungarian and Serbian senior male handball national team's efficiency is similar. (IHF ranking: Serbia 4. Hungary 5. [ihf.info 2012. may]), however there are many thoughts that the ball players from the ex-Yugoslavia are more effective, successful and admired. A number of ex-Yugoslavian players who are playing in Hungary as well as the youth men handball teams results can prove that: IHF ranking: Junior: Serbia 6. (169 points – first Germany have 198) Hungary 9. (86 points) Youth: Serbia 11. (86 points), Hungary (0 points) (ihf.info May 2012.). Moreover, a few players from Serbia played in the Hungarian national team, who were nationalized (Nikola Eklemovic, Milorad Krivokapic, Nenad Puljezevic). In our opinion the reasons of the differences have to be searched in the youth age. The aim of the study is to analyse the attitude differences comparing one Serbian and one Hungarian teams' youth men handball players' attitude towards their coaches and training. The study's principles are the works of Gombocz János - Gombocz Gábor (2006) and Hajduné László Zita - Prisztóka Gyöngyvér (u.i.) where the differences between the real and the ideal handball and basketball coaches are being analyzed as well as the players' attitudes towards coaches. Our assumption was that the Serbian athletes' attitudes to trainings are better than the Hungarian ones and that the Serbian players' relationship with their coach is better as well.

Methods

The study model compares two youth (from age 14 to 18) men handball team's players (n=37)**.** The Hungarian Komlói BSK (n=17) and the Serbian RK Crvenka (n=20) both had players who represented their countries in a big tournament. We chose these two teams because of their important place on the handball map of their countries. Both teams have tradition of making good players and have rich handball history, although at this moment their first teams compete in the second level. Both of the team's young players compete in more levels. Players from Komló have 5 trainings weekly and play league matches on weekends, and also compete in Hungarian Youth Cup. Players from Crvenka have 6 trainings weekly and compete in youth league and also in youth cup. One training lasts one and a half hour by both clubs. So we can conclude that both nations' players' competitions and training schedule are similar. Previously achieved results (from season 2010/2011) show the Serbian youth players had more success. Youth players from Crvenka finished the season 8th while players from Komló finished 16th. We enrolled data from January 2012 to May 2012. A two-part questionnaire was used from the method PASSES (The perceived autonomy support scale for exercise settings, 2007) developed by Hagger and his co-workers (2007), which study the students' attitude to their P.E. teachers and classes. We converted P.E. teachers to coaches and P.E. classes to handball trainings. Athletes' anthropometric data was collected as well as the scholastic record. We divided the questionnaire results into two groups. One of them contains questions concerning coaches (15 questions); the other one contains questions on the subject of trainings (18 questions). On the questionnaire concerning coaches the answers were given on a 7-point Likert scale where 1 meant *I totally disagree* while the answers about trainings are given on a 4-point Likert scale where 1 meant *I totally agree*. In the training questionnaire the principal question was *"Why do you work hard on trainings"*. It might be confusing the reverse direction of scaling, but we didn't want to change the original (PASSES) surveys methods. We processed the data with SPSS 20 and Excel programs where we used simple mathematic-statistic methods as well as factor analysis.

Results and Discussion

After analyzing the athlete's stance to their coach we can conclude that Serbian young players have different opinion of their coach and more positive relation to him than the Hungarian ones. We can see from the tables underneath that the average points are higher in every question related to trainer in specific fields.

The most singnificant difference between Hungarian and Serbian young athletes were in fhe fields of coaches appreciation, trust, acceptance and handling and sharing feelings. The lowest results were taken with the questions *"Does your coach ask you for an opinion"*and *"Do you feel right the way your coach talks to you"*. This reflects

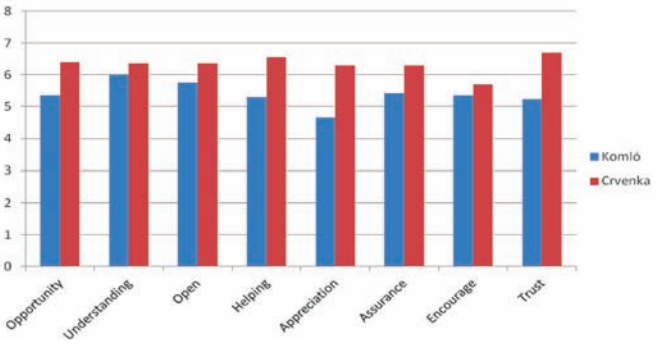

Table 1. Average points of Hungarian and Serbian players to questions from 1 to 8.

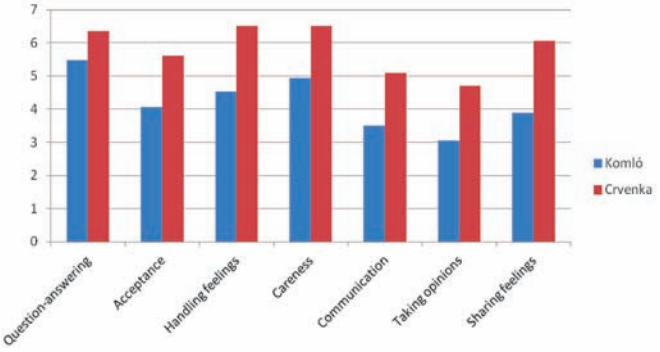

Table 2. Average points of Hungarian and Serbian players to questions from 9 to 15.

the trainers' authoritive behaviour and the lack of two-sided communication. So we can conclude that Serbian handball players gave more points in every aspect of their relation to trainer. Hungarian athletes scores approaches most to Serbians in the field of understanding and encourage.

There were only three cases were significant differences was not shown between the answers of Hungarian and Serbian players (using ANOVA, with p<0,05 – 9 cases with p<0,01). These were "*Understanding*", "*Open*" and "*Encourage*". All other answers showed significant differences between the players of the two nations.

Analyzing the answers concerning training questions, the most conspicuous difference is that there is only one question from the 18 where we can find the average result above 2 from the Serbian youngsters (It means that the given fact at least partly motives the athlete) while in Hungarian players' case this number is 8. Moreover, at the Hungarian athletes' we found answers in 5 elements reach or surpass the value of 2,7.

When concentrating on the differences of the points given to each training questions we were able to find significant differences (using ANOVA) 15 times out of the overall 18 questions (p<0,05). The three question, witch Hungarian and Serbian players answered alike were: "*Because the training is important to me*" (HUN mean=1,05; SRB mean=1,05; F=0,013; Sig.=0,909); "*To be a good player*" (HUN mean=1,88; SRB mean=1,95; F=0,34; Sig.=0,854) and "*Because it is a good thing to practice*" (HUN mean=1,82; SRB mean=1,55; F=0,766; Sig.=0,387). In all other cases the Serbian youth players gave significantly lower grades then their Hungarian sport mates.

We can conclude from these answers that the Serbian athletes are more motivated in connection with trainings (the average was 1,36 while in the Hungarian sample the average was 2,12).

The question is why athletes from these two different countries have different motivations? What motivates them most? These tables conclude the answers:

Table 3. Hungarian handball players' answers, for the question *„Why do you work hard on trainings?"*

Answer (Serbian athletes' placing)	Points (Serbian athletes' number of points)
1. Because the training is important to me (1)	1,05 (1,05)
2. Because I find it useful (1.)	1,47 (1,05)
3. Because I miss it when I don't practice (4.)	1,58 (1,15)
4. Because I find it enjoyable (3.)	1,64 (1,10)
5. To do well on the training (9.)	1,71 (1,25)

Table 4. Serbian handball players' answers, on the question *„Why do you work hard on trainings?"*

Answer (Hungarian athletes' placing)	Points (Hungarian athletes' number of points)
1. Because the training is important to me (1)	1,05 (1,05)
1. Because I find it useful (2.)	1,05 (1,47)
3. Because I find it enjoyable (4.)	1,10 (1,64)
4. Because I miss it when I don't practice (3.)	1,15 (1,47)
5. Because I enjoy it. (6.)	1,20 (1,82)
5. Because I have to do it on my coaches command (12.)	1,20 (2,11)
5. Becuse it gives me the feeling of joy and satisfaction (11.)	1,20 (2,06)
5. Because it helps me in learning and developing (9.)	1,20 (1,94)

It is also interesting, which factors motivate them the last. We concluded that on the next table:

Table 5. Hungarian handball players' answers, for the question *„Why do you work hard on trainings?"*

Answer (Serbian athletes' placing)	Points (Serbian athletes' number of points)
18. Because I will be punished if I don't practice (18.)	3,65 (2,05)
17. Because I will get into trouble if I don't practice(13.)	3,23 (1,40)
16. I am ashamed if I don't practice (16.)	2,76 (1,90)
14. Because it is expected from me (12.)	2,71 (1,30)
14. Because I feel guilty if I don't practice (9.)	2,71 (1,25)

It is within the tables that the Hungarian athletes are motivated in only one area. Surprisingly one of the answers is positioned at the back (Hungarian's 8th, Serbian's 17th place) "*To be a good player*". Originally we supposed the fact to be a great player will be one the most determining factors, but it turned out to be false in both of the nations.

Table 6. Serbian handball players' answers, on the question *„Why do you work hard on trainings?"*

Answer (Hungarian athletes' placing)	Points (Hungarian athletes' number of points)
18 . Because I will be punished if I don't (18.)	2,05 (3,65)
17. To be a good player (8.)	1,95 (1,88)
16. Because I am ashamed if I don't practice (16.)	1,90 (3,23)
15. Because it is a good thing to practice (6.)	1,55 (1,82)
13. Because I will get into trouble if I don't practice (17.)	1,40 (3,23)
13. Because it is not good when I don't practice (9.)	1,40 (1,94)

Factor analysis

We could establish by analyzing the second group of questions' elements that all the questions (18) are able to be involved into the creations of the factor groups. We got results in all areas appropriate for conditions for factor analysis. The result of the KMO (Kaiser-Meyer-Olkin) criteria was 0,658 which are considered to be medium-adequate factor. Besides that we found the Bartlet-test significant as well (368,219 Chi-Square distribution at 0,000 significance level).

The questions integration to factors was confirmed by certain variables communality (the lowest communality was 0,677 which is beyond the strict 0,5 level) as well the determination of factor analysis with maximum likelihood method index number (59,549 Chi-Square rate at 0,492 significance). Maximum likelihood tests have shown the main component analysis and the Kaiser-criteria (factors eigenvalue min. 1) approves 6 equivalent factors (the significance level was 0,267 with 5 factors). The factors explain 76,81% of variance, so we can accept them as good consideration.

By all these facts we can separate 6 factors.

Table 7. Name of the factors and variable names

Name of the factor	Variable name (the question)
Demonstration/Self-respect	Because I enjoy the training
	Because the training is useful
	Because I want to do well on the training
	Because it is expected from me
Authority / Avoiding conflicts	Because I will get into trouble if I don't practice
	Because I will be punished if I don't practice
Self-calming/ Urge	Because it is not good when I don't practice
	Because it gives me the feeling of joy and satisfaction
	Because I feel guilty if I don't practice
Correspondence	Because the training is important to me
	Because I am ashamed if I don't practice
	Because the trainings are joyful
	Because I have to do it on my coaches command
(Desire to) Develop	Because it helps me in learning and developing
	Because it is interesting
	Because I miss it when I don't practice
Self-expression	Because I will be a great player
	Because it is a good thing to practice

It is worth to compare the Hungarian and the Serbian athletes' answers inside of a certain factor. It is shown in the table underneath:

Table 8. Comparison of Serbian and Hungarian players average points given to factors

	Hungarian	Serbian	Difference
Demonstration/Self-respect	1,92	1,20	**0,72*[1]**
Autority / Avoiding conflicts	3,295	1,725	**1,57**[2]**
Self-calming/ Urge	2,23	1,28	**0,95****
Correspondence	1,89	1,31	**0,58**
(Desire to) Develop	1,96	1,20	**0,76****
Self-expression	1,85	1,75	**0,10**

[1] *means significant difference (ANOVA) with p<0,1
[2]**means significant difference with p<0,05

It can be concluded from the table above that the Serbian players' motivation is more individual. In the centre of their motivation is the efficiency and to keep in progress. On the other hand, the Hungarian players' motivation is to satisfy their coaches and themselves. We must state that the strongest motivational aspects among Hungarian youth athletes stays below Serbian's lowest ones.

When analyzing the significance of differences, we find that the factors concluding the previously mentioned not significantly different variables are significantly different as well. Except for Demonstration/Self respect, which contains "*Because I enjoy training*", but significant difference at this factor is only valid on a 90% significance rate.

Altogether we can conclude that the Serbian young players' motivation in the trainings is way better, no matter what kind of motivations they have. The next important question would be the research of the background motivation.

We have found interesting results after collecting the anthropometric parameters of the young handball players. Average height of the Hungarian players was 184,5 cm and 181,8 cm of the Serbians. Average weight was 75,2 kg at Komló and 76,6 kg at Crvenka.

Scholastic record was better among the Serbian young athletes (average 3,75 to 3,07 among Hungarian athletes).

Limitations

It is important to mention that this research can be mentioned only as a "pilot" study and we cannot conclude anything precisely. The main goal of the research was to test the validity of the questionnaire. It is why we worked with low members of subjects and players only from second division. Besides that, the results are provoking, showing us the differences between two countries' youth athletes. We must emphasize that the differences are not (or not only) in the technical abilities but in the varieties of attitude.

Acknowledgement

The Serbian (from Crvenka) youth handball players' attitude to their coaches is way different than the Hungarians (from Komló), especially in the area of trust, handling feelings and admiration. That is why Serbian athletes are more open, confidant to their coaches, making an opportunity for them to be much more effective. Fewer points are given to coaches on the area of communication, what matches Walters and co-workers' (2012) research results, where male baseball coaches made more negative comments than female trainers. It is very important for coaches to know the constructive and destructive power of their communication. Their methods can result into better but also worse performance. In studies of Gombocz János-Gombocz Gábor (2006) and Hajduné László-Prisztóka Gyöngyvér (u. i.) we can realize the differences between ideal and real coach image, especially in the field of authority. The ideal coach is more reliable and communicative than real one. Both countries players work hard on trainings because they find handball important, useful, enjoyable as well as to become great players. The expectation and avoiding the punishments are stronger motivating powers among Serbian handball players. Finally, the stance to training is way more positive among Serbian athletes, which can be one reason of the better performance.

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Rankings on International Handball Federation's website (www.ihf.info)

SOMATIC DEVELOPMENT AND SOME MOTOR PERFORMANCES OF YOUNG GIRLS BASED ON AGE AND BIRTH SEASON

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Abstract: There are numerous publications in the literature reporting physical development and motor performances of children of different ages based on sex and various environmental factors. However, there are not many publications on the birth season effect.
The aim of the study was to evaluate the differences among children in physical development and motor performances based on age and birth season.
Physical development described by body height and body weight, in addition to motor performance indicators including the twenty-metre dash, standing broad jump, six minutes of continuous running, throwing with a stuffed ball, and obstacle race-tests were studied. The survey included the participation of 426 girls. From the group the seven-, eight-, and nine-year olds numbered 148, 191, and 87 respectively. The group of girls who were born in winter, spring, summer and autumn numbered 114, 110, 89 and119 respectively. The tested data were evaluated with unitrate analyses of variance using SPSS statistical package. Mean value, standard error, standard deviation and coefficient of variation were calculated. The significance of differences between mean values was evaluated using "t" test. Differences with an error below 5% were considered to be significant. Furthermore, a correlation analysis was used to evaluate the relationship between season of birth, body development and motor-related performance data. Age, body height, body weight, throwing a stuffed ball in one hand, twenty-metre dash, six minutes of continuous running, and obstacle race-test are interdependent variables of development and motor performances of young girls of this age.
Data from the study results show that the children group included in the tests was quite homogenous in body height, but heterogeneous in body weight and motor performances. Physical development and four of the five evaluated sport skills were affected by the birth season. Development and motor performances of the summer- and autumn-born girls are generally better than those born in winter or spring. Differences are significant except for the obstacle race-test. Age, body height, body weight, throwing with a stuffed ball in one hand, twenty-metre dash, six minutes of continuous running, and the obstacle race-test seem to be interdependent variables of development and motor performances of young girls of this age.

