

Transportation in Aruba:

How the Ministry of Tourism, Transportation and Labor should proceed regarding the licensing moratorium.



Graduation Assignment of July 2012

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Deloitte.



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Less than four years ago I started studying International Business and Management and I had no idea what the years would bring. An internship at Randstad in the Netherlands, five months at the Assumption University in Thailand and eventually ending up at Deloitte in Aruba for my graduation project, it has been a dream. Now, I am taking on the final challenge upon completion of my degree in Business Administration. I have many people to thank for making this project and thesis such a success and supporting me throughout this exciting journey.

First, I would like to express my gratitude to my parents, *Mina and Garzai Laek*, for they have always stood by me. I would like to thank them for their patience and support during my stay abroad. I would especially like to thank my wonderful brother, *Babray Laek* for being very strict and critical when reviewing my thesis. This helped me improve in the final phases. I am grateful for having such a supportive family.

Also, my sincere appreciation goes out to *Deloitte Dutch Caribbean* for giving me this amazing opportunity to work for them. I am particularly thankful for the fact that *Ms. Nicoline Mol* gave me the chance to work with her on the project. She put a lot of trust in me and helped me wherever she could.

Furthermore, I would like to thank my university supervisor *Mrs. Inge van Helvert* for her constant advice and feedback during my internship. She was a great source of knowledge and was always ready to help. Also, I would like to show my appreciation to *Mr. Edwin Weesie* for his advice and support during the process of coming to Aruba and making sure I could leave on time.

Finally, I am grateful for having the most wonderful friends; *Sela Ford, Maitrie Khedoe, Yasamin Sayyed* and *Linda Yousif*. Their enthusiasm, support and feedback enabled me to cope with the challenges I faced in Aruba.

Oranjestad, 25 June 2012

A handwritten signature in black ink, reading "Zala Laek". The signature is written in a cursive, flowing style. The first name "Zala" is underlined, and the last name "Laek" follows it with a large, sweeping flourish.

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Executive Summary

This research was conducted upon request of Minister Oduber of the Ministry of Tourism, Transport and Labor (MTTL). Due to traffic congestion issues Aruba has faced throughout the years, a moratorium was introduced in 1997. This ban serves as a stop on public bus¹ (B), taxi (TX), tour operator (T/O) and car rental (V) licensing. This moratorium expires on the 1st of August 2012. This research will advise the Minister on how to proceed after the moratorium is expired.

Previous researches conducted lacked the necessary field research and public opinion. These researches were conducted at least ten years ago, making them outdated. Above all, the recommendations derived from these researches were never implemented. The research conducted by Deloitte Aruba was setup to reveal the public opinion and the opinion of the transportation suppliers. A total number of 911 tourists and 600 locals were surveyed throughout the island of Aruba and the suppliers of transportation were also inquired. Interviews were also held with branch organizations, government officials, taxi corporations and tour operators. The data was gathered with assistance of the University of Aruba (AU). The UA entered the data into SPSS, from where later frequency tables were created to analyze the data. Unfortunately the lack of literature made it difficult to obtain more information about this topic; hence few literature sources were used. Time was also limited and therefore it was difficult to research all aspects in great depth.

The Deloitte research revealed that overall the public is satisfied about the different categories of transportation. The public buses (which consist out of the small buses and Arubus) are advised to work together in order to achieve better performance and more road coverage on Aruba. This is also requested by the public and the small bus drivers have indicated that they want a better collaboration with Arubus. The public is less satisfied about the taxis prices, which may be caused by the lack of knowledge about taxi rates. According to the Ordinance² of 1997, taxi prices must be visible to passengers and a taxi meter must be used, but this not always the case. The Ordinance therefore should be updated. The taxi meter should be removed from the law. Minister Oduber stated that he will not introduce taxi meters. In addition, the Ordinance must clearly state that prices must be visible and this should be controlled. The taxis drivers themselves, are dissatisfied because their business is decreasing. The research showed that

¹ Throughout the report public bus refers to Arubus, the public bus company AND the small buses that are privately owned.

² Ordinance: a law set forth by a governmental authority; *specifically* : a municipal regulation
Source: <http://www.merriam-webster.com/dictionary/ordinance>

taxis work whenever they want, causing too many taxis operating during the same times. This can be easily solved when all taxis are obligated to become member of a corporation, who will then take care of schedules for the taxis. The tour operators' are facing uncertainty due to the tramline that will be built at the cruise terminal in 2013. MTTL should research the consequences of this project and inform the parties involved accordingly. Finally, the car rentals' business has been increasing over the past three years. The problem they are facing has to do with tourists damaging cars and not being penalized. The Ordinance should offer them a solution by setting up laws that will enable car rentals to pursue a tourist after damages are caused. As a final point, the research showed many transportation suppliers feel there is a lack of professional standards. Therefore it is advised that all categories will follow an obligated course that will educate them on Aruba, communication, behavior and dress code, in order to increase their professionalism.

Glossary of Terms

A	Local/Private License
AHATA	Aruba Hotel and Tourism Association
APA	Aruba Port of Authority
ATA	Aruba Tourist Authority
ATOA	Association for Tour Operators of Aruba
B	Public Bus License (Arubus and small buses)
CISA	Certified Information Systems Auditor
DTP	Departemento Transportation di Publico
Ing.	Engineer
MsC.	Master of Science
MI	Ministry of Infrastructure
MTTL	Ministry of Tourism, Transport and Labor
O	Unarranged Transport
PMP	Project Management Professional
T	Tour Buses/Transfer
TAS	Taxi Address Service
TX	Taxi License
UA	University of Aruba
V	Visitor License

Introduction

The MTTL has requested Deloitte to research and advice on proceedings of the moratorium on public transportation in Aruba. The moratorium serves as a ban on public transportation licensing, stopping the issuance of the B, TX, T/O and V licenses. This does not include the private licenses (A). This moratorium will expire on the 1st of August 2012. This requires the research to be finalized and reported no later than July 2012. For additional general information about Aruba, please refer to appendix 1 on page 34.

For years Aruba has been experiencing traffic congestion issues. Consequently the moratorium on licensing was introduced in 1997 by the Minister of Transport and Communication, Adison Breesen (Directie Openbaar Personen Vervoer, 2002). The moratorium's intention is to control the number of vehicles on the road besides the private cars. Benschop (2003) has stated that there are no good alternatives for private car use. Public transportation is stagnating and lacking its potential. Taxis turn out to be unreliable and cause many complaints among tourists. Laws and regulations are not clear or not followed and outdated (Benschop, 2003). The Ordinance that applies to public transportation dates from 1997 and is not only outdated, but also not obeyed (Wettenregister, 1997). The Ordinance now states that the taxi meter should be placed in all taxis, in reality this has not happened. The government has set fixed prices for taxis and states that these prices should be visible for the customers but even that is not always the case (Benschop, 2003).

Benschop and the Directory of Public Transportation (DTP) made an attempt to research this topic and advice accordingly. Yet both researches lacked the needed field research that would include the views of the users of public transportation (demand) and in addition the opinion of the suppliers of public transportation (supply). Benschop and DTP mostly studied existing data and added governmental field research to acquire an inside view of the situation. On top of that, both researches are outdated (conducted ten years ago) and none of the recommendations stated were implemented. Therefore it was of significant importance to conduct an entirely new research in order to give the Minister a more reliable and up to date advice.



