

# Configuration Manual

MSc Research Project  
Financial Technology

Ashish Rajkumar Saraf  
X21202354

School of Computing  
National College of Ireland

Supervisor: Victor Del Rosal

**National College of Ireland  
MSc Project Submission Sheet  
School of Computing**

Student Name: Ashish Saraf

Student ID: x21202354

Programme: MSc in FinTech

Year: 2022-2023

Module: MSc Research Project

Supervisor: Victor Del Rosal

Submission Due Date: 14<sup>th</sup> August 2023

Project Title: How Developed is the Digital Payment in India

Word Count: 1072 words

Page Count: 10 Pages

I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.

ALL internet material must be referenced in the bibliography section. Students are required to use the Referencing Standard specified in the report template. To use other author's written or electronic work is illegal (plagiarism) and may result in disciplinary action.

Signature:

Date: 14<sup>th</sup> August 2023

**PLEASE READ THE FOLLOWING INSTRUCTIONS AND CHECKLIST**

Attach a completed copy of this sheet to each project (including multiple copies)	<input type="checkbox"/>
<b>Attach a Moodle submission receipt of the online project submission</b> , to each project (including multiple copies).	<input type="checkbox"/>
<b>You must ensure that you retain a HARD COPY of the project</b> , both for your own reference and in case a project is lost or mislaid. It is not sufficient to keep a copy on computer.	<input type="checkbox"/>

Assignments that are submitted to the Programme Coordinator Office must be placed into the assignment box located outside the office.

Office Use Only	
Signature	
Date	
Penalty Applied (If Applicable)	

# Configuration Manual

Ashish Saraf

[X2120354@dtudent.ncirl.ie](mailto:X2120354@dtudent.ncirl.ie)

## 1. Introduction

My research work submitted as part of the MSC Fintech module completion is accompanied with this configuration manual. The configuration manual includes the steps that were followed during the study, as well as the technologies and hardware configuration of the machine used. In addition, it aims to provide guidance for future research and instruct other researchers about how to reproduce the findings of this study.

## 2 System Specification

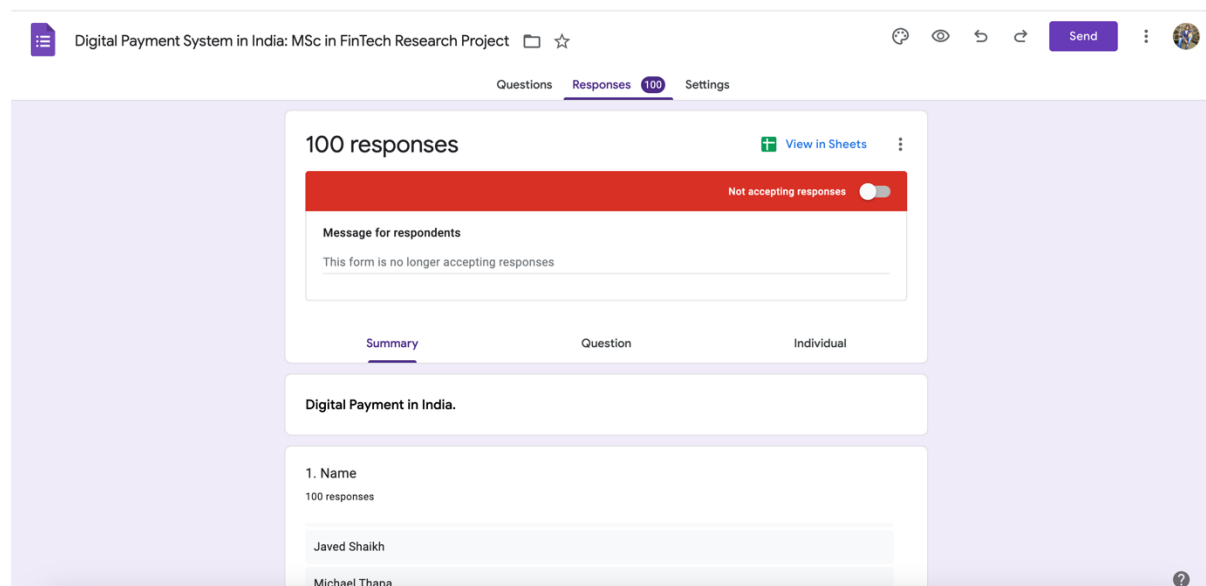
### 2.1 Hardware of the System

The research project was conducted on an MacBook Air

- MacBook Air M1 2020
- Chip Apple M1
- Memory 8 GB
- macOS : 13.2.1 (22D68)

