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Acceptance of Self-Driving Cars in United Arab Emirates

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Keywords: self-driving car; autonomous; intention; features; specifications.

I. INTRODUCTION

As technology development has taken on all aspects of life, the world of transportation is witnessing a major revolution due to the emergence of self-driving cars. The emergence of self-driving cars attracted the attention of the media as well as individuals in it. Brandon Schoettle and Michael Sivak, (2014) stated that the emergence of self-driving cars attracted people and researchers as well who aim to explore people's perception of self-driving car. Researchers as well aim to explore how reliable the self-driving car is and what benefits the user may got when using this type of car. Self-driving car as defined by Daniel Howard and Danielle Dai, (2013) is an automated vehicle that has the ability to drive and move without human involvement. Self-driving car system is powerful, it is equipped as well with tools and resources that allow it to sense the world around it.

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The adoption of self-driving cars may be necessary duo to many reasons related to regular transportation system and pollution as well. It is expected that self-driving cars would have great impact on transportation system by reducing car accidents, respecting road rules, reaching destinations fast and reducing traffic jams. Self-driving cars as well expected to reduce emissions which positively impacted environment. Old peoples and people who cannot drive may depend on self-driving cars for reaching their destinations as stated by Corey D. Harper, Chris T. Hendrickson, Sonia Mangones, Constantine Samaras, (2016). Even though self-driving cars expected to have lots of benefits and its features claimed to be extraordinary; it is essential to explore the people's intention to turn into using such car type.

The UAE is one of the best countries in the world in the adoption of technology in all aspects of life. UAE government is turned into smart government, the schools adopt smart learning methodologies and the UAE people rely on the use of technology in almost their daily transactions. It is expected that the United Arab Emirates would be one of the leading countries to adopt the usage of self-driving cars. Although the self-driving cars may provide huge benefits to the user compared to the traditional cars that the user drive, the people perception to turn into using this type of cars may vary as some users prefer to engage in driving by themselves.

The aim of this research paper is to investigate the UAE people's intention to turn into using self-driving cars. This investigation is important for UAE government to explore UAE people's acceptance toward using autonomous cars and to take steps for the adoption of such cars in the future such as setting up regulations and preparing infrastructure as well, for this transportation revolution.

This research applied quantitative methods for collecting data based upon utilization of questionnaire that was prepared and sent for respondents living in United Arab Emirates.

Study Design: the research organized starting by the first section which is the introduction of the research in which the researcher identified the topic as well as the purpose of the research. After that research problem statement identified in the second section. Third section is the research justification/theoretical background in which research papers discussed similar

research topic were addressed and explored. The fourth section includes the research questions and related hypothesis that author aim to explore. The fifth section of the research defined the methodology utilized in this research paper. The sixth section includes the Data Analysis and statistical tests conducted in this research. The seventh section includes the research findings. The eighth sections include the discussion. Finally, conclusion included at the ninth section of the research paper.

II. RESEARCH PROBLEM STATEMENT

Recently, technology involved in all life aspects such as the emergence of self-driving car which considered as huge revolution in the industry of transportation. This revolution attracted researchers, individuals, companies and the media for different reasons either to explore the reliability of this type of cars as well as the people's perception of self-driving cars, or to investigate the intention of the people to turn into using this type of cars. Brandon Schoettle and Michael Sivak, (2014) stated that the revolution of self-driving cars attracted many people and researchers as well. Self-driving car is an automated vehicle that has the ability to drive and move without human involvement as defined by Daniel Howard and Danielle Dai, (2013). Semi-automated cars are utilized widely while full-automated cars have been used in some countries as stated by Gora and Inga Ruba, (2016). The self-driving cars that is considered in this research paper is the full-automated cars.

Traditional transportation result in many problems such as air pollution and traffic jams. Daniel Howard and Danielle Dai, (2013) explained how self-driving cars are expected to reduce emissions, reduce traffic jams, reduce car accidents and allow users to reach their destinations fast. Corey D. Harper, Chris T. Hendrickson, Sonia Mangones, Constantine Samaras, (2016) as well showed how there is a need for self-driving cars as people with disabilities, old peoples and people who cannot drive for any reason, could depend on self-driving cars for reaching their destinations.

