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The Business of Bicycles: The Adoption of the Bicycle in Madrid, Spain

Erin Hallahan
Fall 2013

ABSTRACT

The use of bicycles around Europe has long since been a trend and a tradition. However, some cities have become more bicycle-friendly than others. Madrid, Spain has, in the past, been known to have almost no existence of bicycles, and essentially been a city in which vehicles dominate the roads. The recent economic crisis has seen a boom in the bicycle industry in Spain and in Madrid specifically, and the use of bicycles for transportation is on the rise. A market analysis has shown that the opportunities and strengths of a potential bicycle business outweigh the weaknesses and threats. There is market space and a target group for bicycle businesses in Madrid and the industry is only growing. Madrid, Spain is now in the process of adopting the bicycle for use of transportation and bicycle shops will soon be in abundance if those who are capable of it take advantage of the new and growing market.

INTRODUCTION

The recent effects of the economic crisis around Europe and specifically in Spain have been negatively felt by many companies, industries and sectors. However, the bicycle industry in Spain has felt the impact in a more positive light. Recent increasing trends in the use of bicycles in Madrid, Spain have led to new market opportunities and target groups. Madrid is now learning and taking after more bicycle friendly European cities and slowly adopting the bicycle as a form of transportation. This paper will analyze the bicycle industry in Europe, and the current and future trends in bicycle use, infrastructure and advocacy in Madrid, Spain. A market analysis will show the need and attractiveness of the business for bicycles in the city of Madrid and present information on the potential and likely adoption of the bicycle business and use of bicycles.

BICYCLES IN EUROPE

Bicycle Use

Bicycles have long been an efficient, cheap, and sustainable form of transportation. Humans have utilized the bicycle as far back as 1817 when Baron von Drais invented a “walking machine” to help him get around the Royal Gardens quicker (Pedaling History Bicycle Museum, 2013). The evolution of the bicycle has come a long way and blossomed into a major market and way of life for some people and cities.

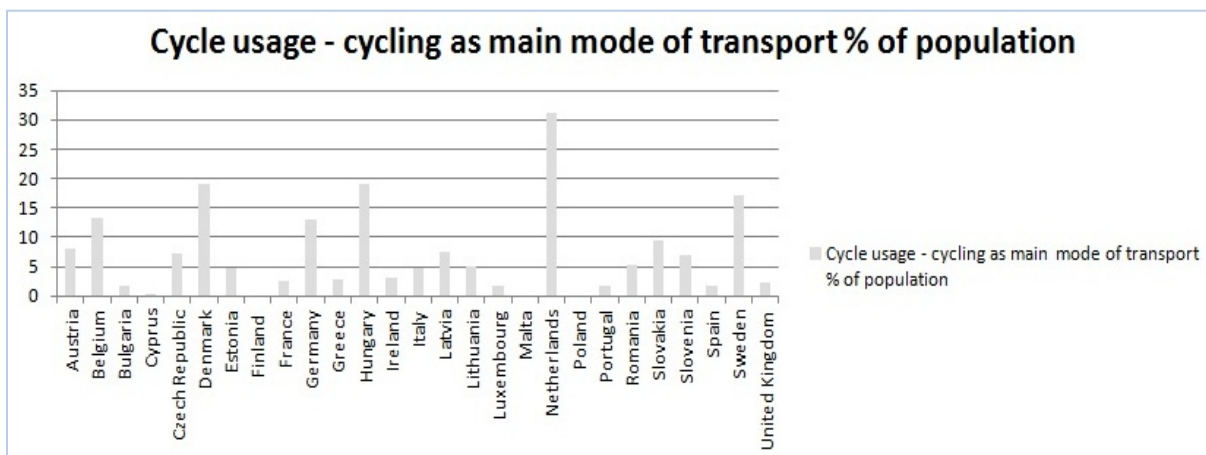
From a North American perspective, Europe is generally known to be home to many bicycles and bicycle riders. There are indeed specific cities where the riding of bicycles is more prominent than others, such as Amsterdam in The Netherlands or Copenhagen in Denmark, but generally we associate bicycles with Europe as a whole. Many European cities consider bicycles a way of life, and in general, a part of their culture. And those cities where bicycling for transportation is less prominent, are learning from their neighbors and slowly adopting more of the cycling culture. In 2000, in 15 European countries, there were 200 million bikes and only 160 million cars for 374 million inhabitants (EESC, 2013). There has also been a recent trend in “unfriendly bicycling cities” moving

towards a friendlier infrastructure for the use of bicycles. The European Economic and Social Committee found that improving cycling infrastructure could increase cycling levels in a very short amount of time (2013). This can be seen in North American cities as well, who are learning from Europe and beginning to see a rising trend in improved cycling infrastructure and the amount of bicycles ridden in their cities as well. Where did Fig 2 go to?

In most countries around Europe, a very high proportion of people own bicycles. For instance, in Norway 70% of adults own a bicycle, and in Switzerland 69% of households own a bicycle. The biggest difference between the uses of bicycles in different European cities is how the bicycle is used, whether it is for transportation or for leisurely occasional use. The average trip length for those on a bicycle is about three kilometers in most European cities (European Commission, 2013). Europeans are putting large importance on the use of the bicycle and 83% agree that bicycles and public transportation should receive preferential treatment over private cars (European Commission, 1999).

The prominence of bicycles in Europe varies greatly among cities. Infrastructure, perception of safety, social acceptance, politics, advocacy and bike culture are a few of the main reasons that bikes may or may not be of presence in any one European city. Business Insider ranked cities around the world on how bike-friendly they are based on those criteria. 16 out of 20 of the most bike-friendly cities in the world are within the European Union. Amsterdam, Netherlands ranked first overall for the most bike-friendly city, followed closely by Copenhagen, Denmark, Utrecht, Netherlands, and Seville, Spain (Business Insider, 2013). Although closely ranked on the ease of which bicycles can be used in these particular cities, how much these bikes are used exactly can vary greatly. So although Amsterdam and Utrecht, both in the Netherlands are ranked first and third, and Seville in Spain is ranked fourth, the average Dutch person bikes 2.3 kilometers a day in comparison to only 0.1 kilometers a day by Spaniards (EESC, 2013). This can be easily seen in Figure 1.