Key words: body height, body weight, conditional tests

Introduction

The relationship between human development and different environmental effects has been the subject of various publications. According to Stemmler (1976) the development of children's talents is influenced by several exterior and interior effects, and it is supposed that the children can be selected for sport activity at this young age. The environmental effects are summarized and attributed as biological and social influences by *Wolanski* (1981). There are several scientists who have studied the physical development and motor performance of children of different ages based on environmental factors. *Farmosi et al.* (1986) found a definite environmental influence in studying primary school girls. Some authors have reported that season of birth may have an effect on mental and physical development at a young age and later as well. According to *Fitt* (1941), there are slight advantages in various aspects of development, enjoyed by children born in summer, including intelligence. *Orme* (1962) found a preponderance of summer-born and autumn-born individuals. *France and Wiseman* (1966) reported that the performance of the children, on whom were performed eighteen educational guidance test varied according to the season of the year. Autumn-born children had slightly higher scores than those born in spring. *John* (1962) found a significantly higher proportion of summer-born children among retarded readers than would have been expected. *Williams et al. (1970),* studying season of birth and cognitive development, found that certain groups of

handicapped children contain a high number of those born in summer. *Mihály (*2001) reported that children born in summer had better school achievement than those born in autumn.

As for the season effect in sport performance, *Dudink (1994*) found a significant relationship between birth date and success in tennis and soccer. He reported that in the Netherlands most football players were born in the first quarter of the competition year. He has also published the fact that Canadian hockey players born between January and June were more likely to participate in minor league hockey for top teams than players born from July to December. His results suggested that younger children in any age group participating in a sporting activity may be disadvantaged. *Edwards* (1994), found a birth-date effect for fast bowlers but not for spin bowlers. A closer analysis of the data concerning soccer players by season (*Rollin* 1994) show that the birth-date effect is true for goalkeepers, defenders, midfield players and forwards. But the average height of goalkeepers and defenders was significantly greater than that of the general population. In their study of cricket players, only fast bowlers showed a birth season effect, even though spin bowlers and batsmen were significantly taller than average. *Farmosi (*2002), studying obstacle race-test results in 7–9 year old children, found that winter-born boys and spring-born girls performed better than average.

It is not easy to explain the effect of birth season on cognitive and sport development. According to *Williams et al.* (1970), there can be two alternative explanations. One, the "term of entry effect" suggests that children born in summer spend shorter time in their nursery school than children born at other times of the year. The other explanation, the "age group effect", suggests that children born in autumn are the oldest in their school group. There can be an age effect, which means that older children are generally better developed than younger ones.

Whichever explanation is correct, more research has to be done to find new information regarding birth year effect amongst children of different ages.

To gain more information about the physical development and motor performance of children and the birth season effect, we organised an experiment. In this experiment, body height, body weight and five athletic sport performances were evaluated among the 7–9 year-old primary school girls. In our opinion, these athletic abilities are the most general movement-related abilities, as they are based on walking, running, jumping and throwing. These activities can be well-measured by using motor tests.

The objective of our study was to get answers to the following questions:

1. How the body height and body weight of young girls influenced by their age?

2. Is the body height and body weight of young girls influenced by their birth season?

3. What is the age effect on some of the motor performances?

4. Are there any birth-season effects on some of the motor performances?

5. What kind of relationship can be found among physical development, motor performances and age of young school girls?

This paper gives a summary of the results of 7–9 year old girls who attended the same school.

Materials and methods

The study was done within the framework of The Development Study Programme of Tessedik Sámuel College in Szarvas (now: Szent István University, Faculty of Pedagogy) in a primary school. There were 426 girls in the test altogether who were evaluated for physical development and for different motor performances. The distribution of the girl group was as follows: the seven-, eight-, and nine-year olds numbered 148, 191, and 87, respectively and the group of girls who were born in winter, spring, summer and autumn numbered 114, 110, 89 and 113, respectively. Body height and body weight of the girls was measured to describe their physical development.

In studying their motor performances, twenty-metre dash, standing broad jump, six minutes of continuous running, throwing with a stuffed ball, and an obstacle race-test were processed. The study was organised by, and both body measurement and motor test data were measured by the same teachers.

Details of the tests were as follows:

20 m dash: 20 metres straight line was marked with starting- and finishing-line in the sport hall. Behind the starting line a running out possibility place was remained for the children. Children had to start from behind the starting-line by word of command from standing position ad had to run with the utmost speed as far as 20 metres distance. Time was measured by stop clock with punctual of tenth sec. Stop clock was started at the time of word of command and stopped when the child's chest reached the horizon of finishing line. Two-two children were tested at the same time.

Standing broad jump: Jumping was started from behind the jumping line and finished at the sponge arrival place. Distance was measured with punctual of cm perpendicularly between the running line and the hind arrival mark. Each child had two running possibilities. The better results were used for the evaluation.

Six minutes of continuous running: Test took place in a 20 x 10 m spot. The starting line was at the 20 metres line. To the corners of spot marking buoys were placed. Children had to run round the buoys continuously for 6 minutes. Instead of running, walking or stopping was prohibited. During the running circles were counted. Children had to stop when whistle was heard. The last circle was measured with punctual of metre. The full distance in metres was obtained as follows: 60 × number of circles + last circle distance.

Throwing with a stuffed ball: The weight of the ball was 1 kg. Children were standing small astraddle behind the throw-line facing the throw-direction. Ball was thrown with swing by anterior deep holding knee-band, incline forward. A small jump during the throw was allowed. Each child had two throwing possibilities. The better results were used for the evaluation. Punctuality of measuring was 10 cm.

Obstacle race-test: The obstacle field was as follows: There were 5 medicine-balls 1.5 metres away from starting line. Further balls were placed 1–1-metre away. At the last medicine ball there were 50 cm high obstacle followed by a small kindergarten table. There was an other 40 cm high obstacle at the other side of the test field. Between the obstacles two balls were placed in 2.5 metres distance. There was 2 metres distance between the balls. In front of the finishing-line there was a gymnastic carpet placed.

Children started the test after a command signal. They had to run among the medicine balls, later got through under the first obstacle. Then they had to jump up to the table to creep trough on it and got down on the other side of the table. After tuning the children had to step over the second obstacle then run back and change the two balls. Making way ahead children had to roll over the carpet, then stand up and run as far as the final line. One practice was allowed for children before the competition. Time of performance was measured with punctual of 0.1 sec.

Unitrate analyses of variance were used by SPSS programme to estimate the birth season and the age effect. Mean value, standard error, standard deviation and coefficient variation were calculated and "t" test was used for the evaluation of significance of differences between the main values. Above 95% reliability (P<0.05) was considered to be significant. Correlation analysis was used for the evaluation of the relationship between the physical development and different motoric test results. Phenotypic correlation coefficients were used to describe the magnitude and correlation of the relationships. Factor analysis was used for grouping the development and motor performance features into factors containing the interdependent variables.

Results and discussion

Results for body height and body weight according to age are summarized in *Table 1,* while that of according to birth season in *Table 2.* Based on the data it can be seen that as regards body height, girl groups are fairly homogenous with small differences: cv% is below 10%, while in body weight the children group which was studied is quite heterogeneous, with a cv% of 20–30% or more.

Data show that the average body height of the girls belonging to the different age groups is 128.61 cm, and the average body weight is 26.87 kg. The results are similar to the findings of *Farmosi* (2007), who found an average height of 128.78 cm, and an average weight of 27.23 kg for girls of the same age in Hungary. However, our data are a little bit higher than (by 1.35 cm and 1.67 kg) those of *Eiben et al.* (1988), found nine years before our study in the same country.

Table 1. Statistics of physical development of studied school girls according to age

Age classes (yrs)	Number of school girls	Body height (cm)			Body weight (kg)		
		Mean value	Standard deviation	cv%	Mean value	Standard deviation	cv%
7	148	121.82	6.53	5.36	23.53	5.09	21.63
8	191	130.56	7.56	5.79	28.23	5.90	20.90
9	87	135.87	8.33	6.13	29.54	6.80	23.02
Total	426	128.61	9.11	7.08	26.87	6.33	23.56
Significancie		7-8 8-9 7-9 P<0.01			7-8 8-9 7-9 P<0.01		

Table 2. Statistics of physical development of studied school girls according to birth season

Birth season	Number of girls	Body height (cm)			Body weight (kg)		
		Mean value	Standard deviation	cv%	Mean value	Standard deviation	Cv%
Winter	114	127.52	7.94	6.23	25.83	5.92	22.90
Spring	110	125.69	8.87	7.06	24.96	5.32	21.31
Summer	89	130.91	8.62	6.59	*28.20*	6.29	22.31
Autumn	113	130.73	9.88	7.56	**28.71**	6.96	24.26
Overall	426	128.61	9.11	7.08	26.87	6.33	23.56
Significance		Summer-Spring Autumn-Spring Summer-Winter Autumn-Winter (P<0.01)			Autumn-Spring Summer-Spring Autumn-Winter Summer-Winter (P<0.01)		

The highest average *body height* of the children was found in the group born in summer, however, the autumn-born girl group showed similar results. Their weight was significantly (P<0.01) bigger than that of those girls born in winter and in spring. The winter- and spring- born girls were shorter by 3.4-5.2 than those born in summer or autumn.

The highest *body weight* was found in the group born in autumn, but just a non-significantly slightly lower weight was found for the summer-born group. The groups born in winter or spring were lighter than summer- or autumn-born children by 2.9–3.6 kg. The differences are significant (P<0.01).

As for the season effect on the height and weight of children of a given age, it is not easy to give an appropriate explanation because there are inconsistent results in the literature. Some authors found that winter- and spring-born children were heavier and taller, while others reported that summer- and autumn-born ones were taller and heavier than those born in other seasons. Our results seem to correspond to those findings that summer- and autumn-born children are to some extent taller and heavier at 7–9 years of age than those born in winter and spring.

Table 3 contains the motor performance results according to age. The results show big differences among children. Generally the elder children have better results in all of the five motoric tests than the younger ones. Age groups were quite heterogeneous (cv%>21.20–32.79) in case of all motoric test results.

The motor performance results according to birth season are summarized in *Table 4.* As can be seen from the table, the group of examined girls was quite heterogeneous within all sport activity types, with a cv from 17 to 23%.

The average results for the *twenty-metre dash* were 5.34 s, which is similar to the findings of *Farmosi* (2002), (5.31 s), while the best results (5.20 s) were found with summer-born girls. Between this best result and the worst results of spring-born girls, the difference is 0.32 s, which is a significant (P<0.05) difference. The average *standing broad jump* of 117.47 cm was similar to the results found by *Farmosi* (2002), of 118.95 cm for the same age group. The best results in this motor performance, 122.09 cm, were reached by the autumn-born girls, performing significantly (P<0.05) longer jumps than the winter- and spring-born ones. The difference between

Table 3. Statistic of motor performance of studied school girls according to age

Age classes (yrs)	Number of school girls	20 m dash (sec)			Standing broad jump (cm)			6 min. of cont. running (m)			Throwing with a stuffed ball (m)			Obstacle race-test (sec)		
		Mean value	Standard Deviation	cv%	Mean value	Standard Deviation	cv%	Mean value	Standard Deviation	cv%	Mean value	Standard Deviation	cv%	Mean value	Standard Deviation	cv%
7	148	5.47	1.19	21.76	104.93	19.86	18.93	713.12	209.18	29.33	3.18	0.87	27.36	24.09	6.70	27.81
8	191	5.31	1.00	18.83	119.69	20.51	17.14	843.23	282.83	33.54	4.04	1.06	26.24	23.09	6.89	29.84
9	87	5.12	1.27	24.80	133.91	23.68	17.68	838.87	221.43	26.40	5.01	1.52	30.34	21.51	6.42	29.85
Total	426	5.33	1.13	21.20	117.47	23.46	19.97	797.14	254.14	31.88	3.94	1.29	32.79	23.12	6.78	29.31
Significance		N.S.			7-8 8-9 7-9 P<0.01			7-8 7-9 P<0.01			7-8 8-9 7-9 P<0.01			7-8 8-9 7-9 P<0.05		

Table 4. Statistics of motor performance of studied school girls according to birth season

Birth season	Nor of girls	20 m dash (s)			Standing broad jump (cm)			6 minutes of continuous running (m)			Throwing with a stuffed ball (m)			Obstacle race-test (s)		
		Mean value	Standard Deviation	cv%	Mean value	Standard deviation	cv%	Mean value	Standard Deviation	cv%	Mean value	Standard deviation	cv%	Mean value	Standard deviation	cv%
Winter	114	5.38	1.18	21.87	115.11	22.32	19.39	*809.67*	258.97	31.98	3.91	1.30	33.20	*23.13*	6.98	30.19
Spring	110	5.52	1.25	22.71	113.95	24.98	21.92	749.38	236.18	31.52	3.68	1.26	34.21	23.69	7.15	30.19
Summer	89	5.20	1.03	19.75	*118.97*	23.42	19.68	**871.26**	278.90	32.01	**4.18**	1.34	31.99	23.62	6.16	26.08
Autumn	113	5.26	0.90	17.07	**122.09**	22.50	18.43	772.60	233.76	30.26	*4.03*	1.25	30.99	**22.14**	6.63	29.93
Overall	426	5.34	1.10	20.62	117.47	23.46	19.97	797.14	254.14	31.88	3.94	1.29	32.79	23.12	6.78	29.31
Significance		Summer-Spring (P<0.05)			Autumn-Spring, Autumn-Winter (P<0.05)			Summer-Spring, Summer-Autumn (P<0.01)			Summer-Spring (P<0.01), Autumn-Spring (P<0.05)			(P>0.05)		

the best and spring-born girls' worst (113.95 cm) average is 8.12 cm. The average of *the six minutes of continuous running activity* was 797.14 m, which is a little bit shorter than the one *Farmosi* (2002) obtained (818.36 m). The best results (871.26 m) were obtained by the summer-born girl group, which are significantly (P<0.05) longer than the result of the performance of the spring- and autumn-born girls. The spring-born group (girls) performed the worst (794.34 m). The difference between the best and worst average is 121.88 cm. The overall mean result in *throwing with a stuffed ball* was 3.94 m, similar to what *Farmosi* (2002) reported (3.90 m). Summer-born girls achieved the best results (4.18 m) which were only a little bit better than the performance of autumn-born girls. The spring-born group had the worst performance. The superiority of summer- and autumn-born groups to the spring born ones is significant (P<0.05. or P<0.01), and the difference is 0.15–0.5 m. The average performance in *the obstacle race-test* was 23.12 s, which is the same as the one *Farmosi* (2002) reported (3.90 s). The best result (22.14 s) was achieved by the autumn-born group, while the worst performance was turned in by the spring-born group. The difference between the two means mentioned was only 1.55 s, which is not significant (P>0.05). The birth season effect is a little bit different from the findings of *Farmosi* (2002), who reported that for the girls, the best result was achieved by spring-born girls, however, in the boy group the winter-born children had the best results.