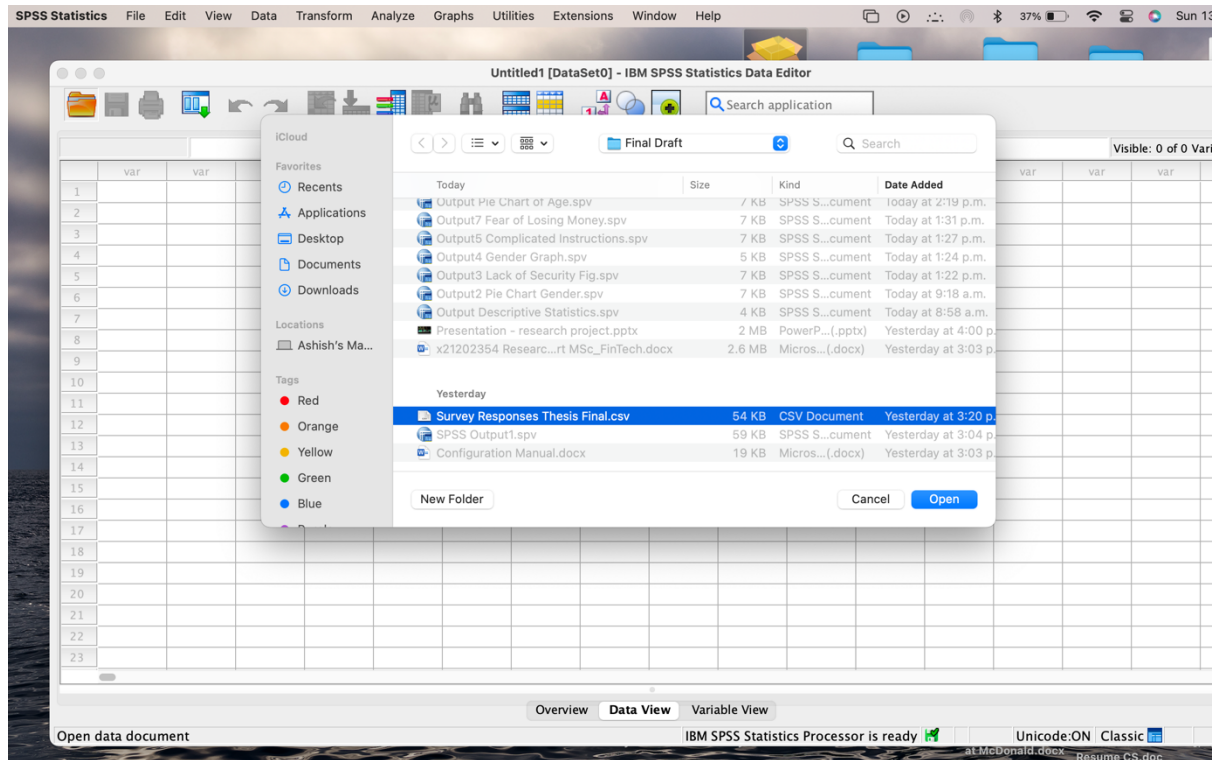
### 2.2 Software and Tools

Google Forms- The study's authorized questionnaire was embedded in Google Forms. This was given out to the respondents in order to collect data for the study. The gathered data was saved on a Google spreadsheet and then exported as a password-protected Excel csv file.



Microsoft Excel 2016: The Microsoft Excel was used to extract the data from google form into Comma-Separated Value (CSV) file.