This study exists out of desk research and detailed field research. Desk research was used to attain information about the figures of tourists, inhabitants and the licenses currently issued per category. Field research data was derived by conducting interviews and surveys during the course of four months. These included both the public (locals and tourists) and the suppliers of transportation (companies and independent entrepreneurs).

The main research question:

What should the MTTL do about the moratorium on public transportation?

The sub-questions:

How are the numbers of inhabitants developing in Aruba?

How are the numbers of tourists developing in Aruba?

What is the current situation in regard to the different categories of public transport?

What is the public view on public transportation?

What are the problems experienced for each category of public transport?

The primary assumption suggests that MTTL should extend the moratorium to prevent traffic congestion to get worse. Unless the public is unsatisfied and their needs do not match what is available currently. Furthermore, the Ordinance of public transportation should be updated so that no laws are stated in the Ordinance unless it is applied and controlled.

The next chapter, *Methodology*, is a description of the research methods and the reasoning behind them. The *Research Design* covers the first part of it and points out the strengths and weaknesses of the methods chosen. *Sampling* covers how the sample size was calculated for the surveys. *Data Analysis* briefly describes how the survey data were processed and then finally the *Limitations* of the research will be explained. Afterwards, the *Findings* of desk and field research shall be presented. In the *Discussion* chapter these findings will be analyzed and conclusions will be drawn. Finally, in the *Recommendations* chapter the final advice to the Minster will be given.



Methodology

To facilitate the provision of proper advice to the MTTL desk and field research were conducted in the course of four months.

Research Design

The key aim of the research was to uncover whether the current moratorium should be reconsidered. The demand and supply sides of public transportation were studied, creating a zero measurement to display the current situation. Both sides were studied to find out whether they matched. Discrepancies will have consequences on the recommendations given, because if supply and demand matches there is no need for change. But when supply and demand do not match, changes should be made accordingly. Due to the large scale of the research the UA assisted in the collection of the data.

The demand side consisted out of tourists and locals. The respondents were surveyed around touristic areas, bus stations, the airport, restaurants, hotels and time-share³ apartments. These were good locations to reach the tourists and locals, because the tourists usually spend their time around these areas and the locals mostly work in these areas.

The supply side includes all the transportation suppliers: B, TX, T/O and V. This section was covered by both the UA and the Deloitte team.

Surveying was chosen since it was the best way to gather the information needed in a short period of time from the supply side. In-depth interviews were not used due to time constraints and interviews are difficult to convert into quantitative data. The surveys provided fast, accurate and specified information. However, specific category related issues were studied with in-depth interviews with the supply side and related organizations.

Only the people mentioned in appendix 2 had an in-depth interview. The main findings of these interviews will be used to better interpret the findings of the surveys.



³ Timeshare: An ownership model whereby many customers own allotments of usage in the same property.

Source: <http://www.investopedia.com/terms/t/timeshare.asp#ixzz1tvun5lyY>

Table 1: Pros and Cons of Surveying

Pro's of Surveys	Con's of Surveys
Inexpensive	Sampling bias
Easily provides quantitative data	Response bias
Repeatable	Wording and execution biases

Sampling bias occurs when the sample size is non-representative. The sample size was carefully calculated therefore this error is eliminated. Response bias was reduced by doing face-to-face surveys. Wording and execution biases were reduced by asking mainly multiple choice questions.

To ensure high quality of the research, different quality checks were applied. First, the surveys were checked by four different parties; internally by Deloitte partner *Ing. Mario Flores CISA, PMP* (1), afterwards by the minister's advisor *Mr. Nilcky Kock* (2), DTP director *Mr. Keteldijk* (3) and finally by the UA professor, *Ms. van Nierop MsC.*(4). The second check was performed after the surveys were finished, 3% of the completed surveys were randomly selected to make follow-up calls to check the answers.

Sampling

Demand: For a representative sample, random sampling was necessary. With help of Drs. Paul C. van Batenburg⁴ the sample size was initially calculated with a confidence level of 95% and a 3% margin of error. Upon request of the MTTL and the deviation of the different categories Deloitte raised n to 1500 people with 45 margin of error within the 3.86% interval. The final number of people surveyed was eventually 1511: consisting out of 911 tourists and 600 locals.

Supply: The sample size for the supply side of transportation consisted out of 1/3 of the total licenses currently issued per category of transport. Table 2 gives an overview of the minimum numbers to survey and the amounts surveyed. The Deloitte team ensures 95% confidence of the data. Categories TX and B were completely surveyed and were also involved in in-depth interviews. Categories V (*) and T/O (**) also met the sample size, but with in-depth interviews and a small number of surveys. The V and T/O licenses in these categories are not only assigned to individuals but also to companies. This means one company can have e.g. 200 T/O licenses so by just interviewing that one company, 200 licenses are covered.

⁴ Drs. Paul C. van Batenburg works for Deloitte Risk Services and is a professor the Nyenrode Business University;
<http://www.steekproeven.eu/wp/>
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Table 2: Transportation Suppliers Surveyed

License Type	Total Licenses Issued (TL)	<i>n</i> = at least 1/3 of (TL)	Total Surveyed
Taxi Licenses (TX)	400	66	76
Bus Licenses (B)	130	44	45
Car Rentals Licenses (V)	4,486	1490	*
Tour Operators (T/O)	631	211	**

Data collection

The UA surveyed the majority of the respondents from the demand side. Students had a brief training from *Ms. van Nierop MsC*. Students surveyed in groups of four accompanied by a supervisor, during the weekdays and weekend, from the morning until 21.00h. The students were supported by the supervisors when people refused to take the questionnaire. A lot of emphasis was put on the importance of the research and the effects for the public. Students were given name tags with the title of the survey, the logos of Deloitte and MTTL in order to increase legitimacy.

Data analysis

After completion of the surveys, *Ms. van Nierop MsC*, *Mr. Wardlaw* and *Ms. Jahnannansing PhD* from the UA, entered all the data in SPSS. Incomplete surveys were not used. After all data was entered in SPSS, frequency tables were created and converted into Excel. The tables were adjusted in Excel to be used for the research.

Limitations

One of the limitations experienced was the lack of literature on the subject researched. There were only three researches conducted prior to Deloitte's, of which the last one was done in 2002.

Secondly, cultural differences caused people to be late or not show up at meetings. To make sure research time was not wasted, the day before the appointment reminder-calls were made.

Furthermore, the moratorium on licensing expires on the 1st of August 2012. The minister of MTTL needs recommendations before this date in order to make his decision. Therefore there was a limit on how much could be researched.

Findings

In this section the research's findings shall be presented. These finding are derived from desk and field research. A clear significance between these two is made in the following sections.

Desk Research

Table 3: Overview Desk Research Findings

Category	Findings	Sources
T/O	Market is saturated.	(Benschop, 2003), (Directie Openbaar Personen Vervoer, 2002)
	Tramline at cruise terminal in 2013.	(Ministry of Infrastructure, 2010)
TX	50% taxis are members of taxi cooperation.	(Benschop, 2003),
Overall	Laws are outdated, not clear and too broad formulated when it comes to taxi meters and the taxi price list.	(Benschop, 2003) (Directie Openbaar Personen Vervoer, 2002), (Wettenregister, 1997)

Development of the Aruban Population

The development of the Aruban population has been very stable since 1986. In appendix 3, page 35, it is shown that for the past ten years the percentage change in population has not been more than 2 percent. The population of Aruba consists out of ± 108.000 people.