Brandon Schoettle and Michael Sivak, (2015) mentioned that self-driving car would provide comfortability, safety and will reduce traffic jam as well. Michael A. Nees, (2016) believed that self-driving cars will give the users the chance to take benefits from road time. Ward C., Raue M., Lee C., D'Ambrosio L., Coughlin J.F, (2017) agreed on the mentioned benefits and added that self-driving cars will reduce traveling time and car accidents. Many research papers stated that self-driving cars expected to provide benefits for users.

The aim of this research paper is to explore the UAE people's intention to turn into using self-driving cars. The researcher aims to investigate the factors that

affect people's decision to use self-driving cars. The researcher as well aim to examine the standard Technology Acceptance Model in case of introducing self-driving car for public.

The UAE is seeking the first position in all fields. One of the most important areas of interest to the Government of the United Arab Emirates is the technological field. The Government of the United Arab Emirates has become a smart government and technology is being applied in most of the life's aspects, which has established great acceptance to the transformation to technology among the people of the UAE. As the UAE continues to adopt international best practices in the field of technology, the revolution of using self-driving cars is expected to be supported by the Government of the United Arab Emirates. The adoption of self-driving cars requires investigating people's perception about this type of cars, it require as well exploring infrastructure requirements to adopt self-driving cars, New road regulations must be set in order to adopt self-driving cars. But before taking any of the previously mentioned steps, it is essential to explore the UAE people's intention to turn into using self-driving car.

Existing researches deals mostly with people perception to autonomous cars, and some case studies conducted in in USA states and other countries to measure people's intention toward using autonomous cars. This research paper aim to fulfil the gap of measuring UAE people' intention to turn into using self-driving car. The standard Technology Acceptance Model slightly modified by adding new constructs in order to measure the most common factors that affects UAE people's intention to turn into using self-driving cars.

The results from this investigation is important for the government of United Arab Emirates in order to explore UAE people's acceptance to turn into using autonomous cars and to take steps for autonomous cars adoption in the future such as setting up new road regulations and preparing infrastructure as well, for this transportation revolution.

III. RESEARCH JUSTIFICATION/ THEORETICAL BACKGROUND

a) *Autonomous self-driving car*

As technology development has taken on all aspects of life, we are witnessing a revolution in various means of transportation. One of the most important example of transportation revolution is the emergence of self-driving cars. Brandon Schoettle and Michael Sivak, (2014) stated that the emergence of self-driving cars gain the interest of many people as well as researchers who were interested in measuring the people's perception of such car. The Media as well was interested in self-driving car topic as it takes part of their reports and news.

Daniel Howard and Danielle Dai, (2013) defined the self-driving car as an automated vehicle that has the ability to drive and move without human involvement. Self-driving car supplemented with resources that allow it to sense the world around it such as the radar and the GPS. Self-driving car equipped with powerful control system to control the movement of the car.

Daniel Howard and Danielle Dai, (2013) stated that self-driving car history began with Achen Motor Company as it was the first company that brought up the idea of automation when it presented in Milwaukee a phantom motor car in early 1920s.

The appearance of truly autonomous cars was in 1980s as mentioned by Pawel Gora and Inga Rüba, (2016), those emerged cars were less computerized as compared to autonomous cars nowadays. Later the automated car revolution has been emerged. In 2013 noticeable number of car companies became interested in self-driving cars such as Ford and Audi. Famous IT companies such as Google and Apple are doing their projects to introduce their own self-driving cars. Oxford University as well has developed models of self-driving cars.

Semi-automated cars are already been used widely while full-automated cars have been used in some countries for example in United States, in some states the use of self-driving cars is allowed such as Florida and California as mentioned by Gora and Inga Rüba, (2016).

National Highway Traffic Safety Administration NHTSA, (2013) introduced levels for automation classification that are ranged from 0 to 4 as explain below:

- 0: No Automation: Driver is completely responsible about driving.
- 1: Function-specific Automation: One or more of the control functions can be automated but they operated independently of each other and the driver is fully responsible about driving.
- 2: Combined Function Automation: Minimally two of the control functions can be automated and work together, and driver may have time to take hands and feet off the control.
- 3: Limited Self-Driving Automation: Automated car but the driver is expected to participate in driving when it is needed i.e. driving control will be shifted to the driver in some situations.
- 4: Full Self-Driving Automation: Driver will not participate in driving just will provide the destination.

b) *The need for self-driving car*

When considering the current transportation system, there are many problems that governments seek to find solutions for such as traffic congestion and air pollution resulting from the emissions of carbon dioxide from cars. one of the suggested solutions is the adoption of smart cars i.e. self-driving cars.

