

Preview of the Future Development of the Global Sporting Goods Industry and Its Relationship with American Sports Participation

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1. Preface

First, this study probes the Americans' sports behavior so as to understand the changes of sports participation and of sports participating rate. Moreover, also this is an overview about the inactive rate and it points out the preferred sports of the inactive Americans from different generations, at different ages and different regions. In the meantime, the study also gives a changing picture of the Americans' top 10 sports over the past six years. Then, by checking their sports consumption, there is an analysis of Americans' sports behaviors and how their influence upon the demands and consumption of the sporting goods. Further, by looking at the different sports participation structure, the future development of the American sporting goods industry will be predicted. In the meantime, based on a survey done by Sports Affairs Council, Executive Yuan under Taiwan's government over the past six years in the promoting-sports cities in Taiwan, this study also presents a comparison. Furthermore, in order to make comparative analysis, the interviewees of this above-mentioned yearly survey are

selected. They are the people living in the northern, central, southern and eastern parts of Taiwan. In all, more than 35,000 Taiwanese interviewees received a phone interview. As a result, the accuracy of this study's results is very high and the deviation is lower than 0.5%. At last, a final overview shows the influences of European and American people upon the global sporting goods industry and investigates the future development of the global fitness and outdoor sports industries.

2. Americans' Participations in Sports

Americans usually like to do exercises. Their participation in sports shall be on the top of the world. Therefore, the sports participation is quite high. 80% of the Americans who are older than 6 years old take part in sports. However, according to 2012 Sports, Fitness and Leisure Activities Topline Participation Report published by SGMA (Sporting Goods Manufacturers Association), in 2011, there were 217 million Americans, older than 6 years old, doing sports. The sports participation rate was only 76.4%.

And inactive Americans were 68.2 million, 23.9% of the American population. Compared with 2010, inactive populations increased 0.6%. Compared with the inactive populations in 2007, 59.4 million Americans (21.5%), over the 4 years, the inactive populations increased 2.4%. If compared with Taiwan's inactive population rate in 2011, 19.2%, the inactive population rate of America was 4.7% higher than that of Taiwan. From Figure 1, it clearly indicates in 2007 Taiwan's inactive population was 1% higher than America's; however, from 2008 onwards, the sports trend was slowly going downward.

From the perspective of different ages, the inactive American population between 6 to 17 years old is 16% of the whole nation. But the inactive population rate is 28%; 35% of Americans over 65 years old do not do exercises. The aged inactive population was 2% more than that in 2007. Thus, that was the main reason why the inactive American population rate went up. Figure 2 is the comparison figure between inactive Taiwanese and inactive Americans at different ages in 2011. The most common thing in these two countries is that the inactive rates of the people between 35 to 44 years old are very close to each other. However, as to the inactive young and inactive old people in Taiwan and in America, the rates are going opposite. This phenomenon and the reasons behind are quite interesting. This requires further investigation and analysis.



Figure 1: Inactive population rate (%) of Taiwan and America from 2007 to 2011
(The above figure is made by Dr. Lin, Fang-Tsan, 2012)

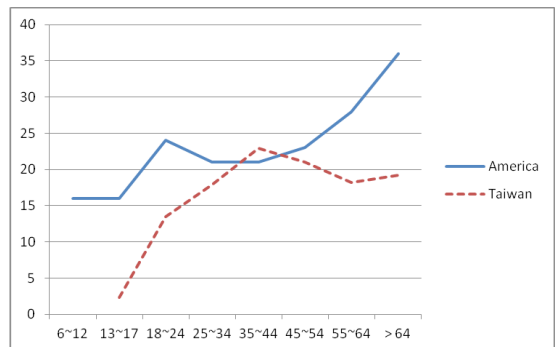


Figure 2: The Inactive Population Rate (%) of Taiwanese and Americans at Different Ages
(This above figure is made by Dr. Lin, Fang-Tsan, 2012)

Viewing the different regions in America, the eastern inactive population rate is higher than the western and the central sports participation rate is higher than the southern. The first 6 most sportive states in America are Utah, Idaho, New Hampshire, Colorado, Minnesota and Virginia States. In Utah, 61.7% of the residents take part in one kind of sports fifty times a year at least. And the first 2 least-sportive states whose inactive population rate is above 30% are Mississippi and West Virginia. The last least-sportive Mississippi State has 32% of the residents never participate in any sport. The relevant information is detailed in 2012 Sports, Fitness and Leisure Activities Topline Participation Report published by SGMA (Sporting Goods Manufacturers Association).