SPSS: The Statistical Package for the Social Sciences, also known as IBM SPSS, was used for the analysis of statistical data generated from the google forms and exported into the excel csv.



### 3 Data Source

This study was conducted using the data collected from the survey. A structured questionnaire were used to collect the primary data. 100 people from across India participated in the survey.

## 2. Responses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	73	73.0	73.0	73.0
	Female	27	27.0	27.0	100.0
	Total	100	100.0	100.0	

### 4. Data Cleaning and Pre-processing

First, the data on the online google forms were imported into excel csv format. The data was then imported into the SPSS for statistical analysis Data cleaning was done to remove all missing values and all unnecessary observations and responses. Errors and inconsistent

labelling were removed from the datasets. I also filtered unwanted outliers from the dataset. The outliers here are improper data entry. This helped to ensure the validity of the instrument.

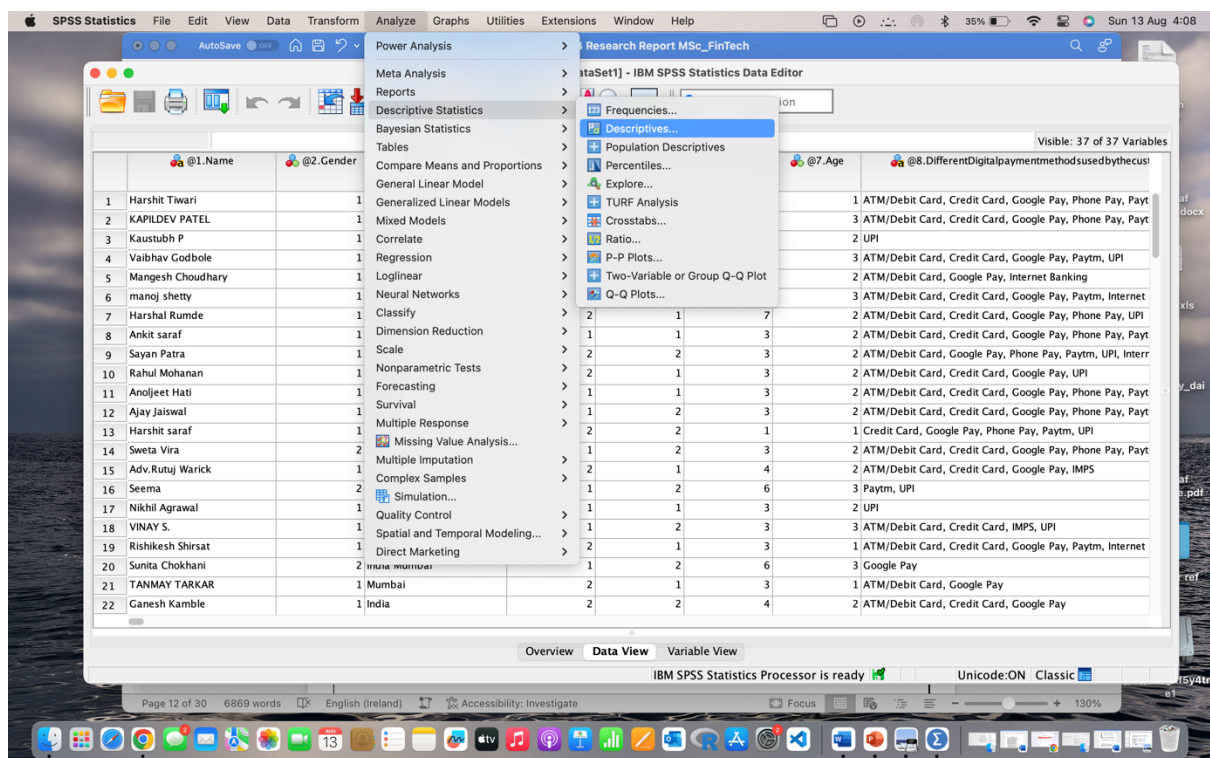
The use of the Statistical Package for the Social Sciences, version 29 was then adopted for the descriptive statistics (i.e frequency distribution).