**Figure 1. Cycle usage as main mode of transport
(European Cyclists Federation, 2013)**



Bicycle Share Programs

A bicycle share program is a “self-service, one-way-capable, bike rental offer in a public place” (European Cyclist’s Federation, 2013). Bike share is a worldwide rising trend that started with only a few in 2001, and by 2012, there were 400 running bike-share programs around the world. The main trigger for this was the very successful Velib in Paris and Bicing in Barcelona (European Cyclist’s Federation, 2013). Having been in both of these cities myself, I can speak to the ease and convenience of these bike-shares as directly attributed to their success. One can walk up to any bike station, enter in a credit card and unlock a bike to rent and ride where they wish, all

within minutes. In Barcelona, there are 6,000 bicycles at 420 bike stations and 120,000 long-term subscribers. In comparison, Paris has over 20,000 bicycles at 1,800 bike stations with 150 million rentals since July 2007. The success of bicycle shares around Europe, and the world, can be attributed to their 24/7 availability, that they are tailored to each individual city, that it is a sustainable form of transportation and it is inexpensive, at only €1.70 for a 24 hour ticket.

Again, the evolution of the use of the bicycle has become easier, which is a key factor in the rising trend of bicycles in European cities. Bike shares have created a way to make already the most convenient form of efficient transportation, that much more convenient. As seen by Figure 2, there are numerous programs already in place around Europe (seen by the green bicycle symbol) and many more are in planning or have construction underway (seen by the blue question mark symbol). The popularity of bicycle share programs are spreading and only increasing each year. Although some already exists, there is now pressure on public transportation systems to provide ways in which customers can take their bicycles onto buses, trains and trams with them. The many advantages to the growing number of bikes will be discussed further on.

Figure 2. The bike-sharing world map (European Section) (The Bike Sharing World Map, 2013)



Bicycle Expenditure and Production

A useful way to visualize the growing trend in the use of bicycles is to note the production and expenditure trends. Figure 3 shows the upward and increasing amount of production of bicycles in the World between 1950 and 2000. Bicycle production grew from about 10 million to roughly 100 million in 50 years, in comparison to car production, which only grew from about 8 million to 40 million in 50 years.

Figure 4 shows graphically the European bicycle sales from the year 2000 to the year 2011. It shows a generally increasing trend until the year 2008 and 2009. This could be explained by the financial crisis that hit the United States, and ultimately affected many parts of the world during those years. After 2009 however, bicycle sales in Europe saw yet another increase. Today, in some countries, bicycle sales are surpassing car sales by a vast amount.

Figure 3. World bicycle and automobile production, 1950-2000 (Coliped, 2012)

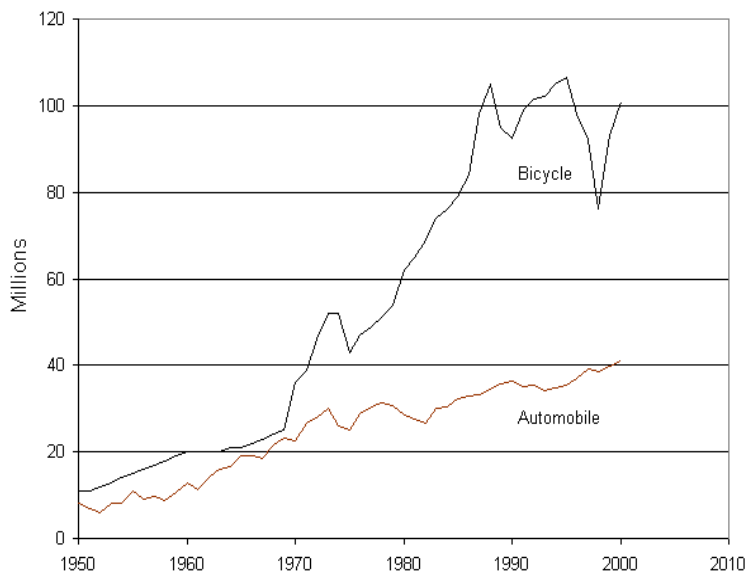


Figure 5 shows the percentage of bicycle sales in 2011 in Europe, by percentage of each individual country. The largest of sales happened in Germany, Great Britain and France, with 20%, 18% and 16% respectively. One could argue that this is a very good indication that the culture of the bicycle and its use for transportation is becoming more widespread across Europe, and catching on in countries that weren't always considered to be the most bicycle-friendly. Denmark, The Netherlands and Finland, some of the top countries for use of bicycles, only accounted for 3%, 6% and 2%, respectively, of bicycle sales in the year 2011. In those countries, a very high percentage of inhabitants already own a bike. Advocates, such as the European Cycling Federation, would be pleased to see the trend of bicycle sales moving towards those countries that don't necessarily have an established bicycle culture yet.

