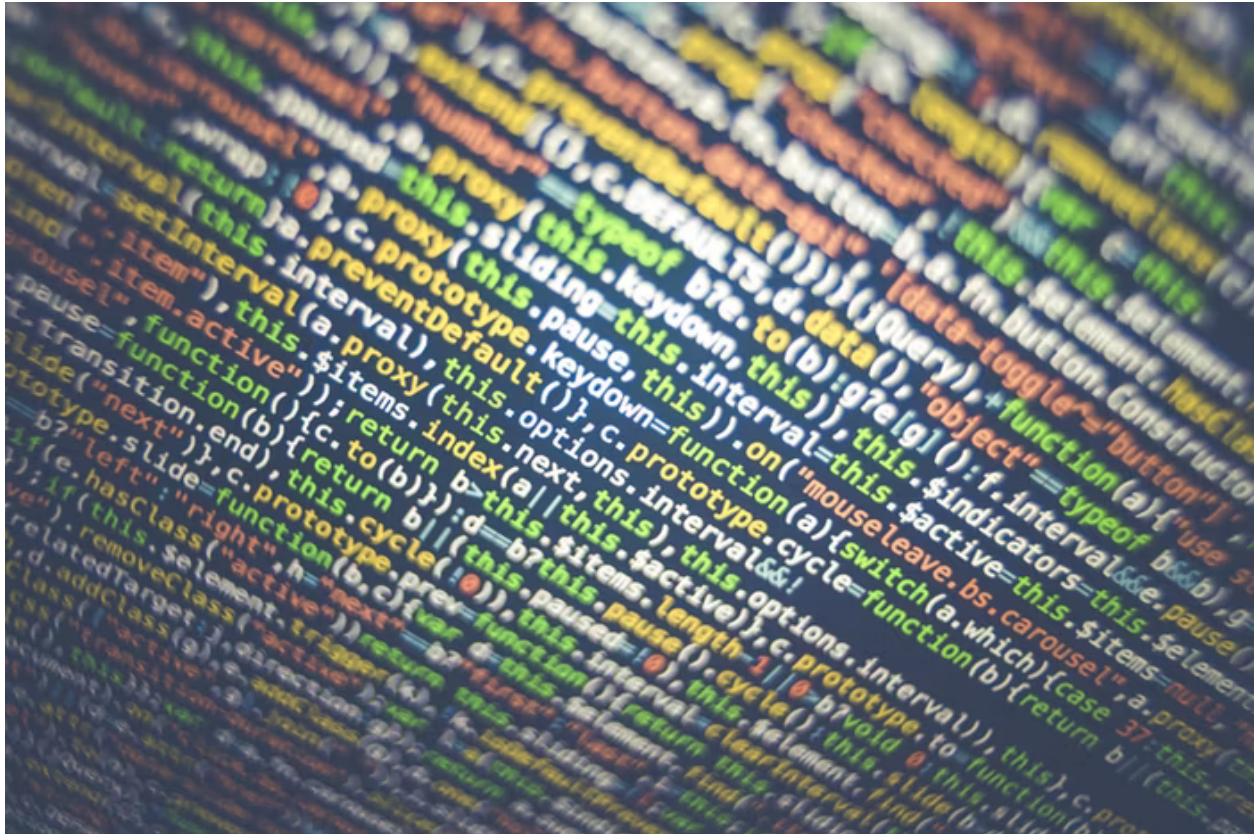


# Website & Application Development

## Capstone Research Paper



By:

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Title:

869Transports assists in navigating St. Kitts, and pre-arranging  
fun activities.

## **Abstract**

Due to an increasing number of persons needing transportation off the main bus route as well as the procedure to book an activity in St. Kitts. The research was carried out to determine persons' main means of transportation. Thus providing reliable information on transport systems throughout the island by providing a platform for drivers' information to be displayed and passengers to utilize information to organize pickup and drop off as well as island tours. Google forms were created and sent out to conduct surveys and this proved to be most effective in the collection of data. Upon receiving all the data it was found that the large majority of persons do not have their own means of transportation. Additionally, when asked about their ease of access to specific transport services, the findings showed persons did however have an easy time getting contact for them. Also when reviewing the data Uber services prove most prominent, with other services falling in the minority. Finally, the survey asked how effective they believed the website to be, the majority believed it would be a good way to grow their business and advertise their services with a few doubts to be expected.