With the emergence of self-driving cars and people's interest in them, this important question comes to our minds, is there a need for this type of cars? There are many reasons to adopt the idea of self-driving cars. MatjažKnez, MatevžObrecht, (2019) stated that the car registration worldwide increased sharply year after year, and this increase directly affect the environment and raising the air pollution since most of these cars are fuel-based cars. Self-driving car is smart car some of these cars are fuel-based and some others are electric-based. The use of self-driving cars would give the users the opportunity to reach their destinations faster which may reduce the driving time hence reduce emissions. Daniel Howard and Danielle Dai, (2013) explained how self-driving cars depends on Intelligent Transportation Systems (ITS) that provides high safety level and smart calculation for best road to reach destination. The use of smart transportation system will result in reducing traffic jams, reducing car accidents hence saving lives and reducing emissions hence reducing air pollution.

Corey D. Harper, Chris T. Hendrickson, Sonia Mangones, Constantine Samaras, (2016) stated that people with disabilities, old people as well as people that are not driving due to medical problems consider the self-driving car as a solution for them to reach their destinations hence there is an increase need for such cars. From what is mentioned earlier, it is clear that there is an increasing need for self-driving cars.

c) *Benefits of self-driving car*

Brandon Schoettle and Michael Sivak, (2015) believed that it is expected that the self-driving cars would provide great benefits to the users. It is expected that the self-driving cars will provide comfortability compared to traditional cars that the human drive which may result in increased of traveling and mobility. It is expected as well that the self-driving cars reduce traffic jams and provide high standards of safety. Michael A. Nees, (2016) stated as well that the self-driving cars would increase the safety and reduce traffic problems. Michael A. Nees, (2016) believed that self-driving cars would allow the users of the car to take benefits of the road time.

Ward C., Raue M., Lee C., D'Ambrosio L., Coughlin J.F, (2017) agrees on the benefits mentioned earlier that self-driving cars have great benefits such as reducing traveling time, reducing traffic jams, reducing car accidents and allowing the users to take benefits of the travelling time.

Yu Shi, Jiefeng Chen, Qi Li, (2017) studied how the use of self-driving cars effects the capacity of the traffic and found that the cooperation of self-driving cars will results in raising traffic capacity, researchers as well stated that self-driving cars are efficient is speeding up the traffic flows.

Self-driving cars would provide great transportation solution for people with disabilities, old

people as well as people that are not driving due to medical problems as mentioned by Corey D. Harper, Chris T. Hendrickson, Sonia Mangones, Constantine Samaras, (2016).

When reviewing the benefits mentioned earlier, benefits of self-driving cars can be concluded as:

- Self-driving car expected to provide high safety as it respects road rules and will reduce the accidents that are due to human errors.
- The self-driving cars give the user the opportunity to take benefits of roads times.
- Self-driving car tends to provide comfort to the user of the car which can lead to increase in the travelling and mobility.
- Self-driving cars would have great impact on traffic system as it will reduce traffic jams and raise the traffic flows especially at peak-hours.
- Self-driving cars will reduce the transportation time as it will give the users the chance to reach destinations faster and as a result the fuel consumption will be reduced as well as the emissions from the cars will be reduced and that will have positive impacts on the environment.
- Self-driving car could be perfect transportation method especially for people with disabilities, old people and people that cannot drive due to medical problems.

d) *Challenges for self-driving car adoption*

Brandon Schoettle and Michael Sivak, (2014) mentioned how it is important to set new traffic regulations that consider self-driving cars. Michael A. Nees, (2016) raised an important challenge when start using self-driving cars as that type of cars may share the roads with traditional cars that the human drive and this may provide unexpected results.

Michael A. Nees, (2016) believed that the ideal prototype of the self-driving cars that has been advertised may not actually materialize when self-driving cars widely used in real world and this challenge may have negative impacts on public.