Development of Tourists

The growth of visitors in Aruba has been stable for the past few years as appendix 4 page 36, demonstrates. Currently around 850.000 stay-over tourists come over to the island, yearly.

Field Research

Table 4: Interview Findings

Category	Findings	Sources
B	Arubus has no control over the routes the small buses drive.	(Croes, Clement, & Canhigh, 2012)
	The small buses were introduced to complement Arubus and cover the secondary roads.	(Oduber, 2012)
T/O	Market is saturated.	(Malmberg & Malmberg, 2012), (Oduber, 2012) (Warner, 2012)
	Tour buses will be scattered around the terminal area after completion of the tramline.	(Warner, 2012)
	No research has been done on the effects of the tramline for the T/Os	(Oduber, 2012)
V	There are many shabby car rentals.	Directie Openbaar Personenvervoer (2002), Keteldijk (2012), Solognier (2012)
	Rental cars do not always use the required V-license plates. Also tourists are hard to penalize when it comes to damages.	Hepple (2012), (Solognier, 2012) (Richardson, 2012) (Mukersh, 2012)
TX	Taxi meters are not used in the taxis.	(Franken, 2012) (Gomez, 2012) (Keteldijk, 2012) (Oduber, 2012)
	The taxi meter will not be introduced for the taxis, the taxis rates will be fixed by the government and continued.	(Oduber, 2012)
Overall	There are no professional standards/ educational qualifications described for the T/O and TX category. Anyone can obtain a license.	(Franken, 2012) (Gomez, 2012) (Warner, 2012) (Keteldijk, 2012) (Oduber, 2012)
	A growth of 3% is expected in the flow of tourists from 2013-2017 through the building of two new hotels (Ritz-Carlton in 2013 and Hard Rock in 2014) Within five year the number of tourists will grow from 850.00 to 1.000.000 on a yearly basis.	ATA, (Tjin Asjoe- Croes, 2012)

In the following pages the survey results will be analyzed. First the demand side will be presented. Respondents from the demand side refer to locals and tourists unless stated otherwise. Afterwards the supply side will be discussed, consisting out of the public buses, taxis, tour buses and car rentals.

Survey Results – Demand

Table 5: Rating of Transportation

	Arubus		Small Bus		Taxi		Tour Bus		Car Rental	
Service	#	%	#	%	#	%	#	%	#	%
Good	149	33.3	145	35.2	242	72.7	193	61.9	170	52.5
Medium	254	56.8	228	55.3	81	24.3	117	37.5	137	42.3
Poor	44	9.8	39	9.5	10	3	2	0.6	17	5.2
Total	447	100	412	100	333	100	312	100	324	100
Price	#	%	#	%	#	%	#	%	#	%
Good	251	56.4	179	43.7	57	17.2	85	27.5	65	20.1
Medium	164	36.9	176	42.9	101	30.5	177	57.3	206	63.8
Poor	30	6.7	55	13.4	173	52.3	47	15.2	52	16.1
Total	445	100	410	100	331	100	309	100	323	100
Maintenance	#	%	#	%	#	%	#	%	#	%
Good	97	21.8	66	16.2	235	71.2	149	48.2	135	41.8
Medium	226	50.8	214	52.6	87	26.4	146	47.2	141	43.7
Poor	122	27.4	127	31.2	8	2.4	14	4.5	47	14.6
Total	445	100	407	100	330	100	309	100	323	100
Availability	#	%	#	%	#	%	#	%	#	%
Good	116	26.2	139	34.2	209	63.3	156	50.8	148	46.1
Medium	231	52.3	204	50.1	99	30	139	45.3	146	45.5
Poor	95	21.5	64	15.7	22	6.7	12	3.9	27	8.4
Total	442	100	407	100	330	100	307	100	321	100
Timeliness	#	%	#	%	#	%	#	%	#	%
Good	115	25.9	105	25.7	205	62.1	153	49.8	124	38.8
Medium	223	50.2	237	58.1	104	31.5	142	46.3	174	54.4
Poor	106	23.9	66	16.2	21	6.4	12	3.9	22	6.9
Total	444	100	408	100	330	100	307	100	320	100

Source: Deloitte Public Transportation Survey 2012

Table 5 is an overview on how **users and non-users** rate different transportation categories. The majority of the respondents rated all the transportation suppliers on all five topics medium to good, with the exception of taxi prices. The reason for this exception could be that taxi customers are not aware of the taxi prices beforehand which causes displeasure, see figure 1.

From here on, the tables present the answers of only **users** of the transportation service.

Table 6: More Arubus Buses Wanted

	Side Roads		Main Roads	
	#	%	#	%
Yes	1	0.3	1	0.3
Yes, in the morning	40	12.1	30	9.2
Yes, in the afternoon	30	9.1	24	7.4
Yes, in the evening	17	5.2	27	8.3
Yes, at night	24	7.3	31	9.5
No	96	29.1	110	33.7
Yes, Afternoon and Evening	10	3	8	2.5
Yes, Afternoon and At night	8	2.4	9	2.8
Yes, Morning, Evening and At night	6	1.8	-	-
Yes, Morning and afternoon	22	6.7	9	2.8
Yes, Morning, Afternoon, Evening and At night	59	17.9	52	16
Yes, Morning, and Evening	16	4.8	13	4
Yes, Morning, Afternoon, and Evening	1	0.3	11	3.4
Total	330	100	326	100

Source: Deloitte Public Transportation Survey 2012

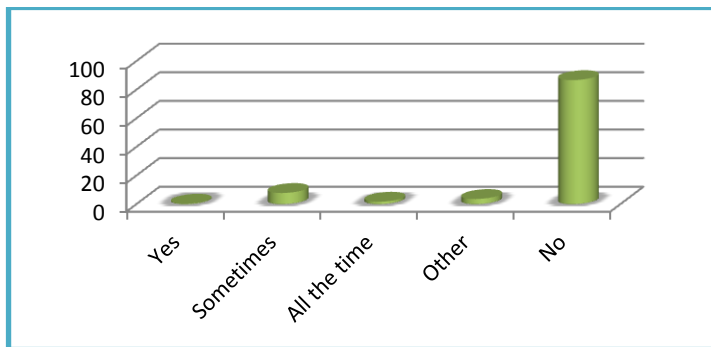
Respondents were asked if they would like to see more buses of Arubus and if so on which roads and when. If all the 'Yes' answer are summed up, 70.9 percent and 66.3 percent state they would like to see more Arubus throughout the day, on both roads.

Table 7: More Small Buses Wanted

	Side Roads		Main Roads	
	#	%	#	%
Yes, in the morning	33	10.2	31	9.7
Yes, in the afternoon	26	8	18	5.6
Yes, in the evening	17	5.2	22	6.9
Yes, at night	20	6.2	18	5.6
No	128	39.5	150	46.7
Yes, Afternoon and Evening	7	2.2	7	2.2
Yes, Morning and Afternoon	14	4.3	8	2.5
Yes, Afternoon and At night	3	0.9	6	1.9
Yes, Morning and Evening	17	5.2	17	5.3
Yes, Morning, Afternoon, Evening, At night	59	18.2	44	13.7
Total	324	100	321	100

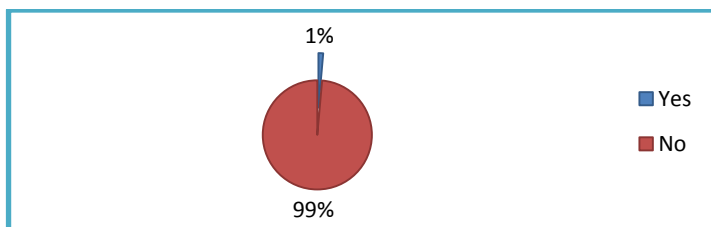
Source: Deloitte Public Transportation Survey 2012

Respondents were asked the same about the small buses. All the 'Yes' answers summed up, signifies that 60.5 percent and 53.3 percent want more small buses, throughout the day, on both roads.

