

MEASURING THE ECONOMIC IMPACT OF THE MALAYSIAN SPORT INDUSTRY: THE EXPENDITURE APPROACH

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Abstract

This research attempts to bridge the gap with regard to the value of the sport industry by analyzing local sport industry's gross domestic sport product (GDSP)'s worth by utilizing the sport expenditure approach. Expenditure GDSP is the sum of the Private Sport Consumption (PSC), Public Sport Expenditure (PSE), Private Sport Investment (PSI), Trade Balance (TB), and Expenditure Of Foreign Tourists (EFT). The following equation reflects the relationship among the mentioned variables: $GDSP = PSC + PSE + PSI + TB + EFT$. For the purposes of the study, the Private Sport Consumption approach is utilized and it refers to the annual amount of money individual households spent on sport related activities. The research was conducted over a two year period in states of Malaysia including Sabah and Sarawak. The findings showed that the typical Malaysian household spent in excess of RM1000 per person a year on sport products and services. It is estimated that the size of the Malaysian Sport Industry based on private consumption of the Malaysian household is at RM37.78 billion. These findings have major implications on how we visualize the Malaysian sport industry until today, especially from the policy-making standpoint and therein lies the need for more comprehensive research to be undertaken in Malaysia in the near future in the area.

The report is the outcome of a two-year research on the Malaysian sport industry. The idea for the research stemmed from an original inquiry of the state of the Malaysian sport industry, which revealed very limited literature as well as the lack of a national database on sport industry matters. As sport industry has been acknowledged as a source of revenue in many countries, the inclination of the Malaysian sport scenario appears to be heading towards the same direction. As such, the lack of data on the Malaysian sport industry prompted an earlier research on the requisite skills of the local sport manager, which in turn reveal the need for an inquiry into the structure of the local sport industry and the estimated and actual worth of the sport industry. To the best of the researcher's knowledge, there has been only three other major research conducted on sport industry in Malaysia, of which the researcher was a co-researcher in one;

- 1) The Economic Impact of the Petronas F1 (1998-99) commissioned by Petronas, undertaken by UM (only for F1 event)
- 2) The Stirling Report (2011) commissioned by the Ministry of Youth and Sport Malaysia, undertaken by University of Stirling, Scotland (estimated Sport Industry valued at RM6.6 billion)
- 3) The Sport Industry in Malaysia: Contribution towards the Malaysian Gross Domestic Product (2013) commissioned by the Government of Malaysia undertaken by Institute of Youth Research and Development, Ministry of Youth and Sport (estimated Sport Industry value at RM 9 Billion - currently concluded and finalizing the write up at the time this report is written)

The Petronas Study is not considered in this analysis as it looked at only one segment of the sport industry, i.e.: the F1 Grand Prix Championship,

The Stirling Study was conducted by a group of foreign researchers “through a variety of data collection methods including desk research, surveys, interviews and statistical modelling” (p.5). However as the research puts a caveat on the findings due to significant and pertinent data and information “requested but not received”, the findings of the research is cautionary and conservative at best. It must also be pointed out that the report is not a public document.

The latest study of the Malaysian Sport Industry is commissioned by the Government of Malaysia which appointed a panel of experts among Malaysian researchers, including the researcher. The research employed the value-added or output approach was used by adding up the value-added of all sports-related goods and services and was analyzed using an input-output model. It must be pointed out that only one out of seven researchers appointed are trained as a sport economist, while the rest are experts in generic economy. This created issues within the research team in terms of arriving at agreed parameters of the sport industry research itself. Another issue coming out of the research was the unavailability of significant and pertinent direct data of sport industry classification from the Department of Statistics, Malaysia. This also puts the findings of the estimation value of the sport industry in the same category as the Stirling Report even though both studies cost millions of Ringgit to commission.

Initially, the present study was conceptualized to utilize the expenditure approach. However, due to the limitation of funding, as opposed to the previous two studies mentioned above, the research was redesigned to only look at the sport private consumption by the Malaysian household. The real challenge of this present research is the limited coverage of the household data which is directly attributed to the limited financial allocation. It is

proposed that the foundation of further researches on the estimated value of the Malaysian Sport Industry be based on the expenditure approach. This is so as to derive indices in the Sport Industry such as the Sport Consumer Index in order to facilitate research and development of our local Sport Industry.

In Malaysia, studies on the sports industry are not widely explored partly due to data limitation and lack of proper definition of the sports industry itself. Hitherto, as far as we could ascertain, there is no systematic study or survey that has been carried out with regard to the overall contribution of sports industry to the Malaysia economy. However, there was a study conducted to estimate the economic impact of hosting a specific mega sport events in Malaysia. For example, a study by University Malaya (2000), used the expenditure approach to estimate that the economic impact of the PETRONAS Malaysian Grand Prix 2000 was RM835.9 million. As the study looked at only one specific segment of the local mega sport events, it did not provide any further information about the status and the contribution of sport industry as a whole to the Malaysia economy.

The general objective of this study is to estimate the contribution of sports industry to the Malaysia GDP. Specifically, the objectives are:

- i. To ascertain the value of the sport industry in generating income, affecting spending patterns (Hanson, 1998; Ming Li, 2001)
- ii. To understand the function and roles of sport managers as the industry's human capital within the industry given the value of the sport industry (Parks & Quarterman 2003).
- iii. To discover factors that would generate changes in the sport industry structure that would affect the value of the industry and be able to adjust/manage the changes (Hums, 1999).

In addition, the research aimed at:

- i. Providing a snapshot of the role of sport in the economy and subsequently raising general awareness of the vital role of local sport industry;
- ii. Mobilizing and retaining a comprehensive database on the local sport industry, with particular reference to revenues and expenditures;
- iii. Identifying strengths, weaknesses, opportunities and threats of the local sport industry's prospects and potential; and
- iv. Discovering factors that would generate changes in the sport industry structure that would affect the value of the industry and be able to adjust/manage the changes (Hums, 1999).