Figure 4. European bicycle sales 2000-2011 (1,000 units) (Coliped, 2012)

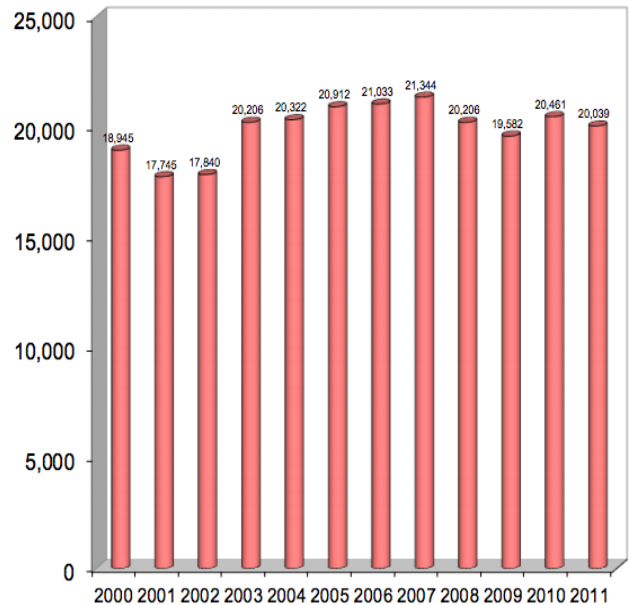
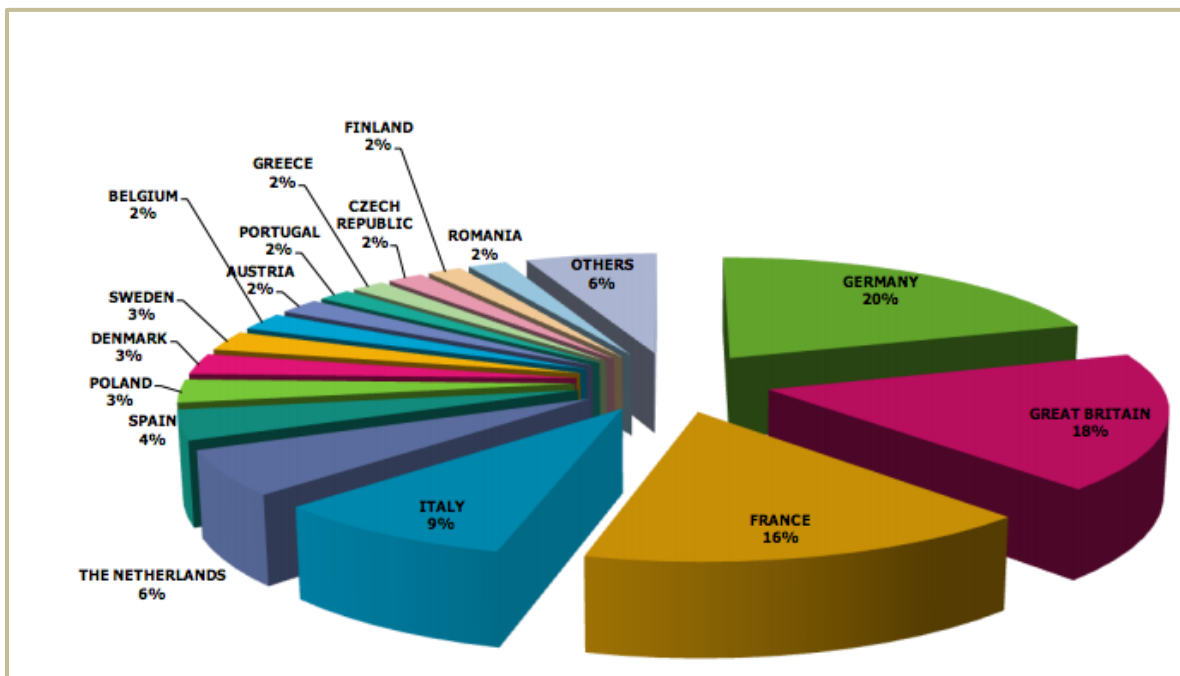


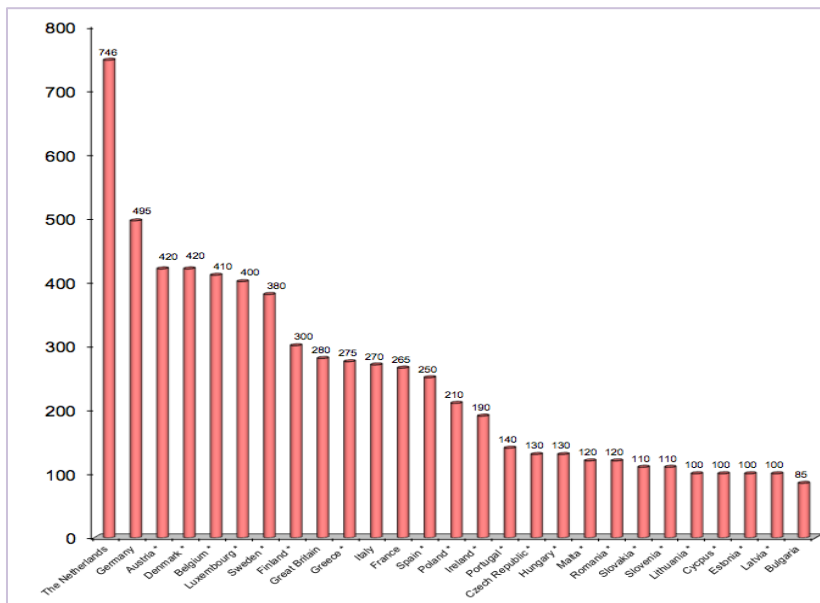
Figure 5. 2011 European bicycle sales by country (1,000 units) (Coliped, 2012)



Finally, Figure 6 shows the average price of purchasing a bicycle in each country. The highest price, by almost €200, is The Netherlands at €746. Followed by Germany, Austria and Denmark, with the average price of a bicycle being about €445. During a personal interview with a fellow exchange colleague originally from Tilburg and studying in Maastricht, Netherlands, when asked if she would ever pay that steep price for a bicycle, she stated that, “as a student, I would not pay that price for a bike. The most I would pay would be €200 for a second-hand bike.” (Christine Klijs, Erasmus Student, 2013). Brady Hamper, a Canadian exchange student studying in Utrecht, Netherlands, stated: “I bought my bicycle for €70, second-hand. You don’t want to pay much more for it, because the chances of it getting stolen are very high. I will sell it when I leave, but even if I don’t sell my bike, with the amount I ride it every day, I will have gotten my €70 worth anyway.”

