

**NEW TECHNOLOGICAL TRENDS USED
IN PUBLIC TRANSPORTATION
FOCUSED ON THE ENVIRONMENTAL
ASPECTS**

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2015

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Introduction

The topic of the project was proposed because of the environment and its pollution, that is still increasing. People need to change their minds to help the environmental protection.

The aim of the project is to compare two very far and different cities in the different countries. On the base of the comparison the authors will propose and define the projects that are closely connected with the environmental aspect. The czech author will propose the project of bicycle renting and segway renting. The american author will define the running project, bicycle renting and will find the inspiration for both cities.

As you can see, the project is designeg with the environmental aspects - because thanks to the bicycle renting and segway renting people will reduce using the public transport, that pollute the environment. As the secondary effect, people will protect the environment and they will keep them in the form.

The structure of th project is following. The authors will well-detail characterize each companies. After they will make the environmental analysis, to better understand the positon of each company in their market. Then the authors will find the inspiration and the experience from each other, that could be used for the project.

1 Characteristic of public transportation in Prague

1.1 Services

For the purpose of this project the Transportation Company of Prague was chosen. Urban transport company was founded on the 1st September, 1897 under the name Electric Company of the Royal Capital City of Prague. At that time, except for the operation of public transport, the company was also involved in the production and distribution of electricity. In 1946 the company after the nationalization and the gradual separation of power stations, gasworks and waterworks converted to the Transportation company under the ownership of capital city Prague. Name of the company, its organization and management in later years had changed for several times. In 1991, the Transportation Company was converted into a joint stock company whose sole shareholder is the City of Prague. (Dopravní podnik Praha, 2015a)

Company provides services while using these means of transport:

Metro

The metro system operates on the three lines and use 730 metros. Every day a metro system carry around 580 000 people and with this number the metro is the most using mean of transport in Prague. The metro use the model 81 71 M. Every metro is made also for handicapped customers, while there is a metro floor on the same level as the floor of the platform. A whole metro system is powered by the electricity. With the environmental aspect we can consider the metro as the harmless one. (Dopravní podnik Praha, 2015b)

Obrázek 1 Prague Subway



Source: *Dopravní podnik Praha, 2015c*

Trams

Prague public transport provide 948 peices of trams, which carry every day 333 000 customers. The company has eight models of the trams. The tram system is powered on the elektricity too, as the metro. All the type of trams that are provided by the company are

suitable for handicapped customers. Every tram has a low floor system, to be secured an easy acces. From the pollution the tram is considered as the harmless to, but the trams make a lot of noise. (Dopravní podnik Praha, 2015d)

Picture 2 Prague tram



Source: *Dopravní podnik Praha, 2015e*

Buses

The Transportation company of Prague has totally 148 lines of the buses. The buses carry every day around 300 000 people. From the environmental aspect, the buses are the mean of transport that is still harmful to the environment and make a lot of noise. The Transportation company of Prague has all the buses for the deisel engines. The city of Prague is compiling the strategic projects for the harmless buses that will not pollute the environment in Prague. In regards to the handicapped people, many buses they are equipped with a special platform, that allowo to handicapped people to use the buses. (Dopravní podnik Praha, 2015f)

Picture 3 Prague Bus



Source: *Dopravní podnik Praha, 2015g*

Quality of public transportation, in the context of the increasing volume of transported people, contribute a lot to the sustainable development in Prague and its surroundings.

One of the preferred goal is a development of quality with a focus on providing services to the customers. The customer satisfaction with the quality of services contributes significantly to the increase of the competitiveness in relation with individual automobile transport and other carriers.

1.2 Sharing values

The company is trying to recognize the need to communicate with our existing and potential customers from the general public, our employees, the contracting authority services and partner organizations having an interest in our prosperity.

In relation to the satisfaction of the customers and stakeholders, the company is primarily focus on the following aspects:

- **Reliability** – it is fulfilled mainly with the punctuality of the means of transport according the timetables, and after with the quality of the transportation process
- **Awareness** – the company is perceived as the leader in the public transportation
- **Availability** – mainly connected with the prices of the transportation and there are no limits for any customers like handicapped, customers with the pets, customers with the bicycles and so on.
- **Safety** – this aspect is the priority. To keep safety for the customers but as well as for the employees.
- **Comfort when traveling** – this aspect is implemented mainly by the research and development of the new possibilities in the passengers comfort.

International quality standards, that company use:

- ISO 9001: Quality management systems - Requirements
- EN 13816: Transportation - Logistics and services - Public passenger transport - Service quality definition, targeting and measurement.

We act responsibly

- The objective of the "We act responsibly" is to support activities that lead to the elimination of barriers (which are an obstacle to all kinds of health and physical limitations), public transportation and education for environmental responsibility.
- Every year, The Transportation Company of Prague cooperates with selected partners, which gives space within their own promotional activities.
- Partners for the year selects an internal committee of the City Transport Company of Prague that is composed of representatives of company management.
- All the projects under the concept of "We act responsibly" are strictly non-profit and co-operation is based on non-financial.