SPORT INDUSTRY IN MALAYSIA

The sport industry sector is a significant employment sector within the UK in which an estimated 400,000 people were employed at various levels of the sport industry sector (SPRITO, 1998). The same however could not be said about sport industry in Malaysia. The local industry could not guarantee employment for graduates of sport science, for many reasons. The most important of which, is that there is no clear structure that depicts sport industry locally. Sport in Malaysia has always played an important part in the social regeneration process. The National Sport Policy acknowledges the contribution of sport to the Malaysian society and Malaysia had over the last decades successfully hosted international sport mega-events (examples such as the 16th Commonwealth Games and the annual F1 Sepang Grand Prix) although ironically very few success as international sport players and participants. This does not seem to discourage the Malaysian government from investing millions of Ringgit Malaysia into the organisation of sport events as well as sport development program as evidenced in the Ninth Malaysian Plan where the government allocated more than RM600 million for sports development in Malaysia through the Ministry of Youth and Sport alone.

Anecdotal and empirical data like this seems to be the only indicator of the structure and size of the local sport industry. As no study has ever been undertaken, either by the government or private sectors on the industry's real worth to the nation's economy, any other efforts to conceptualise what the Malaysian sport industry structure looks like can only be done by looking at all the various government departments (such as the Ministry of Higher Education, Ministry of Primary Industry, the Ministry of Finance, the Ministry of Youth and Sport) fiscal and budgetary reports or the Registrar of Companies

record for the private sectors. This research attempts to bridge the gap with regard to the value of the sport industry by analysing local sport industry's fiscal worth. For that purpose the construction of the local sport industrial structure is critical, as this would put in context the significance and value of the business of sport itself, the sport managers and their roles as well as contributions to the area.

The discussion of sport industry itself is of relatively recent academic interests; with the one of the earliest conceptualisation of the components of sport industry being made by Brooks in 1994. Literature and academic work on the matter remains scarce. Although there have been numerous attempts by scholars trying to define the meaning and structural composition of the sport industry (Meek, 1997; Parks, 2003; Pitts, & Stotlar, 2002), sport managers in North America for instance, are constantly redefining the meaning and structure of their sport industry. The US sport business with its multiple segmentations such as sporting goods, professional sport, sport support businesses, sport media, recreational activities and other segments amounted to US\$324 billion worth of industry according to the Sport Business Journal in 1998 (Parkhouse, 2001). Only a year earlier, Meek (1997) ranked the industry as the 11th largest industry in the United States with a GDP worth of US\$152 billion. In 1999, according to Westerbeek & Smith (2003), the General Association of International Sport Federations (GAISF) estimated that the turnover of the global sport industry was approximately USD80 billion, contributing to about 3 % of the total global trade. This figure confirms the value of sport as a global trade and an international business ventures.

In contrast, attempts to evaluate the UK sport industry's impact on the economy had been made initially in 1986 with the publication of the report commissioned by the UK Sports Council entitled – The Economic Impact and Importance of Sport in the United Kingdom (Henley Centre, 1986) (Sport, 1992). The study prompted other studies on economic impact of sport to be

undertaken (the Economic Impact of Sport in Northern Ireland, Sport and the Welsh Economy etc.). All these studies seek to ascertain the relative importance of sport in generating spending patterns, creating employment for local economy and to;

...to provide a 'snapshot' of the role of sport in the economy and thereby to raise general awareness of that role (The Sport Council, 1992:11)

More importantly, the report acknowledges that sports final expenditure

...generates value-added across a number of different industries (The Sport Council, 1992:11)

In this sense, modern sports, apart from providing psychic and physical benefits, have the potential of providing economic benefits depending on the type of sport in a particular category (Gratton, 2000).

As mentioned earlier, there had been various definitions as to what sport industry is. Pitts & Stotlar (2002) defines the sport industry as; a market in which the products offered to its buyers are sport, fitness, recreation, or leisure-related and may be activities, goods, services, people, places or ideas (Pitts & Stotlar, 2002:4). Porter (1980) proposes one of the earliest working definitions of an 'industry' as a group of organisations producing products that are close substitutes for each other. (Porter, 1980:15). Ming Li et al (2001) goes on to point out two criteria that can be utilized when defining an industry;

- 1) Similarity of products and
- 2) Similarity of economic activities.

The first criterion refers to a group of firms that provide similar, well-defined products and services (Lipsey, 1999; Shim, 1995). The U.S Census Bureau uses the similarity of economic activities criterion in developing the North American Industrial Classification System (NAICS), which actually attempts to define

an industry by the similarities of firms in economic activities/production (Ming Li, 2001). Although NAICS categorization of North American major economic activities does not consider sport as a major economic activity and therefore a stand-alone industrial category, it nevertheless provides sport managers with a useful reference as to what is considered governmentally acknowledged sport-related activity. The NAICS categorization also only proved the difficulty of conceptualising the 'sport industry' as evident in the breakdown of the twenty major categories where one can find at least twenty-five sport-producing units that are scattered across eight NAICS sectors.

Similarly, the UK Sport Council defines the sport industry to include;...commercial, local authority and voluntary sports clubs, those parts of manufacturing industry which produce sportswear and equipment (and their domestic suppliers), retailers of sportswear and equipment , and the sports component of the media (The Sport Council, 1992:12). The complication of defining and conceptualising the sport industry structure prompted many researchers (Brooks, 1994; Meek, 1997; Ming Li, 2001; Pitts, & Stotlar, 2002; Pitts, Fielding, & Miller, 1994) to devise models of sport industry structure. These models of sport industry structure provided the framework for which this research is to be build upon and based on the complexities of the models, conceptualising the sport industry structure in Malaysia is one of the real challenges for the research.

DEFINITIONS AND SCOPE OF THE MALAYSIAN SPORT INDUSTRY

Porter (1980) proposes one of the earliest working definitions of an industry as “a group of organizations producing products that is close substitutes for each other”. Brooks (1994) while expanding Porter’s definition of industry, remarks that sport industry is “just one component of a larger leisure industry”. Pitts & Stotlar (2007) defined the sport business industry as “a market in which the products offered to its buyers are sport, fitness, or leisure related and may be activities, goods, services, people, or ideas”. Some examples of products in the sport industry are:

- a) Sport apparel, sport equipment such as manufacture and sale of sport jersey.
- b) Promotional merchandise such as gift items associated with specific sporting event.
- c) Sport facilities such as stadium construction and rental.
- d) Sport service businesses such as sport marketing research
- e) Participation in sporting activities such as KL 10K runs, kayaking.
- f) Professional services such as sport tourism service, coaching service.
- g) Attending the Malaysia Cup Football competition.
- h) Sport media service such as sport broadcasting, sport magazines.