## 5. Technique Used

### 5.1 Descriptive Statistics

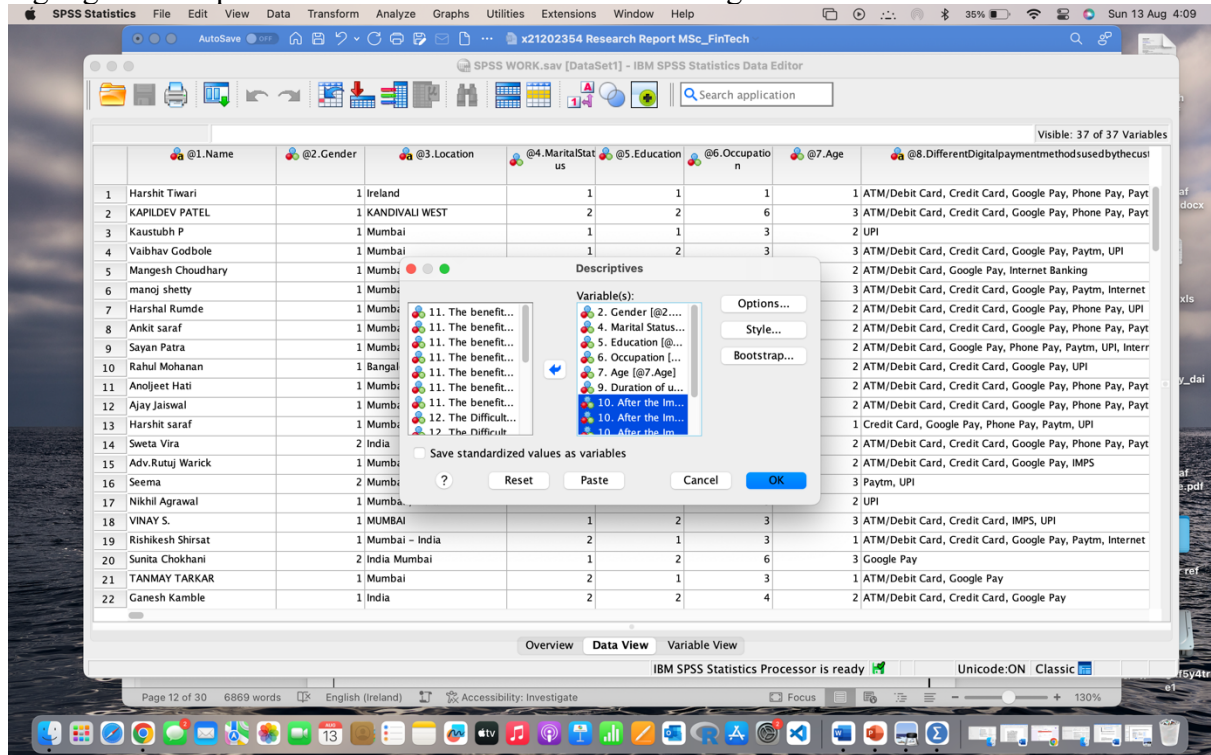
The descriptive statistics was used to explain the participants' responses on the research work.

**Step:** Following data entry, we employed descriptive analysis. To do this, Choose Analyze on the SPSS software, then choose "Descriptive statistics". The figure below illustrates this.



After choosing the Descriptive, move the desired variables (2,4,5,6,7,9,10) appearing on the frequency table to the "Variables" box using the arrow in the middle and it can also be