The results indicate the need for a link between the drivers and passengers, in a way that benefits both parties. Thus providing our website with a niche where it can operate effectively. Further research into the booking of tours and other events around the island has been conducted.

## **Introduction**

Succeeding the creation of the **World-Wide-Web**(1989), the history of websites began in the 1990s, and while evolving, it is being used by everyone. The web consists of various websites that developers shared, and are still sharing, for the world to utilize. Most of the websites shared today are, in some way, helpful to the end-user.

After some extensive research, we have found that many people in St. Kitts need transportation off the regular bus route, and find it difficult to receive such transportation. We have also found that the process used for booking activities in St. Kitts is difficult to render. Thus we set out to create a digital bridge between drivers, potential passengers, and visitors through our website.

Our project is intended to provide residents and visitors with reliable information for them to gain transportation throughout the island. Additionally, this platform will provide an interface between the driver and passenger, allowing for both sides to be able to communicate, organize for pick up as well as tours and other activities.

For this investigation, we surveyed drivers, passengers and tourists to test the feasibility of our project. In this process, We observed that drivers face difficulties attracting passengers and they believe that a website will assist them in growing and advertising their business. Nevertheless, on the passenger side, It is seen that while they do not experience arduousness in acquiring transport this service is wanted.

## **Materials and Methods:**

*Methodology approach:* The purpose of this research paper is to evaluate the viability of a transport website with a visitors page in St. Kitts by surveying local passengers and drivers, and visitors. We collected primary quantitative data with the goal of gaining a better understanding of the passengers' and drivers' feelings towards our idea.

### **Data Collection:**

The first survey consisted of 6 multiple-choice questions and 4 questions with a 7-point Likert scale responses targeted at the Local Passengers. A local passenger was defined as a person who uses travel services in St Kitts.

The second survey consisted of 4 multiple-choice questions, 1 question with a 7-point Likert scale responses and 5 short answer questions targeted at the Transport Servicer. A transport Servicee was defined as a person who has a business directly transporting passengers.

The Third survey consisted of 6 multiple-choice questions and 4 short answer questions targeted at the Foreign Passengers. A foreign passenger was defined as a visitor who uses travel services in St Kitts.

The aim was to conduct the surveys with at least 100 people online from 28-30 march 2022 between 11:00 and 15:00. Participants were given 2 days to fill in the surveys anonymously, and 71 customers responded.

**Analysis:**

Before analysis, the data was checked for missing data and outliers. For this, the "Outlier labeling rule" was used. All values outside the calculated range were considered outliers (Hoaglin and Iglewicz, 1987). The data was then analyzed using statistical SPSS. A paired t-test was conducted to test the first hypothesis.

**Evaluate & justify:**

Surveys were used due to high representativeness as surveys provide a high level of general capability in representing a large population. Other methods were not used as there are no secondary inferential statistics to the source form. This form allows understanding of the general characteristics of a population, unlike other methods. This research has built the foundation on this topic for the future, that being said it is just a foundation and more research is needed to flesh out the topic.

## Results

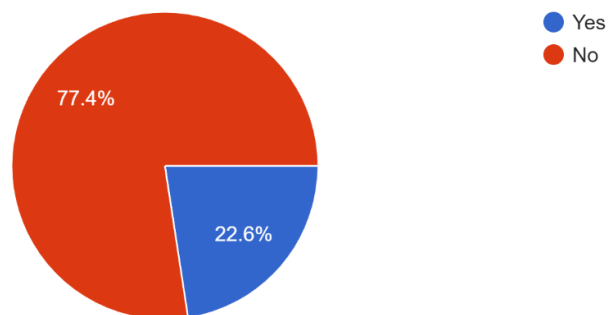
### Procedure of Data Collection

On March 28th, two electronic surveys were sent out via social media platforms to be completed by the local passengers and taxi, uber and car rental services of St. Kitts and Nevis. The participants then partook in the completion of surveys to assist us in our research. The surveys were closed off and analyzed on the 30<sup>th</sup> of March. Upon analysis, we hope to find out the effectiveness of the website we are creating.