Li, et al. (2001) in defining the sport industry, suggested two criteria that could be utilised; 1) Similarity of products, and 2) Similarity of economic activities. The first criterion refers to a group of firms that provide similar, well defined products and services. For instance, the U.S Census Bureau uses the similarity

of economic activities criterion in developing the North American Industrial Classification System (NAICS), which actually attempts to define an industry through the similarities of firms in economic activities/production (Li, et al. 2001). Meanwhile, the UK Sport Council defines the sport industry to include “...commercial, local authority and voluntary sports clubs, those parts of manufacturing industry which produce sportswear and equipment (and their domestic suppliers), retailers of sportswear and equipment, and the sports component of the media” (Sports Council, 1992).

The sport business industry is generally classified according to the special characteristic of the industry in a particular country. For example, China classified its sport industry into six groupings; namely,

- i. fitness,
- ii. sport entertainment,
- iii. sport training and consulting,
- iv. sport tourism,
- v. sport agency, and
- vi. sport lottery.

In Korea, the industry is classified into:

- i. sport facility businesses,
- ii. sport product businesses, and
- iii. sport service businesses.

In Japan, it is also classified into three groups:

- i. sport-related retail,
- ii. facility and space management, and
- iii. professional sport (Cheng, 2010).

Humphreys & Ruseski (2009) suggested clearly demarcating sports over exercise and recreation so that segments of sport business can be properly measured and analysed. Humphreys & Ruseski (2009) added that participation, whether it is for competition or for recreation or exercise, which generates economic activity, should be included in the measurement of sport industry. Fort (2010) argued that in defining sport for the purposes of eventual measurement, then actually measure economic activity; sports participation, sports viewing and listening are very relevant elements. The challenge for Malaysia now is to devise our own sport industry classification in the near future.

Dejonghe (2006) pointed out that a definition of sport, which only focuses on the participation of physical activity, is too narrow for an economic value study of sport. Therefore, he suggested that passive contributors to sport economy such as broadcasting rights, sponsoring, merchandising and sports betting, need to be further explored and uncovered, in addition to the economic activity generated by all participants to the sport industry. According to him, all these need to be included into the definition of sport industry.

In a nutshell, Shannon (1999) stated that how one defines the sport industry will have a dramatic effect on the size of that industry, but there can be no question that the size of this industry is large and its impact substantial. This indicates that one definition of sport was not enough to take into account all angles of the sectors and different definitions should be envisaged linked to the aim of policy makers. Therefore, the sport industry should extend beyond the usual classifications of economic activity included in national income and product accounts (Humphreys & Ruseski, 2009). It includes mass participation in sport and watching, listening, and following sports competitions on various media. However, data for each of these areas have problems that make it difficult to accurately estimate the size of the sports industry (Humphreys & Ruseski, 2009). Johnson et al., (2001) also shared the view that even though

the economic value of sports industry may be large, economists have rarely attempted to measure them. Humphreys & Ruseski (2009) stated that the measurement of the total economic activity in the sports industry is a difficult task, and is supported by Fort (2010) who says that there are issues of data integrity.

Ming Li et al (2001) believes that sport activities are the factor that all sport organisations and firms can narrate to. The sport activities are the core centre from which all other sectors of the sport industry originate. In this sense Ming Li defines the sport industry as the cluster of,

1. The firms and organisations that produce sport activities (e.g. the NCAA, the NBA, fitness clubs etc.)
2. The firms and organisations that provide products and services to support the production of sport activities, and (e.g. sport arena construction company, local sport authority etc.)
3. The firms and organisations that sell and trade products related to sport activities (e.g. sport equipment manufacturer, sport broadcaster etc.).

Ming Li et al (2001) then proceeds with the definition to develop a two-sector model of the sport industry as outlined in Figure 3.6.4. The first sector is the sport activity-producing sector while the second sector is the sport-supporting sectors. At this stage the theory seems to resemble that of Brooks' (1994) Primary Infrastructure Model. The first sector housed all firms and organisations that produce sport games, events and services. Sport activities are the main line of operations of all firms and organisations in this sector. The second sector is to include all firms and organisations that provide

...either products and services to support the production of sport activities or selling and trading products that are related to sport activities (Ming Li et al, 2001:6)

In Ming Li's (2001) model there are six sport-supporting sub sectors namely; administrative and regulatory athletic associations, sporting goods manufacturers, wholesalers and retailers, sport facilities and buildings, sport media, sport management firms and municipal and county sport councils and authorities. The model also acknowledges that all the sub sectors functions are independent although there would be an overlap to a certain extent with regard to the shared responsibility of organizing sport events. The model is depicted in Figure 1 below:

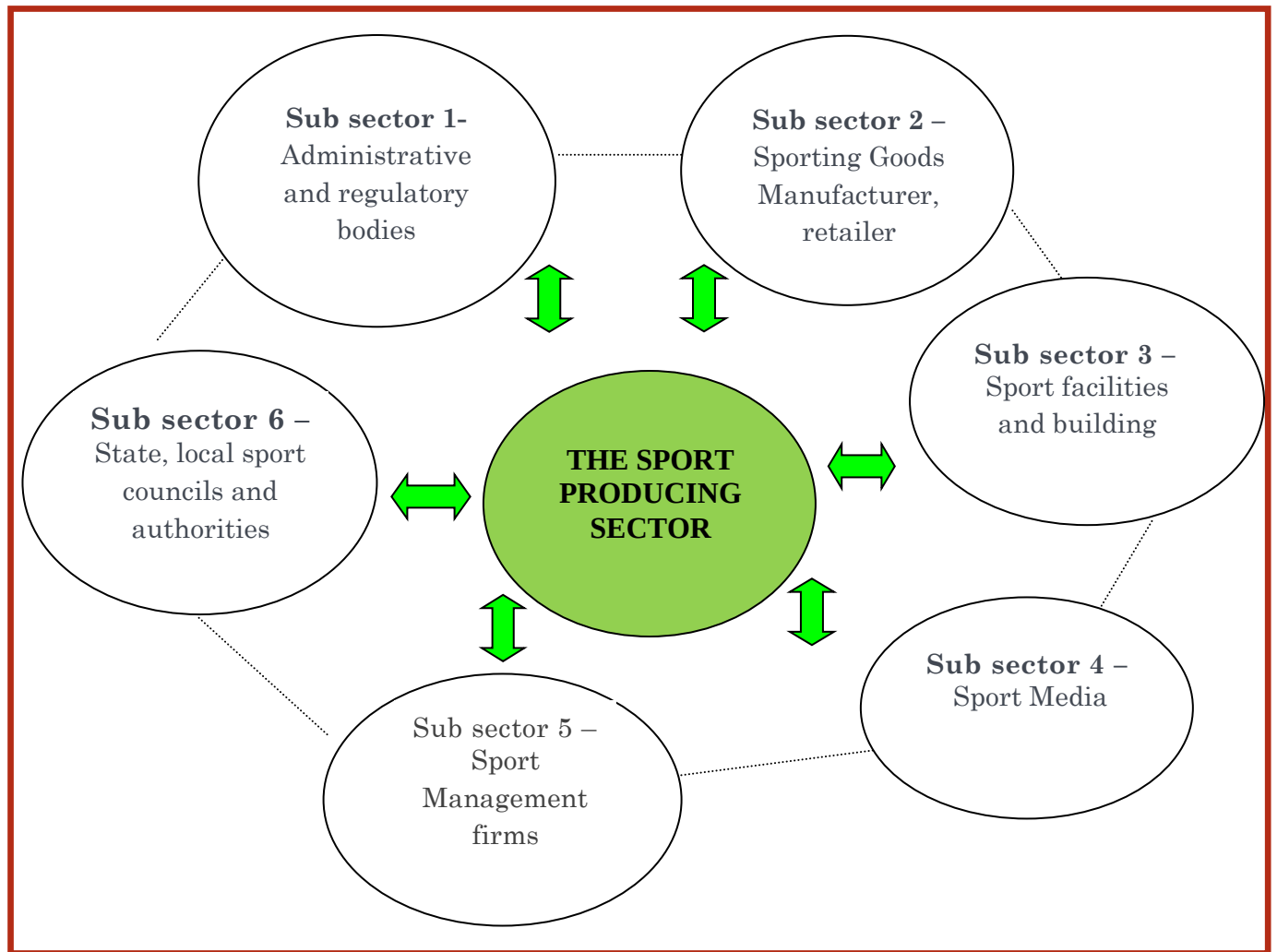


Figure 1. Ming Li's *et. al.* (2001) Model of Sport Industry

Ming Li et al (2001) combined the sport producing and sport support organizations together. There seems to be an interrelation among all the sub sectors with each one and a measured connection with the core sport-producing sector (size and structure, nature of management roles, sport management education, particularities of the system). The structure seems comprehensive enough to reflect all the intricate layers of interrelations and interface between each sector, which may be the closest resemblance of the 'reality' of the nature of a sport industry structure, at least in North America.

Although Ming Li's (2001) attempt to separate the industry into sectors can be seen as convenient to help in understanding the various different segments of the sport industries, the model notes that

...all the sport supporting sub-sectors overlap somewhat with the sport activity-producing sector because sometimes firms and organizations in the sport-supporting sector also sponsor and organize sport events (Ming Li et al, 2001:6)

The model also did not highlight a clear demarcation of the public and private sectors roles, activities, significance and contributions. This demarcation is useful in order to understand the extent of influence and the central role of the government in sport business structure.

Evidently, a glance at the various sport industries structures in the US and the UK as well as the global sport industry did not disclose a definitive meaning of a sport industry structural composition. Rather, various scholars have shown attempts at describing a very complex phenomenon with varying degree of cohesiveness, comprehensiveness and success. The discussions of the structures are summarized in the Table 1 below

Contributors/Year/Origin	Dimensions of Sport Industry's Structure	Comments
Global Model		
Westerbeek (2003) – US	• First level: All sport products and services groups • Second level: Facility-dependant sport services categories • Third level: Corporate-related and Participant-related products • Fourth level: Psychic benefits and social ideas	• Emphasis on product-based typology • Focused on commercial sector as opposed to the role and functions of the local government.
Regional Model (US)		
Pitts & Stotlar (1994) - US	• Sport Performance Structure (participation and spectator products) • Sport Production Structure (sport support products) • Sport Promotion Structure (products and activities used to promote sport)	• It appears that there is no connection or unrelated nature of all the three dimensions
Meek (1997) – US	• Sport Entertainment Structure (including sport tourism) • Sport Products Structure (including manufacturing, retail and distribution) • Sport Support Organisations (including sport clubs and sport governing bodies)	• Model based on spending pattern as opposed to actual sport economic activities • No clear demarcation (overlapping) of the sport production and services components of the industry
Ming Li et al (2001) – US	• Sport Producing Sector (all firms and organisations that produce sport games, events and services)	• The Sport Producing Sector and the Support Sector need not be necessarily be two separate

	• Sport Support Sector (six sub-sectors. All firms and organisations that provide 'either product and services to support the production of sport activities or selling and trading products that are related to sport activities')	segments. It can overlap (dual-roles of one single sector) • The model also did not highlight the clear demarcation of the public and private sector roles and activities, significance and contributions.
Regional Model (UK)		
Borretts (1999) – UK	• Public Sector • Commercial Sector • Voluntary sector	• Emphasis on the 'flow-chart' of the relationship of the three sectors as opposed to the actual activities of each sectors • The industry structure is centralised on the Public Sector/Local and Central Government
Gratton & Taylor (2000)- UK	• Sport Goods Sector • Sport Services Sector	• Emphasis on the commercial sector of the sport industry

Table 1. The Sport Industry Structures: Global and Regional Models

In Malaysia, it is likely to find the dual-role of the central government as a sport producing sector and as a sport support sector through the example of the Ministry of Youth and Sport and its administrative branches such as the National Sport Institute, the National Sport Council etc., as depicted by the Ming Li et al (2001)'s model. There are possible benefits as well as drawback in this kind of arrangement. The central government undoubtedly plays a crucial part in the development of local sport.