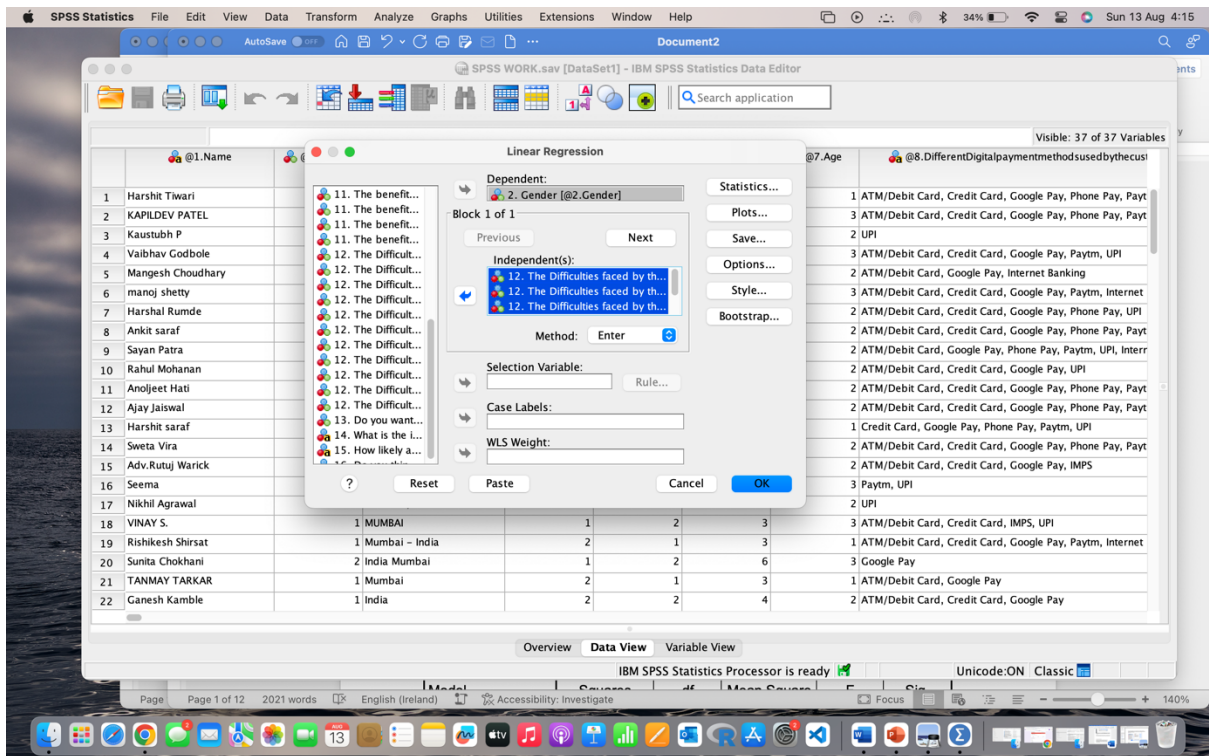
highlighted and pasted then choose the "Statistics" dialog box.