From the perspective of loving doing sports to look at the different generations, there are distinct favorite sports from one generation to another. Compared with people from the X Generation or Baby Boom Generation, people of the Y Generation, or so-called the Millennial Generation, are the most talented and leading people in sports. In terms of team sports, more than 30 million people are participating; as to the team-sport participation from the X Generation and Baby Boom Generation is only one third or one sixth of the sport participation of the Y Generation. Three generations are very different from each other. Baby Boomers love fitness and outdoor sports more than the people from the X Generation. However, for all generations, fitness and outdoor sports are the most favorite kinds of sports. The total participation of fitness and outdoor sports is high up to 238 million people; 60% of the people take part in fitness. And some of them take part in both fitness and outdoor sports. Thus, the total participation of these two sports overtakes the whole sports participation, 217 million people. And the participating in both fitness and outdoor sports is mainly from the X Generation. And the fitness-and-outdoor sports participation is at least above 20 million people.

The American sports participation, across the above-mentioned three generations; that is, the people from 18 to 68 years old, maintain a stable rate from 60% to 70% of the whole participation. They do not evidently reduce their participation in fitness sports after growing with age. In opposite, the aging sports participation is on the rise. However, the outdoor-

sports participation rate with increasing ages remarkably drops from 60% to 30% around; in other words, the outdoor-sports participation from Baby Boom Generation is only one second of the sports participation from the Y Generation. Besides, based on the changes of the top 10 popular sports, fitness has been the most fashionable sports in the recent years. In 2005, only 50% of the top 10 sports were related to fitness. In 2011, 70% of them were fitness-related. Comparatively, the fitness participation grew 20% more. Among the fitness sports, speed walking jumped to No. 1 from the 8th popular sport. The speed-walking participation increased 760,000 people, triple the original sport participation. Cycling also jumped from the 2th to the 6th popular sport. The increasing cycling participation was 150,000 people, at least 2.5 times the original cycling participation. Weight lifting (strength endurance equipment) and arm muscle training (dumbbell) also squeezed into the top 10 sports; the participation of these two sports increased 200,000 people, 1.5 times the original sport participation, shown in Table 1. In fact, according to the survey of SGMA, early in 2008, the most five popular sports, including yoga, Pilates, speed walking, hockey, jogging and weight training, fitness had gradually become popular. In addition, National Sporting Goods Association also indicates in 2011 there were 97.1 million Americans take part in speed walking. It was the most popular sport activity. Moreover, 55.5 million Americans also used fitness equipment to do sports; as to swimming, there were 45 million people; camping, 42.8 million; gymnastics, 42 million; cycling, also 39.1 million and hiking, 39.1 million people.



Table 1 the comparison list of Americans' most 10 favourite sports in 2005 and 2011.

2005			2011		
Ranking	Sport Category	Participation Unit: million	Ranking	Sport Category	Participation Unit: million
1	Bowling	53.5	1	Walking	112.7
2	Treadmill	48.0	2	Bowling	53.9
3	Stretching	42.3	3	Treadmill	53.3
4	River Fishing	42.1	4	Running / Jogging	50.1
5	Camping	38.6	5	Wrestling	46.9
6	Running / Jogging	37.8	6	Cycling	39.8
7	Hiking	36.6	7	Weight Lifting / Strength Endurance Equipment	39.5
8	Walking	36.3	8	River Fishing	38.9
9	Pulling	35.2	9	Pulling	36.8
10	Basketball	32.0	10	Arm Muscle Training (Dumbbell)	36.5

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As to the approaches to attract the inactive people to take part in sports, there are extreme differences of favorite sports of these inactive people at different ages. For those between 6 and 12 years old and those between 45 and 54 years old, they prefer swimming; for those between 54 and 64, they like to participate in cycling; as to other different ages, they all like weight lifting sport. Running and jogging are also the kinds of sports which inactive population would like to try. Curiously, the popular sports like fitness and outdoor sports are not the major favorite sports for inactive people. One of the possible reasons is that they recognize the sports differently and besides, they lack of experience of doing sports. Thus, they have such different choices from those of the sports participation.