Without the backing of the government, it is extremely difficult to organize major sporting events at all levels, especially when the local private sector sponsors are unable to invest heavily into sports. The investment made by the government, for instance in building state-of-the-art facilities, means that sport (especially event organizing) in Malaysia could progress to a much higher level at such a short time.

As both the sport producing and sport support sector, the government provides everything, from the promulgation of sport policies, to implementation and enforcement as well as annual budgetary allowances. It is expected that with the pecuniary benefits come the regulation. As the government had injected a massive amount of money in the sport industry, the government naturally, is concerned with its investment. It is convenient that as the major mover and both the producer and the sport support sector of the local sport industry, the government could decide the direction of the local sport development. This could be a major drawback, as the prescribed national (or local) development may not address the actual need of the population and if it was done without taking into account the opinion of the population (the case in point will be the underutilization of the National Sports Complex in Bukit Jalil). In effect, to apply this model to depict the nature of sport industry in Malaysia would require careful considerations of the role of the public sector in local sport.

It is therefore imperative that sport managers in Malaysia establish the right model of the sport industry as that will reflect the actual size and value of the local sport industry. This in turn would guide sport managers in managing the industry with more proficiency and effectiveness. As such, this project proposes that a definition of the Malaysian Sport Industry shall be *“any and all activities in relation to the products and services of sport in the public, commercial and voluntary sectors regardless of the objectives of the said sectors whether for profit or otherwise”* (Megat Daud, 2013). It is also proposed that the structure of the Malaysian sport industry to be made up of three main components; the public, the private and the volunteers as depicted in Figure 2 below:

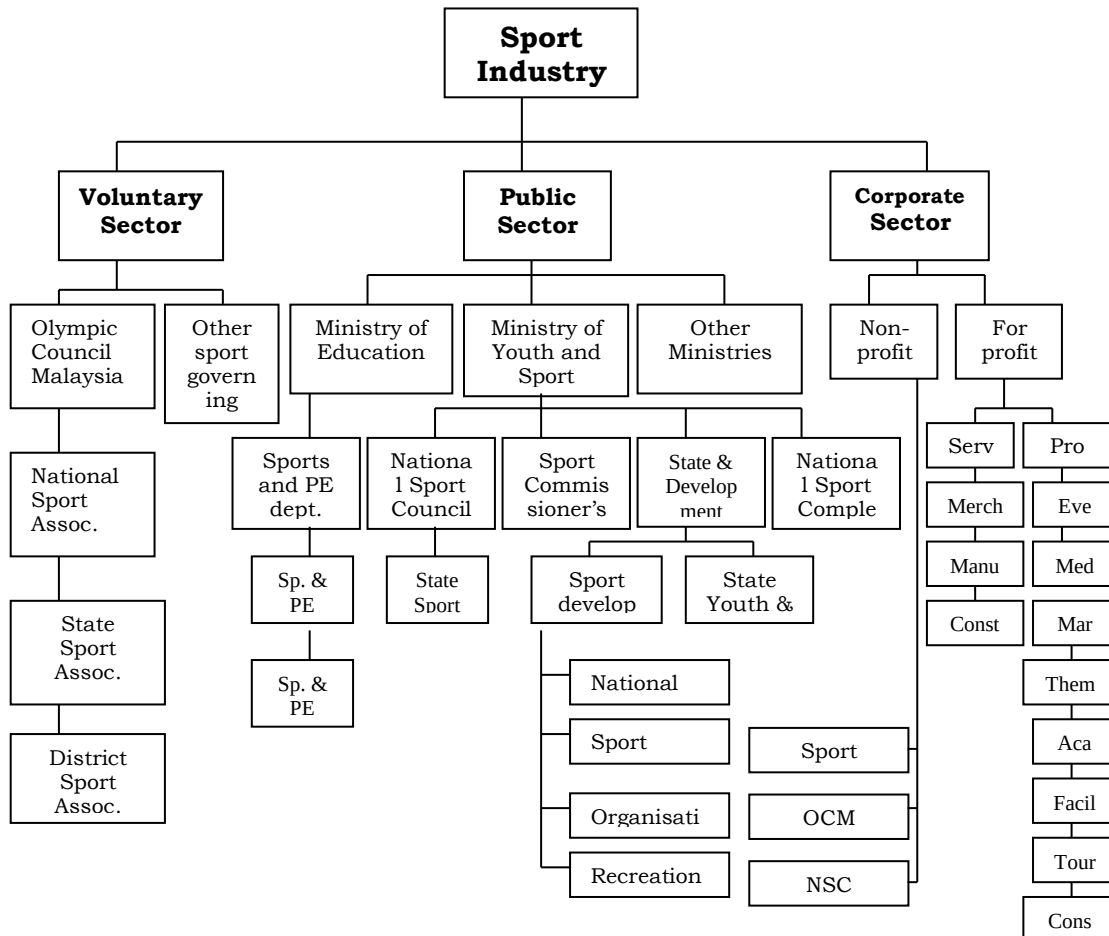


Figure 2. The Malaysian Sport Industry (Megat Daud, 2013)

This structure is conceived from the information and data deduced from the local sport management practitioners as well as experts and encapsulate all areas of sport involvement in Malaysia. Central to this figure is the role of the government (public) in the development of local sport agenda. This is markedly different from the structure of the sport industry in the West, such as the North American Model where the focus is more on the commercial or corporate sectors. Based on the structure, in order for the country to benefit from the sport industry, the public sector must now shift emphasis to the commercial/corporate sector in which more incentives and relevant policies that would generate this growth.

METHODOLOGY

This section examines the methodological framework underlying this research. After considering the theoretical approaches to be adopted, the rationale and evaluation of the appropriateness of the methodology that shall be utilized in the research shall be discussed. The research design of this project ensures the attainment of the research objectives mentioned earlier in the earlier section of this report. The summary of the research design and corresponding methods are illustrated in Table 2. below:

Research design	Research method	Research purpose
Exploratory Research / Explanatory Research	Documentary Analysis of governmental and other supplementary documents and records	• To understand the function and roles of sport managers as the industry's human capital within the industry given the value of the sport industry (Parks & Quarterman 2003) • To discover factors that would generate changes in the sport industry structure that would affect the value of the industry and be able to adjust/manage the changes (Hums, 1999).
	Questionnaire	To ascertain the value of the sport industry in generating income and affecting spending patterns

Table 2. Summary of Research Design and Corresponding methods

At the beginning of the research, qualitative content analysis was carried out on formal documents and records published by the Ministry of Youth and Sports, the National Statistic Departments and other supplementary documents and records. From the documents, preliminary concepts about the structure of the local sport industry are made. Qualitative content analysis continues to be carried out as more important documents were acquired. The analysis prepared the groundwork and assisted in identifying and categorizing the segments of the local sport industry.