## 5.2 Linear Regression Model 1 (Dependent variable: Gender)

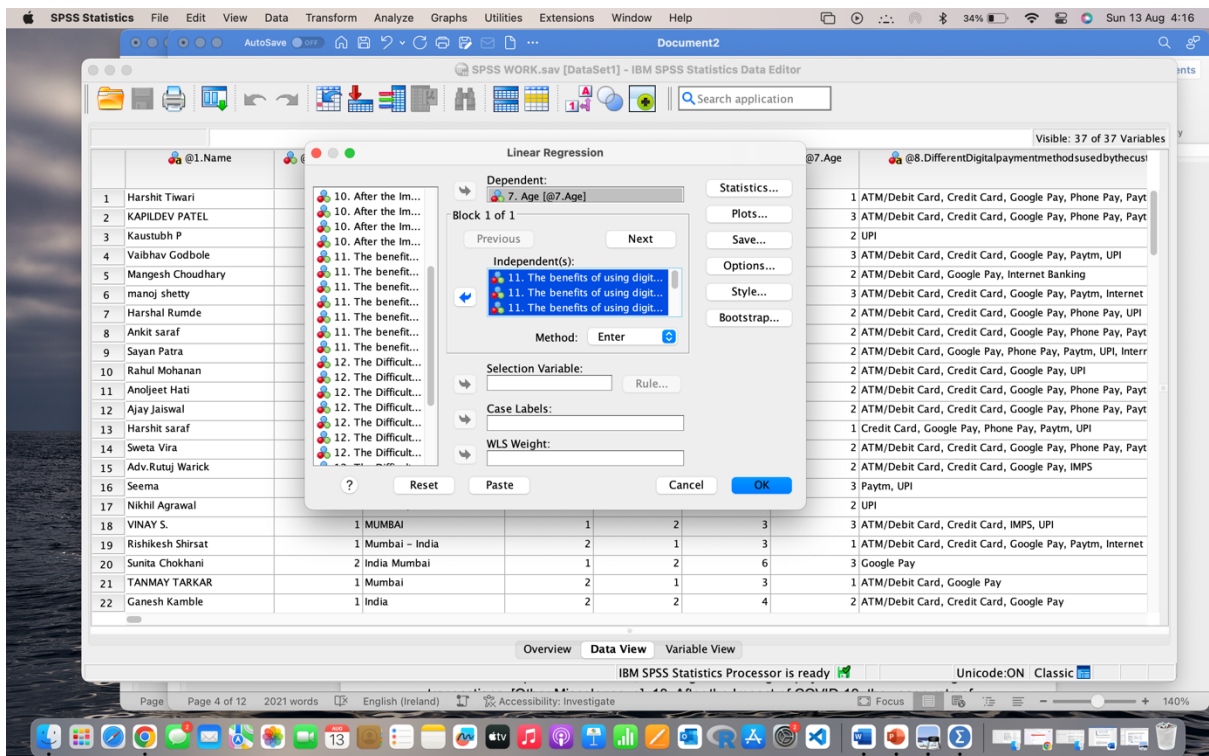
A regression model was used to examine the relationship between a dependent variable (also known as the outcome or response variable) and one or more independent variables (also known as predictors or features). The primary goal of using a regression model is to understand how changes in the independent variables are associated with changes in the dependent variable.

To run the linear regression model, Choose Analyze on the SPSS software, then choose Linear Regression, and select the Dependent variable and independent variable by dragging the same from the list of variable. Once the variables are selected, select OK button. The image below depicts the same.



### 5.3: Linear Regression Model 2 (Dependent variable: Age)

Steps which we followed above, same steps needs to be followed. But instead of Gender as our dependent variable, Age should be selected as Dependent variable and the same independent variables which were selected in model 1 should be selected. The image below shows the same.