(Dopravní podnik Praha, 2015h)

2 Company History

Work has begun in the Electric Company of the Royal Capital City of Prague. The company provided public transportation and it had produced the electricity too. One of the objectives of the Electric Company was the concentration of public transport in the hands of a municipal enterprise. Here are some of the highlights in the company history:

30. 6. 1898 - Electric Company bought a horse-way and began its electrification.

5. 8. 1907 - Electric power companies bought a small path Praha - Libeň - Vysočany concluded its monopolistic place over the Trams in Prague.

1. 1. 1949 - Prague Public Transit Company in Prague was established under the Municipal Corporation.

1. 7. 1953 - Transportation Company was converted into a so-called.

1. 4. 1991 - Transportation Company of the City of Prague became a joint stock company, under which there were established branch plants. The branches were divided according their specializations.

2. 11. 1985 - The basic Prague metro network was enriched by the third line - B - the first operational section of the route Smíchovské Station - Sokolovská (today Florenc).

1992 - The emergence of Prague Integrated Transport. This is a transportation system in Prague and its surroundings. Into the system there were subsequently included rail-lines of Czech Railways.

1. 6. 1996 - There was a change in the handling system of mass transportation in Prague and Prague region, which enabled and design major tariff reform.

28. 11. 2003 - in this date a speed tram line from Hlubočepy to Barrandov was opened. Omnibus lines and the Prague Transportation company became a pioneer in the provision of scheduled passenger transport in Prague.

(Dopravní podnik Praha, 2015i)

3 Environmental analysis

In this analysis the authors will analyze all the aspects, that influence the public transportation in the city of Prague and the Transportation company in Prague has to incorporate them into the future strategic plans. The analyze will observe these aspects, that are in relation with the environmental aspects.

Terrain

The nature of Prague can be considered as the flat area. In the city there are a lot of parks and protected biotops, that help to enriched the city with the live trees, grass, bushes etc. The city is also equipped with a lot of paths and pavements, that serves for pedestrians. The city is focused on the occupants safety and therefore there is a lot of traffic lights that secure a safety. The city do not forget for biking and there are many bicycle paths.

Life Style

In this section we must realize, that city of Prague is an international metropole and the life style correspond with this feature. We will analyze the GDP of the city and the demographic structure.

GDP - Gross domestic product

The GDP of the capital city of Prague participate on the GDP of the Czech Republic by the one quarter. So we can see, there is a quiete big potential in this area. The economic performance per person is two times more than the national economic performance per person. The GDP now is still growing and it is connected with the politics of the Czech National Bank to support and start up the czech economy. The GDP in Prague is the same as the national GDP and it is 2,5 % growing.

To the GDP we will join also the average wage that is in Prague 32 278,- CZK. The average wage still grows every year.

Tabel 1 Demographic structure

Age	2000	2010	2015	2020	2025	2035	2045	2055	2065
0-14	16,4	14,2	15,1	15,6	14,9	13,0	13,3	13,9	13,2
15-64	69,8	70,6	67,2	64,4	63,4	62,5	57,0	53,7	54,6
65+	13,8	15,2	17,7	20,1	21,7	24,5	29,6	32,4	32,2

Source: Demografie, 2015

The capital city of Prague it has 1,257 million people. As we can see from the structure, the main group from the inhabitants is group 15 – 64. We can see also the future evolution of the age, it is declining, but still it is the main group. In this structure we consider only the inhabitants, not the turist.

Tabel 2 Average age

	2000	2010	2015	2020	2025	2035	2045	2055	2065
Average age	38,8	40,6	41,6	42,7	43,9	46,3	47,5	48,3	49,0

Source: Demografie, 2015

The average age mentioned in the chart used to be around 35, but now the future evolution shows, that the average age is increasing. The reason of higher average age is mainly the life style of the people, they have another preferences than used to be.

Customer base

The public transportation in the city of Prague is used by all the age categories of the inhabitants. It is considered that the metro is used irrispected of the income. On the other hand, the trams and the buses are mainly used by the people with the lower income-level and by the people from the middle class. The public systém in Prague is very convenient for the young people, I mean mainly for the students untill the age 26 and also for the retired people. The reason is very simple, because for those poeple the company offers a special reduction.

Partnership

Public transportation is having a partnership with a lot of suppliers. We can mention the main partnership, that is connected with the company Škoda. The compnay Škoda supply the Transporation company in Prague with the buses and the trams. It is a reversible partnership. We can see, that the products of the company Škoda are presented and the Transportation company has quality, czech, modern, safe means of transport. (Dopravní podnik Praha, 2015)

Tabel 3 Financial reports of the company

Description	Parameter
Number of employees	10 606
Revenues from the fare tickets	4 230 743
Donation from the fund of Prague (in thousand CZK)	3 641 661,4
Donation from the fund of the Czech Republic (in thousand CZK)	0
Donation from the structural funds of European Union (in thousand CZK)	3 920,-

Source: Own processing according Dopravní podnik hlavního města Prahy, 2015

From the chart we can see, that the company could be donated from the funds of the European Union and from the Czech Republic. The donation helps the company to make a project that could not exist without the extra money from the funds. These projects are mainly from the field of environmental protection, development of the job and improvement of the public transportation.