Researchers used a range of methods to estimate the contribution of sports industry to the economy. Most researchers adopted the National Income Accounting (NIA) approach for estimating the total economic value of sports industry. For example, Meek (1997) and Milano & Chelladurai (2011) used the NIA approach for the United States. A Belgian study by Taks & Kesenne (1999) adopted the expenditure approach while the study in the United Kingdom by the Center for Advanced Studies in the Social Sciences (1995) and the study in Finland by Rissanen, et al. (1989) used the output approach.

In the case of the sports industry, the NIA approach is based on the derivation of GDP or economic value provided by sub industries that are part of the sports industry. Fundamentally, there are three approaches to measure the flow goods and services. Specifically, they are: (i) the expenditure approach, (ii) the income approach, and (iii) the value-added approach. The former is also known as demand-side approach and results in economic value at market price. The latter two are supply-side approach and result in estimates of factor price.

As these three approaches measure different sides of the economy, they require different data sets. However, if properly executed, these three approaches are equivalent and yield direct contribution of the sports industry to the overall economy. The three approaches entail the followings:

1. The expenditure approach requires totaling all expenditures made in consuming the finished goods and services of sub industries of sports industry. Essentially, expenditures on sports related goods and services can be made by any of the institutions in the economy, such as households, businesses, and all levels of governments.
2. The income approach is summing all income earned by all factors of production in sub industries that are part of the sports industry.

Alternatively, it is the sum of all income received by factors of production for the production of all active and passive sporting goods and services. The income components of this approach can be further broken up into the followings:

- a. rent (income to land),
 - b. wages (income to labour),
 - c. interest (income to capital), and
 - d. profit (income to entrepreneurs).
3. The value-added or output approach entails adding up all value-added of all sports related goods and services. This approach is also known as the production approach (Vu, 2009). This approach has an added advantage of not needing to distinguish between intermediate goods and final goods, thus, avoiding double counting.

The questionnaire survey is designed based on the expenditure approach. Expenditure GDSP is the sum of the private sport consumption (PSC), public sport expenditure (PSE), private sport investment (PSI), trade balance (TB), and expenditure of foreign tourists (EFT). The following equation reflects the relationship among the mentioned variables:

$$\text{GDSP} = \text{PSC} + \text{PSE} + \text{PSI} + \text{TB} + \text{EFT}$$

However, due to the limitations of both time and funding, the current project only focuses on the Malaysian private sport consumption sector, represented as PSC in the above equation. Private sport consumption refers to the annual amount of money individual households spend on sport related activities, which include

- 1) Active sport participation:
 - i. Direct expenditure including membership and entrance fees, training, equipment, apparels, shoes.

- ii. Indirect expenditure including travel costs, socializing costs, medical costs
- 2) Physical education and sport – expenditure related to school settings
- 3) Spectator sport
 - i. Membership and entrance fees
 - ii. Concessions, parking, souvenirs
 - iii. Sports books, magazines, and newspaper
 - iv. Sport merchandise

For this study, the questionnaire consist of demographic profile and sport expenditure profile. The demographic profiling includes origins, gender, household income, ethnicity, age, household size and units.

The household sport expenditures are the sum of three types of expenditures, a) active sport participation, b) spectator sports, and c) physical education and sport (see sport consumption mentioned above for details). The face-to-face interview method was used to gather expenditure information from the selected families to ensure a high response rate.

DATA COLLECTION & ANALYSIS

This section focuses on the data collection exercise as well as the analyses of the data obtained from the research exercise. The research aimed at obtaining and analyzing the data in order to estimate the expenditure for private sport consumption among the Malaysian population for the year 2013.

Questionnaires were distributed through the convenient sampling method to families in states across Malaysia of which, 1575 samples were used for analyses. The samples are generally divided into two main groups based on geographical locations, namely urban and rural groups. The sampling background is presented in Table 3 below:

Item	Unit	Percentage
Origins		
Urban	976	62.0
Rural	599	38.0
Gender		
Male	1123	71.3
Female	452	28.7
Household Income		
RM10,000 and below	51	3.2
RM10,001 to RM20,000	160	10.2
RM20,001 to RM30,000	241	15.3
RM30,001 to RM40,000	363	23.0
RM40,001 to RM50,000	279	17.7
Above RM50,000	481	30.5
Ethnicity		
Malay	1203	76.4
Chinese	161	10.2
Indian	156	9.9
Bumiputera	48	3.0
Others	7	0.4
Age		
30 years and below	564	35.8
31 to 40 years	572	36.3
41 to 50 years	326	20.7
51 and above	113	7.2
Household Size		
1 person	138	8.8
2 persons	194	12.3
3 persons	343	21.8
4 persons	418	26.5
5 persons and more	482	30.6

Table 3. Sampling Demographic

Based on the table, the distribution of samples consist of 976 from the urban areas and 599 coming from the rural areas. In terms of gender 1123 samples are males while 452 of the samples are females.

The household income of the samples shows that 51 respondents are from the RM10,000 and below income bracket, 160 respondents from the RM10,001 to RM20,000 income bracket, 241 from the RM20,001 to RM30,000 income bracket, 363 from the RM30,001 to RM40,000 income

bracket, 279 respondents are from the RM40,001 and RM50,000 and 481 respondents are from the RM50,000 and above household income brackets.

The ethnicity of the respondents are dominated by the Malay with 1203 respondents followed by the Chinese (161) and Indian (156). The Bumiputera respondents in this research is 48 with 7 samples stated that they are categorized as 'Others'.

In terms of the respondents' age, 564 samples claimed that they are from the 30 years and below age group. The 31 to 40 years age group is represented by 572 respondents while 326 samples are from the 41 to 50 years age group. Finally, 113 respondents are from the 51 years and above age group.