Daniel Howard and Danielle Dai, (2013) stated that despite that the self-driving cars planned to be more efficient and sustainable as well it is assumed that is would be a safe car, the perception of public to turn into using self-driving cars may be challenging as public concerned about the real safety and liability the self-driving cars that will be provided in real world. Researchers as well mentioned the manufacturing cost as a challenge as it is expected that self-driving cars would be of high cost for users to own and for government to adapt the road infrastructure for the use of such cars.

M. König, L. Neumayr, (2016) raised the uncertainty challenge for the adoption of self-driving cars as researchers mentioned how people as well as stakeholders may resist to adopt such cars because of

their opinions about car's uncertainty. Researchers as well mentioned the people's resistance to change and caution's to "new thing" as a big challenge for the adoption of self-driving cars. One more challenge raised by the researchers that some people drive for pleasure and racing purposes; those people may resist to turn into using self-driving cars.

Frank Douma and Sarah Aue Palodichuk, (2012) stated that self-driving cars may be target for hackers or terrorists. As self-driving cars route can be tracked easily; it is essential to consider the system security and privacy of the self-driving cars. People tend to care about their privacy hence securing the system of the self-driving cars is another challenge for the adoption of self-driving cars.

IV. RESEARCH QUESTIONS

As been discussed in the previous sections, the research gap is to measure the people's intention to turn into using self-driving cars in United Arab Emirates. The objective of this research paper is to investigate the user's preferred specifications in self-driving cars and the relationship between self-driving car's features and the user's intention to turn into using self-driving car. The researcher as well aim to measure the difference between the male and females in their intention to turn into using self-driving car.

The emerge of self-driving cars attract0ed the interest of governments, car companies, researchers and people as well, surveys conducted in this field to report people's intention to use the self-driving cars.

The main research question to fulfil the gap is "To what extent people in United Arab Emirates have the intention to turn into using self-driving car?" This main research question will be addressed through the following research questions:

Q1: To what extent UAE people care about specifications of the self-driving car?

Q2: Does the specifications of the self-driving car impact the UAE people's intention to turn into using self-driving car?

Q3: Does the self-driving car's features impact the UAE people's intention to turn into using self-driving car?

Q4: To what extent people in United Arab Emirates have the intention to turn into using self-driving car?

Q5: Does the Gender factor have different impact on the intention to turn into using self-driving car?

Q6: Does the Driving Experience factor have different impact on the intention to turn into using self-driving car?

Q7: Does the Education Level factor associated with the intention to turn into using self-driving car?

Q8: Does the Gender and Driving Experience associated?

This research aims to study the UAE people's intention to turn into using self-driving car and whether

the self-driving car's features affect the user's decision and intention to use this type of cars. Thus, this research hypothesis that there is strong association between the self-driving car's features and people's intention to turn into using self-driving car. Author of this research paper stated the hypothesis of this research as following:

H1: UAE people highly care about the specification of self-driving car

H2: There is significant association between self-driving car's specifications and the UAE people's intention to turn into using self-driving car.

H3: There is significant association between self-driving car's features and the UAE people's intention to turn into using self-driving car.

H4: There is significant association between self-driving car's safety features and the UAE people's intention to turn into using self-driving car.

H5: There is significant association between self-driving car's performance features and the UAE people's intention to turn into using self-driving car.

H6: There is significant association between self-driving car's Ease of Use features and the UAE people's intention to turn into using self-driving car.

H7: There is significant association between self-driving car's Usefulness features and the UAE people's intention to turn into using self-driving car.

H8: there is no significant difference between males and females in their intention to turn into using self-driving car.

H9: Driving Experience have positive impact on the intention to turn into using self-driving car.

H10: Level of Education is not associated with the intention to turn into using self-driving car.

H11: there is significant association between gender and driving experience.

Research hypothesis associated with research questions:

Table 1: Research hypothesis associated with research questions

Research Question	Related Hypothesis
Q1: To what extent UAE people care about specifications of the self-driving car?	<i>H1:</i> UAE people highly care about the specification of self-driving car
Q2: Does the specifications of the self-driving car impact the UAE people's intention to turn into using self-driving car?	<i>H2:</i> There is significant association between self-driving car's specifications and the UAE people's intention to turn into using self-driving car.
Q3: Does the self-driving car's features impact the UAE people's intention to turn into using self-driving car?	<i>H3:</i> There is significant association between self-driving car's features and the UAE people's intention to turn into using self-driving car.
	<i>H4:</i> There is significant association between self-driving car's safety features and the UAE people's intention to turn into using self-driving car.
	<i>H5:</i> There is significant association between self-driving car's performance features and the UAE people's intention to turn into using self-driving car.
	<i>H6:</i> There is significant association between self-driving car's Ease of Use features and the UAE people's intention to turn into using self-driving car.
Q4: To what extent people in United Arab Emirates have the intention to turn into using self-driving car?	<i>H7:</i> There is significant association between self-driving car's Usefulness features and the UAE people's intention to turn into using self-driving car.
	<i>H8:</i> People in United Arab Emirates have great intention to turn into using self-driving car.