Considering together the five motor performance test results, the summer-born group was in first place three times, and the autumn-born group twice. Second place was taken once by the summer-born group and once by the autumn-born ones. Last place was taken three times by the spring-born groups and twice by the winter-born ones. When taken together with some results contained in the literature, it can be said that girls born in summer and autumn had generally better motor performance than those born in winter and spring.

Our results seem to correspond to those findings which reported that there are birth-season effects on the physical development and motor performance of children *(Farmosi et al.* 1968).

The results of correlation analysis are summarized in *Table 5.* As can be seen from the data, birth season, age, body height, body weight, and the different motor performances loosely or moderately correlate with one another. Close to a zero (–0.04 to 0.05) and non-significant correlation was found between the birth season and the aforementioned motor performances. These results are similar to the results of *Williams et al.* (1970), who found a -0.05 to 0.06, non-significant (P>0.05) correlation between the season of birth and the evaluated developmental variables. Despite these data, the mentioned authors have considered a relationship between month of birth and the developmental levels of children, as there are multivariate effects, including a birth-season effect, on developmental stages. In their opinion, due to multivariate effects, the effect of birth season can't be seen clearly.

As for the correlation coefficients between age and the five motor performances, they are from –0.11, (loose) to 0.45 (medium), and all of them are significant (P<0.01, or P<0.05). This result seems to confirm the birth season effect by the "age group effect" theory (*Williams et al.,* 1970), mentioned before. It means that there are age differences between children born in different seasons at the given time, when development and sport performances are being recorded.

Table 5. Correlation coefficients between of studied traits

	20 m dash	**Standing broad jump**	**6 minutes of continuous running**	**Throwing with a stuffed ball**	**Obstacle race-test**
Birth Season	-0.04 NS	0.03 NS	0.04 NS	0.05 NS	0.05 NS
Age	**-0.11 P<0.05**	**0.45 P<0.01**	**0.20 P<0.01**	**0.51 P<0.01**	**-0.15 P<0.01**
Body height	-0.16 NS	**0.32 P<0.01**	**0.21 P<0.01**	**0.51 P<0.01**	**0.12 P<0.01**
Body weight	-0.04 NS	**0.15 P<0.05**	0.04 NS	**0.36 P<0.01**	-0.07 NS
20 m dash		-0.25 P<0.01	-0.40 P<0.01	-0.18 P<0.01	0.39 P<0.01
Standing broad jump			0.29 P<0.01	0.36 P<0.01	-0.20 P<0.01
6 minutes of continuous running				0.34 P<0.01	-0.17 P<0.01
Throwing with a stuffed ball					-0.21 P<001

NS= Non Significant
P<0.01, P<0.05 = Significant

Body height and body weight show a significant (P<0.01, or P<0.05) correlation with the motor performances in six cases out of ten. The values of the significant correlations are from 0.12 to 0.51, which means in general that the better developed the evaluated children are, the better their motor performances are.

The correlation between the different motor performances is significant (P<0.0) in all cases. These results suggest that girls who were good or better at some motor performances, generally were good or better at other performances, too, than their counterparts.

As there were significant relationships among different developmental and motor performance traits, a factor analysis was applied for the grouping of the variables. Variance components obtained by factor analysis are summarized in *Table* 6. Data show that total variance was mostly influenced by the age of the children in each birth season group. The proportion of individual variance of the age from total variance is 37–39%. The age is followed, in order, by body height, body weight, twenty metre dash, standing broad jump, six minutes of continuous running, throwing a stuffed ball and an obstacle race-test.

Table 7 shows the factors of eight developmental and motor performance variables according to birth season. The results show that variables were grouped into two factors for winter-, summer-, and autumn-born children and into three factors for spring-born ones. The first factor contains

Table 6. Total variance explained by principial component analysis

Birth season		Winter			Spring			Summer			Autumn		
Variancie component		Total	Individual	Cumulative	Total	Individual	Cumulative	Total	Individual	Cumulative	Total	Individual	Cumulative
			%			%			%			%	
1.	Age	2.97	37.15	37.15	3.03	37.85	37.85	3.14	39.27	39.27	3.01	37.58	37.58
2.	Body height	1.60	19.99	57.14	1.42	17.72	55.56	1.64	20.57	59.84	1.63	20.41	57.99
3.	Bodyweight	0.95	11.88	69.03	1.12	13.94	69.51	0.94	11.74	71.58	0.95	11.86	69.85
4.	20 m dash	0.72	8.96	77.99	0.80	10.06	79.57	0.73	9.14	80.72	0.71	8.89	78.74
5.	Standing broad jump	0.59	7.40	85.39	0.62	7.75	87.33	0.67	8.40	89.21	0.57	7.20	85.93
6.	6 minutes of continuous running	0.51	6.32	91.71	0.41	5.14	92.47	0.39	4.82	93.94	0.49	6.12	92.06
7.	Throwing with a stuffed ball	0.46	5.72	97.43	0.39	4.92	97.40	0.33	4.11	98.05	0.36	4.47	96.53
8.	Obstacle race-test	0.21	2.57	100.00	0.21	2.60	100.00	0.16	1.95	100.00	0.28	3.47	100.00

Table 7. Results of factor analysis according to birth season

Birth season		Winter		Spring			Summer		Autumn	
Components (Factors)		F1	F2	F1	F2	F3.	F1	F2	F1	F2
1.	Age	**0.723**	0.274	**0.793**	0.114	0.005	**0.700**	0.320	**0.774**	0.187
2.	Body height	**0.883**	0.002	**0.882**	0.007	–0.148	**0.913**	0.133	**0.858**	0.006
3.	Bodyweight	**0.779**	–0.234	**0.792**	0.005	–0.195	**0.861**	–0.197	**0.756**	0.160
4.	20 m dash	0.004	**0.737**	0.002	**–0.657**	0.569	–0.122	**0.762**	0.105	**–0.783**
5.	Standing broad jump	0.384	0.478	0.498	0.457	–0.009	0.339	**0.672**	0.372	0.401
6.	6 minutes of continuous running	0.316	**0.607**	0.004	**0.870**	0.002	0.001	**0.692**	0.155	**0.745**
7.	Throwing with a stuffed ball	**0.665**	0.400	**0.575**	0.492	0.213	**0.691**	0.239	**0.684**	0.439
8.	Obstacle race-test	0.005	**0.726**	0.001	–0.001	**0.890**	–0.006	**–0.621**	–0.110	**0.701**

age, body height, body weight and throwing a stuffed ball, while the second factor consists of the twenty metre dash, six minutes of continuous running, and the obstacle race-test. The third factor in one case included only the obstacle race-test.

Conclusions

Based on the results it can be concluded that the examined children group was quite homogenous as for the body height, however there were big differences among children in body weight and motor performances.

Both the physical development and the motor performance were influenced by the age of the children. According to the significant differences it can be said that older, better developed children had generally better motor performances, than the younger and underdeveloped ones.

The results also show that both physical development and some motoric skills are influenced by the season of birth, however, the differences were not significant in each case. This finding corresponds with the results found in the literature that the physical development and motor performance of children can be influenced by many factors.

Girls born in summer and in autumn were better developed and had better athletic motor performances than those born in winter and in spring.

It seems that age, body height, body weight, throwing a stuffed ball in one hand, twenty metre dash, six minutes of continuous running, and the obstacle race-test, on the other hand, are interdependent variables of development and motor performances of young girls in this age.

As both the cognitive and physical development of children is very important, more attention has to be paid to these problems throughout a child's educational program. Further research has to be conducted in this field.

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STUDYING SATISFACTION AND SPENDING WILLINGNESS OF GUESTS VISITING SPAS AND THERMAL BATHS IN THE NORTHERN HUNGARIAN REGION

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Abstract: In my study I will show the opinion of the guests familiar with seven thermal baths of the Northern-Hungarian Region (such as Eger Thermal Bath, Eger Turkish Bath, Egerszalók Salt Hill Thermal Spa, Demjén Thermal Bath, Bogács Thermal Bath and the Cave-Bath of Miskolc-tapolca) about the medical supply elements, about the price-value rate of supply elements in the thermal bath, and also the spending willingness of the guests in relation to age and earns.
From the data I calculated mean, SD and spectrum and examined the crosstab correlations as well, and the Cramer's V associate coefficient. The results of the correlation tests could be summarised as the following:
Guests regardless financial state and age give grade 4 to price/value ratio, but despite their positive judgement spending is not characteristic (most guests spend nothing additional besides admission fee, if so, they do not exceed the 5000 forint amount) even among those who belong to the 'upmarket' category. Both younger and elderly guests can be characterised with the economical approach, i.e. "Make both ends meet" although seemingly they could extend these "ends".

Key words: Northern Hungarian Region, thermal bath, medical supply elements, guest satisfaction, spending willingness

Introduction

Since the past few decades health and keeping our body and mind in proper condition have become of high value. In modern world this value is also connected with the term of being successful: we can be more successful in our work, environment and even in private life if we can remain healthy, well-groomed and fit. Modern people are willing to spend more and more on this purpose and during their holiday people are ready to make up leeway spending a week under healthy conditions, meaning sporty, active yet relaxing healthy conditions. Health tourism includes all types of health travel overall. The main motivation of visitors is preserving their state of health, preventing any deformities and illnesses (wellness tourism) and amendment of existing illnesses (spa tourism). We can say that health tourism is considered to contain the totality of travels made for preserving or reinstating health. (*Könyves* and *Müller* 2007) But besides, there are other motivating factors as well.

Experience seeking is a basic motivation for the tourist of the 21st century. On the WTO Krakow conference it was said that "In the case of touristic products consumers pay attention to the relationship of the invested energy, effort (not only money) and the received experience in return, rather than to the price-value ratio." (*Halassy* 1999). Hungarian wellness tourism is also experience-centred with large-scale development in the past decade. (*Istók* 2003).

More and more settlements start using their resources, mostly thermal water, the result of which is the multiplication of baths within the country. People need baths as well, they are willing to use the facilities near their home in everyday life, while they visit farther, well-known Hungarian baths for longer period during their summer holiday. The destinations of summer trips and spending free time are very often the baths. Going to baths is a part of everyday programmes as it offers the opportunity of regular physical training and combining hygiene, relaxation and recreation. Nowadays baths are not only the scenes of the well-deserved annual holiday but also those of general well-being, preserving the health of the body and the mind. Regular bath attendants expect the usual free time services and their high quality even far from their homes, this is what the baths of the tourist destinations should take into account more and more during their product development. (*Müller* et al. 2009a)

Materials and methods

The baths were chosen randomly, yet it was an important aspect to include in the sample nationally or internationally

renowned spas, as well as those minor spas having regional, county or sub regional attraction. The questionnaire survey was conducted in the summer of 2010 (May-June) on the territory of Eger Thermal Bath (208), Eger Turkish Bath (200), Egerszalók Salt Hill Thermal Spa (205), Demjén Thermal Bath (200), Bogács Thermal Bath (203), Mezőkövesd Zsóry Thermal Bath (200) and Miskolc-tapolca Cave Bath (200).

As a result, altogether 1416 properly filled questionnaires were collected and processed.

The selection of the population (sample) was made according to the willingness to respond among the guests staying on the territory of the bath.

The aim was to have at least a 200 person sample-size per bath. The students of Tourism and Catering and Business Management Majors (BA) of Eszterházy Károly College helped to carry out the survey, together with students of Tourism Management.

The questionnaires contained open and closed questions, with the latter ones guests could choose from more answer categories. The questionnaires were carried out with the help of the PASW statistics software. From the data I calculated mean, SD and spectrum and examined the crosstab correlations as well.

The intensity of the correlations between criteria is examined with the help of Cramer's V associate co-efficient. It means to examine to what extent a correlation is close to independence or a function-like connection. Cramer V can be applied with any cross tables and according to many researchers it is the most reliable index. (*Sajtos* and *Mitev* 2007) This is the reason for my choice as well.

Cramer associate co-efficient can be between 0 and 1. In the case of 0 there is no connection between the two criteria (they are independent), whilst when it is 1, there is a function-like correlation between them. (*Korpás* 1997)

Consumer habits, motivations, satisfaction and willingness to spend among spa visitors (or wellness consumers) were examined in several previous studies (in other domestic regions and settlements), yet the results of these studies can be compared only partly as the questionnaires used during the studies were different and researchers themselves looked for responses related to different hypetheses.

A study was made describing the Southern Transdanubian region, where besides thermal baths, wellness hotels were also included in the sample. In this study, the knowledge of the word "wellness", its related associations, attitudes, consumer motivations and factors influencing these were thoroughly examined (according to demographic, cultural and economic aspects), but willingness to spend was not examined (*Hegedűs* and *Laczkó* 2008).

From two other studies we could learn about the visitors' motivating factors, opinions and satisfaction, financial background and willingness to pay regarding three spas in Central Transdanubia (Agárd, Komárom, Pápa). (*Müller* et al. 2009b); (*Müller* and *Szabó* 2009).

There were several studies about the surveys made among the guests of the Northern Great Plain region spas: consumer habits, satisfaction with the spa facilities, willingness to spend. One of the studies (*Müller* and *Kórik* 2009), examined four spas of the region (Szolnok, Nyíregyháza, Hajúszoboszló, Debrecen), another one (*Könyves* et al. 2005) Karcag and Cserkeszőlő, the Szolnok Tiszaliget Thermal bath (*Szabó* 2009) and Hajdúszoboszló (*Könyves* et al. 2004) to learn about guests' motivations, consumer habits, guest satisfaction with the bath facilities and willingness to spend.