In ensuring that the samples would represent the Malaysian population, the samples are derived from the states of Kelantan, Terengganu, Perlis, Kedah, Perak, Selangor, Sabah, Sarawak, Wilayah Persekutuan, Johor, Melaka, Negeri Sembilan, Pulau Pinang and Kedah. The respondents were varied in their employment backgrounds, ranging from labourers to professionals.

ANALYSIS

The estimation of the Malaysian household expenditure for sports products and services utilized the average household expenditure approach. To obtain the average expenditure, the total household expenditure would be divided by the number of persons in that particular household:

Total Household Expenditure on Sport

Total of Household Members

The average expenditure data of every household would be multiplied by the total Malaysian population to obtain the overall expenditure. This calculation will form the basis for the local sport industry based on the private household consumption approach. This method of analysis would also be utilized throughout this section based on the household expenditure trends of points of origins, household income size, ethnicity as well as gender.

Based on the 1575 respondents, the research found that the average expenditure for every member of the household is RM1263.00 annually. From this average, further estimate on how much Malaysian are spending on purchasing the sport products and services could therefore be made. This in turn would give us an idea of the total Malaysian expenditure on sport consumption on an annual basis.

The Malaysian population is currently estimated at 29,915,300 (Department of Statistics, 2013). As such, we estimate that the size of the

Malaysian Sport Industry based on private consumption of the Malaysian household is at **RM37.78 billion**. This figure is based on 29,915,300 multiplied by RM1263.00. The detailed breakdown of sport expenditure of every Malaysian household member is presented in the following Table 4.

Expenditure	Household	Percentage
RM500 and below	598	38.0
RM501 to RM1000	404	25.7
RM1001 to RM1500	194	12.3
RM1501 to RM2000	120	7.6
RM2001 to RM2500	71	4.5
RM2501 to RM3000	67	4.2
RM3001 and above	121	7.7
Total	1575	100

Table 4. Total Household Member Expenditure on Sport Products and Services

Based on the above Table, the distribution of expenditure data showed that 30% of the respondents spent RM500 and below annually on sports product and services. 25.7 percent of the respondents claimed that they spent between RM501 to RM1000 a year for sport products and services. A total of 194 families' state that their sport expenditure for 2013 are between RM1001 to RM1500. Those households with sport expenditure between RM1501 to RM2000 annually involved 120 families or 7.6 percent of the respondents. 71 families spent between RM2001 to RM2500 on sport items while 67 families spent between RM2501 to RM3000 a year on the same. 121 families or 7.7 percent of the research population spent more than RM3000 a year on sport products and services.

The next table looks at the total sport expenditure based on points of origins.

Origins	Total Household	Average Expenditure (RM)
Urban	976	1422.85
Rural	599	1103.15

Table 5. Total Expenditure of Household Members: Origins

The pattern of sport spending is also analyzed against the points of origins of the respondents. Based on the above table, it could be deduced that urban families are spending more on sports compared to their rural counterparts. On average every urban household member spent RM1422.84 annually on sport while the rural household member spent RM1103.15 on the same products and services which amounts to RM319.70 difference between the average spending patterns of both the urban and rural households.

The ethnic factor also comes into play when discussing about sport spending patterns among the Malaysian population. The findings of the analysis based on the ethnic factor are presented in the following Table 6.

Ethnicity	Household	Average Expenditure (RM)
Malay	1203	1341.49
Chinese	161	1336.50
Indian	156	1062.14
Bumiputera	48	1382.08
Others	7	1192.92

Table 6. Total Expenditure of Household Members: Ethnic

The inquiry into Household members expenditure based on ethnicity illustrate that the biggest spender on sport products and services on an

annual basis is the Bumiputera group with an average of RM1382.08 per member followed by the Malays (RM1341.49), the Chinese (RM1336.50), Others (RM1192.92) and the Indians that spent an average of RM1192.92 annually on sport products and services. The findings showed that there is no clear difference on sport spending pattern among the ethnic groups.

The research also looks into the total household expenditure based on household income. The findings of the analysis is presented in Table 7 below:

Household Income	Household	Average Expenditure (RM)
RM10,000 and below	51	566.62
RM10,001 to RM20,000	160	714.35
RM20,001 to RM30,000	241	958.39
RM30,001 to RM40,000	363	1,332.96
RM40,001 to RM50,000	279	1,448.34
RM50,001 and above	481	2,557.17

Table 7. Total Expenditure of Household Members: Household Income

The sport spending pattern of the Malaysian household is analyzed against the household income of the population. The findings showed that for the household with the income of RM10,000 and below, the average expenditure on sport products and services is RM566.62. For the household income group ranging from RM10,001 to RM20,000 the average sport household expenditure is RM714.35, while the household income group between RM20,001 to RM30,000 spent an average of RM958.39 on sport products and services on a yearly basis. For the household income group between RM30,001 and RM40,000 the expenditure figure is RM1332.96 while for the household income group of between RM40,001 to RM50,000, the average spending figure is RM1448.34. Finally, the household with income group of RM50,000 and above illustrate that the sport expenditure figure is RM2557.17 a year. The findings show there is a pattern of sport spending

that is defined by the household income group. It could be deduced that the higher the household income bracket, the more the household member spent on sport product and services.

The total household expenditure is also analyzed against the gender factor. The findings showed that men spent on average of RM1369.35 a year on sport products and services compared to women who spent an average of RM1156.65. We could deduce that men spent more compared to women on sport products and services. This is presented in Table 8 below.

Gender	Household	Average Expenditure (RM)
Male	1123	1369.35
Female	452	1156.65

Table 8. Total Expenditure of Household Members: Gender

In this research, sport private consumption is categorized into 10 main areas, namely:

1. Sport appliances, household equipment and other selected items
2. Sport, recreation and exercise equipment
3. Household sport-related item repairs and service contracts
4. Sport-related home furnishings and related household items
5. Sport Clothing and clothing services
6. Rented, leased and owned sports-related vehicles
7. Sport medical and health expenditures
8. Sport educational expenses
9. Sport subscriptions, memberships, books and entertainment expenses
10. Sport vacations.

The findings of the analysis is presented in the following Table 9.