### *Presentation of Data*

**Data Presentation number 1 shows the results of question No#1 using a pie chart.**

Do you have your own form of transportation?  
62 responses

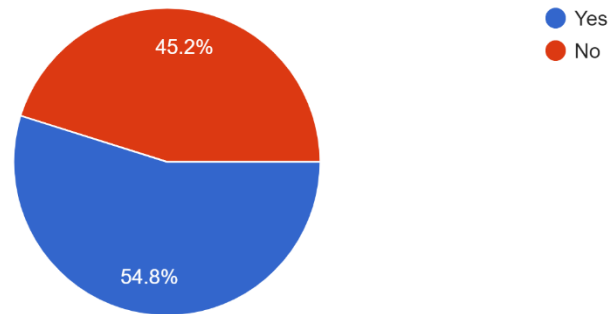


**Figure 1.**

**Data Presentation number 2 shows the results of question No#2 using a pie chart.**

Are you aware of any taxi or uber service in your area?

62 responses

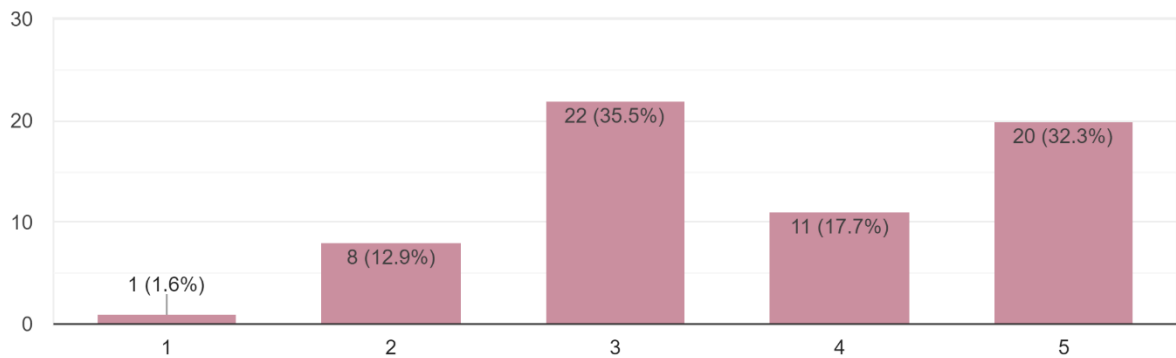


**Figure 2.**

**Data Presentation number 3 shows the results of question No#4 using a bar graph.**

How easy is it to obtain contact information for a taxi or uber service?