Baths and Spas of the Northern Hungarian Region

Northern Hungary is an attractive destination for those wishing to recreate their body and mind during holiday. No wonder that the region's climatic spa resorts, caves, the unique carbon-dioxide dry bath and the thermal baths are impressive for the followers of wellness lifestyle. The main strength of the region's health tourism is the diverse supply, i.e. besides the water the presence of the climatic spa resorts and the gas bath supply based on carbon-dioxide. The supply is further varied with the existing specialities, namely the Turkish Bath in Eger, the mofetta (dry bath) in Mátraderecske, the cave bath in Miskolctapolca or the hot spring of Egerszalók, which is a spa resort having unique natural features. The supply of health tourism is also enhanced by the ancillary services (wine-gastronomy, culture, etc.), which cannot be found in such complexity in other parts of the country. The medicinal effect of the region's thermal waters has been known for a long time, the bathing culture based on this has hundreds years of traditions (e.g. Eger Turkish Bath, Parád, Kács, Miskolctapolca etc.). Due to the 20th century carbon-hydrogene researches, further medicinal thermal water supplies have been revealed (e.g. Egerszalók, Mátraderecske, Pásztó, Bükkszék, Sárospatak). The peculiarity of the region's thermal water treasure is the difference between the water content and features of each bath and well, making them suitable for curing numerous illnesses. (*RMC* 2006)

At the end of 2003, 34 health tourism projects of the Széchenyi Plan had already operated. In 2004, 33 new and renewed health tourism projects were visited. (*Mudruczó* and *Szennyessy* 2005a)

As a result of the developments, by 2003 the capacity of the Hungarian baths increased by 75%, the attendance by 18% on the average and the revenues by 32%. (*Szűcs* 2005)

The most important presumed effect of the health tourism developments was to increase the touristic attraction of the given settlements (and that of Hungary), thus enhancing further touristic investments. This way of supply development can reduce the spatial and time-concentration of the international and domestic touristic demand and contributes to the enforcement of the favourable economic effects of tourism. The First Széchenyi Plan included the development of the Cave Bath in Miskolctapolca, Zsóry Bath, Thermal Bath of Egerszalók and the Eger Thermal Bath. (*Mudruczó* and *Szennyessy* 2005a)

Within the framework of the New Hungary Development Plan, in the Northern Hungarian Region developing tourism was also important, besides industrial developments and extending services. (*Új Magyarország Fejlesztési Terv* 2007)

According to the 'Healing in Hungary-Health Industry' project of the New Széchenyi Plan, the development of health tourism in the future should be done by harmonising both touristic and health expectations. Strengthening the significance of health preserving services is inevitable, yet the background is provided by the treatments based on traditional balneotherapy. It is also necessary to create the individual image of the baths and its apparent market communication as well. Supply must not only be extended but also specialised. (*Új Széchenyi Terv, Gyógyító Magyarország – egészségipari program* 2011)

Introducing the Baths Included In the Questionnaire Survey

The position of the region's most important thermal baths and spas has changed significantly in the past few years: baths have been renewed, their services have been extended. On the territory of Eger Thermal Bath we can find seven pools: for swimmers, children, with thermal and healing water.

In Eger the reconstruction of the beloved and popular lido has been completed, there were pool refurbishments, indoor-outdoor adventure pools and an EU-conform playground were created, the courts and fields for ancillary sporting facilities and the bath-related facilities have also been renewed (e.g. changing rooms) (*Egri termál és élményfürdő* 2012); (*RMC* 2006)

In Eger we can see several relics and traditions of the baths from the Turkish era. The Turkish Bath was built by the Turks occupying the present building from 1610 to 1617. The reconstruction preserved the traditions of the Muslim bathing cult and architecture. Nowadays the Turkish Bath operates as a modern balneotherapeutic centre. It can be used mostly by a GP assignment, groups are allowed to enter only if they register in advance. From touristic point of view it would be an advantage to find the proper way of joining the establishment closer to tourism. (*Egri török fürdő* 2012); (*RMC* 2006)

In Egerszalók, next to the Hot spring, a 1890 m² water surface spa was made, and a 1600 m² summer and 436 m² winter lido. In addition, a 206-room five-star hotel was also accomplished, let alone an apartment village. Besides the developments the peculiarity of the spa remains unaltered, rather more emphasized. (*Egerszalóki termálfürdő* 2012); (*RMC* 2006)

Mezőkövesd– Zsóry Thermal Bath and Spa is the biggest one in Northern Hungary. In Zsóry Bath several new, multiple-stage refurbishment was worked out. The medicinal section received a new wing, extending the cabs and providing new services, such as effervescent bath and galvanised bathtub. Indoor medicinal pools and new outdoor ones are connected with a direct watery corridor. The reconstruction of the main entrance, the coating and building in adventure elements of the round pool with the biggest diametre in Central Europe has been completed as well. (*Mezőkövesdi Zsóry fürdő* 2012); (*RMC* 2006)

Miskolctapolca – Thermal Cave Bath can be found at the foot of the Bükk Mountain, in a picturesque valley. In the thermal part there are two medicinal pools, from where we can reach the aesthetically unrivalled cave bath. By the end of 2001 the modernisation of the upstairs changing rooms and the engineering reconstruction of the whole building complex were finished. The services have been made more attractive by the jacuzzi, heated benches in the pool area, hydro-massage cabins, airtight revolving doors, restaurant, safe deposits and a beauty parlour. By September 2002 the bathing hall bordered by the main building and the cliff was completed, having a terrace on its top. The 120 m² water surface extends the cave water suitable for experience and recovery to 1267 m². During the fourth stage of development when extending the medicinal wing, new healing services were introduced (weight bath, spinal gymnastics etc.) A new reception building is being established and the outdoor shell pool is going to be reconstructed and extended this year. Together with the renovation of the existing pool a swimming pool will also be accomplished having a whirlpool system. (*Miskolc-tapolcai barlangfürdő* 2012); (*RMC* 2006)

The establishers of the Demjén Thermal Valley could create the ambience of a Roman bath in the fabled landscape. The medicinal water gushing from the depth of 690 metres is regarded the latest explored medicinal water in Hungary, the effect of which has a broad spectrum. The Thermal Bath and Aquapark has five different tempered outside and two indoor pools with medicinal water. There are also a 25 meters swimming pool, a paddling pool with adventure elements, neck showers and air bowlers to provide recreation. During summer the Aquapark can guarantee perfect relaxation with its adventure elements: rubber ring rafting and kamikaze slide, multi-slide, diving pool with three different heights to jump into the 4,5 meters deep water. (*Demjéni termálfürdő* 2012)

Bogács Thermal Bath awaits visitors at Bükkalja (lower part of the Bükk). On the territory of the bath receiving 3500 guests a day there are 5 medicinal water pools, a splash pool for children and 1 waveless swimming pool. In the Service Centre guests can use 1 medicinal pool. (*Bogácsi termálfürdő* 2012); (*RMC* 2006)

Hungarian spas are frequently visited by foreign guests due to their reasonable prices and the high quality of services. They come mostly from Germany, Austria, Switzerland, Italy, Poland and Russia, accounting for 60-65% of all guests. (*Szűcs* 2005)

Thanks to the extending travelling experiences tourist expectations are increasing, too. The standard has become higher not only regarding the service providers, but also concerning the visited touristic destination itself. The failure of the expected service or experience can make guests disappointed. The fierce competition in tourism market forces service providers and managers of touristic destinations to handle visitors more prudently, to avoid or at least treat well in time guest disappointment and its unpleasant consequences. (*Michalkó* and *Irimiás* 2011)

Within the framework of 'Healing in Hungary- Health Industry' project of the New Széchenyi Plan we can know from the chapters of 'Natural Environment Conservation, Quality Assurance', 'Sustainable Economic Competitiveness'

and 'Knowledge Development' that the Hungarian health tourism should be based on the good quality of our natural conditions and human resources. In order to provide the basic criteria of the long-term international competitiveness, special attention ought to be paid to the water base protection, the regular monitoring and quality control of medicinal pools. It can provide us the strategic advantage which may be typical of our country in the future.

One of the vital elements of the quality improvement of health industry and health tourism is professional knowledge and its extension. Experts being familiar with the international trends can draw the necessity of introducing new technologies as well. (*Új Széchenyi Terv, Gyógyító Magyarország – egészségipari program* 2011)

The health tourism part of the Széchenyi Development Plan (2001–2004) also contributed to developing baths in those settlements of Hungary where it was not characteristic because of the lack of attractions and infrastructure. (*Mudruczó* and *Szennyessy* 2005b) The beneficial effect of it is to increase the attraction of the given settlement for the investors and enhance the economic effects of tourism.

The demand trends inspired traditional spas and spa hotels in Hungary – in Northern Hungary as well – to adapt to the new trends taking advantage of the potentials provided by the thermal and medicinal waters. Moreover, they realised the importance of establishing modern health touristic services to be different significantly from their competitors.

The Results of the Questionnaire Survey

Aims, Main Hypotheses

The aim of my survey was to show the bath guests' willingness to spend on the bathing precinct in the Northern Hungarian region and their satisfaction with the bath and its elements of supply.

My further aim was to examine in seven baths of the region the guest satisfaction concerning equipment of medicinal services and the service quality.

(Eger Thermal Bath, Eger Turkish Bath, Egerszalók Salt Hill Thermal Spa, Demjén Thermal Bath, Bogács Thermal Bath, Mezőkövesd Zsóry Thermal Bath and Miskolc-tapolca Cave Bath).

I also aimed to find connection between the guests' age, financial state and willingness to spend on the bathing precinct. It is important to state that although the profile and the affinity groups of the baths may be different, wellness and medicinal services as elements of supply can be found in each of them to a certain extent.

There have been developments accomplished in each of the seven settlements (in some of them due to the projects of the Széchenyi Development Plan) which must have contributed to the growth of guest satisfaction besides the rise of the number and standard in the elements of supply.

Developing spa and thermal tourism was a successful part within the tourism development project of the first Széchenyi Plan, too. Health industry can serve as a break-out if there is suitable, solvent demand for its products and services. We have to rely both on domestic and foreign demand as it has been proved in the case of previous health tourism development as well. (*Új Széchenyi Terv, Gyógyító Magyarország – egészségipari program* 2011)

From the aspect of creating a positive image (and avoiding disappointment), it is crucial to have basically positive attitude and opinions from the guests. Guests can contribute to the development of a bath, as they can notice problems, mistakes, potential shortcomings earlier than the owners. They might have a stronger tendency for criticism as well. This is why the results of the bath study can be used in practice as by virtue of visitors' opinions defects can be turned out.

During my study I wanted to find answers for the following questions, connections:

1. Which services of the bath are used by the guests mostly?
2. What is the guest satisfaction like regarding the bath therapeutic facilities, the quality of the therapeutic elements of supply and the price-value ratio?
3. What is the income background of the guests and what is their average willingness to spend like on the bathing precinct regarding their state of income and age?

Demographic Features of Bath Visitors, Their Income State and Willingness to Spend

Using the demographic data of the questionnaire (as it can be seen in Table 1) we can gain information on the sample guests' sex, age, financial state and deriving possibly from it, on willingness to spend. These data will serve as crucial factors at correlations examinations.

Table 1: Sample distribution by sex, number of persons

Baths	Male (number of persons)	Female (number of persons)	Total (number of persons)
Eger Thermal Bath	119	89	208
Eger Turkish Bath	92	108	200
Egerszalók Salt Hill Thermal Spa	79	126	205
Demjén Thermal Bath	80	120	200
Bogács Thermal Bath	100	103	203
Mezőkövesd Zsóry Thermal Bath	74	126	200
Miskolc-tapolca Cave Bath	95	105	200
Total	639	777	1416

Source: Compilation by the author based on questionnaire survey

Although the willingness to respond determined who would become the member of the sample, we can say that women outnumbered men in most places. Their willingness to respond was also higher.

As most visitors are female, this might be the reason for using more health and beauty services, e.g. fitness rooms, sauna, beauty parlour, solarium etc. besides the usual services of a thermal bath.

Table 2: Sample distribution by age, number of persons

Baths	Under 18	Between 18–30	Between 31–50	Between 51–60	Over 60
Eger Thermal Bath	16	88	49	26	29
Eger Turkish Bath	0	8	47	84	61
Egerszalók Salt Hill Thermal Spa	8	80	48	57	12
Demjén Thermal Bath	5	122	49	13	11
Bogács Thermal Bath	19	49	57	41	37
Mezőkövesd Zsóry Thermal Bath	11	43	61	65	20
Miskolc-tapolca Cave Bath	2	66	78	40	14
Total	61	456	389	326	184

Source: Compilation by the author based on questionnaire survey

Table 2 shows that the different age groups were listed on a scale, thus respondents were not forced to give their exact age (which might be a tender spot for women) but simply mark the proper age category for themselves.

Because of the voluntary willingness to respond, we cannot state that we could provide a perfect representation about the age of the bath visitors, yet in the case of the different type baths, depending on whether they are spas or adventure baths, it can be seen that in Eger Thermal Bath, Egerszalók and Demjén mostly the young (18–30) can be found, whereas in the case of the Turkish Bath and Zsóry Bath the senior age groups (51–60 and over 60) are represented in a larger number. The reason for it can be partly that Turkish and Zsóry Baths are better at providing medicinal water services, which justifies the higher number of senior guests, while in the rest of the baths the pools enriched with wellness and adventure elements and other services apply to the young and families, this is why this affinity group is more characteristic.

In Table 3 we can see the average monthly income of guests. To enquire about people's monthly income is also a tender spot. (some people are ashamed because they think it is too little, some find it embarrassing to have too much), so I applied a scale rising by 50.000 HUF in order to avoid the exact forint amounts thus making the respondents' positions a bit more comfortable.

It can be stated that most bath visitors have an average 50–99.9999 and 100–149.999 forint monthly income. Among the guests under 50.000 forints there are 61 under 18 and, supposedly, they do not have their own salary, this is why they marked this category. Obviously, to pay the (sometimes relatively expensive) admission fees of the baths presupposes certain financial comforts, not everybody can afford to do so.

Table 3: Sample distribution by average monthly income, number of persons

Baths	Under 50.000 HUF	50-99.999 HUF	100-149.999 HUF	150-199.999 HUF	200.000 HUF or over
Eger Thermal Bath	25	74	53	40	16
Eger Turkish Bath	0	123	73	3	1
Egerszalók Salt Hill Thermal Spa	21	99	68	14	3
Demjén Thermal Bath	44	73	52	27	4
Bogács Thermal Bath	17	80	61	24	21
Mezőkövesd Zsóry Thermal Bath	22	41	61	65	11
Miskolc-tapolca Cave Bath	14	51	68	42	25
Total	143	541	436	215	81

Source: Compilation by the author based on questionnaire survey

Egerszalók Salt Hill Thermal Spa is regarded a rather costly establishment, this is why I found it really astonishing that relatively few guests marked the 150–199.999 and over 200.000 forint monthly income. Regarding the Eger Thermal Bath, we can see that the budget layer (mostly pensioners) use the facilities, yet in Zsóry Bath the more well-to-do guests are dominant.

As a summary we can state that the majority of visitors regard their own financial status average, although it does not necessarily mean to have an influence on guests' willingness to spend.

Table 4: Sample distribution by spending rate, number of persons

Baths	Do not spend	Spend less than 5.000 Fts	Spend between 5–10.000 Fts	Spend between 10-–20.000 Fts	Spend over than 20.000 Fts
Eger Thermal Bath	185	9	10	1	3
Eger Turkish Bath	5	166	12	16	1
Egerszalók Salt Hill Thermal Spa	110	24	39	0	32
Demjén Thermal Bath	76	35	76	7	6
Bogács Thermal Bath	111	17	58	4	13
Mezőkövesd Zsóry Thermal Bath	87	87	24	2	0
Miskolc-tapolca Cave Bath	83	26	75	2	14
Total	657	364	294	32	69

Source: Compilation by the author based on questionnaire survey

Table 4 shows the potential spending of visitors during their stay besides the admission fee.

This issue is in connection with that one related to the income state shown above, as it can be correlated with willingness to spend.

The previous (3) table revealed that most bathers rate themselves into the average property status yet the connections of it with willingness to spend will be seen in the crosstab analyses.

In the case of Bogács, but rather Eger Thermal Bath it can be seen clearly that most guests spend almost on the admission fee. Contrary to the Turkish Bath, where almost each guest spends additionally, not more than 5.000 forints, using the medicinal services. (Definitely, the most important motivation for these guests is to require the healing services) Examining Egerszalók Salt Hill Thermal Spa we can see that numerous guests pay only for the admission fee (being quite expensive itself), yet we can also see the greatest number (32) of those guests spending over 20.000 forints during their stay.

One of the reasons for the high willingness to spend can be the presence of families in the baths, as a family consists of at least 3–4 persons, increasing their expenses as well.