Table 2: Research hypothesis associated with demographic questions:

Demographic Questions	Related Hypothesis
Q5: Does the Gender factor have different impact on the intention to turn into using self-driving car?	H9: there is no significant difference between males and females in their intention to turn into using self-driving car.
Q6: Does the Driving Experience factor have different impact on the intention to turn into using self-driving car?	H10: Driving Experience have positive impact on the intention to turn into using self-driving car.
Q7: Does the Education Level factor associated with the intention to turn into using self-driving car?	H11: Level of Education is not associated with the intention to turn into using self-driving car.
Q8: Does the Gender and Driving Experience associated?	H12: there is significant association between gender and driving experience.

The hypothesis above are tested utilizing bivariate correlation and Regression and other statistical tests. Sections below define the methodology and discuss the results found.

Technology Acceptance Model (TAM) utilized as basis for developing conceptual model for this

research; Paul Legrisa, John Inghamb, Pierre Collettec, (2003) stated that Technology Acceptance Model was introduced by Davis, (1989) in order to investigate users' reasons for accepting or rejecting technology, Figure 1 below illustrate Technology Acceptance Model (TAM).

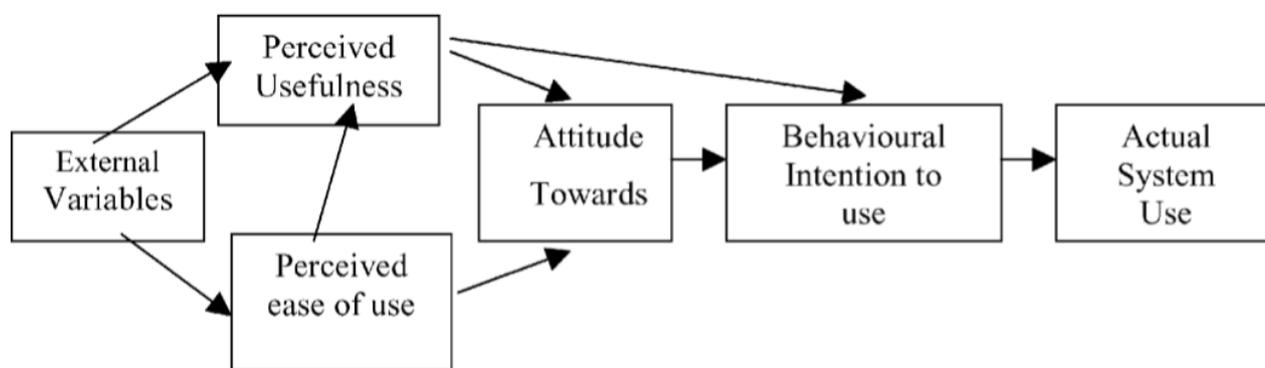


Figure 1: Original Technology Acceptance Model

For this research paper, Figure 2 illustrates research's conceptual Model. The intention to turn into using self-driving car model for this research paper developed based upon the basic Technology Acceptance Model. In this research paper, researcher identified two factors that affects user's intention to turn into using self-driving car i.e. specifications and features of self-driving car. Researcher aim to investigate whether the UAE people care about self-driving car specifications when intending to buy a car and to what extent they care about these specifications. Researcher identified the specifications as the information, facts and important details about the self-driving cars that most of the regular car companies displayed and proposed for the customers. These specifications are real and available in regular cars as well, such as: system, car outside look, wheels, braking system, engine, luxury and comfort, entertainment, number of passengers and seating. The second factor that is identified by the researcher and affect the intention to turn into using self-

driving car is the features of the car. Researcher identified features based upon the Technology Acceptance Model as it consists of the Ease of Use features, Usefulness features and researcher added the safety and performance features as well, as presented by Figure 2 below. Self-driving features in this research paper represent the expected features in the self-driving car.