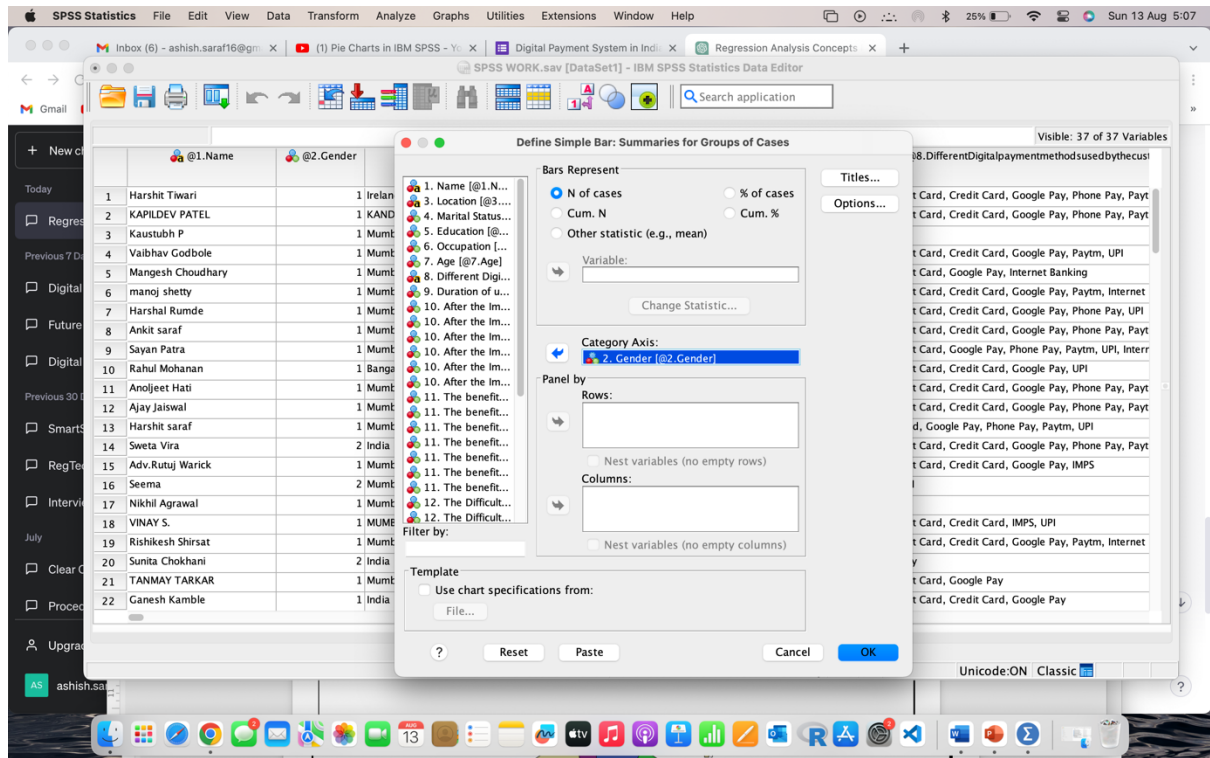
## 5.4: Visualization

### Bar Graph.

For Visualizations, bar and pie charts are used to understand the data.

For Bar Chart, select graphs on the SPSS software and then select Bar Charts. Click on the Simple icon and select Define.

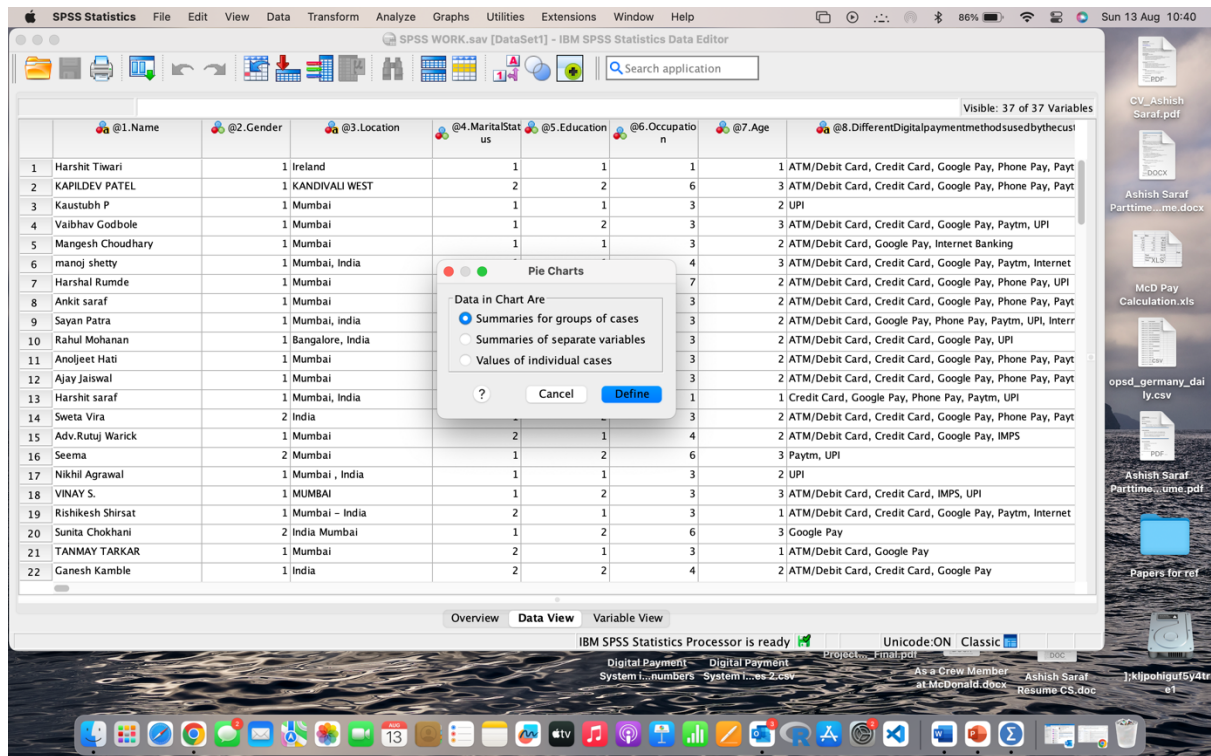
After that select the gender variable from the list of variable and select the arrow key next to Category Axis to visualise the Gender variable and select Ok.