Medicinal Services Guests Use

Guest satisfaction and willingness to spend and consume are influenced by the disposable elements of supply, services, their quality, this is why I also wanted to know which medicinal services are especially popular among guests. The figure below shows these services marked by guests representing all the baths. The guests were allowed to mark several services which they use.

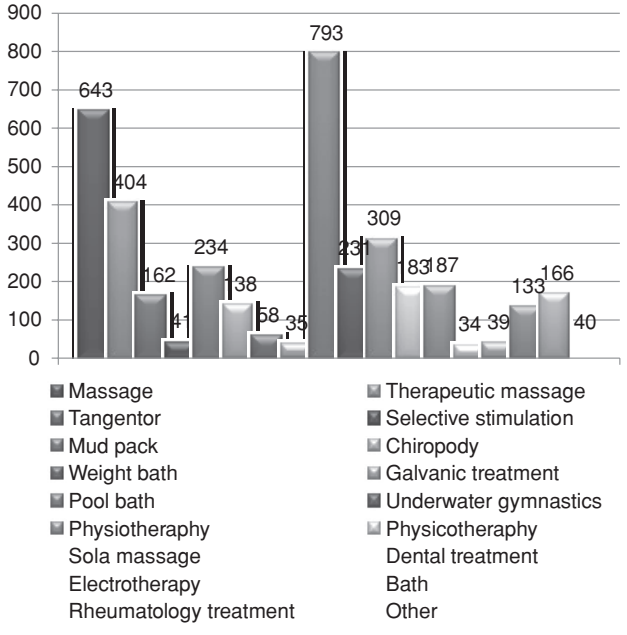

Figure 1: Medicinal applied by the sample (pieces)
Source: Compilation by the author based on questionnaire survey

In the virtue of the figure (Figure 1) it can be seen that the most commonly applied services are the massage, therapeutic massage and the pool bath. They can be required in most baths regardless their profile. There are special therapeutic massages, available only in certain places (e.g. Turkish Bath), the relatively low application of these services can be explained by this fact.

Guest Satisfaction Regarding Therapeutic Equipment, Supply and Price/Value Ratio

In the issue examining guest satisfaction there are questions in connection with the therapeutic equipment of baths, quality and shortcomings of therapeutic treatments and products, satisfaction with the price/value ratio of services. This way it can be seen from the answers, to what extent the guests are satisfied with the given bath.

In this part visitors had to rate the coefficients related to the bath services, on a 1–5 scale, where the best grade was 5.

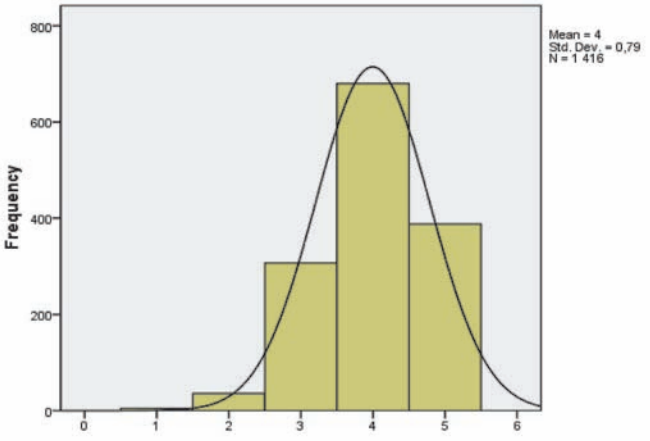

Figure 2: Therapeutic equipment-related satisfaction in the baths/ health resorts in the Northern Hungarian region
Source: Compilation by the author based on questionnaire survey (PASW)

The therapeutic equipment-related satisfaction (Figure 2) received an average 4-grade, most 5-grades were given to the Turkish Bath. It is surprising that most people graded 4 the Eger Thermal Bath, although therapeutic services do not belong to the main profile of this bath.

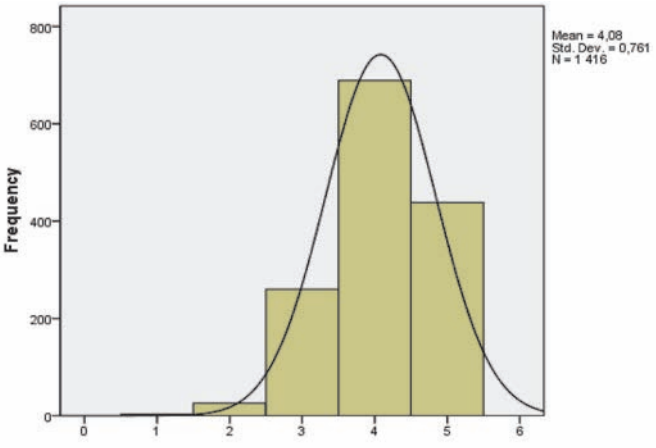

Figure 3: Quality-related satisfaction of the therapeutic units in the baths/ health resorts of the Northern Hungarian region
Source: Compilation by the author based on questionnaire survey (PASW)

The satisfaction with the level of the therapeutic units of the bath / health resort (Figure 3) received a 4,08 average. Most visitors (114) rated the most high-standard (grade 5) the Turkish Bath. The rest of the baths were rated 4 by most

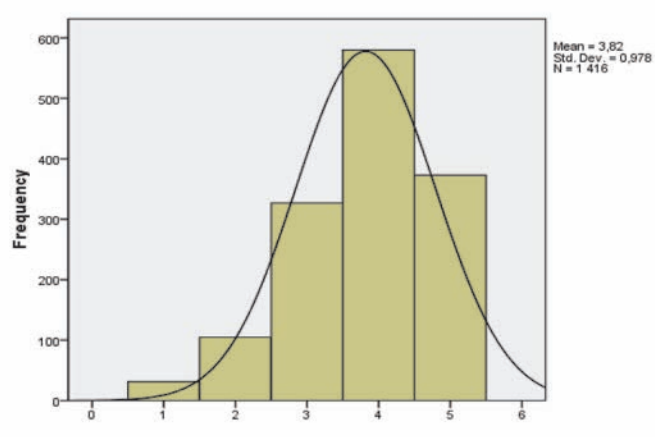

Figure 4: Satisfaction with the price/value ratio of admission fee of the baths/ health resorts in the Northern Hungarian region
Source: Compilation by the author based on questionnaire survey (PASW)

guests. (I highlighted the Cave Bath, Bogács Thermal Bath and Egerszalók Thermal Spa).

The satisfaction with the price/value ratio of admission fee of the baths / health resorts (Figure 4) received a 3,82 average, which means that guests accept prices, however, they find them expensive in many places. Many sample participants rated 4 or 3-grade the prices of the Eger and Bogács Thermal Baths. In the case of the Turkish Bath guests are basically satisfied with the prices of the bath. (90 persons rated 5 grade, 97 persons 4 grade).

It can be seen from the analysis that bath visitors are satisfied with the therapeutic equipment and the level of the therapeutic supply, but they are not completely satisfied with the prices everywhere, which is no wonder, knowing the consumer value of the Hungarian average wages.

Correlation Tests Concerning Guest Satisfaction and Willingness to Spend

The results of the questionnaire themselves call attention to several curiosities, yet we can get more sophisticated information from the point of view of the study preparing a correlation test. The test is based on the results of above described questionnaire, the use and combination of which can result in further valuable information, which either verify or reject the hypotheses. The crosstab examination reveals the correlation between the several responses, the respondents' sex, age and income state. In the following, I examine the guest satisfaction related to the price/value ratio of the bath services and their willingness to spend concerning age and monthly income.

The intensity of the correlations between criteria is examined with the help of Cramer's V associate co-efficient.

Hypotheses

1. I assume that guests having higher average monthly income (150-199.999 and over HUF) are more price-taking because of their more secure financial state. Consequently, they are more satisfied with the price/value ratio compared to those with lower income.

2. I assume that elderly guests (51-60 and over 60) are more price-taking, conflict avoiders because of their age. This is why they are more satisfied with the price/value ratio compared to the younger (18-30).

3. I assume that guests with higher monthly income (150-199.999 and over HUF) spend more on the services compared to those with lower income.

4. I assume that younger guests (18-30) spend more on the services (regardless their age and financial state) compared to the elderly (51-60 and over).

Correlation Tests Results

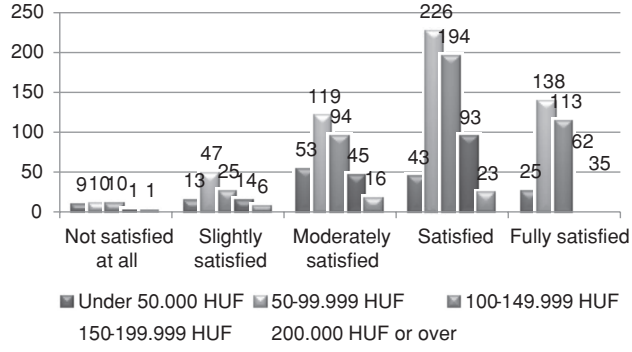

Figure 5: Correlation concerning guests' monthly income and satisfaction with the price/value ratio of the services
Source: Compilation by the author based on questionnaire survey

The hypothesis according to which guests with higher monthly income are more price-taking and thus more satisfied with the price/value ratio than those having lower income, seemed to be true among guests with 200.000 forint monthly income (Figure 5). Most of them represented the „Fully satisfied" category. However, it is also true that they were the fewest among bath guests and several of them gave the price/value ratio grade 4. In the highest number guests were simply „satisfied" (4) with the price/value ratio. The value of Cramer associate co-efficient is 0,098 marking a weak correlation between the two criteria.

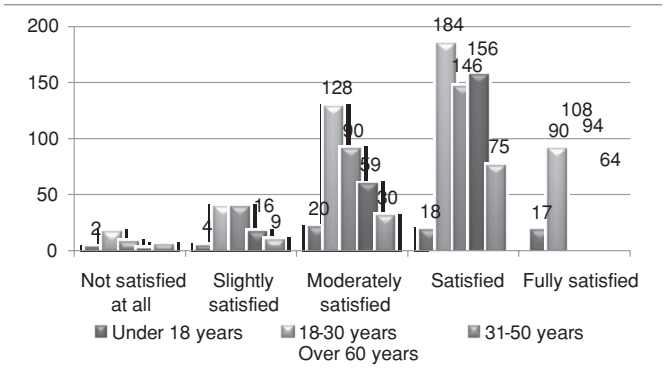

Figure 6: Correlation concerning guests' age and satisfaction with the price/value ratio of services
Source: Compilation by the author based on questionnaire survey

The hypothesis according to which the elderly guests (51–60 and over 60) are more price-taking and conflict avoiders because of their age, meaning being more satisfied with the price/value ratio compared to the younger (18–30), was partly verified (Figure 6). Most of them rated the price/value ratio grade 4 or 5, though it was the same with the other age groups, too. There may have been more guests in the 18–30 age group (compared to other age groups) to rate their satisfaction medium concerning price/value ratio. The value of Cramer associate co-efficient is 0,096 marking a weak correlation between the two criteria.

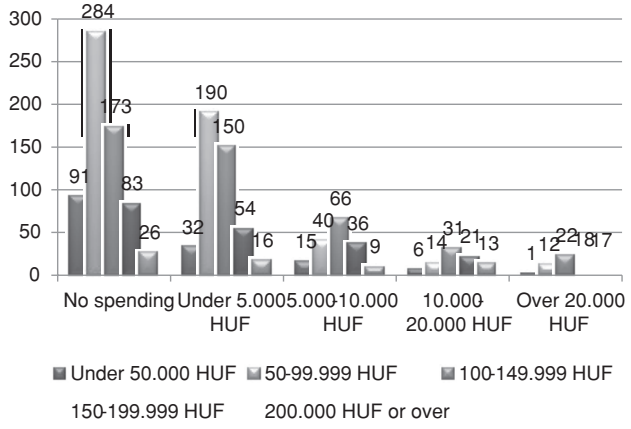

Figure 7: Correlation concerning guests' average monthly income and willingness to spend on therapeutic services
Source: Compilation by the author based on questionnaire survey

I assumed that guests with higher average monthly income (150–199.999 and over) spend more on services than those having lower income of the above mentioned (Figure 7). The hypothesis was not verified as even among those having 150–199.999 forint income there is a declining tendency in willingness to spend (most of them spend nothing) and among those having income over 200.000, cannot be stated clearly that they spend more (there are a lot of them spending nothing, either). The value of Cramer associate co-efficient is 0,164, marking a weak correlation between the two criteria.

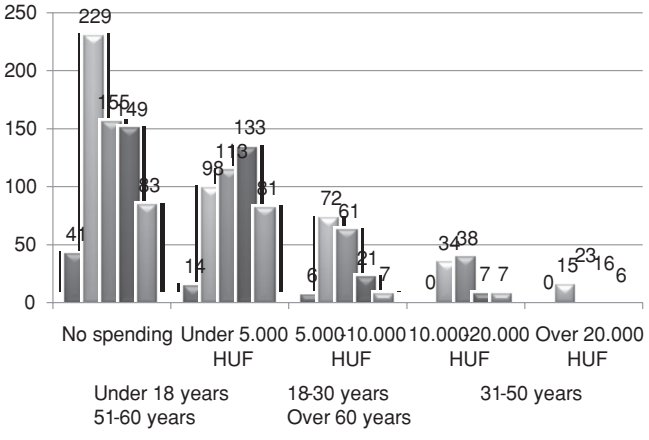

Figure 8: Correlation concerning guests' age and their willingness to spend on therapeutic services
Source: Compilation by the author based on questionnaire survey

I assumed that younger guests (18–30) spend more on services (regardless their sex and financial state) compared to the elderly (51–60 and over 60). It can be seen well from the diagram (Figure 8) that the elderly spend nothing or a maximum of 5000 forints during their stay. It is also characteristic of most younger guests not to spend anything and in their willingness to spend a falling tendency can be observed (moving towards higher spending possibilities). It means we cannot say that the younger age group would be willing to spend far more than the elderly. The value of Cramer associate co-efficient is 0,135, marking a weak correlation between the two criteria.

Results and Conclusion

To the hypotheses the following result were found:

1. Which services of the bath are the most popular among guests?

Among guests massage, therapeutic massage and pool bath are in rated as the first three most popular ones.

2. What is guest satisfaction like concerning therapeutic equipment, quality of therapeutic elements of supply and price/value ratio?

The overall rating of bath guests shows an average 4, i.e. basically they are satisfied with the therapeutic equipment and service quality as well.

3. What income background do guests have and what is their average willingness to spend like on the bath precinct, concerning their income state and age?

The majority of guests belong to 50–99.999 and 100-149.999 forint income groups, representing the average income of today's Hungary. Thus we can speak about services available for people having average income and going to baths is not the privilege of the richer ones.

The results of the correlation tests could be summarised the following:

Guests regardless financial state and age give grade 4 to price/value ratio, but despite their positive judgement spending is not characteristic (most guests spend nothing additional besides admission fee, if so, they do not exceed the 5000 forint amount) even among those who belong to the 'upmarket' category. Both younger and elderly guests can be characterised with the economical approach, i.e. "Make both ends meet" although seemingly they could extend these "ends".