Figure 1: Taxi Prices Visible in the Taxi

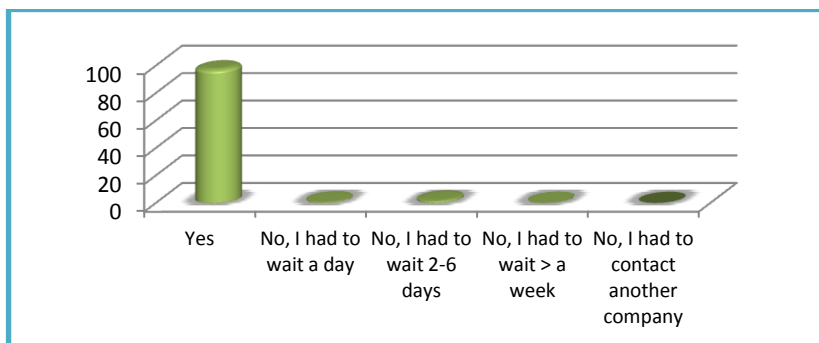
Source: Deloitte Public Transportation Survey 2012

Respondents were asked whether the price list was visible in the taxi. Figure 1 shows that 80 percent indicated this was not the case.

Figure 2: Taxi Refused Certain Routes

Source: Deloitte Public Transportation Survey 2012

Figure 2 shows that only 1 percent of destinations requested by the passenger(s) were refused by a taxi driver.

Figure 3: Tour Operator Available at Time of Booking

Source: Deloitte Public Transportation Survey 2012

Figure 3 shows that 97.2 percent of the tour operators were available at the time of booking.

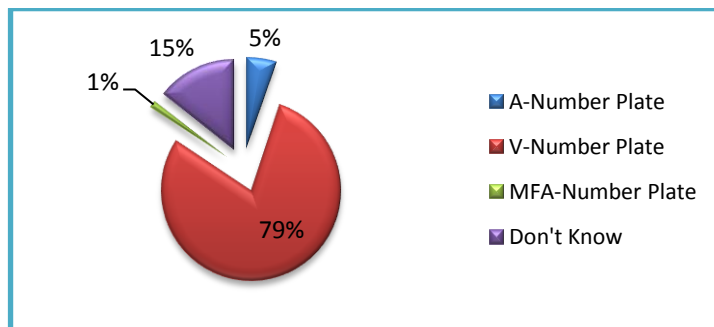
Table 8: Language Skills Tour Bus Drivers

	English		Papiamentu		Spanish		Dutch	
	#	%	#	%	#	%	#	%
Good	315	88.5	67	91.8	71	65.7	26	52
Somewhat	40	11.2	5	6.8	36	33.3	19	38
No	1	0.3	1	1.4	1	0.9	5	10
Total	356	100	73	100	108	100	50	100

Source: Deloitte Public Transportation Survey 2012

Table 8 displays that tour operators have many of language skills. Most of them know three languages very well. Drivers are less skilled in Dutch.

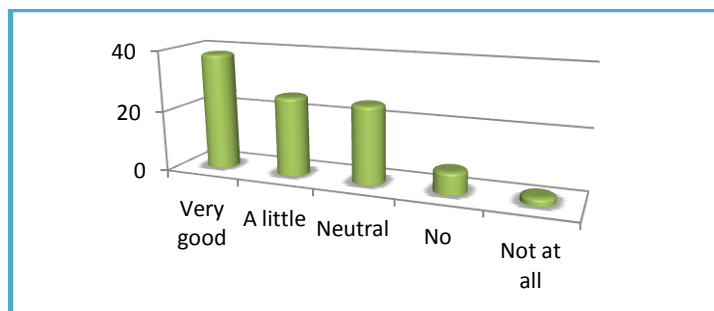
Figure 4: License Plate of Rental Car



Source: Deloitte Public Transportation Survey 2012

Figure 4 is an overview of the car rentals' licenses plates, 79 percent rented a car with a V-plate.

Figure 5: Condition of Rental Car



Source: Deloitte Public Transportation Survey 2012

Figure 5 shows that most of the respondents (38.9 percent) found the condition of their rental car to be very good and just over 20 percent found it neutral.

Survey Results - Supply

Arubus

Table 9: Development of Business (2008-2012)

	Customer		Profit	
	#	%	#	%
Plus	15	78.9	7	87.5
Even	4	21.1	1	12.5
Total	19	100.0	8	100.0

Source: Deloitte Public Transportation Survey 2012

When it comes to development of Arubus in terms of the numbers of customers and amount of profit for the past three years, Arubus drivers indicate that the business has developed positively.

Table 10: Market Place for More Buses

	#	%
Yes	9	45.0
No	11	55.0
Total	20	100.0

Source: Deloitte Public Transportation Survey 2012

When Arubus drivers were asked whether they think there market placed for more buses, 45 percent stated 'Yes' and 55 percent stated 'No'. Indicating some believe more buses can be introduced and some do not, the difference is not that major.

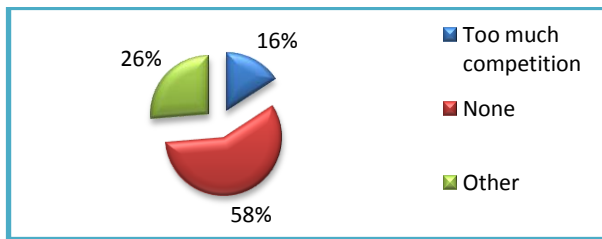
Table 11: Legislation is Adequate

	#	%
Yes	4	57.1
No	3	42.9
Total	7	100.0

Source: Deloitte Public Transportation Survey 2012

Also the answers of table 11 are not widely scattered. Four out of seven believe the current legislation is adequate and just three out of seven believe the opposite.

Figure 6: Problems Experienced



Source: Deloitte Public Transportation Survey 2012

According to 58 percent Arubus drivers, Arubus is not experiencing any problems within its branch.

Small Bus

Table 12: Coverage of Roads

	Main Roads		Secondary Roads		Dirt Roads	
	#	%	#	%	#	%
<10%			10	50.0	7	63.6
11-25%			3	15.0		
26-50%	1	4.8	2	10.0	2	18.2
51-75%			3	15.0		
76-89%	2	9.5	1	5.0	1	9.1
>90%	18	85.7	1	5.0	1	9.1
Total	21	100.0	20	100.0	11	100.0

Source: Deloitte Public Transportation Survey 2012

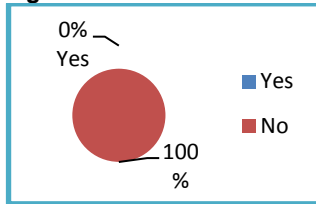
The small bus drivers were asked which roads they cover. Table 12 shows that the main roads are mostly covered. The secondary roads are covered for less than 10 percent by only 50 percent of the drivers. The dirt roads are driven by only 11 drivers of which only seven cover a minimum amount. This indicates that small buses cover more of Arubus' terrain than their own.