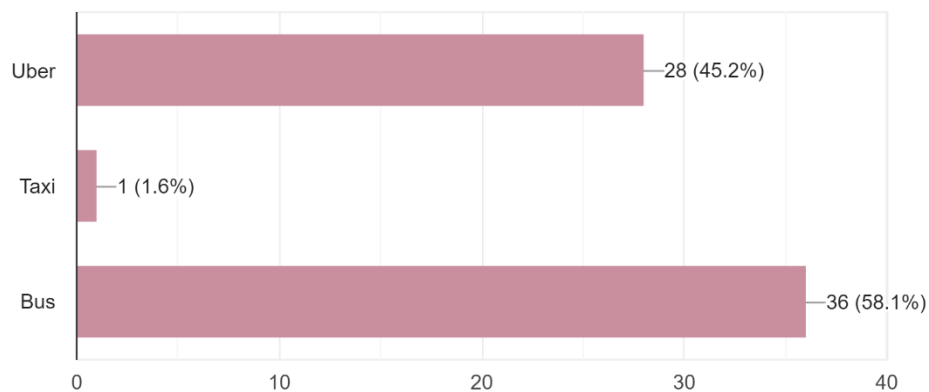
62 responses



**Figure 3.**

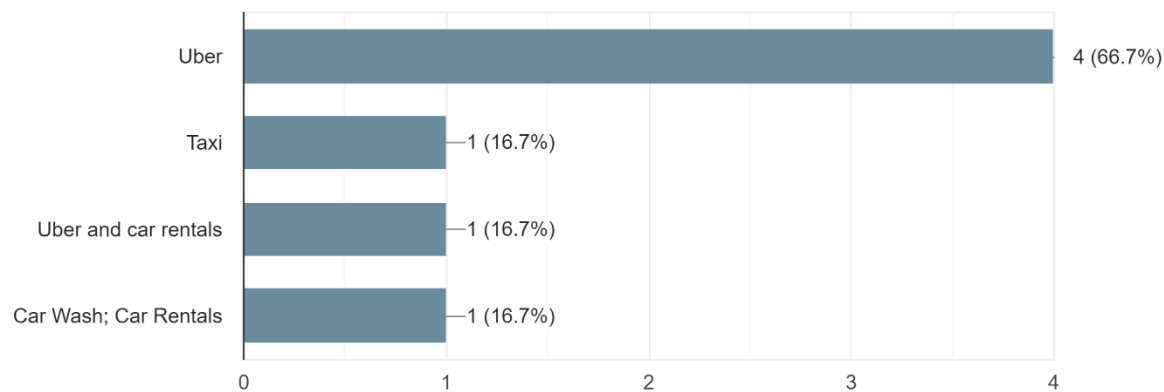
**Data Presentation number 4 shows the results of question No#8 using a bar graph.**

Which form of transportation is more convenient for you?  
62 responses



**Figure 4.**  
**Data Presentation number 5 shows the results of question No#5 from the second survey using a bar graph.**

What type of service/s do you offer?  
6 responses



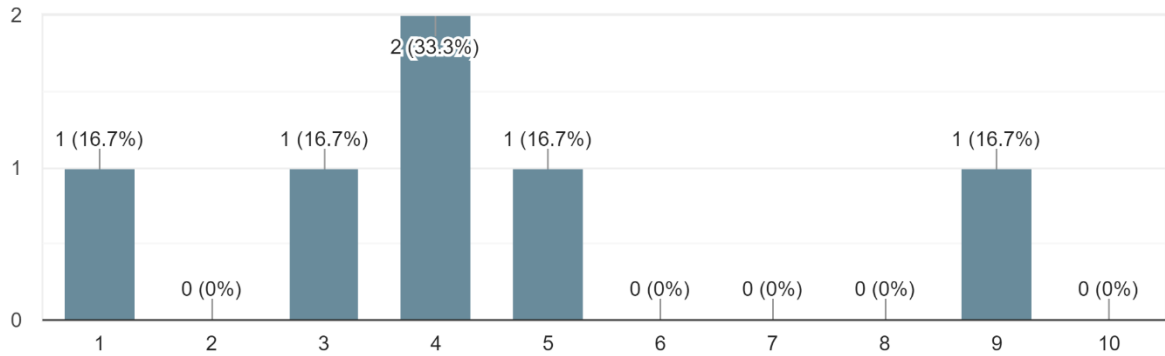
**Figure 5.**



**Data Presentation number 6 shows the results of question No#8 from the second survey using a bar graph.**

How difficult is it for you to attract passengers?

6 responses

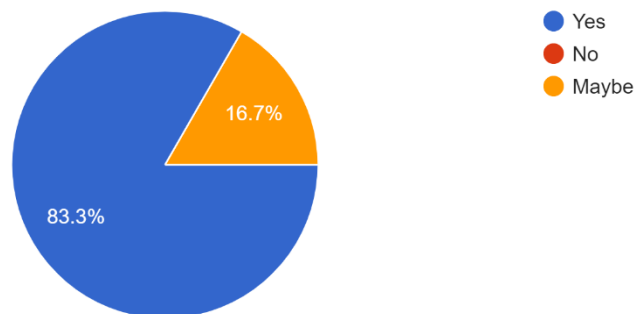


**Figure 6.**

**Data Presentation number 7 shows the results of question No#7 from the second survey using a pie chart.**

Do you see a website as a useful resource to promote your service?