No.	Sports Related Activities	Average Expenditure (RM)	Percentage
1.	Sport appliances, household equipment and other selected items	121.03	9.58
2.	Sport, recreation and exercise equipment	362.10	28.66
3.	Household sport-related item repairs and service contracts	54.43	4.30
4.	Sport-related home furnishings and related household items	11.87	0.93
5.	Sport Clothing and clothing services	215.97	17.09
6.	Rented, leased and owned sports-related vehicles	43.06	3.40
7.	Sport medical and health expenditures	85.25	6.94
8.	Sport educational expenses	24.50	1.93
9.	Sport subscriptions, memberships, books and entertainment expenses	185.53	14.46
10.	Sport vacations	159.36	12.61
	TOTAL	1263	100

Table 9. Total and Categories of Sport Expenditure

Based on Table 8, the average expenditure on sport appliances, household equipment and other selected items is RM121.03. In this category electrical equipment such as video games devices, software and accessories are included. On average, Malaysian household spend RM362.10 on sport, recreation and exercise equipment. This category includes sport equipment

such as football shoes, football balls, treadmills, stationary bikes, camping equipment and others. For the category of household sport-related item repairs and service contracts, the average spending figure of the Malaysian household is RM54.43 annually. Malaysians spent RM11.87 a year on sport-related home furnishings and related household items. For sport clothing and clothing services, the average amount spent is RM215.97. For rented, leased and owned sports-related vehicles, the average figure is RM43.06. Malaysians also spent an average of RM85.25 on sport medical and health expenditures. In this category, sport medical services such as treatment of sport-related injury, chiropractor and orthopedic services are also included. Sport educational expenses category listed sport-related instructions and lessons such as martial arts classes, golf lessons, swimming classes and others. In this category, the average Malaysian spent RM24.50. For sport subscriptions, memberships, books and entertainment expenses such as football match tickets, golf club memberships, Malaysians spent an average of RM185.53 a year. Malaysians also go on sports vacations which averages at RM159.26 annually. Based on the table, the category of sport related activities with the highest amount of money spent on by Malaysians is the sport, recreation and exercise equipment with 29% of total average expenditure. In contrast the category with the lowest amount of money spent on is the sport-related home furnishings and related household category which is less than 1% of the total average expenditure. This category includes furniture such as pool table and dart board.

SUMMARY AND CONCLUSION

The government through the Ministry of Youth and Sport, Malaysia had been heavily involved in investing in sport development programs. Further testament of the seriousness of the public sector in developing local sport industry is the declaration of the National Sport Industry Year in 2011/2012 by the former Minister of Youth and Sport, Datuk Seri Ahmad Shabery Cheek and other corresponding initiatives, most notably the five-year ministerial Strategic Plan that targets the development of local sport which places the development of the local sport industry as a national revenue generating sector as a strategic core. The Former Minister also announces that in 2009 alone, the sports industry contributed some RM30.2 billion to the National Gross Domestic Product (GDP) (Shabeery Cheek, 2009). The former Minister was also optimistic on the possibility of the local sport industry contributing to the transformation agenda of the nation as envisioned by the Prime Minister Dato' Seri Mohd. Najib Tun Abdul Razak.

In this research, it is estimated that the size of the Malaysian Sport Industry based on private consumption of the Malaysian household approach is at RM37.78 billion for the year 2013. This is an estimation that must be extended further in terms of research and policy promulgation. More research must be commissioned to fully understand the local sport industry phenomenon and it is fundamental, as the local sport industry has the prospect of yielding massive amount of money. What is clear is that the local sport industry continues to be very productive and there is a vast area of untapped market to be taken advantage of by the Malaysian population. What is needed is a more well-defined policy from the policy-makers on how the country could benefit from the flourishing local sport industry. This covers all aspect of the Malaysian sporting life, from the grass-root sport to

the elite sport programs, from voluntary to commercial companies to the major sport stakeholder, the Ministry of Youth and Sport itself.

RECOMMENDATIONS

Malaysia has many positive factors that would be our competitive edge against our competitors in the race to become the regional sport hub. The idea for Malaysia as a sport hub was propounded by the past Ministry of Youth and Sport as early as in the late 1990s. Malaysia's involvement in high-profile sport mega-events was showcased in 1998 through the hosting of the 16th Commonwealth Games. Other annual mega-sport events that position the country in the world's sporting map is the Sepang F1 Grand Prix, Le Tour de Langkawi, the Monsoon Cup and many others.

Malaysia had successfully retained and increased existing and new sponsors for sports, from the grassroots right up to the elite sport levels. The development of the local sport industry is vital in positioning the country as the hub for sports from the performance, economics and socio-political aspects. As such, there is a need to devise a strategic plan to develop local sport industry. Among the key areas to be considered for further development are sport manufacturing, sport services and sport entertainment. These secondary infrastructures such as the manufacturing of sport equipment and construction facilities and theme parks and organization of mega-events will catalyze the value of the sport industry in fiscal terms as well as generate and inculcate sporting culture and traditions among the masses. Having a homegrown revenue-generating sport products and services not only would lessen our dependency on imported sport products and services, but also increase our ability to export, which in turn would increase the value of the local sport industry.

Another avenue in which local sport industry could benefit from is the regional cooperation among the international sport fraternity. Smart-partnership programs that would allow transfer of technologies among member countries

would ensure that our local needs (local consumption) as well as sport consumer-visitors (foreign and export-based) to the country. This is also the best way to understand regional sport industrial growth and would inform us on the factors that would benefit us in repositioning ourselves. In all these efforts, research and development play a crucial role in turning Malaysia to be the key player as well as hub for international sport.

As a developing nation, Malaysia surpassed its contemporaries in terms of organizing mega-sport events. In the academic sector, Malaysia is one of the first countries in Asia to offer the sport management academic program at the baccalaureate level in 1995 to prepare future managers of the industry. Malaysia's National Sport Policy is promulgated earlier than the conscious effort to structure the administration of Australian national sport initiatives. The ball has been set to roll for the Malaysian sport industry. All the moneys have been spent to organize all the sport events. Now is the time to discover, whether the investments made by us is yielding the profit we expected. Once that is done, Malaysia would know the value of the industry and would be able to strategies further to continue the tradition of sporting excellence and ultimately reposition herself to be the sport powerhouse in this region and the world. Nothing is Impossible. 1Malaysia BOLEH!

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