The source for Figure 6 does not take into account the second-hand bicycle market. That being said, the average price of purchasing a new bicycle in each country can be seen from the graph.

Figure 6. 2011 European bicycle sales average price/country (€) (Coliped, 2012)



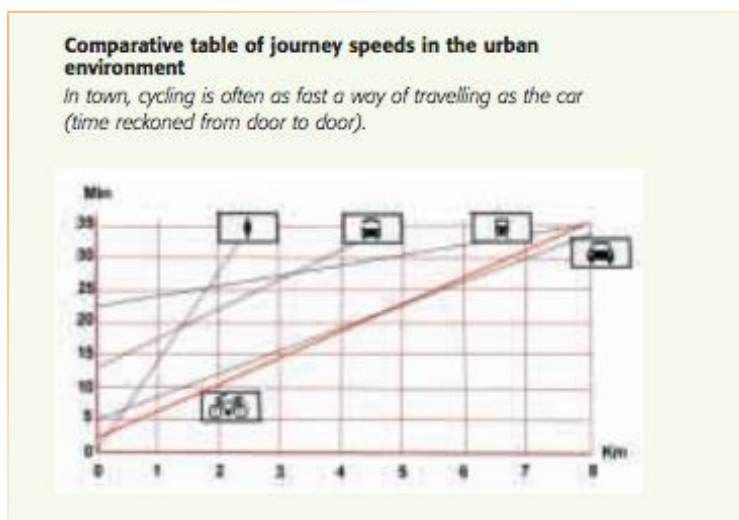
ADVANTAGES TO BICYCLING

Economic and Energy Efficiency

The use of a bicycle for transportation has proved to be more economically sound than using a car for transportation. Although it was shown earlier that the price for a bicycle can be steep, the average price for a new bicycle is €579, which is 30 times less than the average price of a new vehicle. Also, on average, a European will spend up to €10,000 on fuel consumption during the lifetime of their vehicle. The majority of this money leaves the European Union to pay for costly fossil fuel imports (EESC, 2013).

In terms of efficiency, bicycles have been proven to be a faster and generally more efficient mode of transportation. In relation to the amount of kilometers driven in a car, plus the time working to pay for the car and the running costs, the average speed of the car is only 8 kilometers per hour. It is faster to get somewhere on a bicycle (EESC, 2013). A comparison of transport speeds can be seen in Figure 7. Per kilometer per minute, bicycles are able to travel almost as quickly as a vehicle.

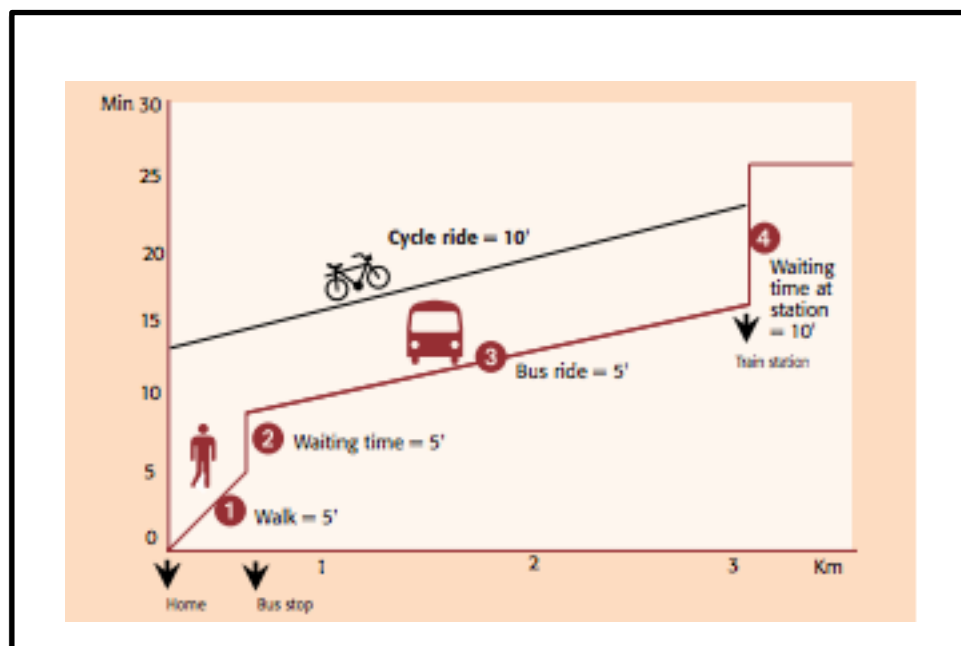
Figure 7. Comparative table of journey speeds in the urban environment (European Commission, 2013)13



Bicycling is an activity that takes place on a “human scale”. That is, cyclists move at a speed that allows them to take in their surroundings and interact with their environment. Cyclists are easily able to stop-and-go, which studies have found have led to greater spending within a community (Marin County Bicycle Coalition, 2013). A study done in Munster, Germany found that cyclists and pedestrians are better customers because they buy in smaller quantities, and shop more regularly. The reduction of motorists has led to financial benefits of small grocery stores, boutiques, and coffee houses. The inconvenience of parking spots and congestion of traffic makes motorists a less attractive customer than those on a bicycle (European Commission, 1999).