6 responses



**Figure 7.**

## ***Analysis and Interpretation of Data***

In figure number 1 which represented a Pie chart showed the results of question No#1 “Do you have your own form of transportation?” The majority of participants indicated that they don’t have their own form of transportation. Seventy-seven percent (77.4%) indicated that they don’t have their own form of transportation. Twenty-two percent (22.6%) indicated that they had their own form of transportation.

From the data collected, it can be said that the majority of persons don’t have their own form of transportation, so most of them rely on others forms of transportation to get from point A to point B.

In figure number 2 which represented a Pie Chart showed the results of question No#2 “Are you aware of taxi or uber service in your area?” The majority of participants indicated that they do are aware of uber or taxi services in their area which was (54.8%). 45.2% of participants said that they weren’t aware.

From the information gathered, it is clear that some taxi and uber services in certain areas of St. Kitts attract a lot of customers.

Furthermore, in figure number 3 which represents a Bar graph shows the results of question No#4 “How easy is it to obtain contact information for a taxi or uber one being difficult and 5 being easy?” The majority of participants chose the number three on the scale which was (22) persons while the second highest number chosen was 5 which represents easy, (20) persons said it was easy. One person said it was difficult, (8) persons chose number 2 on the scale and (4) persons said it was not that difficult.

From the data collected, it is clear that the majority of the participants can find a taxi or uber service when needed with no problems finding their contact information.

As seen in figure 4, the residents of St. Kitts have access to three modes of transportation (Uber, Taxi, and Bus). Buses are frequently used by people more than any other kind of transportation. Buses were chosen as the most convenient mode of transportation by 36 of the 62 survey respondents (58.1 percent). According to the statistics given, just one (1) individual picked taxi as their most convenient mode of transportation, whereas 28 people chose Uber.

A survey was completed by personnel from St. Kitts who provide transportation services to the people of St. Kitts based on the data shown in figure 5 above. Out of the seven replies, the Uber service is the most prominent, with four people providing it, while every other service, including taxis, Uber & car rentals, and car wash & car rentals, has just one person providing it.

Figure 6 above shows how difficult it is for transportation service providers to attract customers. Shown on a scale from 1 to 10.

Figure 7's pie chart illustrates how effective a website for promoting transportation services might be. According to the research, 83.3 percent of the respondents believe that a website will assist them to advertise their business. While 16.7 percent are doubtful whether a website would assist advertise their service.

## **Discussion**

The purpose of this research paper is to evaluate the viability of our mission by surveying local passengers, drivers, and visitors. The results indicate that there is a greater need for transportation off the regular bus route and that the system for booking fun activities is outdated. The data suggests that it can be difficult for some transport service providers to attract passengers and see our project as a way of expanding their business. Consequently, passengers have a medium complexity level when it comes to obtaining transport, yet the majority of people do not have their own form of transportation. The study demonstrates that though there is an adequate amount of transport services in St. Kitts, there is still a gap. This is because passengers need transportation off the regular bus route and drivers are unable to reach passengers without connections.

Though this is well-illustrated, this research paper still has limitations. For one the sample size may not be of an acquaint size and Lack of previous research studies on the topic. As this is a new topic in St Kitts there is an absence one research in this area causing the deficiency in resources. For future research, a deeper dive into the efficiency of the transport industry in relation to the time wasted on both sides is recommended. This will allow a deeper insight into the problems faced in the systems that the personnel may not be able to observe on a macro scale

In conclusion, this study verifies the viability of our product. It shows the relationship between the worker and the customer in addition to the degree of use of each desire and preference. Further study on this subject is recommended