3. Analysis on the Relationship between Americans' Sports Behavior and Sporting Goods Consumption

By analyzing the relationship between Americans' sports behavior and their consumption on sporting goods, we find that 54.4% of all Americans sport participation buy sport shoes; 51.6% of them buy sports apparel; 47.7% of the people buy sports equipment; 45.8% of the people pay for their participation in the outdoor sports; 33.3% join sports-oriented journeys; 30% pay for the gymnastics' membership; 20% pay for the lessons of exercise and

only 10% of the people pay for the golf and tennis membership. From the above-mentioned figures, it is easy to see that sporting goods, including sports equipment, sports apparel, and athletic footwear are the major consumption for sports participation. When the sports participation rate is getting higher, the sports demands and consumption are also rising. Therefore, apart from the changes of the global economic environments, people's sports participation, sports popularity, sports consumption and the manufacturing, wholesale and retail of sporting goods are closely related.

Next, as to wholesale and retail of the sporting goods, European and American markets are the major markets. And the American market is the first important market globally and the next ones are Germany and Japan. SGMA has classified the sporting goods into Sports Equipment, Sports Apparel, and Athletic Footwear. Early in 2000, the total wholesale value of American sporting goods already reached 46 billion US dollars. In 2007, the wholesale market size of America was 74.7 billion US dollars. Compare with 2000, it grew 62%; compared with 2006, it grew 43%. The growth rate was higher than that of non-durable goods. In 2007, the wholesale of sports apparel grew 2.4%; the output value was 29.5 billion US dollars. From 2000 onwards, sports apparel had grown 35.3%. As to athletic footwear, the wholesale shipment grew 5.1%. Overall, the wholesale value of the sporting goods, it reached 77.3 billion US dollars in 2008. In 2009, because of the financial tsunami and decreasing sports participation, the wholesale value was only 71.8 US dollars. The output suddenly dropped 7%. Looking at Picture 3, in 2010, the output came back to 74.2 billion US dollars. In 2011, it created a high record of 77.3 billion US dollars. Undoubtedly the growth of the American sports goods has had a close relationship with its economic growth rates: -3.5% in 2009 and + 3% in 2010. Please take a look at Figure 4.

Furthermore, when we look at the retail of the American sporting goods, in 2007, it already reached 40 billion US dollars: martial equipment, 12.1 %; tennis equipment, 6.5% and boxing equipment, 5.0%. Based on the Northern American Industry Classification System (NAICS), the sporting goods retail is classified as No. 451 which contains sporting goods, entertainment, books and music stores.

And the classification number of the sporting goods store is 45111. The total sales of sporting goods, entertainment, books and music store (briefed as NAICS 451) in 1998 was 68.968 billion US dollars; in 2006, it grew high up to 84.772 billion US dollars. Within 8 years, the growth rate was 22.9%. The sporting goods stores (briefed as NAICS 45111) grew from 22.408 billion in 1998 to 34.289 billion US dollars. In 8 years, it growth rate was 53%. The output of NAICS in 2006

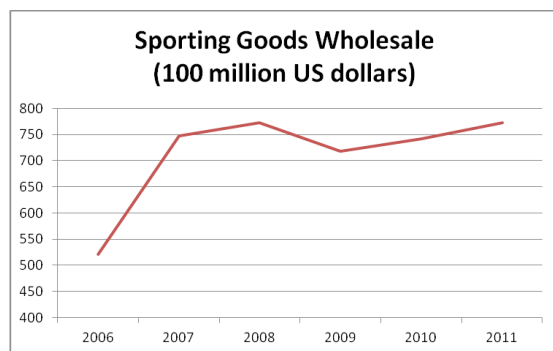


Figure 3: Goods Wholesale Market Size in America from 2006 to 2011
(This Figure is made by Dr. Lin, Fang-Tsan, 2012)

was 1.5 times the output in 1998. In 2009 the retail sales of the sporting goods was 39 billion US dollars. In 2012, it will reach 41.5 billion US dollars. Though the growth is not too much, it proves that the sports growth has something to do with Americans' average yearly consumption at sports retail stores. Also it is related to the total economic growth rate of America. Please look at Figure 4 and you will see the development trends are almost the same.