The efficiency of bicycles also leads to the increased use and efficiency of public transport. The European Commission has found that those who travel the first part of their journey by bicycle increase their catchment areas for public transport, by 15-fold. That is, those who are using a bicycle are more easily able to get to certain areas to catch a bus or train, as opposed to walking or using a vehicle. The appeal of public transport increases also because those who have a bicycle are able to change transport systems more efficiently and are more likely to use those services due to the increased ease of use. For example, those whose journey might include a 10-minute bus ride can cut a quarter of an hour off of their journey, by cutting out waiting and riding times for a connection via bus (1999). Figure 8 demonstrates this.

Figure 8. Appeal for public transport (European Commission, 1999)



Health and Safety

The health advantages to using bicycles for transportation are many. Studies show that an adult who cycles regularly has a fitness level equivalent to someone 10 years younger, and a life expectancy 2 years above the average. Cycling also has a very positive effect on the emotional health of humans. It improves levels of well-being, self-confidence and tolerance to stress and can reduce medical symptoms, difficulties with sleeping and tiredness (EESC, 2013). Those who also cycle to work have been found to have greater productivity in the work place, hence the increasing rise in companies encouraging the use of cycling to work and providing storage for those with a bicycle (European Commission, 1999).

Bicycle safety has been known to increase with increased numbers of bicycles on roadways. With a greater number of bicycles comes a greater awareness of their presence and attention from motorists, who are their greatest threat. Table 1 shows that the risk for motorists between the age of 18 and 49 is greater than the risk for those in the same age group who ride bicycles. Only after 49 years of age does the risk of cyclists become greater than for motorists.

Another study has shown that wearing a helmet does not protect one’s safety as much as adequate bicycle infrastructure does. 0.1% of cyclists in the Netherlands wear a helmet and there are fewer than 20 fatal accidents per 1 billion kilometers cycled. In comparison, 20% of cyclists in Finland wear helmets, and there are 50 fatal accidents per 1 billion kilometers. The Netherlands is known to have the best bicycle infrastructure and have the majority of their cities be completely bicycle-friendly (EESC, 2013).

Environmental

The environmental impact of a decrease in motor vehicles on roadways and an increase in bicycle traffic is very significant. The European Economic and Social Council states that if only 30% of vehicle trips under 6 kilometers were replaced by bicycle transportation, carbon monoxide emissions could be reduced by 4% from motor traffic. Motorists are also exposed to more toxic fumes than cyclists. The air inside a car has twice as much carbon monoxide than the air

outside and 50% more nitrogen oxides, both very damaging pollutants to the human body. Table 2 shows a comparison of the amount of pollutants that cyclists and motorists are exposed to and breathe in one hour of the same journey.

Overall, bicycling emits considerably less pollutants into the air than any other form of transportation, besides walking. With the current rise in global warming and immense amount of greenhouse gases in our atmosphere, adopting the bicycle as a form of transportation could be a crucial fix to this large-scale problem. Table 3 presents this information.







Table 1. Risk of accidents per million kilometres (European Commission, 1999)

Age group	Motorists (drivers)	Cyclists
12 - 14	-	16.8
15 - 17	-	18.2
18 - 24	33.5	7.7
25 - 29	17.0	8.2
30 - 39	9.7	7.0
40 - 49	9.7	9.2
50 - 59	5.9	17.2
60 - 64	10.4	32.1
> 64	39.9	79.1
Total	20.8	21.0

Table 2. Comparison of pollutant exposure in motorists and cyclists (European Commission, 1999)

	Cyclists (µg/m³)	Motorists (µg/m³)
Carbon monoxide (CO)	2 670	6 730
Nitrogen dioxide (NO ₂)	156	277
Benzene	23	138
Toluene	72	373
Xylene	46	193

Table 3. Comparison of various transport modes (European Commission, 1999)

						
Space consumption	100	100	10	8	1	6
Primary energy consumption	100	100	30	0	405	34
CO ₂	100	100	29	0	420	30
Nitrogen oxides	100	15	9	0	290	4
Hydrocarbons	100	15	8	0	140	2
CO	100	15	2	0	93	1
Total atmospheric pollution	100	15	9	0	250	3
Risk of accidents	100	100	9	2	12	3

BICYCLING IN MADRID

Madrid Today

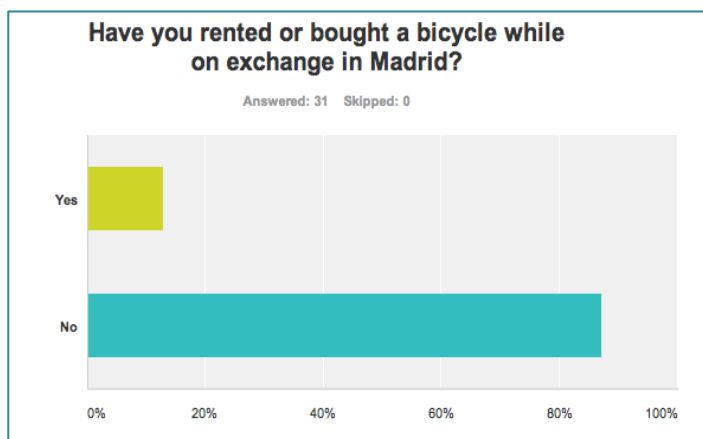
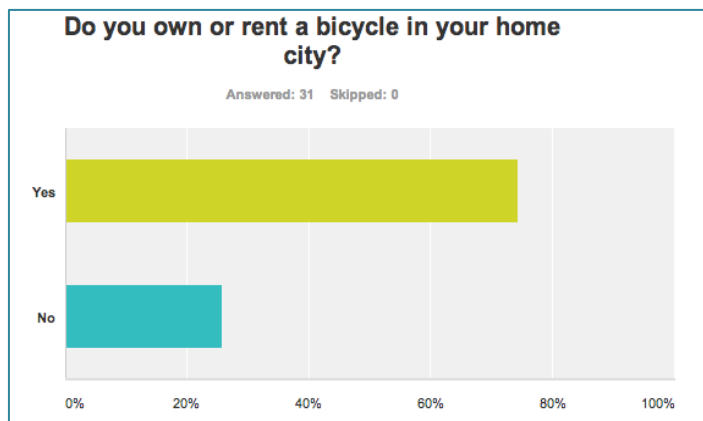
Seville, ranked 4th, and Barcelona, ranked 13th, are on the list of top 20 most bike-friendly cities in the world. Both of these cities are in Spain. However, this trend is not widespread and does not encompass Spain as a whole. It is very obvious that Madrid has yet to fully adopt the trend of bicycle use for transportation. Living in Madrid, the lack of bicycles on the road is very noticeable. Bicycle lanes on roadways are scarce and compared to other European cities, the cycling trend is almost non-existent here. Those that do cycle, often use the large pedestrian streets on their journey. This poses not only a threat for the pedestrians but also for the cyclists. The pedestrian streets are most often extremely busy and difficult to even walk through, let alone bike through.