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SPORT SPONSORSHIP IN FINLAND: THE CASE STUDY OF FC JJK JYVÄSKYLÄ

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Abstract: This paper seeks to analyse sport sponsorship in Finland via using the case study of Football Club JJK Jyväskylä from the Finnish Premier League. The results of a master's thesis conducted on FC JJK fans' sponsor awareness and sponsor orientation is presented. This research has provided implications to the management of the club, such as how to increase sponsorship efficiency, how to benefit from applying sponsorship alignment as well as relationship marketing. In order to successfully implement the study, an on-line survey, interviews, and participant observation was utilised. In addition, statistical data were obtained from the club. It has been concluded that JJK fans' sponsor awareness and attitude stood at a low level, therefore JJK's sponsorship strategy was advised to be reorganised. Conclusions from this paper might be beneficial for clubs from peripheral football countries, including those from Hungary as well. The size and level of Finnish and Hungarian football clubs are fairly similar and both countries can be considered as peripheral football countries at present.

Key words: sponsorship, football, fandom, Finland

Introduction

Sport in Finland is not as commercialised and professionalised as in other parts of Western Europe or in the US. It is rather characterised by the prevalence of the public and volunteer sector, which stems from historical, *cultural* and socio-economic reasons. Additionally, the number one sport is not football, as being the case in most European countries, but ice-hockey, of which highest division is the only fully professional league in Finnish sport.

Football Club JJK Jyväskylä has achieved considerable results at the Finnish level in recent years. They won the Second Division in 2006 and the following year the team acquired bronze medal in the First Division. After spending only two years there, JJK got promoted to the Finnish Premier League (Veikkausliiga), which is the number one football series in Finland, for the first time in their history. In 2011 the club came third and qualified for the UEFA Europa League. Growing interest of fans and sponsors has accompanied the outstanding results of the team, and it is reasonable to say that a football boom has been going on in the city. Apparently, the altered situation stemming from the improvements referred to above has given challenges to the management, primarily to those who are in charge of the marketing activities.

JJK Jyväskylä football team played in the semi-professional First Division category in Finland when the data collection of this study was carried out in 2008, which is actually the second highest level below the Veikkausliiga. This paper presents part of the results from my published master's thesis: '*Marketing Analysis of JJK Jyväskylä, A First Division Football Club in Finland'*.

The main points of the topic

The topic of this paper is the examination and the analysis of the sponsorship activities of JJK Jyväskylä during the 2008 season. Due to the success previously mentioned, the business environment has changed considerably; growing number of game visitors, organisational changes, increasing interest in sponsorships, and more complicated operational procedures of the football club have been the most notable challenges to cope with. During the course of this research, JJK fans' sponsor awareness, sponsor orientation, and their relation to different levels of fan satisfaction and identification is carried out. The results of the study had been expected, firstly, to assist JJK to be able to fulfil the requirements of this new situation, and secondly, to add to the growing body of literature of sport marketing within the social sciences of sport. Few attempts (Clark 1992; Lipponen 1995; Itkonen, Ilmanen & Matilainen 2009) have been made to conduct research in this area, and even less in the Finnish semi-professional environment.

When it comes to the research questions, they are formulated as follows:

1. What characterises the sponsor awareness and sponsor orientation of JJK fans?

2. How JJK fan satisfaction and fan identification levels are related to their awareness of sponsors?

Sponsorship in the Finnish environment

Few attempts have been made to gather data on sponsorship in semi-professional football (Clark 1992), and even fewer in Finland. However, Lipponen (1995) tried to form a theoretical framework for sport sponsorships under Finnish conditions. According to his argument, putting emphasis on the necessity of the marketing concept of sport organisations is a relevant factor (Lipponen 1995). This statement seems reasonable given that it could serve, in general, as a base for the successful operation of a club or sport organisation. So far it has been lacking and a good example for this is the fact that no systematic process of measuring the outcome of sponsorships exists in Finland. According to research from the 1990s, 50 percent of the investigated teams *somehow* measure the success of sponsorship (Clark, 1992). A recent study (Itkonen et al. 2009) has found however, that "less than (sic) third of the companies evaluated whether the terms of the agreement were actually realized".

Furthermore, it should be noted that the Finnish football environment requires special attention when dealing with sponsorship deals. For instance, issues such as the geographic location of the city where the club belongs to, and the fact the in Finland football is considered the 'runner-up' spectator sport behind ice-hockey (Lipponen 1995), could act as examples. Another important phenomenon taken into account is the cooperation of volunteers and professional managers (Verhoeven et al 1999). Since the voluntary sector is fundamentally relevant in Finnish sport life, this issue cannot be avoided. JJK is an adequate example for this. There were only three full-time workers at the club in 2008 that had to work in collaboration with volunteers. The general manager, the marketing manager, and one more person who partly worked for JJK's management and partly managed the JJK youth academy, were these positions and in addition to that interns were employed from time to time. Besides, approximately 15-20 volunteers worked on match-days.

The role of the marketing concept has already been mentioned. Recording a database of the sponsors can be related to this topic, as well as the dilemma of sponsorship and philanthropy (Lipponen 1995). It is sensible to find out to what extent the companies enter into the business aiming at gaining financial profit and, on the other hand, just supporting the local team. Likewise, the investigation of the offer that the team can give to its sponsors is required. Naturally, the services that could be offered were limited in the case of JJK, since the games were not broadcast on national television; this fact makes the job of the marketers more challenging. Moreover, providing the opportunity of multi-partner cooperation, which can bring businesses together, is an excellent tool for networking, especially in the local level, since local sponsors are the relevant ones in semi-professional football (Clark 1992). Then again, the cultural characteristics of Finland should be taken in account. Furthermore, conducting market research on a regular basis is also of vital importance.

Methodological Choices

Secondary Sources

The use of existing statistics and resources were inevitable for the fruitful accomplishment of this research. First of all, it was necessary to obtain the results and rankings of the team from recent years. Although the final standings of certain championships are easily accessible via Internet, present research required detailed statistics that can be collected from the club or from the Football Association. Second, written sources about the history of the club and its role in the Central Finland territory, in sociological terms, were essential when coming to the issue of the evaluation of fan satisfaction and the approach towards sponsors. This data appeared to be invaluable because patterns in the behaviour of fans or sponsors can be understood only if one has background knowledge about the relationship between the local communities and the club.

Survey

The appropriate method that helps to gather empirical data about the opinion, beliefs and attitudes of the fans is the questionnaire. "Surveys can use a random sampling technique to recruit participants, relatively small sample sizes can be used to generate findings." (Mathers, Fox, Hunn 2006, p.7) Since this was the most relevant resource that helped to implement this study successfully, the creation of the questionnaire required special care. However, its drawbacks must be taken into account as well: "Surveys can tell us how many people behave in a certain way . . . but they may be limited in the information they can provide as to why this is so." (Mathers, Fox, Hunn 2006, p.7)" The data collection was likely to be the easiest when JJK played at their home facilities and numerous crowds come together. With the help of some volunteers many responses could have been obtained and thus the rate of responses would have been higher than those sent via email. However, as a complementary option, questionnaires posted by email such as ones available at the website of the club seemed also as reasonable solutions. Nevertheless, sampling must be carried out in a way that both 'average' fans and fans who are sponsors at the same time will be asked as well. Eventually, a decision was made to use an on-line survey, which was available from the website of both JJK and the local newspaper, in its Finnish name Keskisuomalainen , in October 2008.

Questions aimed at obtaining information about fan satisfaction and fan identification, fans' intention to attend future games, as well as their attitude towards sponsors. Obviously, the questions were put in a way that all respondents would easily be able to answer them given that the language of the questionnaire is English.

Interviews

Interviews with the club officials were essential to receive general information about the operation of the club, particularly about marketing activities. There were only three full-time workers employed by JJK football club when the data collection was carried out and even if they have their own scope of activities, it was at times problematic to separate the nature of their tasks. As previously mentioned, managing director, marketing manager, and a third person who partly worked for JJK's management and partly managed the JJK youth academy, were these positions. It seemed reasonable to ask the participation of the employees that filled in the first two positions specified above. The use of semi-structured interviews appeared to be applicable in all cases since the topic to focus on was fairly clear.

Ethnography

Due to the fact that the writer of this paper was the player of the researched club, it is felt relevant to highlight the influence of this factor on this study. Nearly every aspect of the research, such as planning, data collection via interviews and questionnaires, discussion and conclusion, were affected as well as facilitated by that fact mentioned. According to Atkinson (2007): "Ethnographic (or field) research provides a detailed description of a different culture, or sub-culture, from the view of an insider, allowing a greater understanding of that culture through its core method, observation." In this case the culture mentioned refers to JJK and its environment. This explanation implies that the researcher being an insider could have better opportunity to interpret the collected data on the club and its fans, due to understanding the relevance of the knowledge available and produced, and how this can be presented as subject matter. Observation was carried out on a daily basis, during football practices, meetings and interviews with the leaders of the club and naturally, during games.

Measures

The survey utilised in this study was planned thoroughly in order to get appropriate data and be able to achieve the goals set beforehand. Accordingly, it was divided in various sections based on the necessities of the information that needed to be acquired. The different divisions were formed as follows: First, some basic questions obtained socio-demographic data from the respondents, including age, gender, highest education, place of residence, and nationality. In addition to these, the number of games seen in the 2008 season, the status related to JJK (fan, sponsor or both), the way of attending games (alone, friends, family) and the possible possession of a season ticket were set to find out the information indicated above.

Fan satisfaction related to sponsor awareness

This section was created with an attempt to find out the sponsor awareness of JJK fans by applying the following question: 'Do you remember any of the sponsors from the announcer/stadium/player's kit?' Apart from this, information of fans' attitude towards merchandising products was to be ascertained: 'Do you know if it is possible to buy JJK products in Jyvaskyla?'; 'Do you have any products related to JJK?" and finally; 'Would you buy more if there was a wider range on offer?'

Sponsor orientation

Obtaining data from fans' sponsor orientation was accomplished by adapting a table from Shaw & McDonald (2006), which were constructed to conduct a research on season-ticket holder satisfaction and sponsor-related behaviour. Respondents were asked to express agreement or disagreement with the following statements: 'I pay little attention to sponsors'; 'I know little about sponsors but I would like to know/have more information about sponsors' products'; 'If I think all the brands are the same, I try to use the sponsor's product.' These first three elements were based on Shaw's & McDonald's work, whereas the coming two were added, taking into consideration the specificities of the present study, such as JJK players' jersey full of advertisements that presumably baffle spectators, and commercial messages by means of loudspeakers: First, 'The high number of sponsors in the stadium and on the players' kit confuses me.' and second, 'The announcements via loudspeakers during the game are efficient.'

Data Collection

Along the first part of this research, data was collected from secondary sources, such as websites of Football Club JJK, the Finnish First Division and the Finnish Premier League. Furthermore, data was also obtained from the archives of JJK and from interviews conducted with JJK's general manager, Joni Vesalainen, and via informal conversations with Ilkka Hyppönen, marketing manager. Three semi-structured interviews, two in 2008 and one in 2009 were carried out with Joni Vesalainen. Again, it is believed essential to mention that the researcher was a member of the investigated organisation, which enabled meetings, interviews, observations and so on, which would not have been possible or would have been more limited for a non-member.

Subsequently, a sport fan questionnaire was developed and a convenience sampling technique was employed, which "utilises readily available subjects and sampling often used in small scale localised research projects". (Hancock 2002, p 15)

To achieve potential respondents, a combination of activities was used. First, during one of JJK's home games, flyers with information on the on-line questionnaire were distributed and this was also reinforced via loudspeakers before the game and at half-time. Second, articles were featured on the website of JJK and that of KSML local newspaper. KSML is the most relevant daily paper of Central

Finland and a separate section is dedicated to the football club on its website with news, videos and player profiles etcetera. The articles informed about present research that JJK's goalkeeper is conducting and asked the readers/fans to visit the address presented there and fill out that on-line questionnaire.

The 'power of word-of-mouth' was also utilised in order to get more respondents. Taking into account the environment of this study, which is a small town that likes sport and the researcher being a student of the sport faculty of the local university, word-of-mouth has proved to be an efficient way of spreading information for the on-going study. Furthermore, the fact that the researcher was a player of the club simplified all procedures given he could benefit from being in touch with many people in Jyväskylä.

In a few days 208 responses were obtained, out of which 188 were valid. However, the representativeness of the sample is complicated to assure for various reasons. Determining the population of JJK fans seems to be an immense task given that it is not known exactly how many JJK fans there are and in addition, the term fan must be clarified first. The difference between spectators and fans are as follows:

Whereas a spectator of sport will observe a spectacle and forget it quickly, the fan continues his interest until the intensity of feeling toward the team becomes so great that parts of every day are devoted to either his team or in some instances, to the broad realm of sport itself. (Pooley 1978, p. 14)

In the context of this paper, the term 'fan' is used according to the interpretation above. Without knowing the exact population of JJK fans, carrying out the sampling and issues of reliability and validity also become problematic. This should be taken in account when talking about the limitations of this study. However, since JJK did not possess a database on the fans in 2008, the best possible way was followed to realise this investigation, which is the previously mentioned convenience sampling technique.

Concerning the question of validity, present work cannot assure all four steps of validity (Research Methods Knowledge Base 2010). After examining each validity type, it can be concluded that the first three steps are likely to be confirmed: there is a relationship between cause and effect; the relationships are casual; and the operationalisation of the ideas of cause and effect were successful, which proves the existence of conclusion validity, internal validity, and construct validity. However, external validity should be handled with care, because generalising of the proven effects might not be possible to carry out due to the method of sampling. In addition, the nature of this research, namely a case study investigating a football club that is in the process of development, requires that the generalisation of the results should be questioned.

The analysis of the acquired data was completed with the help of SPSS statistical program, with the utilisation of the following statistical methods: frequencies, descriptives, crosstabs, tables of frequencies, means, one-way ANOVA and correlations.

Results and discussion

Sponsor orientation and awareness

JJK had around 200 sponsors in 2008. (J. Vesalainen, personal communication, July, 17, 2009). This research has shown that only 13 of them were remembered at least 10 times by the 188 respondents who filled out the on-line questionnaire that measured fans' sponsor orientation and awareness. Among the 10 most recalled sponsors, merely 3 reached considerable results. Firstly, Harvia, a famous Finnish sauna producer, which was called up by around 40% of the respondents and has been one of the main sponsors of JJK, allocated several spots in the stadium and on the most visible place of the players' shirt. Secondly, around 23% of the respondents remembered Peugeot, whose logo has also been situated in the front of players' shirt. Moreover, some cars, which were easy to recognise in the city of Jyväskylä, given that huge JJK logos and other promotional material were painted on them, were provided to the club by the company. Lastly, Osuuspankki, a Finnish bank, had a recall rate of 20%. Due to the reasons explained above, it is no wonder that these brands were called up in higher numbers than others. In addition to this outcome, one-third of the respondents did not name any sponsors, either because they did not remember any or due to being incurious towards the sponsorship issue.

Subsequently, another significant finding to emerge from this study is that more than half of the supporters are paying very little attention to sponsors. It does not mean however, that all those who said this do not remember any of the sponsors, given that around two-thirds of the respondents recalled at least one sponsor, as was mentioned earlier in this section. Consequently, even if someone has a negative attitude towards the sponsors, it is still possible that they remember some of them. For sponsors aiming at brand awareness this might be an essential point. We do not know, however, to what extent JJK's sponsors behave consciously, if at all. According to a recent Finnish study (Itkonen et al. 2009), less than one-third of the companies tried to assess whether the terms of contract had been fulfilled or not.

