Next Steps

# Introduction

A comprehensive document regarding further applications of the D22 UIR/WPI Electric Vehicle Study IQP.

Included in this document are:

* A list of deliverables and their uses
* Recommendations for survey distribution
* Recommendations for further survey analysis

# Deliverables List

In order for the study to be effectively applied to the RSK region, a number of documents and tools were created to make the process easier. These are as follows:

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| **Name** | **Purpose** | **Format** |
| Next Steps | A document explaining the process of applying the D22 UIR/WPI Electric Vehicle Study IQP (this document).  Also details any changes from the UIR Pilot Study to the RSK Survey, and all recommendations we have for future applications. This includes recommendations about distribution techniques and analysis. | Google Doc |
| EV Survey | A survey that can be used to gauge public opinions on Electric Vehicles using a number of foundation questions and statements. These statements are based on hypotheses derived from social theories found in prior literature. | Google Form |
| Automatic Document | A tool to automatically analyze the data coming from the Google Forms survey | Google Sheets |
| How to Use the Deliverables | A document explaining how to analyze hypotheses data, use the automated document, and interpretations of the survey. | Google Doc |
| Survey Translations | A folder containing copies of the Definition of EVs, Foundation Questions, and Survey Statements translated into English, French, and MSA. These documents are all the same, just in their respective language. | Folder with Google Docs |
| Theories and Hypotheses | A document detailing the two social theories used in this study, as well as the survey statements sorted into their appropriate hypothesis. | Google Doc |

# Recommendations for Survey Distribution

While conducting our pilot study at UIR, we observed how certain distribution methods proved more effective than others. We also looked into other methods for more widespread distribution in the RSK region.

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| **Method** | **Pros** | **Cons** |
| In-Person | More people are likely to complete the survey | QR Code created confusion |
| Email Lists | Reaches a wide audience quickly | Only reaches people on a predetermined list |
| Social Media | * Continually distributes the survey in a snowball effect * Reaches different areas of the population at the same time | * Limits the population who receives the survey * Larger abandonment rate due to casual setting |
| External Organizations | * Pre existing lists of people * Comes from a reliable source, meaning people would be more likely to take it | * Possible that all responses may come from like minded individuals. |

# Recommendations for Further Survey Analysis

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| --- | --- | --- |
| **Name** | **Explanation** | **How would this be useful?** |
| Reliability analysis | More specifically internal consistency reliability, this looks at how well a test delivers valid and dependable results among different inputs. | Reliability analysis would ensure that the right questions are being asked, and that they are being answered in a satisfactory manner. |
| Discriminant validity test | Ensures that if two responses are not supposed to be related to each other conceptually, the data supports it. A scale should be supported by similar variables, and not by unrelated ones. | Confirms that the data produced by the survey is both reliable and valid for the wider RSK region. |
| Collinearity analysis | If two variables have strong correlation with each other, then one variable’s response can be predicted from the other’s. | Used to make educated assumptions based on the data, which can lead to further predictive analysis methods. |
| P-Value Test | For a stated hypothesis, the p-value test determines how likely it is that the null hypothesis is true. The lower the p-value, the greater the statistical significance of the data. | If the p-value of the data is found to be very low, this means that the data fits the hypothesis well, and can be replicated. |
| AI and machine learning | Used for predictive analysis techniques. Predictive analysis aims to infer the likelihood of future events based on the data of the past. | It will be possible to make broad conclusions on the entire population of Morocco regarding electric vehicle sentiments. |