Technological features of the city of Prague

In this section, the author will observe the city of Prague and the technological equipments of the city.

- **Railway**

The city of Prague is well equipped with the railways, especially for trams, metros and as well as for trains. the railway are still maintained in a good shape to fulfill the safety aspect. All the parts of the city is covered with the net of the railways.

Pedestrian walk and paths

The city manages a lot of project for the construction of the paths and the pedestrian walk. All the city is networked with the paths. The paths are in a really good shape and they fullfill the safety aspect.

- **Road signs**

The city must have a road sign to navigate and to warn the users of the public transportation, drivers and pedestrians too. The road signs are under the company Technická správa komunikací of the capital city Prague. The company is responsible also for the cleaning and maintaining of the pedestrian walks, paths, traffic lights and also the road signs. The business scope of the company is divided into the three groups. First group is focused on the drivers. The second group deals with the cyclist and the third group is for the pedestrians.

What is interesting, the company provide a special system called bikecounter, that is used for counting of the cyclists. The also provide on-line map of the paths in the city of Prague.

Source: TSK, 2015

Regulation

The public transportation of Prague is under the directive no 2004/49/ES, that is issued by the European Union. The directive is about the railway transportation. The public transportation in Prague has to respect also the law no 194/2010 Sb – law about public services and public transportation. The ecological aspect are contained in the law issued also by the European Union under the number 1300/2013. Another laws that must be followed are: directive no 2001/85/EC – regulation of the means of transport for the public transportation, law no 266/1994/Sb – law about the road transportation.

Competitors

The Transportation Company of Prague holds the monopolistic position. Potential competitor in a bus transportation could be the company named Student Agency. But this company run only bus transportation. There is no competitor in the same size like the Transportation Company of Prague, so we do not expect any threats from the competitors in the following five years. This fact is also because of the barriers of the entry on the market. The market is regulated by the city of Prague and also by the czech laws.

Marketing

- **Web pages**

The company owns web pages www.dpp.cz. On the web there are the sections:

News – company inform the customers and other shareholders about the new information, new projects, reports and so on

Prague transportation – in this group there is a description of the company and of the means of transport. There are also the timetables and the activities of the company.

Fares – the section is about all the types of the fares. There are also special discounts and reductions for the students, retirees and all the conditions are described.

Services – the group contains all the services that are provided by the company, not just only the public transportation.

Useful information – all the documents and information that are needed are in this section.

Hobby and free time – the company also runs the activities that are connected with the free times of the inhabitants in Prague. The company is responsible also for the cableway in ZOO, cableway Petřín, nostalgic line – possibility to go with the old tram and the others.

About the company – in this section the users and shareholders can find all the information about the company, including the financial reports, the respected laws, history, employment opportunities and the others.

For media – this section includes the photos, press releases, logos, registration and the contacts.

- **Facebook**

The company has also the facebook page. Company catches another type of the people by the facebook page and having another relation with them. The communication through the facebook is not so formal like on the web pages. Company mainly informs the people about the activities. The purpose of the facebook is mainly about marketing. To keep still the people in touch with the company.

4 New technological trends used in a public transportation with the environmental aspects

4.1 Segway

Segway is a company that is producing the products for moving. The product is called segway and they have products for consumers and for businesses too. For consumers the company produces three types: Glider, Commuter, Adventurer. In the following part all the types will be characterized.

- **Glider segway**

A glider is anyone and everyone who is interested in getting from Point A to Point B in a quick, efficient and fun way. If your destination is too far to walk, but too short to drive – it's a perfect glide!

i2 SE - No worries, the i2 SE easily travels through standard doorways and into elevators. Move from indoors to outdoors in a snap. You can take your PT anywhere you need to go.

x2 SE - Would you rather stay outdoors? Hop on the more rugged x2 SE and explore trails, paved paths, beaches or any off-road terrain in a whole new way. (Segway, 2015a)

Picture 4 Glider segway



Source: Segway, 2015a

- **Commuter segway**

If you travel around town and you enjoy being out and about – this is the Segway PT for you. Travel up to 12.5 mph/20 kph, cover 9 times more ground than on foot and get the storage you need to bring along whatever you would like with the Standard Front Case.

Keep your smartphone / tablet and all its apps at your fingertips with the SegSolution articulating mount and enjoy the freedom of gliding with the wind in your hair. No matter where you glide – to work, school, to shop, around the neighborhood, on the local trails or paths. (Segway, 2015b)

Picture 5 Commuter segway



Source: Segway, 2015b

- **Adventurer segway**

If you want to see how far off the beaten path you can go. You don't want to walk, but you enjoy taking in the fresh air, traveling around the campground, bird watching and more. There is a PT model that will take you over the river (on a bridge of course) and through the woods.