Table 13: Development of Business (2008-2012)

	Customer		Profit	
	#	%	#	%
Plus	6	8.6	6	8.7
Even	26	37.1	26	37.7
Less	38	54.3	37	53.6
Total	70	100.0	69	100.0

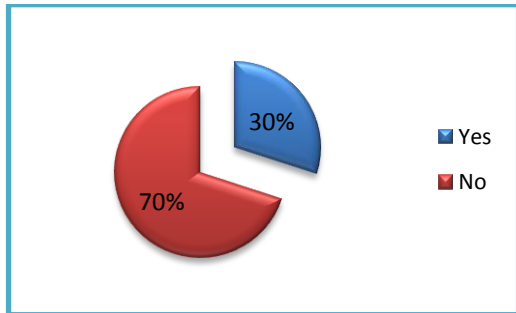
Source: Deloitte Public Transportation Survey 2012

The small bus drivers indicate that their number of customers and amount of profit has decreased over the past three years.

Figure 7: Market Place for More Buses

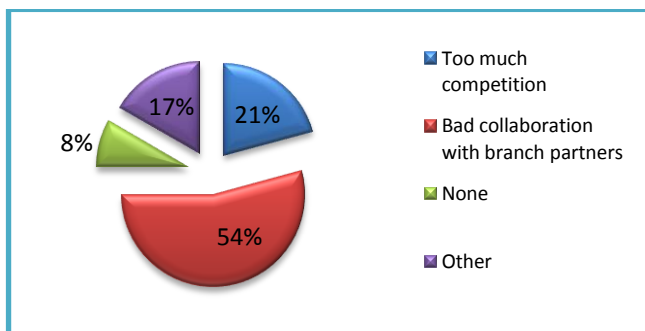
Source: Deloitte Public Transportation Survey 2012

The small bus driver unanimously responded there is no place for more buses.

Figure 8: Legislation is Adequate

Source: Deloitte Public Transportation Survey 2012

70 percent of the small bus drivers are not pleased about the legislation as figure 8 displays.

Figure 9: Problems Experienced

Source: Deloitte Public Transportation Survey 2012

Small bus drivers mainly see the bad collaboration with branch partners such as Arubus as a problem.

Table 14: Changes to be Made

	#	%
A stricter regulation to protect the damaging of the vehicles	1	8.3
Adaptation of professional/quality standards	5	41.7
Other	4	33.3
All above	2	16.7
Total	12	100.0

Source: Deloitte Public Transportation Survey 2012

Table 14 shows that 41.7 percent of the small bus drivers would like to see more professional standards in their business.

Taxi

Table 15: Working Schedule

Shifts	#	%	24hrs a days	#	%
Morning	8	28.6	Based on calls	2	6.1
Afternoon	2	7.1	Based on peak hours	5	15.2
Night	2	7.1	Based on preference of driver	25	75.8
Morning & Afternoon	14	50.0	Based on calls & peak hours	1	3.0
Morning & Evening	2	7.1	Total	33	100.0
Total	28	100.0			

Source: Deloitte Public Transportation Survey 2012

Taxi drivers were asked about their work schedule. Taxi drivers have the freedom to decide when they work. Fifty percent of the taxi drivers, who work based on shifts, work the morning and afternoon. The ones that are available the entire day, work according to their preference.

Table 16: Waiting Times

a) Sunday-Friday

	Airport		Hotels	
	#	%	#	%
31 min-1 hour	7	12.5	9	21.4
61 min-2 hours	19	33.9	18	42.9
2 hours and a min-3 hours	28	50.0	13	31.0
>3 hours	2	3.6	2	4.8
Depends, on call only				
Total	56	100.0	42	100.0

b) Saturday

	Airport		Hotels	
	#	%	#	%
31 min-1 hour	5	8.9	7	20.0
61 min-2 hours	20	35.7	15	42.9
2 hours and a min-3 hours	27	48.2	12	34.3
>3 hours	4	7.1	1	2.9
Depends, on call only	-	-	-	-
Total	56	100.0	35	100.0

Source: Deloitte Public Transportation Survey 2012

Taxi drivers were asked about their average waiting times to pick up a customer in different areas. At the airport 50 percent of the respondents stated they wait 2-3 hours. At the hotels this is 1-2 hours.

Saturdays are 'good' days for the taxi drivers according to interviews conducted, but as table 12b shows, the waiting times are the same as during the weekdays and Sundays

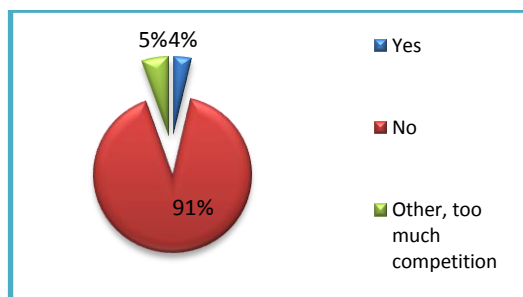
Table 17: Development of Business (2008-2012)

	Customer		Profit	
	#	%	#	%
Plus	6	8.6	6	8.7
Even	26	37.1	26	37.7
Less	38	54.3	37	53.6
Total	70	100.0	69	100.0

Source: Deloitte Public Transportation Survey 2012

Over 50 percent of the taxi drivers state that both their customers and profits have decreased over the past three years.

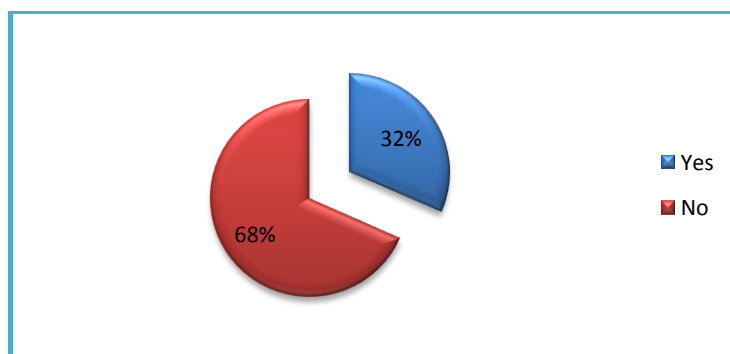
Figure 10: Market Place for More Taxis



Source: Deloitte Public Transportation Survey 2012

Figure 10 shows that 91 percent of taxi drivers said 'No' when asked if there is more market place for taxis.

Figure 11: Legislation is Adequate



Source: Deloitte Public Transportation Survey 2012

68 percent of the surveyed taxi drivers believe the current legislation is not adequate for their branch.