Also noticeable is the lack of accessibility for bicycles on the public transportation systems. There are various sets of stairs and/or escalators in most metro stations, as well as the Renfe stations (high-speed, above-ground trains). Trains are small and often crowded with many people, leaving no room for anyone to bring a bike onto the train. The combination of poor bicycle infrastructure and limited accessibility for cyclists leads to the lack of bicycle culture in Madrid.

A recent survey I created uncovered some interesting information regarding cycling in Madrid today. Using SurveyMonkey, 31 students aged 18-26 from Universidad Carlos III were asked to anonymously provide their hometown and country, and answer nine multiple-choice questions regarding their bicycle use in their home city and in Madrid. When asked if they rode bicycles in their home cities, 74.19% of respondents replied "Yes." Those same respondents were then asked if they had rented or bought a bike while here on exchange or living in

Madrid. 87.10% responded that they have never done so here in Madrid (Figures 9 and 10).

Figures 9. & 10. Survey Results (2013)



The survey results were then analyzed for the results of the 7 (31 total) respondents that answered they live full-time in Madrid. The findings were surprising considering the current state of the bicycling culture in Madrid and the general answers presented above. Of the 7 Spaniards that responded to the survey, 4 of them own bicycles and ride them 1-2 times a week. 4 of the same 7 respondents surveyed replied that their city does not have bicycle lanes on the roadways. The respondents that said they own a bike were not necessarily the respondents that said their city did or did not have bicycle lanes. The possible difference in answers could be attributed to the sheer size of the city of Madrid. Depending on the suburb that the Spaniard respondents are from, their answers could vary on whether or not they have bicycle lanes on the roadways. For example, Leganes, a suburb 15 km. south from the center of Madrid is known to be a more bicycle-friendly area of the city, with more bike lanes on the roadways than found in the center of the city.

Five out of 31 respondents on the survey originate from The Netherlands. All of these 5 respondents responded the same on the survey. That is, they all own a bike in their home cities, they all ride 6 or more days a week on their bicycle, and none of them have rented or bought/used a bike while on exchange in Madrid. During the same interview with Madrid Erasmus student studying from The Netherlands, also a respondent of the survey, when asked if she misses not having a bicycle for transportation in Madrid, her reply was, “yes, so much quicker and easier to get around with a bike.” And when asked if she would be hesitant or scared to ride a bicycle in Madrid, her reply was “yes, since there are no real bike lanes here and how many hills there are” (Klijs, 2013).

The population of cyclists is very low in Madrid, in comparison to other European cities. Besides there being a lack of infrastructure and non-ideal physical characteristics of the city, there is lack of advocacy and safety in and around the city for the transportation of bicycles. Those who come to Madrid, who are well versed in using bicycles, are even hesitant to use them here due to the dangers and minimal amount of bicycles on the road.

The Current Rise of Bicycling

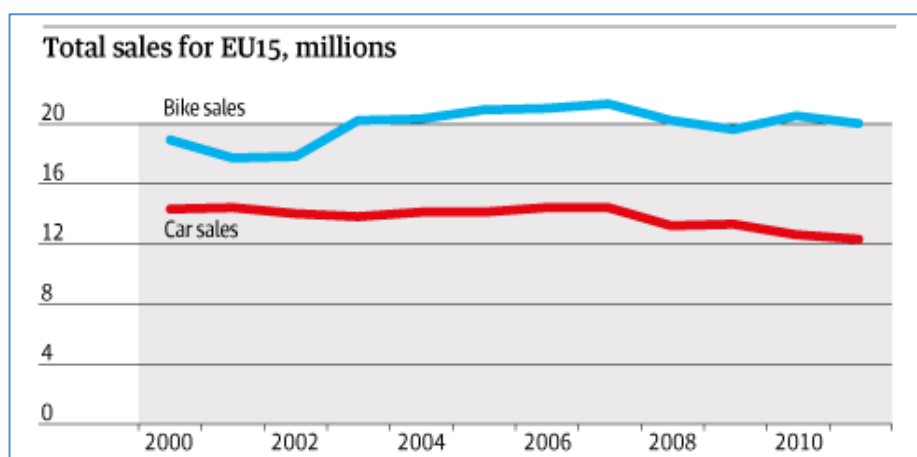
Despite the obvious and proven facts that cycling in Madrid, Spain is not common, there has been a recent trend in the rise of bicycles for transportation. Since the beginning of the economic crisis that has been affecting Europe, and Spain especially, within the last 4 years the bicycle production, the amount of bicycles on the roads and bicycle advocacy has risen. The number of cyclists in Madrid is doubling every 2.5 years (Parallels, 2013).