JJK is advised to be careful with the number of sponsors. It is understandable that the club needs the income coming from sponsors and therefore they try to maximize the number of them, but results affirm that the numerous brands placed on players' kit and in the stadium are confusing for the spectators and, as demonstrated earlier, yields poor rate of recall. Furthermore, advertisements and encouragement to cheer for the team coming from loudspeakers was seen as lacking efficiency, and moreover, in the majority of the cases was considered disturbing. Therefore, it is recommended that these practices are discontinued. Altogether, less than one-fourth of the fans had positive attitude towards sponsors, such that they were interested in sponsors' products or try to use them in respect of various brands supplied. These results suggest that the sponsorship efficiency is limited for various reasons, such as a high number of sponsors causing confusion and fans being inattentive. It is believed that fans do not remember any brand

names after their saturation point is exceeded. On the contrary, some results indicate that even the presence of brand names in the stadium might result in recognition by spectators.

When taking the sponsors' point of view of these circumstances presented, the following question emerges: Whether investing in a business with JJK is a conscious undertaking based on careful planning with the calculation of the return on investment for the sponsors, or is it more like a financial support to the most important football club of Central-Finland? The difference between *donation* (gift), *traditional sponsorship* (placing a logo on players' kit or in the stadium in return for money) and *modern sponsorship* (sponsor alignment) should be noted at this point. Market research based on former studies on sponsorship commitment (Chadwick & Thwaites 2006; Farrelly & Quester 2003) is highly recommended.

To conclude, a considerable option to improve the setting in which JJK's sponsorship business take place could be to restrict the number of sponsors and offering each of them a special and unique relationship with the team, including exclusive appearance in the stadium and players' kit, activities through which sponsor alignment can be achieved and partners could exploit the commercial potential of the association with JJK. For example, introducing a pre-match magazine with the opportunity for sponsors to present themselves in it, or organising social responsibility campaigns involving sponsors and players, through which contact with the fans are created, could be good examples. In return, JJK could expect more revenues from each of the sponsors and could maximize income without having countless sponsors.

Fan identification/satisfaction and sponsor awareness

This study has also found that fans on a higher identification level recall more sponsors. This result is presented in Table 1. Again, this outcome underpins the relevance of creating fan identification.

Table 1: Cross tabulation for fan identification and sponsor awareness

Degree of being a JJK fan		Recalling sponsors Did not nameany sponsors	Recalled 1 sponsor	Recalled more than 1 sponsor
Not important	Count	22	1	11
	% within Degree of being a JJK fan (recoded)	64,7	2,9	32,4
Slightly important	Count	10	6	22
	% within Degree of being a JJK fan (recoded)	26,3	15,8	57,9
Important	Count	19	3	42
	within Degree of being a JJK fan (recoded)	29,7	4,7	65,6
Very important	Count	15	6	31
	% within Degree of being a JJK fan (recoded)	28,8	11,5	59,6

(p=.002)

As expected, higher identified fans typically recall more sponsors (p=.002). The most notable data here is that 28.8% of those who consider being a fan 'Very important' recall no sponsors whereas 59.6% recall more than 1 sponsor, and 64.7% of those who consider being a fan 'Not important' recall no sponsors while 32.4% recall more than 1 sponsors. On the other hand, although expected, fan satisfaction did not prove to influence the number of sponsors recalled.

This research has failed to justify an existing connection between sponsor orientation and fan satisfaction as well as fan identification, although past research has discovered (Shaw & McDonald 2006) that although fans' reaction to sponsors' activities depends on various factors, there is an existing relationship between the levels of fan satisfaction and their attitudes towards sponsors. These results appear to be somewhat ambiguous concerning the influence of fan satisfaction/identification levels on sponsor awareness/attitude. If a club presents a study confirming the positive relationships between the above-mentioned factors, sponsors could be attracted much easier.

Results were obtained by using cross tabulation analysis. Material on fan identification and fan satisfaction can be found in the complete master's thesis '*Marketing Analysis of JJK Jyväskylä, A First Division Football Club in Finland'* of which this paper forms part of.

Summary

This paper has studied sport sponsorship in Finland through the case study of of a Finnish First Division football club, FC JJK Jyväskylä. The vast majority of the research has been conducted via the analysis of fans' opinion of JJK's operation. In addition, statistical data obtained from the club and found on the Internet, interviews accomplished with the leaders of JJK and the method of direct (participant) observation of numerous forms of interaction provided invaluable insight to JJK's marketing activities.

When coming to the research question on the *sponsor awareness* and *sponsor orientation* of JJK fans, this study has established an invaluable outcome. Only 13 out of the 200 sponsors that JJK had in 2008 were recalled by more than 5% of the respondents, and merely 3 sponsors' recall-rate was considerable, i.e. more than 20%. On the other hand, two-thirds of the respondents remembered at least one sponsor.

The investigation of the *sponsor orientation* has also presented poor results from the perspective of the sponsors. The majority of the people paid little attention to sponsors, and almost half of them were confused due to the high number of them. Additionally, announcement via loudspeakers were not recognized as efficient and very few fans had a positive attitude towards sponsors, such that they were trying to use their products or would receive more information on them. It can be concluded that owing to disinterested fans, the huge number of sponsors and the assumed lack of consciousness by the sponsors, efficiency stood at a low level.

Getting to know this outcome may be helpful for JJK management when it comes to the improvement of marketing management. It is recommended to reconsider the system of sponsorship, in a way that concentrating on a restricted number of sponsors and offering them a unique relationship with JJK, can be more profitable for both the club and the sponsors. As a result, JJK could maximise the revenue coming from sponsors and in return, could offer sponsor alignment to its partners. To achieve this, however, firstly, sponsors need to be convinced about the benefits of behaving consciously, secondly, they should be involved in various activities to be able to get contact with JJK and its fans. An option to accomplish this goal by the club is to utilise the tools of *relationship marketing* and carry out regular market research that gives facts about the possible benefits/profits of being a sponsor.

The following major finding of this paper, which answers to the second research question, is that *higher identified fans recalled more sponsors*, which underscores the relevance of creating fan identification. This result is believed to contribute to the development of the management of sponsorship. On the contrary, there was no detected correlation between levels of fan satisfaction and recalling sponsors. Furthermore, in contrast to former studies (Shaw & McDonald 2006), one unanticipated finding was that neither levels of *fan satisfaction* nor *fan identification* are related to the *sponsor orientation* of fans. At this point future investigation is advised.

Limitations of this study and recommended further research

Finally, a number of important limitations need to be considered. First, this work has been a case study, planned for particularly *Finnish* conditions, investigating only one football club. Therefore, it should be careful when generalising conclusions. Second, the source of the data analysed was an on-line questionnaire in English and that fact might have influenced the type of respondents. Third, although this study has found numerous relationships between various factors, these might be influenced with other factors that were not taken into account in this research. In addition, the nature of the relationships, i.e. direct or indirect, linear etc., as well as the direction of the relationship has been hard to comprehend.

Congruent research may be beneficial to conduct periodically for semi-professional and professional football clubs of periphery football countries, in order to enhance the level of marketing management and be able to fulfill the requirements of fans and sponsors. Furthermore, a more detailed research on each of the issue areas analyzed is believed to be worthwhile.

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WHAT KIND OF EFFECTS HAD THE GLOBAL ECONOMIC CRISIS ON THE ATTENDANCE OF THE NBA GAMES?

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Abstract: The global economic crisis of 2008 had effects on the world at all levels of life. It caused serious problems and difficulties in professional sports as well.
In my paper I will try to show what kind of effects the global economic crisis had on one of the best organised championships of the world. What effects it had on attendance? How this influenced the prices of the tickets to the matches?I am going to show those marketing and financial steps, which were made by the championship's leader corp and the teams participating in it.
I think the teams could moderate their losses by making different special offers, drafting new players and being opened for the foreign countries, I think this will lead to an increase in attendance in the next few years.
Finally, I will try to make a future forecast of attendance.

Key words: global economic crisis, NBA, basketball, attendance

Introduction

History of NBA

The evolution of basketball can be associated with the US. In 1891 James Naismith, tutor of YMCA teachers' training college, got the task from his professor to create an indoor, exciting and sport ability improving game.

The NBA itself was formed in 1949 as a combination of the former BAA and NBL leagues. (Rosen, Charley,2009)

A great development started from the 1961-62 season, when the combat of two amazing teams, the Boston Celtics and the Los Angeles Lakers started. Beside these two teams such talented legends like Bill Russel, Wilt Chamberlain and Oscar Robertson were on the court. Later, between 1961 and 1970 the league was broadened with nine new teams.

Between 1967 and 1976 the NBA had a rival, the so called ABA league. The ABA put the stress on the offensive show and grained ground in the cities where there were no NBA team or only for a short time. Admittedly, this championship was spectacular and the crowd liked it. However, they were unable to make a contract with TV channels, so in 1976 the league stopped. Four teams and the players moved to the NBA. To tell the truth, the league acquired good teams, good players and real show.

From 1979, a new Celtics-Lakers fight started, or we can say that the fight of the two genius, Magic Johnson and Larry Bird. Between 1979 and 1988 the Lakers won five times, while the Celtics three times in the finals. The golden age started in 1984, when players like Michael Jordan, Charles Barkley and Hakeem Olajuwon were chosen from the most powerful draft of all time. In Barcelona Olympic Games in 1992, people could face the strength of these players in the legendary Dream Team's victories.

Between 1991 and 1996 the Chicago Bulls won four championships, while twice the Houston won with Olajuwon and Clyde Drexler in the line-up. Meanwhile, souvenirs having the players' names and the teams' logos on them had created an annual 3.1 billion income by 1996.

In 1999 Michael Jordan retired. There have been great players in the league since then, however they are not as great stars as were Magic, Jordan or Bird. In the last 10 years the league has become international. Plenty of foreign players have arrived into the league.(Kosarlabda.co.hu,2010) After this short summary of history, from which it is visible that this championship is a really popular and well-operating organisation, let us have a look at the effects of the 2008 global economic crisis on this powerful championship, and on the attendance of the games.

The global economic crisis of 2008

As a matter of fact, the whole crisis started on the North American real estate market, where banks allowed more and more risky credit borrowing for making larger income. (Simkovic, 2009) Later most of the people were unable to redeem their credit making the firms on the real estate market fall into decay, and due to this the firms pulled the creditor

banks and insurance companies as well. Needless to say, if one of the most powerful countries of the world economy gets into trouble, it also has effect on the other regions, so the bankruptcy of American banks pulled the other parts of the world as well. The crisis required strict changes in economic politics from most of the countries.

Materials and Methods

The main question was, what kind of effects had the global economic crisis on the attendance of the NBA games. During the test I used the data of the North American sport statistics.

Results and Discussions

The effect of the crisis on attendance of NBA games

In the 2006–2007 season the league came out with the highest annual average number of visitors, that is 17,757 visitors per game. But how was this number changing during the crisis?

As you can see in the next chart, the decrease of NBA attendance is demonstrable on the whole.

The first chart shows the change of average number of visitors between 2006 and 2008. It is visible from the chart, that there was a significant change in the number of visitors in the two seasons. Only four teams could raise their attendance during the crisis. In case of the ceasing Seattle team, and the freshly starting Oklahoma team we cannot compare to previous attendance data. On the one side, the greatest fall was at Sacramento team, where the decrease was 10.5 per cent, while on the other side there was a 15.1 per cent increase at New Orleans team. There were emotional and sport reasons of this raise. After the demolition of Hurricane Katrina the local people took all the opportunity that meant the public togetherness to them, and the team played better due to the new players too. This was true even when the team played two years in Oakland because of the demolition of Hurricane Katrina, and they only moved back to New Orleans after that.

The decrease of attendance and the problems of the sponsoring firms brought many teams to grief. In February 2009, the league borrowed a credit of 200 million dollars from two American banks as a remedy to help teams which got into financial problems. Fifteen teams checked in for the credit, but neither of the teams could get more than 13,33 million dollars.

In order to decrease costs the NBA had to make steps in the Association itself, so 80 workers were fired from the League Centre. The league also developed the advertisement opportunities of firms dealing with gambling and alcoholic drinks. More of these products were advertised, which also generated a significant income. At the same time, they also tried to be opened for the world. The NBA is planning to bring not only preseason, but official season games to Europe as well, like NFL did. That is why the Spanish BBVA Bank became the new sponsor of NBA in 2010. At the same time the Asian region and more exactly China, as the biggest possible market cannot be left out of course. By drafting Chinese players the NBA teams earned a great income from merchandising in China. Beside of this, there are examples of team sponsoring as well. Enough if we think about the contract, which was made between Cleveland and Tsingtao, the biggest beer producer of China. (Sportsmarketing.hu, 2009)

We can see now, that the fight has become on more stages as a remedy to the shortage caused by the crisis.

Table 1: Change of Average Number of Visitors between 2006 and 2008

Team	2007–2008	2008–2009	Change (%)
Detroit Pistons	22,076	21,932	–0.7
Chicago Bulls	21,987	21,134	–4
Portland Trailblazers	19,550	20,508	+4.8
Dallas Mavericks	20,286	20,016	–1
Utah Jazz	19,907	19,901	–0.1
Cleveland Cavaliers	20,465	19,724	–3.6
New York Knicks	19,115	19,144	+0.2
Los Angeles Lakers	18,997	18,997	0
Toronto Raptors	19,435	18,966	–2.4
Golden State Warriors	19,630	18,945	–3.5
Boston Celtics	18,624	18,624	0
Oklahoma City Thunder		18,597	
Phoenix Suns	18,422	18,422	0
San Antonio Spurs	18,564	18,004	–4.5
Miami Heat	19,463	17,793	–8.5
Houston Rockets	17,524	17,344	–1
Denver Nuggets	17,364	17,054	–2
Orlando Magic	17,301	16,849	–3.8
New Orleans Hornets	14,181	16,754	+15.1
Atlanta Hawks	16,280	16,563	+1.4
Washington Wizards	17,962	16,508	–7.2
Los Angeles Clippers	16,888	15,598	–7.2
Milwaukee Bucks	15,595	15,200	–2.1
Philadelphia 76ers	14,870	14,790	–0.1
New Jersey Nets	15,656	14,762	–4.5
Minnesota Timberwolves	14,476	14,115	–1.8
Charlotte Bobcats	14,717	14,065	–3.5
Indiana Pacers	12,221	13,777	+9.2
Memphis Grizzlies	12,770	12,608	–0.2
Sacramento Kings	14,150	12,332	–10.5
Seattle Supersonics	13,355		

(source: espn.go.com, personal editing)

Average attendance

In the previous point we examined the change of attendance in the two years of the crisis. Now let's examine a longer period, from 2006–2007 season, so before the crisis, to 2009–2010 season, so after the moderation of the crisis. In this next chart we are going to examine these four years' data.