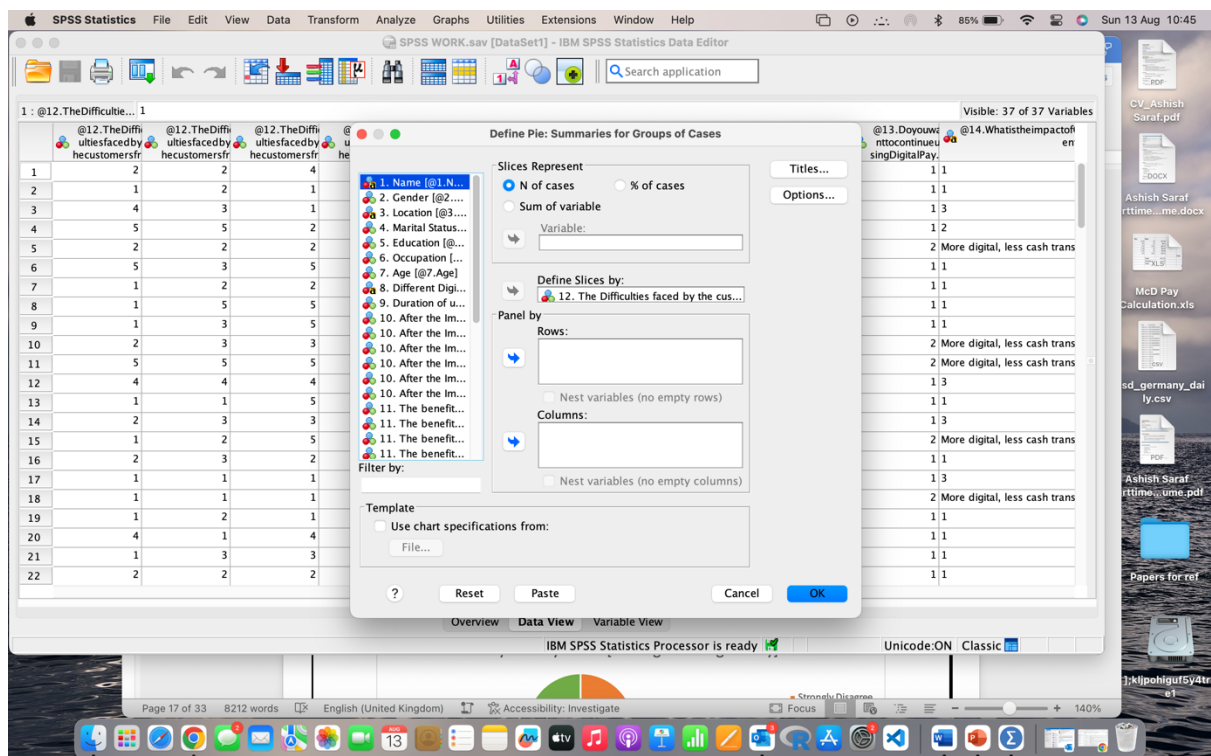
### **Pie Chart**

For Bar Chart, select graphs on the SPSS software and then select Pie Charts. Click on the summarise for group of cases and select Define.





After that select the desired variable from the list of variable and select the arrow key next to Define slices by arrow to visualise the selected variable and select OK.



Similar steps to be followed to visualize any other variable through pie chart.

## **6. Conclusion**

This configuration manual describes the key technologies that were used for the purpose of this research. It discusses how the data was collected, cleaned, processed, and analyzed. A online survey was conducted to obtain data from the respondents in this study. This manual contains information that will help replicate the research findings.