The Adventure model's Mossy Oak Break Up Infinity camouflage pattern will allow you to blend in with your surroundings – not to mention that it adds flair to your ride! In addition, its Standard Front Case and Waterproof Cargo Cases will ensure that whatever you bring along (binoculars, camera, provisions, etc.) will be protected. (Segway, 2015c)

Picture 6 Adventurer segway



Source: Segway, 2015c

4.2 Bicycle rental

The Citi Bike system provides bike for the tourist and as well as for inhabitants of the city and it is available 24/7, 365 days a year. Station locations are based on population and transit needs, and would be selected through a participatory public input process. Each station should have a touchscreen kiosk, a map of the service area and surrounding neighborhood, and a docking system that releases bikes for rental with a card or key. You must be 16 or older to ride a Citi Bike, because of the safety aspects and responsibilities.

- **How does it work?**

1. Unlock

Get Started!

Purchase a 24-Hour or a 7-Day Access Pass. A \$101 security hold will be placed on your card for every pass you purchase. For frequent rider there would be a membership for an annual use?

Unlock a Bike!

24-Hour and 7-Day Pass holders are provided with a ride code. Type the code into the keypad on a dock with an available bike. Annual Members simply dip their own unique key into the key slot at any dock with an available bike.

Adjust for Fit!

Citi Bike seats are adjustable to fit a wide range of rider heights. Throw your bags into the front basket, strap it down, and you're ready to go!

2. Ride

Keep an Eye on the Clock!

24-Hour and 7-Day Access Pass holders may ride for 30 minutes without incurring any overtime fees. Annual Members have 45 minutes to ride before incurring overtime fees

Unlimited Rides!

Ride as many times as you want during your Access Pass or Annual Membership period.

Keep pedaling☺

Subsequent Rides!

24-Hour and 7-Day Access Pass holders must request a new ride code to unlock another bike. Just swipe your card at the kiosk and a new code will be generated for you automatically. Annual Members just dip their key to ride again!

3. Return process

Choose From the locations!

Find locations using a station map or download the Citi Bike App.

Re-dock!

Firmly push the bike into the dock and wait to see a green light blink on the dock to confirm it has been properly locked.

Station Full?

Select "Request Time Credit" on the start screen of the kiosk. You will have 15 minutes added to your time at no charge to find a nearby station with available docks.

(Citybike, 2015)

5 Characteristic of public transportation in Chicago

Many cities are exploring new ways of transportation in the urban setting. Specifically, bike rentals are becoming a popular alternative to other forms of public transportation such as trains and busses. This paper sets out to identify the management of the Chicago local bicycle rental company and compare it to a current bicycle rental company in Prague. Divvy is the private company managing the bike rental system in Chicago. This company is compared to CityBike Prague which is one of the big bike rental companies in Prague. The motivation of this paper is to examine if it is possible for Prague to implement a bicycle rental system like the system in Chicago. Another motivation is to see if an existing tourist bicycle rental company in Prague can become a local bicycle rental company. This paper hopes to identify possible avenues of success for CityBike Prague that it can adopt from Divvy. A strong relationship with the city, an easy to join and use program, a focus on city dwellers, and a word-of-mouth type of advertising has made Divvy successful since its establishment in Chicago in 2012. CityBike Prague can learn from the success of Divvy if Prague wishes to implement a local bicycle rental system.

Obrázek 7 Divvy - bike panel



Source: The expiredmeter, 2015

5.1 Characteristic of Divvy and comparison with the project for Prague

Divvy is the private company contracted by the City of Chicago's Transportation Department to implement and manage the local rental bicycle system. The rental program emphasizes the public sharing of bicycles, or to "divide and share" bicycles, as the term

divvy is commonly used to describe sharing. With previous success in comparable cities such as San Francisco, New York, and Washington D.C., Chicago had scenarios from which it could implement effective strategies for a public rental bicycle system (Hausman 2013) . In 2012, 150 rental bike stations were launched. In 2013, a total of 300 bike rental stations were up and running. Today, a total of 475 bike rental stations are in use (About Divvy Bikes2015). Chicago's publicly rented bicycles have logged more than 5 million miles as of the end of 2014. With 4,750 bicycles covering 87 square miles, Chicago has established a diverse public bicycle rental system for locals (About Divvy Bikes, 2015).

The reasons for Divvy's success and growth in such a short amount of time rely on the effective maintenance of the bicycles, convenience to join the bicycle sharing program, and focus on accommodation of the city dweller. Maintenance of the bicycles is one of the reasons why Chicago's Transportation Department did not want to be in control of a public bike sharing system (Hausman, 2013). With Divvy as the private contractor, more effective maintenance can take place with a third party entity in control. Divvy has a warehouse to store all the bicycles during the winter months. A maintenance crew visits all the stations daily to check for inadequacies among the bicycles - flat tires, faulty brakes, etc. If the maintenance crew realizes that one station is full of bicycles and another station nearby is empty, the crew will redistribute the bicycles from the full station to the more empty station so users could have access to the bicycles. With a close relationship with the city and a maintenance crew performing daily inspections of all the bicycles and rental stations, Divvy has demonstrated that Chicago can successfully implement and maintain a public local bicycle rental system.