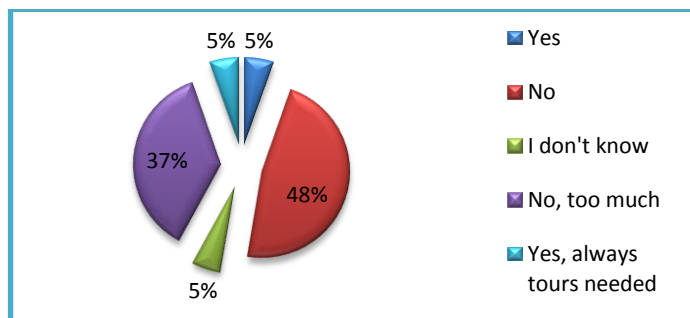
Table 18: Change to be Made

	#	%
Adaptation of professional/quality standards	6	50.0
Better Routes	6	50.0
Total	12	100.0

Source: Deloitte Public Transportation Survey 2012

Changes which taxi drivers would like to see are the adaptation of professional standards and better routes to drive.

Tour Operators

Figure 12: Market Place for More Tour Operators

Source: Deloitte Public Transportation Survey 2012

85 percent (answers 'No' and 'No, too much competition') of tour operators believes there are too many tour companies at the moment and there is no space for more.

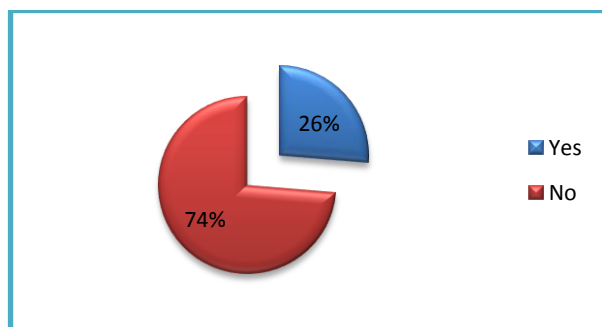
Table 19: Problems Experienced

	#	%
Too much competition	4	21.1
No professional standards	3	15.8
None	5	26.3
Other	2	10.5
Too much competition and low prices	2	10.5
Bad quality, roads are too busy	1	5.3
Other, no control	2	10.5
Total	19	100.0

Source: Deloitte Public Transportation Survey 2012

The main problems tour bus drivers experience is the degree of competition (causing low prices) and the lack of professional standards. 26.3 percent experience no problems.

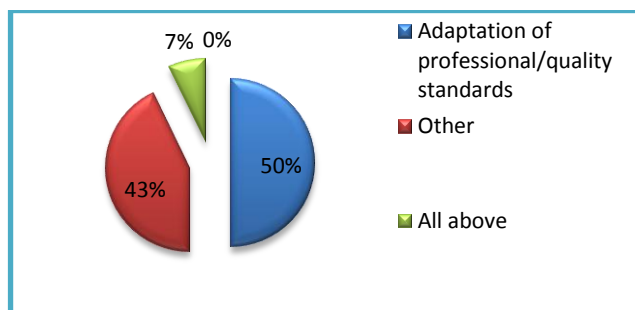
Figure 13: Legislation is Adequate



Source: Deloitte Public Transportation Survey 2012

Tour bus drivers find the legislation for their branch far from adequate, 73.7 percent answered 'No' here.

Figure 14: Changes to be Made



Source: Deloitte Public Transportation Survey 2012

50 percent of the tour bus drivers would like to see more professional standards in their business.

Table 20: Development of Business (2008-2012)

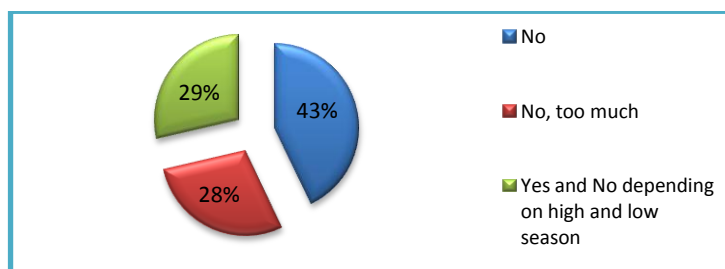
	Buses		Customers		Profit		Employees	
	#	%	#	%	#	%	#	%
Plus	3	17.6	7	38.9	6	33.3	2	11.8
Even	13	76.5	7	38.9	9	50.0	12	70.6
Less	1	5.9	4	22.2	3	16.7	3	17.6
Total	17	100.0	18	100.0	18	100.0	17	100.0

Source: Deloitte Public Transportation Survey 2012

Most of the tour bus drivers' business has been stable for the last three years in terms of buses, customers, profit and employees.

Car Rentals

Figure 15: Market Place for more Car Rentals



Source: Deloitte Public Transportation Survey 2012

Of the car rental companies surveyed, 71 percent believe that there is no more market place for more rental companies. 29 percent think it depends on the season.

Table 21: Problems Experienced

	#	%
Too much competition	1	14.3
None	3	42.9
Other	1	14.3
Too much competition and no professional standards	1	14.3
Low season is very bad	1	14.3
Total	7	100.0

Source: Deloitte Public Transportation Survey 2012

42.9 percent of rental companies do not experience problems in their business.

Table 22: Legislation is Adequate

	#	%
Yes	1	16.7
No	5	83.3
Total	6	100.0

Source: Deloitte Public Transportation Survey 2012

83.3 percent of rental companies are not pleased about the legislation that applies to rental companies.

Table 23: Development of Business (2008-2012)

	Customers		Vehicles		Profit		Employees	
	#	%	#	%	#	%	#	%
Plus	6	85.7	4	57.1	6	85.7	3	42.9
Even	1	14.3	3	42.9	1	14.3	4	57.1
Total	7	100.0	7	100.0	7	100.0	7	100.0

Source: Deloitte Public Transportation Survey 2012

The car rental businesses have gone through an increase in customers, vehicles and profit. Their number of employees has stayed stable.

Discussion

The previous chapter presented the most important findings and data, derived from desk research and field research. This included interviews and questionnaires with the supply and demand sides of public transportation. In this section their significance is described and the sub-questions will be answered accordingly. Please refer to appendix 5 to 9 for a simplified overview of the supply side survey findings (pages 36 and 37).

What should the MTTL do about the moratorium on public transportation?

- How are the numbers of inhabitants developing in Aruba?
- How are the numbers of tourists developing in Aruba?
- What is the current situation in regard to the different categories of public transport?
- What is the public view on public transportation?
- What are the problems experienced for each category of public transport?

Development of the Aruban Population

The population of Aruba consists out of ± 108.000 people for the past years this has been stable as can be seen in appendix 3.

Development of Tourists

The growth of visitors in Aruba has been stable for the past few years as appendix 4 page 36, demonstrates. Currently around 850.000 stay-over tourists come over to the island, yearly. ATA does expect an increase due to the building of two new hotels.

General

The moratorium on public transportation was introduced by the previous Minister of Transport and Communication in 1997 to ease the flow of traffic in Aruba. The laws and regulatory documents are also from this period. The Ordinance of transportation has not been updated ever since (Wettenregister, 1997). The Ordinance is very open to interpretation and often causes misunderstanding (Keteldijk, 2012).

Table 5 shows that a great number of the respondents rated the *service*, *price*, *maintenance*, *availability* and *timeliness* of the different categories of transport at least *medium*. This contradicts the response that was received from interviews that were held with the people mentioned in appendix 2. This could indicate that the suppliers of transport are not as satisfied about their situation as the users are; which can be seen from the survey outcome of the supply side.



Public Bus

• Current Situation

At the moment not all roads are covered by Arubus and the small buses (table 12). The small buses were initially introduced to complement Arubus and cover the secondary roads (Oduber, 2012). Arubus has no control over the routes the small buses drive (Croes, Clement, & Canhigh, 2012).