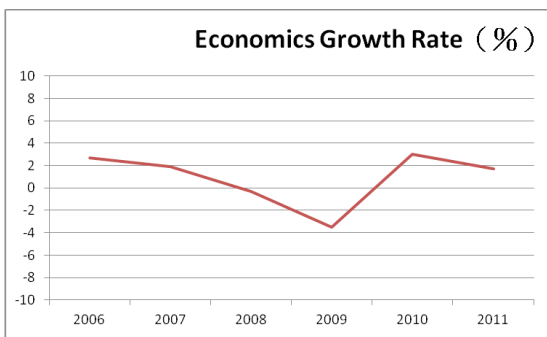


Figure 4: 2006–2011 America's economic growth rate
(This Figure is made by Dr. Lin, Fang-Tsan, 2012)

From 1998 to 2006, the rate of NAICS 45111 in NAICS 451 was getting higher and higher. In another word, the sporting goods sales growth was higher than entertainment, books and music sales. In Plunkett's statistics research, it indicates that in America, every person averagely spends 225 dollars on NAICS 451 every year. In 2006, it increased to 284 dollars. As calculated, in 1988 every person spent 81.6 dollars yearly at sports retail stores. Despite in 2002, it went down slightly. In the following years, the yearly sports consumption stably increased. In 2005, every person spent 100 dollars at sports retail stores. In 2006, every person spent 10 dollars more, which was 114.7 dollars. In 2009, it dropped to 100 dollars around. In 2012, as expected, it will go back to above 110-dollar sports consumption.

4. Influences of Fitness and Outdoor Sports upon the Global Sporting Goods Industry

In 2011, the global market size was more than 300 billion US dollars. Based on Global Sports Estimate Report 2011 published by NPD Group, Inc., the total sales of global sporting goods which include sports equipment and bicycles, sports apparel, athletic footwear, etc. increased 4%, which was 315 billion dollars. NPD statistics also clearly shows that the growth rates of the global sporting goods from 2006 to 2010 were respectively 4%, 4%, 0%, -2%, and 4%. Obviously in 2010 the sales went upward again. Interestingly, the growth rates of the global sporting goods from 2006 to 2010 were identical with the America's economic growth rates. However, the growth of the global sporting goods took the lead a year ahead as an indicator of America's economy. Please take a look at Figure 4 and 5. Evidently, the America's economy has a strong connection with the global sporting goods industry.

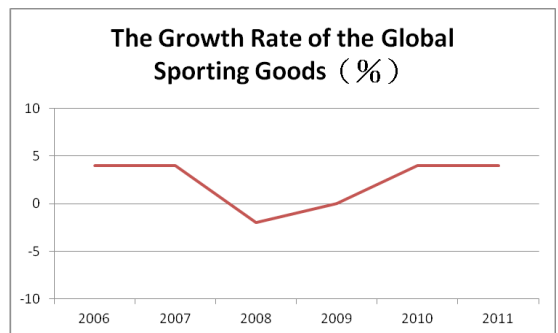


Figure 5: The growth rates of the global sporting goods from 2006 to 2010
(This Figure is made by Dr. Lin, Fang-Tsan, 2012)

The analysis in Global Sports Estimate Report 2011 makes clearly the point that in 2010 the growth rate of the global sporting goods mainly comes from the products of running, hiking and football, etc. The total sales of athletic footwear