Divvy has established four easy steps for people to join the bicycle rental program. First, users can become members online. Annual memberships cover unlimited 30 minute trips from any station to another station. Any trips over 30 minutes are then charged to the credit card linked to the membership account (Pricing, 2015). Therefore, trips are free only for the first 30 minutes. Annual memberships are not required to ride. 24-hour passes are available at the kiosks with the swipe of a credit card. With a 24-hour pass, once a rider is done, they can check out another bicycle within that 24 hour timespan (Pricing, 2015). With an abundance of bicycle rental stations and more to be launched in the future, users should have no problem staying under the 30 minute maximum for free rides. These time constraints aim to incentivize riders to return the bicycles after using. The fines and accounts

linked to credit cards also incentivize riders to not steal the bicycles and to return the bicycles as soon as possible for others to use.

Divvy has focused on the city dweller when marketing its services. The idea was to implement a bicycle rental program for the public to use that would make it easier for the citizens of Chicago to commute around to city (Chicago, 2013). The large amount of bicycles, time constraints, and high number of rental stations are perfect for trips under 30 minutes. City folk can use these bicycles to ride from home to work, make a quick run to the grocery store, or visit family or friends in near neighborhoods (About Divvy Bikes, 2015). Divvy launched this public rental bicycle campaign with the intent to accommodate current public transportation. As a result, many of the rental stations are near bus and train stops. Stations are also strategically placed in high frequented areas and popular neighborhoods. This makes it more convenient for riders to access more places in the city.

Divvy will continue its growth and success by maintaining close knit relationships with the communities of Chicago. With many different people sharing the same bicycles, this public service should create a connection between local users. Divvy's goal is to make it accessible for every home to be within four city blocks of a Divvy rental station (Chicago, 2013). Divvy has sent surveys to Divvy riders to better accommodate future rides and experiences. In this survey, Divvy asks questions about the local community such as where the riders from a specific station frequent the most, and what is the most important aspect of that rider's commute (Chicago, 2013). Uncovering these factors can help Divvy to make better decisions when determining locations and to make more user friendly stations. With a reliance on advice from the community and determining locations of future stations and use based on consumer feedback, Divvy can make the bicycle rental program reliable and more convenient for all types of riders.

The key factors that have made Divvy a quick success are its relationship with the Chicago Transportation Department via a contract to maintain the condition of the bicycles and distribution of bicycles between the rental stations, an easy to join and ride program for members and one-time users, a focus on city dwellers, and feedback from previous riders. CityBike Prague relies on different main factors for its success. CityBike Prague is one company of three main rental bicycle companies in Prague. This presents a different dynamic to attract riders, where Divvy does not face this competition in the market. It is easy to rent a bicycle from CityBike Prague, much like from Divvy. CityBike Prague focuses on attracting

tourists more than locals and city dwellers. CityBike Prague also relies on internet marketing instead of consumer feedback.

CityBike Prague does not have as strong a relationship with the Ministry of Transportation of Prague as Divvy has with the Department of Transportation of Chicago. CityBike Prague's main competitors are OKOLO Bike Rental and Praha Bike (Bike Tours and Rentals 2015). Because there are two other competitors in the rental bicycle industry in Prague, CityBike Prague cannot leverage any market power to be the sole company contracted by the municipal government of Prague. Maintenance then is even of more importance to CityBike Prague than to Divvy because consumers can always substitute away from using CityBike Prague and use one of the other rental bicycle companies in Prague if the bicycles do not perform well. Therefore, CityBike Prague has a greater emphasis on bicycle maintenance.

CityBike Prague must also have enough bicycles for consumers to use. Otherwise, the consumer may have another opportunity to substitute to use a different bicycle rental company if no bicycles are available from CityBike Prague. It is more crucial for CityBike Prague to optimize its supply of bicycles available for consumers to use than for Divvy. As mentioned above, Divvy's goal is to one day make a rental bicycle station accessible to everyone within four city blocks of their home (Chicago, 2013). This kind of goal does not require an optimal amount of bicycles, but rather enough funding, maintenance, and accessibility for riders. Divvy can supply the maximum amount of bicycles for the public to use. CityBike Prague is more concerned with not having enough bicycles available, especially in the summer months when bicycle rentals will be in higher demand. CityBike Prague is also concerned with not having too many bicycles available in the winter, when bicycle use may not be useful at all. There is more pressure on CityBike Prague to upkeep its bicycles and provide an adequate amount to the public than there is on Divvy to do so.