• Public View

Respondents were requested to indicate whether they would like to see more buses on the roads and if so, where and at which part of the day (tables 6 and 7). The majority does find it necessary to introduce more buses, throughout the day. The timeliness of the Arubus is rated poor-medium, the small buses score medium-good (table 5).

• Problems

While Arubus' business has increased since 2008 according to its drivers (table 9) the small bus' customers and profit has decreased (table 13). When it comes to legislation the drivers of the small buses are less pleased than those of Arubus (table 11 and figure 8). 58 percent of the Arubus drivers indicate no problems (figure 6), whereas 54 percent of small bus drivers feel there is a bad collaboration between them (figure 9), hence the small bus drivers indicate they want changes when it comes to their collaboration with Arubus. Finally, table 14 indicates that 41.7 percent of small bus drivers would like more professional standards within their branch.

• Conclusion

MTTL should make efforts to reorganize the situation and make sure the public transportation sector is performing to the best of its capacity. Obviously, the public wants more roads to be covered throughout the day. This could be easily solved by improving the collaboration between Arubus and the small buses. It is not necessary to add more buses if the current supply improves. MTTL has to make sure Arubus only covers the main roads and the small buses only cover the secondary roads. This should be included in the Ordinance and controlled.

Taxi

• Current Situation

Taxi drivers come up with their own work schedule. Most work in the morning and afternoon. Other work whenever they wish (table 15). Currently 50 percent (200 out of 400 taxis) are a member of a corporation (Benschop, 2003). The waiting times during the week including Sundays, do not differ much with Saturdays, which are busy days for the taxi branch according to the corporations. The Airport and Hotel Area are the most driven routes and even here the taxis wait at least an hour to pick up a client (tables 16 a/b). As stated before, the Ordinance for transportation is outdated and not obeyed. The taxi meter is a good example (Franken, 2012) (Gomez, 2012). Minister Oduber (2012) has stated that the taxi meter will not be introduced and taxi rates will continue to be fixed by the MTTL.

• Public View

The public rates the taxis on all topics *good* except when it comes to price (table 5). This could be because the customers are not informed about the taxi rates beforehand as figure 1 indicates, for 86.7 percent of the taxi users, the pricelist was not visible, even though this is a requirement by law. Figure 2 shows that only 1.4 percent of the respondents experienced a taxi driver refusing a certain route, indicating the problem is not as large as the corporations point out.

• Problems

Taxi drivers state they do not have enough customers, table 17 shows that around 53-54 percent of taxis experience a decrease in their business. The interviewed taxi cooperation's claimed that some of their colleagues refuse to take certain routes. 91 percent stated that there is no more market place for taxis (figure 10). When it comes to legislation 68.4 percent are not pleased (figure 11) and would like to see adaptation of professional standard (table 18)

• Conclusion

Taxis should be available throughout the day; whenever the public needs them. Therefore it is suggested that the MTTL requires all taxis to be a member of a corporation. The corporation will take care of the scheduling, making sure taxis are available at all times. This will also prevent the oversupply of taxis only on certain times (morning/afternoon), certain days (Saturdays) in certain areas (airport/hotel). Furthermore, the taxi meter law should be taken out of the Ordinance. The visibility of the taxi rates is also not being followed, according to the survey. This indicates that there is a need for legislative updates for clarification, application and control of the law. So, just like the public buses, no more taxis are needed if the way they work improves. In addition to increase professionalism, taxi drivers should have a dress code, be taught about proper behavior, language and sufficient knowledge of Aruba and carry a badge.

Tour Bus

• Current Situation

Presently, there is a clear division between the ATOA members (standing at the cruise terminal gate) and the non-ATOA members (standing outside of the cruise terminal). ATOA member enjoy a preferred position. But with the introduction of the tramline at the cruise terminal, all tour operators will be forced to leave the cruise terminal area (Ministry of Infrastructure, 2010). The situation will be very unclear. What will happen with the tour operators in the coming months is unknown (Oduber, 2012).

• Public View

The public indicated no concerns, when booking a tour; the tour company was available 97.2 percent of the time (figure 3). They also indicated that the tour operators are skilled in multiple languages (table 8), indicating a good basis for professional working standards.

• Problems

The tour bus branch is experiencing too much competition and lack of professional standards (table 19). Consequently, 85 percent indicated there is no market place for more tour buses (figure 12). This was also mentioned by Warner (2012), Minister Oduber (2012) and Aruba's largest tour company De Palm Tours (Malmberg & Malmberg, 2012). Just like the other branches, the tour operators indicate that the legislation is not adequate for their branch (figure 13). They would also like to see more professional standards (table 19). When it comes to the development of their business since 2008, 50-70 percent has been stable on all fronts (table 20).

• Conclusion

The tour operators will face a period of a lot of uncertainty. The tramline might take over a big part of their business, but this should be researched by the MI (Ministry of Infrastructure). However, there is no indication of a shortage of tour operators; the public indicated there is always a tour operator available and the branch itself indicates they experience a lot of competition. Therefore the conclusion for the sector also states to improve the current situation by more professional standards as mentioned in the previous page, but no additional tour operators are needed.

Car Rental

• Current Situation

From the interviews conducted the car rentals indicated most of the problems they experience have to do with companies renting out bad quality cars and renting cars with A-licenses instead of the required V-plates.

• Public View

The survey results from the public show that 79.2 percent of the cars rented had the necessary V-license plate (figure 4) and 38.5 percent of the cars were in very good condition (figure 5). This contradicted the results of the interviews held with the car rental companies (Solognier, 2012) (Mukersh, 2012) (Richardson, 2012).

• Problems

The branch itself is rather happy, according to 42.9 percent there are no problems within the branch (table 21) and their business have developed very well as can be seen in table 23. However, the car rentals feel there is no market place for additional car rental companies (figure 15). These car rental companies also feel the legislation is not adequate for their business (table 22). This could be due to the lack of clear rules to protect the rental car companies against tourists damaging their cars and not paying the deposit/costs.

• Conclusion

No clear problems or concerns are indicated by the research in the car rental branch. The car rentals perform rather well. However, to protect the companies, the MTTL should consider introducing strict and clear rules that make sure tourists are held responsible for their actions. This branch shows no signs of shortage or more companies needed.

Recommendations

Recommendation

The MTTL is advised to **continue** the current moratorium on **all license categories** except the A-licenses. The findings and previous chapter have indicated no signs of shortage in the supply of transportation if the categories improve themselves. In this case also the increase of tourists estimated by ATA can be facilitated. In order to achieve optimal provision of transportation on Aruba, MTTL should make sure the following recommendations are being implemented:

- ✂ Public buses must work together in order to cover more roads and improve their accessibility; Arubus will only cover the main roads and the small buses will only cover the secondary roads. This should be controlled by the MTTL with help of the Ordinance.
- ✂ Taxis should be obligated to become a member of a corporation, where they will be working according to a schedule, setup by the corporation.
- ✂ MTTL in collaboration with the taxi corporations should make sure the taxi price list is visible for the passengers as the current Ordinance states.
- ✂ The taxi meter should be removed from the Ordinance.
- ✂ MTTL in cooperation with MI must research the consequences of the tramline for the transportation sector and inform the parties involved in order to prevent uncertainty.
- ✂ MTTL must protect and make sure tourists are held responsible for any damages caused by them. This should be clearly stated in the Ordinance.
- ✂ All categories must be obligated to follow an “*Aruba Course*”. This course will teach them basic knowledge about Aruba, communications skills, appropriate behavior and dress code. This course will be part of the requirement for a license.