Only 2 teams out of the 30 could continuously produce increase in attendance during the four years. The other teams sometimes lost and sometimes won visitors in the last four

Table 2: Change of Average Number of Visitors between 2006 and 2010

Team	2006/2007 2006–2007	2007/2008 2007–2008	2008/2009 2008–2009	2009/2010 2009–2010
1. Chicago Bulls	22,252	21,987	21,197	20,725
2. Detroit Pistons	22,076	22,076	21,877	18,751
3. Cleveland Cavaliers	20,436	20,465	20,010	20,562
4. Dallas Mavericks	20,351	20,286	20,042	19,994
5. Miami Heat	19,720	19,463	18,229	17,730
6. Utah Jazz	19,566	19,907	19,903	19,378
7. L.A. Lakers	18,985	18,997	18,997	18,997
8. New York Knicks	18,805	19,115	19,287	19,501
9. San Antonio Spurs	18,654	18,564	18,269	18,089
10. Phoenix Suns	18,422	18,422	18,422	17,648
11. L.A. Clippers	18,421	16,888	16,170	16,343
12. Washington Wizards	18,372	17,962	16,612	16,204
13. Toronto Raptors	18,258	19,435	18,773	17,897
14. Golden State Warriors	18,104	19,630	18,942	18,027
15. New Orleans Hornets	17,833	14,181	16,968	15,130
16. Sacramento Kings	17,317	14,150	12,571	13,254
17. Denver Nuggets	17,230	17,364	17,223	17,995
18. Orlando Magic	17,094	17,301	17,043	17,461
19. New Jersey Nets	16,925	15,656	15,147	13,103
20. Boston Celtics	16,843	18,624	18,624	18,169
21. Houston Rockets	16,545	17,524	17,482	16,528
22. Portland Trailblazers	16,360	19,550	20,524	20,497
23. Milwaukee Bucks	16,186	15,595	15,389	15,108
24. Minnesota Timberwolves	15,998	14,476	14,505	15,101
25. Oklahoma Thunder	15,955	13,355	18,693	18,003
26. Atlanta Hawks	15,594	16,280	16,748	16,545
27. Charlotte Bobcats	15,549	14,717	14,526	15,824
28. Indiana Pacers	15,359	12,221	14,182	14,202
29. Philadelphia 76ers	14,843	14,870	15,802	14,224
30. Memphis Grizzlies	14,654	12,770	12,745	13,485

(source: espn.go.com, personal editing)

years. Of course, this is influenced not only by the global economic crisis, but how efficient the team is, the price of tickets and the draft of players.

Needless to say, the teams were also trying to tempt more and more people to visit the matches by giving special offers. These offers targeted mostly families. As an example, at Memphis Grizzlies team the family ticket cost 48 dollars in the 2007–2008 season, which included four tickets, drink and hot-dog. By the 2008–2009 season teams offered even lower-priced special tickets, for example at Atlanta Hawks team a single ticket cost 37 dollars, which included limitless hot-dog, twist, popcorn and Coca-Cola product consumption. Despite of the fact that the average price of a ticket is 100 dollars at Los Angeles Lakers' stadium, these are very visitor-friendly offers. In 2009–2010 season there were 300,000 more tickets available at a price of 10 dollars or less, than in the previous season. So it is visible, that not only the league, but the teams are doing everything possible to keep visitors. (Team marketing report, 2007)

Having a look at the present, in the Memphis Grizzlies' Super Saver offer tickets for home games can be bought for 5 dollars, except for the matches against the two star teams, the Miami and the Lakers.

With hard work and great efforts the teams and the league could succeed in avoiding a drastic decrease of attendance in the stadiums, and despite of the crisis they managed to stabilize the situation. This is supported by the data of the last four years' average attendance.

Average attendance in the last four years:

2006/2007-17757 visitor
2007/2008-17396 visitor
2008/2009-17520 visitor
2009/2010-17149 visitor

Ticket prices

Ticket prices were already mentioned, but this chart shows us the change of average ticket price in the last four years.

If we examine the NBA Average Ticket Price at the bottom of the chart, we can see that tickets were the most expensive in the 2007–2008 season. At this time the effects of the crisis could be experienced. Later in the next two years the prices continuously fell, because the teams realised that it is worth offering tickets at lower prices and this way more people went to the stadiums. Of course we can see different tactics in the chart, but mainly the prices were kept in the same level, or were even decreased. Data of the teams with the highest and the lowest average price are highlighted, from which it can be determined, that there is a huge gap between the teams of Lakers and Hornets.

The salaries agreement and attendance linear forecast

The biggest challenge of the present for the National Basketball Association is not the increase of attendance, but the consensus on salaries with the players union. As in many other North-American leagues, salary cap is used in the NBA as well. With this they can maximise the money that can be spent on salaries in a team. In contrast with NFL, NBA is using a so called soft cap, in which the salary cap can be increased by means of special rules. But this time the league wants to decrease these opportunities drastically. Eventually, the 2011–2012 season was not a complete one due to the long-lasting negotiations, which led to a 66 games season instead of 82. But the negotiations between the two sides did not last as long as to seriously influence the league's financial operation.

By using the data given so far, the following forecast can be made on attendance.

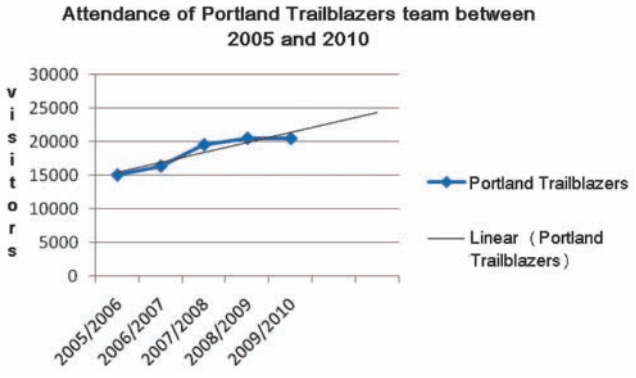
Teams on the first three pictures could increase attendance despite of the crisis, and the linear forecast trend line has the

Table 3: Change of Ticket Prices between 2006 and 2010

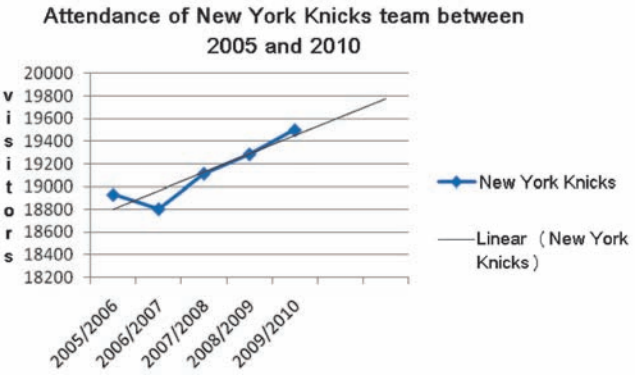
Team	Av. Price of Ticket 2006–2007	Av. Price of Ticket 2007–2008	Av. Price of Ticket 2008–2009	Av. Price of Ticket 2009–2010
1. L.A. Lakers	89.24$	93.25$	93.25$	95.25$
2. N.Y. Knicks	70.51$	70.51$	68.04$	88.66$
3. Boston Celtics	65.43$	68.55$	68.55$	68.55$
4. Chicago Bulls	63.00$	64.25$	64.25$	64.25$
5. New Jersey Nets	60.98$	54.98$	44.51$	40.50$
6. Dallas Mavericks	60.56$	62.10$	51.52$	49.45$
7. Sacramento Kings	59.80$	59.80$	57.50	51.80$
8. Miami Heat	58.55$	58.55$	58.55$	60.50$
9. Phoenix suns	58.26$	64.16$	64.16$	62.50$
10. L.A. Clippers	57.00$	54.50$	53.50$	51.47$
11. Cleveland Cavs	56.10$	55.95$	55.95$	52.28$
12. Toronto Raptors	55.11$	45.31$	49.32$	
13. San Antonio Spurs	51.45$	56.37$	55.47$	56.34$
14. Milwaukee Bucks	47.64$	47.86$	46.00$	46.00$
15. Detroit Pistons	47.50$	47.50$	47.50$	42.76$
16. Portland Trailblazers	47.34$	61.21$	63.05$	50.62$
17. Denver Nuggets	44.29$	47.30$	47.30$	47.30$
18. Philadelphia 76ers	43.00$	43.00$	43.00$	41.00$
19. Indiana Pacers	42.39$	41.09$	30.02$	29.13$
20. Houston Rockets	41.98$	43.40$	42.87$	41.41$
21. Utah Jazz	41.31$	43.90$	43.90$	41.47$
22. Minnesota Timberwolves	39.37$	36.26$	34.50$	31.50$
23. Orlando Magic	38.46$	40.30$	40.30$	43.00$
24. Atlanta Hawks	38.00$	36.90$	51.78$	36.13$
25. Memphis Grizzlies	36.82$	24.11$	24.10$	23.18$
26. Seattle Supersonics/ Oklahoma Thunder	35.00$	36.35$	45.99$	45.99$
27. Golden State Warrriors	31.13$	39.00$	37.50$	34.13$
28. Washington Wizards	30.89$	29.14$	27.21$	24.52$
29. Charlotte Bobcats	29.10$	33.25$	33.25$	29.96$
30. New Orleans Hornets	24.58$	25.17$	26.75$	29.26$
NBA AVERAGE	48.83$	49.47$	48.90$	47.66$

(source: espn.go.com, personal editing)

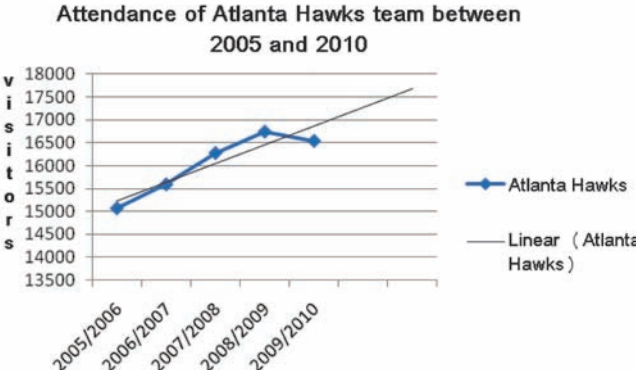
prognosis of further increase in attendance. In case of the last two pictures, though teams could raise their attendance despite of the crisis, but according to the forecast of the linear trend line a slow decrease of attendance is shown.



Graph 1: Attendance of Portland Trailblazers team between 2005 and 2010 (source: espn.go.com, personal editing)



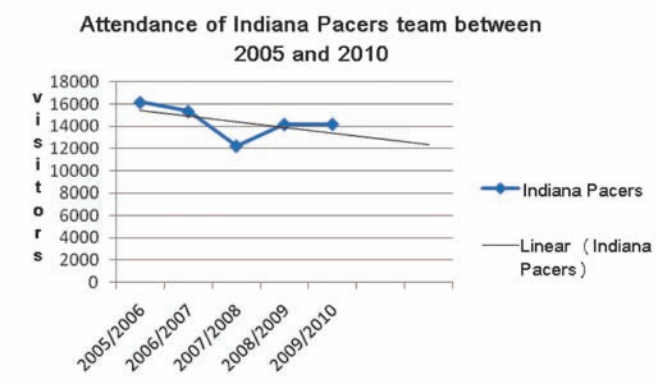
Graph 2: Attendance of New York Knicks team between 2005 and 2010 (source: espn.go.com, personal edting)



Graph 3: Attendance of Atlanta Hawks team between 2005 and 2010 (source: espn.go.com, personal editing)

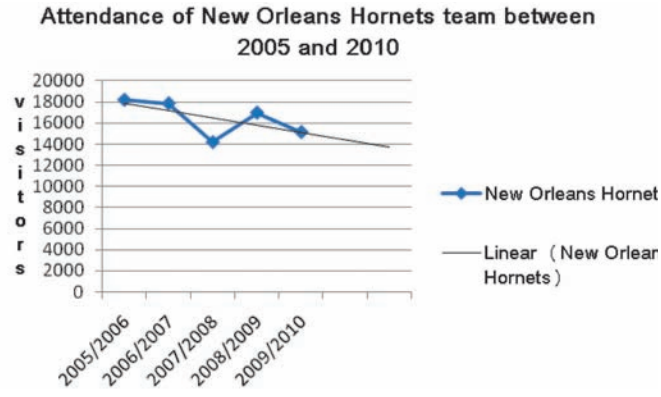
These are analyses of the future, but I can't ignore the human factor. The best example of this is New Orleans team, where the franchise is connected to New Orleans till 2014 according to the contract. However, attendance of the last two years should be supervised in every second year at the end of January, and if the average attendance falls under 14,735 visitors per game then the owner is entitled to move his team.

Contrary to the forecast, a great increase occurred by January 2011 due to the campaigns organised by fans, so the attendance was adequate. Beside of this, the causes of



Graph 4: Attendance of Indiana Pacers team between 2005 and 2010

(source: espn.go.com, personal editing)



Graph 5: Attendance of New Orleans Hornets team between 2005 and 2010 (source: espn.go.com, personal editing)

increase were the New Orleans Saints early drop-out from the NFL Playoffs and the Hornets' great run in the season, where they managed to win 10 consecutive games in a row and by this set up a franchise record. So my forecast above shows a decreasing tendency, which can be true, but I can't rid the human factor.

The first three teams, Portland, New York and Atlanta are traditionally popular ones and playing quite well in the championship. Despite of the high ticket prices in New York, it is the same social rank to go to a Knicks match, like in Los Angeles to a Lakers match. In Portland and Atlanta, beside of the good performance there are medium high or lower ticket prices, so according to the forecast it is not surprising, that an increase will occur in attendance.

The forecast of Indiana Pacers team shows a decrease in attendance, despite of the fact that people love basketball in Indiana State, but the team did not manage to reach the playoffs in the last 4 seasons, and plays also ineffectually in the 2010-2011 championship. At Pacers, they try to tempt people with different special offers to their stadium. For example there is a so called "All you can eat at Monday" offer for 20 dollars, but this will be only effective, if the team plays better.

Summary

I think it is visible from the previously shown data and charts, that the global economic crisis had a sensible and demonstrable effect on NBA attendance. However, my opinion is that the league's leader corp made steps in time. By adding new sponsors, moderating costs and borrowing credit from banks the league was able to go through the hardest two years without any big problem.

Teams could moderate their losses by making different special offers, drafting new players and being opened for the foreign countries, and now it seems that if there will be an agreement on salaries, then the league will stably operate, and I think this will lead to an increase in attendance in the next few years.

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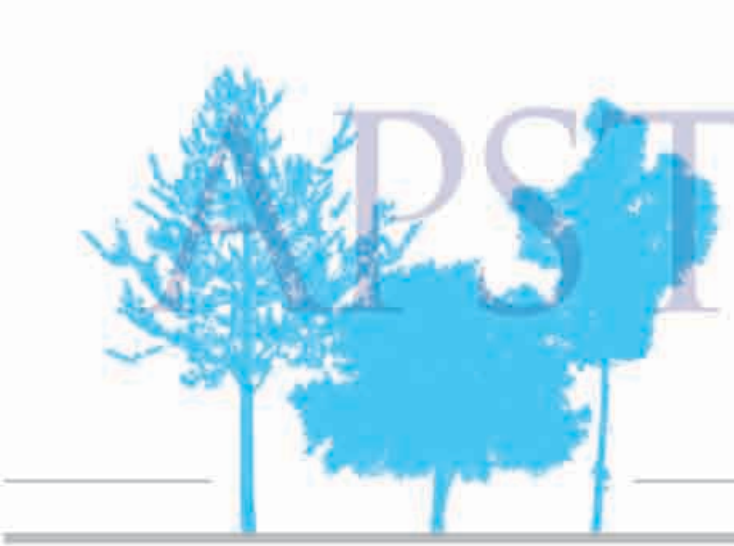

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