CityBike Prague has an easy to join program just like Divvy does. CityBike Prague is conveniently located in Prague in Old Town Square (Rent a Bike, 2015). Any person wishing to rent a bicycle for a guided tour, self-guided tour, or simply to ride around the city for the day can visit CityBike Prague (Rent a Bike, 2015). Bicycles could be rented by an individual or for an entire family. Reservations can be made online ahead of time as well. Reservations are an option due to the discussion above of a possible lack of bicycles available by CityBike Prague, whereas Divvy requires no reservations because of the abundance of bicycles available. The main difference between Divvy and CityBike Prague is that with Divvy, bicycles are available at many different locations across Chicago. With CityBike Prague, there

is only one location where bicycles can be rented. This difference in availability ties into the next point about marketing towards different consumers.

There is one issue that was alluded to in the discussion above about the maintenance and accessibility of bicycle rentals provided by Divvy and CityBike. Now is a more appropriate time to discuss the issue of how the bicycles are rented to the public. Divvy focuses on getting the city dweller connected to different places around the city. Divvy wants to make it easier for someone living in the city to be able to get to places within the city more easily and quickly than waiting for a bus or train. CityBike Prague focuses on attracting tourists. Prague has a rich history with much to see, and the quickest way to see as many parts of the city as possible is by bicycle. Tourists are the people who want to see the most they can in a short amount of time.

CityBike Prague relies on bicycle rentals from tourists. Prague does not have a current rental system that is geared toward a local city-goer. This contributes to the fact the CityBike Prague only has one rental station. The tourist will find and come to the rental bike station, which is conveniently located in the Town Square. Everyone else who lives in Prague or frequents Prague is not captured by the CityBike Prague rental program. This leaves CityBike Prague with the potential to expand its control over the market and target a new type of consumer, the locals.

Divvy captures both tourists and locals. Locals use the bicycles by renting it directly from the station if necessary. Tourists can do this as well if traveling shorter distances. However, many tourists may wish to spend ample amounts of time traveling around the city and seeing different sites. For this, Divvy is not ideal. There are rental bicycle programs in Chicago geared more towards tourists and uses for longer periods of time during the day, such as Lakeshore Bike, Bobby's Bike and Hike, Bike and Roll Chicago, and On The Route Bikes (Best Bike Rentals, 2014). However, none of these companies offer the type of service Divvy does. These companies, like CityBike Prague, offer extended guided tour, self-guided tours, or rentals to be used at leisure. Divvy may not be compatible to CityBike Prague in terms of focus to the community, but the essence of this paper is to explore the options of a Divvy-like system for Prague. Prague may look to incorporate a locally focused bicycle rental program, or CityBike Prague may look to expand its services to accommodate local commuters.

Because of the difference in focusing bicycle rentals on locals versus tourists, different marketing strategies have developed for Divvy and CityBike Prague. Divvy advertises more by

see-and-ride, or a visual form of a word-of-mouth strategy (Hausman ,2013). With more bicycle rental stations across the city and more users of Divvy bicycles, more people see these rental bicycles in use. Further, Divvy uses the feedback from riders to improve future rides and to customize locations for most frequent riders. With more people seeing these bicycles being rented and ridden, more people will know someone who uses the Divvy program. This also means that those who ride these bicycles and give feedback are more likely to see their proposed changes come to fruition. With their comments accommodated, riders are likely to become repeat riders, further generating business for Divvy. Divvy pushes this word-of-mouth, or see-and-ride, mentality among its riders. With more stations becoming visible in more local neighborhoods, many people would turn to Divvy as a primary form of transportation in certain opportunities. Divvy lets the community advertise Divvy's services.

CityBike Prague advertises in different ways than Divvy does. Because CityBike Prague focuses on tourists, CityBike Prague has a heavy internet advertising presence. When tourists search for bicycle rental companies in Prague for their visit, they will do so online. Therefore, online advertising has become huge for CityBike Prague to attract tourists away from the other bicycle rental companies. The CityBike Prague website must be very user-friendly and attractive to the tourist. In addition to its website, CityBike Prague also has opportunities to advertise on YouTube and Facebook to expand its reach to as many people across the world as possible. CityBike Prague has commercials it could post as ads to the beginning of YouTube videos. CityBike Prague also can create a Facebook page advertising its services. These types of advertising are what CityBike Prague may want to explore for the local bicycle rental market.

CityBike Prague does not take advantage of feedback or evaluation opportunities as Divvy does. With a heavy social media influence, CityBike Prague can begin to measure and improve its services to tourists. With a better understanding of who rents more often from CityBike Prague than not, CityBike Prague can gain insight into whom to market and what types of rentals to market first. Because of a lack of evaluation system, CityBike Prague should implement this into their current transactions before weighing an evaluation system for the local rental market, if it chooses to enter this market.

Prague is capable of implementing a bicycle rental system targeted at local users. Divvy is the sole provider of bicycle rentals to local users. Prague does not have a company like this. CityBike Prague may look to exit the market of tourist bicycle rentals and specialize in bicycles rentals to locals. CityBike Prague may look to expand its reach to be a leader of the Divvy-like program while maintaining its promotion of services to tourists. This would give CityBike Prague an opportunity to control much of the bicycle rental market. CityBike Prague does not have a contract with the City of Prague like Divvy has with the City of Chicago because CityBike Prague focuses on attracting tourists. CityBike Prague is simply another competitor in the tourist bicycle rental industry.