The crisis, that typically has been driving sales down in most industries and causing businesses to suffer, is actually leading to trends in the opposite direction in the bicycle industry Spain. In January 2012, bicycle manufacturing was 49.86% higher than in January of 2011 (Bike Europe, 2013).

Last year, bike sales exceeded car sales with 780,000 bikes sold in comparison to only 700,000 car sales. This is 4% rise for bike sales, and a 30% drop for car sales (The Guardian, 2013), shown in Figure 11. Citizens are opting for the more economically sound two-wheel ride, despite Madrid having the highest road fatality rates in Europe (Smart Planet, 2013).

The Bici Critica is a bike rally that takes place in Madrid once every month. It began in 2004 with only four members trying to gain awareness for bicycles on the road in Madrid. The rally now brings together thousands of cycling enthusiasts together to ride through the busy streets of Madrid during rush hour and physically demonstrate the presence of cyclists on the roads. Bici Critica not only attempts to raise awareness for bicycles, but also for lower fatality rates on roads by all transportation modes (Parallels, 2013).

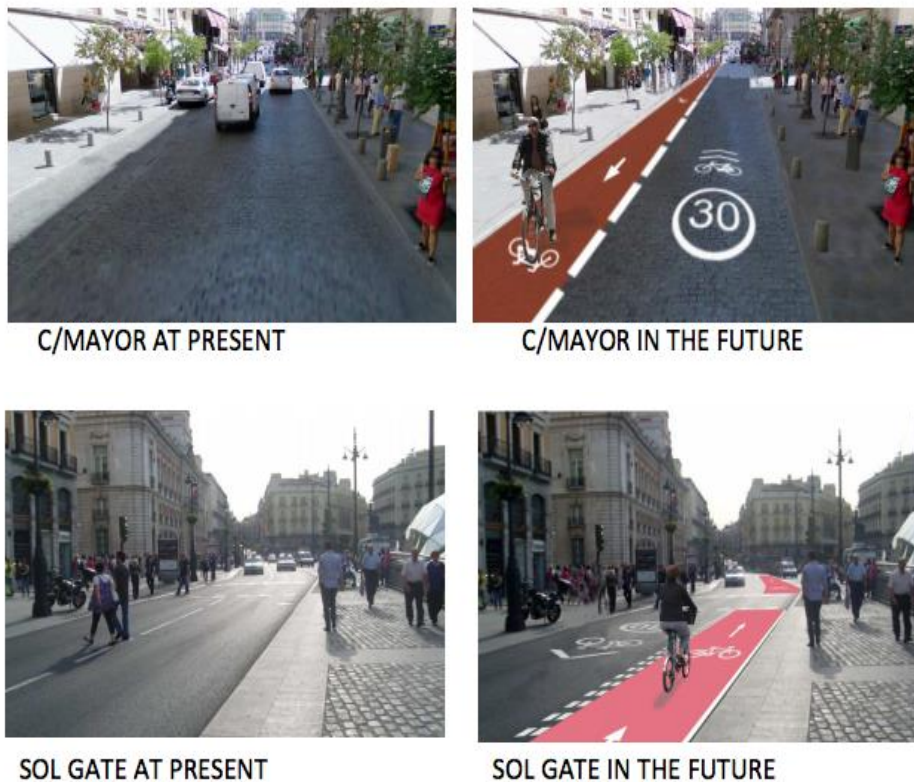
Figure 11. Recession sale of cars and bicycles in Spain (Coliped, 2012)



THE FUTURE OF BICYCLING IN MADRID

With the recent rise in bicycle use and bicycle sales in Madrid, the city of Madrid has begun to hear their people. Madrid has recently established and began implementing a plan to create a more bicycle-friendly city. The Plan for Cycling Mobility Management (PDMC in Spanish) began in May 2008 and has successfully completed various projects since then, with many more underway. The objective of the PDMC was to establish a municipal bicycle policy, give the bicycle a role in everyday mobility, normalize the use of the bicycle, promote healthy habits, and reform public spaces to accommodate bicycles. PDMC also encompasses awareness, road safety education, legislation and management. On just the 64 kilometers of road changes, the city will be investing 35 million Euros into this project (Madrid City, 2008). Figure 12 demonstrates a few of the future improvements Madrid outlined in the PDMC. Both areas are major roads within the very center of the city that is home to a very large volume of pedestrian and vehicle traffic. Currently, Sol Gate has been completed successfully.

Figure 12. Future infrastructure improvements in Madrid
(Madrid City, 2008)



This plan and new awareness of bicycles within the city of Madrid has opened up a whole new market of buyers for the bicycle. Infrastructure improvements will only lead to higher numbers of bicycles on the roads. There is now a large potential market space for those looking to enter the bicycle business. Also with the economic crisis still bearing heavily on the economy, the opportunity for new business and creation of jobs is coming at no better time.

Although there does exist some bicycle shops in and around the city of Madrid, they are few and far between. The following SWOT analysis and evaluation of Porter's Five Forces provide a brief market analysis of the potential place in the market for a bicycle business. They show the competitiveness and attractiveness of the market and are useful for the analysis of potential and already existing bicycle businesses.

SWOT ANALYSIS

Table 4. SWOT analysis of potential bicycle business

Strengths	Weaknesses
<ul style="list-style-type: none"> - Rise in bicycle sales due to economic crisis - Growing target market 	<ul style="list-style-type: none"> - Lack of start-up capital - Price-sensitive buyers - Lack of space and storage
Opportunities	Threats
<ul style="list-style-type: none"> - Lack of bicycle shops around Madrid - New bicycling infrastructure in the city - Increased awareness and advocacy of bicycles for transportation - Government support and encouragement 	<ul style="list-style-type: none"> - Existing bicycle shops/price competitors - Future economic upturn causing bicycle use to possibly decline - Low barriers to entry - Public transportation - Bike-share systems

Strengths

Madrid has seen a very recent and increasing trend in the sale and production of bicycles. Due to the recent economic crisis impacting the economy and workforce in Spain, citizens are recently opting for bicycles as a form of transportation. This provides a potential business with a large target market to base their sales from. Bicycles are becoming more attractive than cars to many demographics of society in Madrid and in Spain as a whole. A potential bicycle business could see strength in their new venture come from high sales and returns and the ability to market to all ages.