and bicycle are far more than sports apparel and sports equipment. Meanwhile, 2010 South Africa FIFA World Cup effectively boosted the growth of the related brands. In 2010, the market size of 7 countries is more than 10 billion dollars; sorting by market size: America, Japan, Germany, China, France, United Kingdom, and Italy. And there were 11 countries with 3 to 10 billion dollars market size in 2010. Obviously, in 2010 the global sporting goods market was out of the global recession. Overall, in the global sporting goods market, only Japan and Spain in 2010 the sales declined. When the sales of the global sporting goods markets goes up, sporting goods companies in many countries are benefited. For example, Adidas, as one of the official top 10 sponsors of 2012 London Olympic Games, created a historic record of stock value, 60 Euros, in February of 2012 with the market value of 16.3 billion US dollars. As indicated by Thomson Reuters' index, Adidas' stock over the past year grows 30%. Its performance is far better than German DAX Index, 0.53%. In addition, Nike as the leading sports brands also created a high stock value in March of 2012, 112 dollars with 49.2 billion dollars which is more than HP's 46.6 billion dollars. Over the past year Nike's stock value rises above 41%, also higher than S&P 500 Index, 7.28%.

America is usually the largest sporting goods market globally. Though it was severely affected by 2008 Financial Tsunami, the sporting goods wholesale and retail still maintain considerable growth and continue to

lead the worldly sports and leisure trends. National Sporting Goods Association (NSGA) in its research also finds that Americans keep developing and change their sports and leisure activities. In 2011, rafting active population and participation rapidly increased. Compared with 2010, it increased 26.6%. So did field skiing; it grew 11.5%; wrestling, 9.4%; gymnastics, 8.9%; walking and jogging grew 8.9%. What's worth paying

attention is that these quick-growing sport categories do not require expensive sports equipment or high membership fees. Though the spending for rafting is a little expensive, comparatively it is cheaper than other sports equipment. Nevertheless, the researches of NSGA and of SGMA are very distinct. NSGA counts sports participation to take part in the sport at least once a year; SGMA requires twice a year. Thus their sports participation is different from each other.

In the recent years, in America the number of people participating in yoga and cardio body sculpt such as Zumba, a gymnastic dancing and other fitness sports has been skyrocketing. The number of tennis participation also continues growing; in 2010, tennis participation rate already reached above 7.0%. Tennis comparatively is a low-cost individual sport. And it is much economical to get into the tennis courts than into the golf field. Nowadays, facing the rising gasoline and low

economy, we know yoga, cardio body sculpt and tennis are easily promoted and accepted by the public. In analyzing the future directions of the American sporting goods industry, due to the enthusiasm of the X Generation and the Baby Boom Generation enthusiastic in doing fitness, we know that the Baby Boomers are gradually aging; thus, the fitness participation rate of the middle-aged and the elderly people, the fitness club members and the fitness equipment use rate continuously increase. Nowadays, the global sporting goods manufacturers unceasing develop fitness equipment and new-styled sports accessories. The new development has made significant contribution to enhance Americans to participate in fitness sports. Apart from treadmill, bicycle and other new sports equipment, low-cost fitness sports are widely promoted, such as yoga, gymnastic dancing, etc. In the future, the related low-cost fitness equipment will be more favored by the public. Besides, according to the survey done by SGMA in 2012, around 10% of Americans are willing to spend more money than that of 2011 to buy good quality sports equipment, sports apparel and athletic footwear. These products will create great potential markets.

In terms of the European fitness markets, based on the market research of 2012 provided by the World Federation of the Sporting Goods Industry (WFSGI), it indicates that the European markets of fitness equipment grow steadily. Its growth has been in the similar direction with the global sporting goods industry whose growth rate is higher than the global economic growth rate. Therefore, it shows that European sports participation is also increasing as much as the increasing number of the global sporting goods consumers. The European sporting goods markets averagely reach 70 billion US dollars every year. Its market size is also close to the output of the American sporting goods wholesale market, one fifth of the global market. Among the European countries, Germany is the largest fitness equipment market. German consumers are in pursuit of body fitness. According to the German sports magazines, the number of fitness club members is on the rise year by year. Next, UK and Italy are the second largest fitness equipment markets. In the UK's fitness equipment market, the consumers mainly like to keep healthy and its market sales do not decline because of the aging demographic structure. In the contrary, there are signals of growth. Thus, the fitness sports for the elderly people in the UK are also a potential market. In face of the changing behaviors of sports consumers, the European fitness operators tend to provide the latest equipment to the sports members. Accordingly, the product circle of fitness equipment slowly becomes shorter. Reasonably, in the coming years, the demands of fitness equipment in the European markets will continuously and stably grow.