If CityBike Prague demonstrates a need for a Divvy-like program, the City of Prague may support and enter a private contract with CityBike Prague to implement a local user bicycle rental system. The contract would be necessary because the City of Prague would not want many different competitors in a local bicycle renting market. This would not be in the City of Prague's interest because then it is costly to coordinate maintenance and equal distribution of bicycles between stations. The local bicycle rental market in Prague would need to be a natural monopoly just like Divvy has established in Chicago. As such, CityBike Prague should decide sooner rather than later if entering the local rental market is a worthy investment, as a partnership with the city would be crucial.

5.2 Conclusion from the comparison Chicago and Prague

CityBike Prague also is justified in leading an initiative in a local bicycle rental program because of its strong advertising capabilities. If CityBike Prague shifts its focus to accommodate city dwellers, CityBike Prague's social media presence can make the program catch on among the locals rather quickly. Divvy has spent little effort advertising its program, and relying on the see-and-ride mentality for the program to spread. When bicycle rental stations are available to locals in Prague, CityBike Prague will have the opportunity to use the see-and-ride form of advertising as the locals will see the many available rental stations. However, Divvy has a small social media presence. As such, CityBike Prague can gear its social media presence towards the local users and get many people to participate in the Divvy-like program rather quickly.

One thing that might help attract local riders is advertisements through the radio. As George Kronych stated in our class presentation, many Czechs listen to and get much of their news from the radio. By advertising on the radio, CityBike Prague can create a demand for its new

promotion of local services. CityBike Prague can thus benefit from see-and-ride advertising, a strong social campaign, and radio advertisements.

One issue this paper does not consider is the local traffic. Chicago has wide streets that accommodated the painting-in of bicycle lanes. Prague does have bicycle lanes in the streets, but may need to consider how adding a large amount of bicycle lanes will affect current traffic and traffic patterns. Another issue is that Divvy was established to compliment the current public transportation system. CityBike Prague may look to do the same. The competitors in the bicycle rental market are not only fellow bicycle rental companies, but the trains and busses as well.

Chicago had early troubles implementing the Divvy program. The kiosks malfunctioned, payments did not go through, riders were doubled charged, and the locks on the bicycle stations did not release when paid the bicycle was paid for (Hausman, 2013). These issues could have been avoided if thorough testing of implementation took place. Though CityBike Prague can learn from Chicago's mistakes, Chicago learned from previous implementations in other cities as well. This is to say that Prague may experience some trouble implementing a local bicycle rental program for the first time, but the necessary steps to minimize these issues should be taken.

To deter stealing or abuse of the bicycles, CityBike Prague can also implement time constraints and steep fines for local bicycle riders like Divvy has.

CityBike Prague has potential to build a bicycle rental program similar to Divvy in Chicago. CityBike Prague can begin a strong relationship with the City of Prague, continue an easy-to-join rider process, focus on the local bicycle user, and leverage its social media presence and heavy market listeners on the radio to effectively implement the first bicycle rental program for local users in Prague.

6 Marketing Brief

The purpose of the marketing brief is to compose a particular marketing campaign, that serve to raise the profile of the project, product or service. This marketing brief will help the project bicycle rental and segway rental to bring the people this service and to introduce it to the potential users. Another purpose is to also sell the service and to support the selling. In this marketing brief the communication channels will be described and target groups will be specified as well as. The service will be introduced and specified too. The authors will also analyze the competitors and set up the targets, that should be fulfilled. Marketing brief will end up with the résumé and conclusion.

1. Product portfolio

The city of Pilsen will operate with two groups of the product. The first group will be segway and the second one will contain the city bikes. All these products will be lent to the inhabitants of the city and also to the potential tourists.

Segway

The city will lend three types of the segways that are described above of the project:

- *Glide segway*
- *Commuter segway*
- *Adventure segway*

The segway will be offered with a guided tour, if there would be a demand, if not, the segways will be offered separately for the individuals. The process of borrowing segway will be organized by the information centers. Each segway will be thoroughly checked before and after the renting. The segway system will serve also as the catchy thing, that could attract the attention and will add the service of the citybikes.

City bikes

The city will provide the offer of the stations with city bikes and the customer can borrow the bike there. There will be a specific number of the bike docks, that will fit to the customer base. In the bicycle docks, there will be a paying machine, that will organize the payment tariffs and will allow to the customer to unlock the bike after the payment. This machine will also serve for returning of the bicycles. We can say that the system will be fully automatic unlike the segway system. The system will look in this style:



Source: Citybike, 2015

2. Target group

The campaign will direct the attention on the inhabitants of the city, but as well as on the potential visitors of the city. The age interval is set up from 16 - 60. The lower limit will be set up because of the safety aspect and the upper limit because of the potential of the preferences of Czech people. The main part of them are rather conservative people and they have their standard of living that do not want to change. Of course, there could be younger customers that will use this service, but with accompaniment and customers above the upper limit. From the nationality, there are no limitations. Only the foreigners will have to prove the identity by the passport when borrow the segway.