Weaknesses

Also due in part to the economic crisis in Spain, a weakness that these potential businesses can face is the lack of start-up capital. With the recent loss of many jobs and even more pay cuts in all sectors and industries, the availability of capital to start a company of this sort could be difficult to attain. The banking crisis among Spain would also give start-up companies a difficulty with obtaining high-risk loans from banks.

For the same reason, companies could have a difficult time making large profits and returns due to very price-sensitive buyers in Spain. Those opting for a cheaper form of transportation are typically those who have been affected monetarily by the crisis and are becoming more aware and conscious of their spending habits.

The infrastructure around Madrid also presents a weakness for these potential companies. There is a lack of bicycle storage and areas to leave bicycles around the city. Also, the majority of Madrid citizens live in multi-floor apartments and flats, which pose another problem for their own bicycle storage.

Opportunities

As already previously presented, Madrid has a lot of opportunity of bicycle businesses. This opportunity arises from a few prominent factors. First, the lack of bicycle culture in Madrid in the past has led to a lack of bicycle sale shops and bicycle rental shops. The need for bicycle shops in Madrid is becoming more apparent. There is an abundance of open market space for a start-up bicycle shop. Rafael Quereda, who lost his job at a graphic design company after 25 years, opened a bicycle shop in Madrid 18 months ago and has been reaping the benefits of the

bicycle boom ever since. He saw that people were using bicycles and that there was a market for it (The Guardian, 2013).

Second, the city and government of Madrid has also begun to support and encourage the use of bicycles. They encourage and contribute to the awareness of advocacy of this form of transportation and have even put in place a plan to make the city more bicycle-friendly. This has provided better infrastructure for the bicycle users, making this form of transportation even more attractive. With more safety from infrastructure and awareness, more people are willing to purchase and use bicycles in Madrid.

Threats

The threats to potential bicycle businesses in Madrid are few, but prominent and important. New businesses face the threat of those already existing and established bicycle businesses with an already made, and possibly loyal, customer base. The difficulty arises when trying to appeal to those who have already purchased in the market place and tend to have bias towards those certain businesses. A new bicycle business will have to market to the new customers of bicycles and attain strategies that are able to attract those already existing customers in the bicycle market place.

The possibility of a future economic upturn could also pose a threat to the bicycle business. If the economic crisis in Spain begins to cease, customers could potentially turn back towards the use of vehicles and begin to use their bicycles less, causing sales in bicycle shops to decrease.

The most important threat to a new bicycle shop however would be public transportation and bicycle share programs. The public transportation in Madrid is very efficient and for the most part, affordable. There is a possibility that people will opt more for public transport than investing in a bicycle. Bicycle share programs, which provide rental bicycles around the city, pose quite a threat to a business attempting to sell quality bicycles to own. Those who do not wish to purchase a bicycle of their own have the easy option to conveniently rent bicycles around the city.

PORTER'S FIVE FORCES

Threat of New Entrants

For those already existing bicycle shops around Madrid, the threat of new entrants into the bicycle market is very prominent. The opportunities for new entrants are great and have the potential to lead to greater competition for both new and already existing companies. This also creates a threat to customer loyalty and brand equity. For those entering the bicycle industry, the barriers to entry are currently quite low. For new companies this makes the market more attractive, but for those already in operation and with a good customer base, this forms a great threat to their business. Bicycle businesses will have to begin differentiating their products, become price leaders and learn to engage in healthy competition.

Threat of Substitute Products or Services

As the amount of bicycle companies grows, the opportunity for new products and brands to enter the market becomes greater. Buyers begin to have increased propensity to substitute products and price shop. Product differentiation and quality become very important, as well as company and brand loyalty and businesses will have to begin creating strategies to retain customers. For the customer, they will now have to factor in switching costs when considering other brands and companies.

Bargaining Power of Customers

Like in any industry, buyers of bicycles have the power to put pressure on companies and drive prices where they see suitable. Those with prices too high will show lower returns. Bicycle companies will have to evaluate their firm's fixed costs and provide adequate buyer information in order to maintain their prices at a competitive level. Companies that implement strategies, such as loyalty programs, are able to reduce buyer power.

Bargaining Power of Suppliers

Suppliers of bike and bike parts are a source of power of the business when there are few substitutes. Businesses have to ensure their distribution channels are economically sound and consider switching costs if they do decide to switch distribution channels. The strength and presence of substitutions are valuable when attempting to lower supplier bargaining power for the firm.

Competitive Rivalry

Bicycle shops and businesses, new or existing, in Madrid are now subject to competition with the recent rise in bicycle use. Competition is healthy and works in favor of buyers. Businesses will have to maintain a powerful competitive strategy, including marketing and advertising expenses, and retain a degree of transparency with distributors, suppliers and customers. Because of the magnitude and sheer size of a city like Madrid, competition effects may not be felt as much by bicycle companies themselves.

CONCLUSION

Madrid, Spain has very clearly felt the effects of the economic crisis around Europe. The use of bicycles for transportation is on the rise and the industry for bicycles is booming. Infrastructure around Madrid is slowly improving, and advocacy from government and bicycle supporters is ongoing. In the future, Madrid will become more bicycle-friendly and likely be home to many more bicycles in and around the city. The analysis of the market for bicycles around Madrid is logical and presents positive aspects of the adoption of the bicycle. In the future, Madrid will likely not be known anymore as the city where no cycling exists.

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