Alternative Recommendation

Continue the moratorium but give out **limited number of licenses** under strict conditions in **certain categories**. An update in the Ordinance will provide very strict and clear criteria for obtaining a license during the moratorium:

- ☑ Exception to the moratorium is **only** for B and V licenses.
- ☑ Company must be able to prove the need for the V-license.
- ☑ Company must be an existing car rental company.
- ☑ Company must have the vehicle in possession in order to obtain a license for it.
- ☑ B-licenses can only be granted to individuals, with no other licenses. This person must be unemployed and be able to prove there is demand for another bus, in an area not yet covered. This person must have a bus in possession. Also the *Aruba Course* certificate must be obtained.



Appendix

Appendix 1: General Characteristics of Aruba



Location

Aruba is located at latitude 12° 30' North and longitude 70° West and lies about 32 km (19 miles) from the northern coast of Venezuela. Aruba is 31 km (20 miles) long and 8 km (5 miles) wide, with an area of 180 km². The island is divided in 8 regions and each region is subdivided in several zones.

Population

Total end of the year population in 2010 was 107,803, while the density of the population was 599 inhabitants per km², as compared to 595 in 2009. The Aruban population is made up of a variety of nationalities.

Climate

The average and almost constant temperature is 28° C (82° F) with cooling north-east trade-wind. There are no tropical storms and hurricanes and the rainfall is very moderate.

Language

Aruba's population of over 100,000 is made up of a mixture of people who came from all over the world to this island. Dutch is the official language with Papiamentu being the local language. English and Spanish are also widely spoken.

Religion

The majority of the people are Roman Catholic (81%) and 3% of the population are Protestant.

Political structure

Head of State is the Queen, represented by a Governor. The island is governed by an executive council consisting of 8 Ministers who are appointed by the legislative council. This council consists of 21 elected members of Parliament. Aruba also has two Ministers Plenipotentiary abroad, one representing the island in the Council of Ministers of the Kingdom in The Hague and the other one in Washington. On January 1, 1986 Aruba obtained its 'Status Aparte' and became a separate part within the Kingdom of the Netherlands.

Currency unit

The official currency is the Aruban Florin (or AWG) which is pegged to the US Dollar at US\$ 1.00 to Afls. 1.79

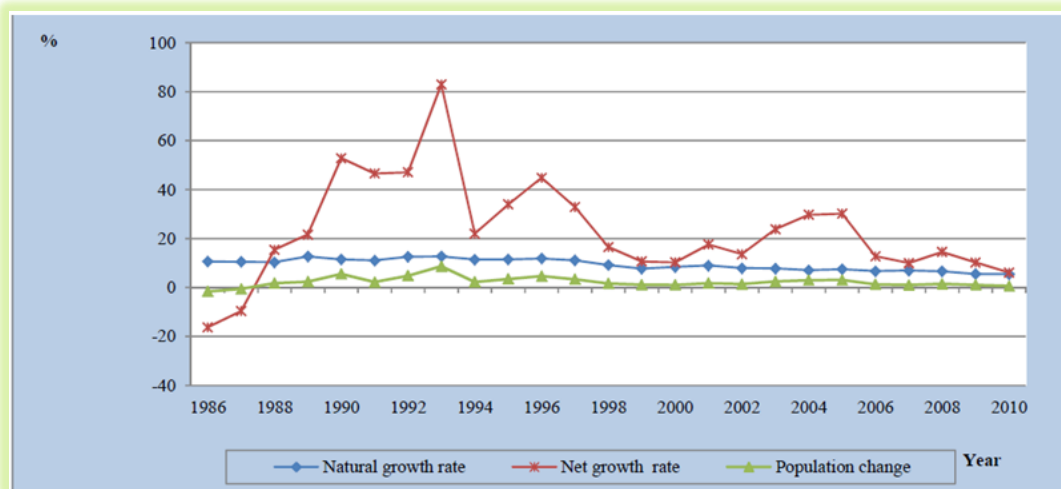
The US dollar is also widely accepted on the island.

Source: (CBS, 2010)

Appendix 2: Interviewed People

Name	Organization	Position
Mr. Franken	TAS	Director
Mr. Franken	Diamond Taxi Service	Director
Mr. Gomez	Professional Taxi	Director
Mr. Kock	N° 1 Taxi	Director
Mr. Warner	ATOA	Director and Secretary
Mr. Oduber	MTTL	Minister
Mr. Keteldijk	DTP	Director
Ms. Wolf	Chamber of Commerce	Business Info Support Officer
Mr. Hemple	AHATA	President and CEO
Ms. Tjin Asjoe- Croes	ATA	CEO
Mr. Malmberg Sr. & Jr.	De Palm Tours	Owner and Director
Mr. Mukesh	Speed Car Rental	Owner
Mr. Solgnier	Hertz Rent a Car	General Manager

Appendix 3: Development of Residents in Aruba



Appendix 4: Development of Tourists



Appendix 5: Development of Business

	Arubus		Small Bus		Taxi		Tour				Car Rentals			
	Customer	Profit	Customer	Profit	Customer	Profit	Buses	Customer	Profit	Employees	Customer	Vehicles	Profit	Employees
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Plus	78.9	87.5	8.6	8.7	8.6	8.7	17.6	38.9	33.3	11.8				
Even	21.1	12.5	37.1	37.7	37.1	37.7	76.5	38.9	50	70.6	85.7	57.1	85.7	42.9
Less	-	-	54.3	53.6	54.3	53.6	5.9	22.2	16.7	17.6	14.3	42.9	14.3	57.1

Appendix 6: Market Place for More Business

	Arubus	Small Bus	Taxi	Tour Oper.	Car Rental
	%	%	%	%	%
Yes	45	-	3.6	5.3	42.9
No	55	100	91.1	47.4	-
I don't know	-	-	-	5.3	-
No, too much competition	-	-	-	36.8	28.6
Yes, always tours needed	-	-	-	5.3	-
Yes, depending on season	-	-	-	-	28.6
Other	-	-	5.4	-	-

Appendix 7: Legislation is Adequate

	Arubus	Small Buses	Taxi	Tour Oper.	Car Rental
	%	%	%	%	%
Yes	57.1	30	31.6	26.3	16.7
No	42.9	70	68.4	73.7	83.3

Appendix 8: Problems Experienced

	Arubus	Small Bus	Tour Oper.	Car Rental
	%	%	%	%
Too much competition	15.8	20.8	21.1	14.3
No professional standards	-	-	15.8	42.9
Bad Collaboration	-	-	-	-
None	57.9	8.3	-	-
Other	26.3	16.7	10.5	14.3
Too much competition and low prices	-	-	10.5	14.3
Bad quality, roads are too busy	-	-	5.3	14.3
No Control	-	-	10.5	-

Appendix 9: Change to be Made

	Small Bus	Taxi	Tour
	%	%	%
A stricter regulation to protect the damaging of the vehicles	8.3	50	-
Adaptation of professional/quality standards	41.7	-	50
Other	33.3	-	14.3
All above	16.7	-	7.1
More control	-	-	7.1
DOPV	-	-	14.3
Beach Tours	-	-	7.1
Better routes	-	50	-