Looking back at the Asian fitness markets, fitness sports develop very well in Japan. Therefore, Japanese people create large demands of sports goods. Its market size speedily expands; its value is only next to America. Especially Japan's sporting goods are very competitive and have great potential. For instance, the European and American markets of baseball products and golf equipment are almost monopolized by Japanese sporting goods companies. Japan's home-use fitness equipment is focus on middle age and the elderly people. Their fitness equipment targets on the people who want to keep in a good shape and maintain healthy. Thus its fitness equipment market will not decrease with the aging demographic structure. Treadmills, climbing apparatus and massage chairs are extremely popular in Japan.

5. Conclusions

Americans sports culture is the world's champion. The sport popularity is extremely high. Though in 2011 the Americans sports participation only achieves 76.4%, US economy and the globally sporting goods market both have remarkable growth. Particularly, the total number of people who take part in fitness and outdoor sports overtakes the other sports participation. Overall, after analyzing the European, American and Asian sports behavior and consumption, this study suggests that for the future of the sporting goods industry, it could develop towards body-sculpt fitness equipment of the middle-aged people and the fitness equipment designed for the elderly people who like to keep healthy. Because people put more and more attention on health year after year, they participate in fitness sports with the growing ages more than before. Accordingly, the global fitness sports participation

also gradually increases. However, human organs start to age while growing old; the skin surface starts to age after 29 years old; muscles start to weaken after 30s; the strength of tendon, ligament and collagen tissues starts to weaken after 40s and bone strength declines after 50s. Therefore, as to the fitness sports for the middle-aged and the elderly people, they shall be especially designed with exercises approaches and strength so as to keep from muscle or bone injuries. In consideration of the sports demands of the middle-aged and the elderly people, the fitness equipment shall be developed together with the concepts of sports medicine. By applying proper sports methods, the fitness equipment could be designed with low sports strength to keep a good figure or release pressure, or develop the fitness equipment with high value to nourish people's health!

6. References

1. Lin, Fang-Tsan (2010). The Analysis on the Output of the American Sporting Goods Industry and Its Industrial Development Strategies and Policies, Seminar on the Output of the Sporting Goods Industry at Different Nations and Tax Incentives, Sports Affairs Council, Executive Yuan.
2. Sports Affairs Council, Executive Yuan (2011). 2011 Investigation Report of Sports Cities in Taiwan.
3. Sports Affairs Council, Executive Yuan (2010). 2010 Investigation Report of Sports Cities in Taiwan.
4. Sports Affairs Council, Executive Yuan (2009). 2009 Investigation Report of Sports Cities in Taiwan.
5. Sports Affairs Council, Executive Yuan (2008). 2008 Investigation Report of Sports Cities in Taiwan.
6. Sports Affairs Council, Executive Yuan (2007). 2007 Investigation Report of Sports Cities in Taiwan.
7. Jack W. Plunkett (2012). Plunkett's Sports Industry Almanac 2010: Sports Industry Market Research, Statistics, Trends & Leading Companies, Plunkett Research, Ltd. Houston, Texas. ISBN: 978-1-59392-174-3.
8. Jack W. Plunkett (2010). Plunkett's Sports Industry Almanac 2010: Sports Industry Market Research, Statistics, Trends & Leading Companies, Plunkett Research, Ltd. Houston, Texas. ISBN: 978-1-59392-174-3.
9. Jack W. Plunkett (2009). Plunkett's Sports Industry Almanac 2009: Sports Industry Market Research, Statistics, Trends & Leading Companies, Plunkett Research, Ltd. Houston, Texas.
10. Jack W. Plunkett (2008). Plunkett's Sports Industry Almanac 2008: Sports Industry Market Research, Statistics, Trends & Leading Companies, Plunkett Research, Ltd. Houston, Texas.
11. Jack W. Plunkett (2007). Plunkett's Sports Industry Almanac 2007: Sports Industry Market Research, Statistics, Trends & Leading Companies, Plunkett Research, Ltd. Houston, Texas.
12. Sporting Goods Manufacturers Association (2012). 2012 Sports, Fitness and Leisure Activities Topline Participation Report.
13. NPD Group, Inc. (2011). Global Sports Estimate Report 2011.