3. Targets of the marketing communication

The subject of media brief is to promote and sell a new service segway and city bike rent. The goal of marketing communications is to inform audiences about new service on the market and its benefits and advantages. As a secondary effect of marketing promotion will be promotion and brand names of Czech city Prague.

4. Competitors on the market

In Prague there are some competitors that run a business in this field, but they do not have wide portfolio and the size of the company. We can say, that in this type, meant segway renting, bicycle renting there are no competitors. But the city of Prague must realize that all these small competitors are pretty young companies and they can build their business and in the future they can endanger the company. All these companies mentioned above are the private owned company. These companies are:

Segway rent Prague – they rent segways and also have in their service portfolio guided tour around the city. The company also rents a bicycles.

Segway PSH-Rent – this company provides only guided tour through the city of Prague.

Elektrická kola – the company provides renting of the electric bicycles for individuals but also provides guided tours too.

5. Specific targets of marketing communication

Introduction of new service on the market.

Support the growing concept of the project and at least maintain the quality service or still improve it.

6. Key indicators of the specific targets

Analysis of the service.

The analysis will be made from the number of rented segways and bicycles will be made the analysis of the service awareness.

Static satisfaction will be made by the company to verify the quality service.

7. Timing of the campaign

The campaign start up will be realised in the headquarter of the Transportation company of Prague. Campaign will be realised when the service will be definitely ready for the customers. On the campaign start up all the service will be introduced to the customers and the campaign will last 5 months to be able to introduce and make the awareness of the service.

8. Communication mix and channels of the communication

On line advertisement

Commercials will be posted on the Facebook, Youtube, www.dpp.cz.

Way of introducing the service will be: promo video, special articles, videos, photographs, spots from the renting.

Sales support

Sales support will be realized by the magazines *Sedmička*, *Metro*, *Právo*, *Pražský deník* and also it will be posted in metro, trams and buses provided by the company. For the sales support, the company will hold the open days in the informational centers, where the authorized employees will introduce and explain the service.

The company will also use the radio like *Evropa 2/Frekvence 1* for young part of the customers. For the rest the company will use *Český Rozhlas*.

Event marketing

Customers will have a chance to try the bicycles and segways in the information centers. The employees will teach them how to ride a segway and also help them with the renting process.

WOM – Word of Mouth

Word of Mouth will be also the instrument of spreading of the service among the people.

Tabel 4 Target group according the medias

Media	Target groups		
	16 - 29	30 - 49	50 - 60
Facebook	x		
YouTube	x	x	
www.dpp.cz	x	x	
Časopisy/ katalogy	x	x	x
Sales support	x	x	x
Event marketing	x	x	x
Word of Mouth	x	x	x

Source: Own processing, 2015

The chart describe the distribution according age for each media. As you can see, for each media is crucial to identify on which target age the company will focus.

9. Budget of the campaign

Following table describes the costs for each marketing medium. On the base of this table there will be defina final budget needed for the campaign.

Tabulka 5 Budget of the campaignn

Medium	Budget CZK	Budget USD
Facebook	0,-	0,-
Youtube	1 800 000,-	72 000,-

www.dpp.cz	0,-	0,-
Word of Mouth	0,-	0,-
Event	2 500 000,-	100 000,-
Magazines	4 800 000,-	800 000,-
Radios	6 500 000,-	260 000,-

Source: Own processing according Provasbyznys, 2015

All the cost from the chart were set up according contacting each media. Whole budget for the marketing launch of the service will be **11 600 000,- CZK** (1 232 000,- USD). The column with USD currense serves just only for the comparison, how much is the campaign in the USD currency.

Conclusion

In the project, two transportation companies from the different cities were compared. American part was made by Michael B. Jarmola and the czech part was processed by Bc. Jiří Kronych. The target of the project is to compare the companies from both cities and find the new inspiration for them in the running of the bicycle renting.

In the czech transportation company, there the company was characterized and deeply analyzed. After this section, the environmental analysis was made to create the informational database for the closer understanding of the company in its market. After the environmental analysis, new technological aspects were introduced for the purpose of the project. The authors introduced the segway as the potential field for both project and bicycle rental.

From the american part, the author introduced the running project Divy and characterize the company and all the procedure. The author also compare the two companies and highlight the things to be done, because the american company has more experience with this type of the project.

On the base of this comparison, marketing brief was proposed for the Prague transportation company. Prague will run the project bicycle renting and segway renting. The most important thing in the first phase of the project is to inform the potential customers of the new service. All the marketing brief was made with its all components like Product Portfolio, Target Group, Competitors, Key Performance Indicators, Budget of the campaign, Communication Mix etc.

After that the prospection of sustainable development was proposed too. The authors consider as the most important the maintenance of the bicycles and segways. Also both companies should still develop the online membership and prepare a special offer to attract more people and sustain the current customers.

As the result, the authors find the environment quite similar for both cities, even they have different culture and the environment too. The companies could work together and still find the inspiration from each other.

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