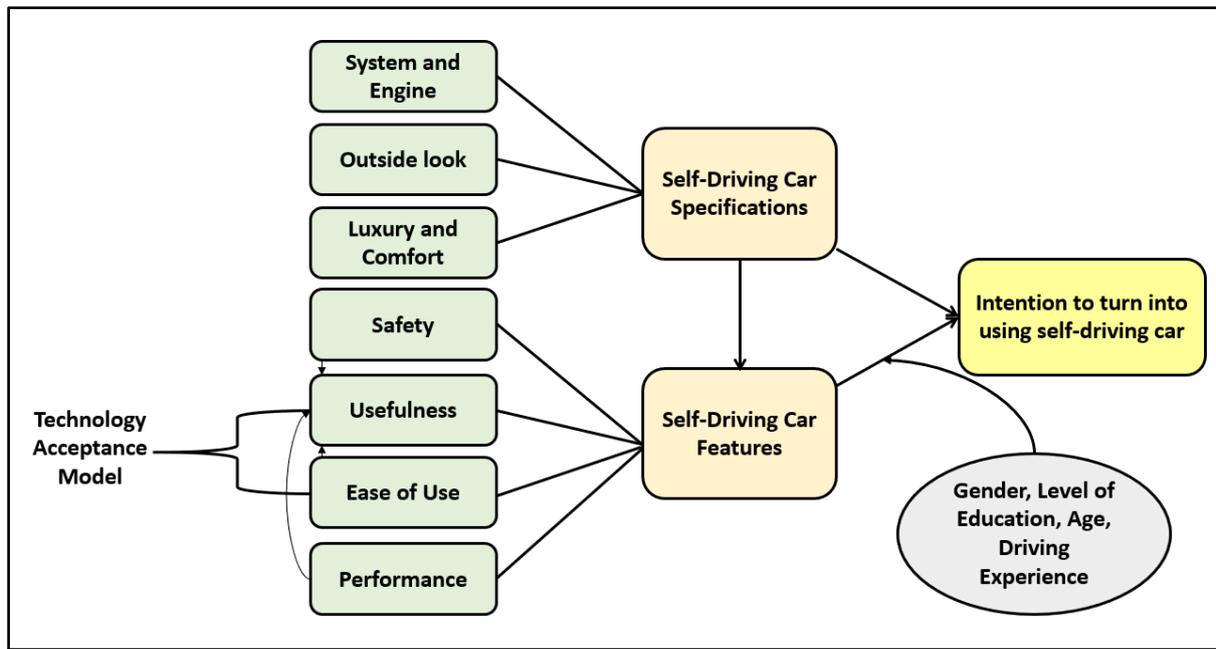


Figure 2: Research's conceptual framework

V. METHODOLOGY

Data utilized in this research paper is gathered through online questionnaire. Before start responding to the questionnaire, respondents must read brief description about the self-driving car. The questionnaire consists of four sections, the first section consists of five demographics i.e. age, gender, level of education, nationality and driving experience, the second section is to measure respondent's interest and care about the self-driving car's specifications, the third section is about self-driving car's features, and the fourth section is to measure the respondent's intention to turn into using self-driving car. Questionnaire utilizes seven-point scales. The questionnaire is included in Appendix A.

The questionnaire was sent to number of respondents for testing and checking the accuracy of the questions as well as evaluating the clearness of the questions. The targeted population of the questionnaire is people in United Arab Emirates.

After testing the questionnaire, the questionnaire has been sent into 50 persons and the number of collected responses was 39 responds. Number of males participated in answering the questionnaire was 20 persons, while number of females was 19 persons. The age of the respondents to the questionnaire is up to 59 years old, nobody of 60 years old or above participated in answering the questionnaire. Questionnaire was sent to people of different education levels, but most of the responses were from people holding bachelor's degree. Information about driving experience as well collected from respondents to investigate if the driving experience has impact of respondent's decision to turn into using self-driving car.

Research hypothesis were investigated through statistical experiments in order to answer the three main research questions. Before conducting experiments, it is essential to identify the dependent and independent variables for each of the research questions as follows:

- For the first research question:
 Q1: To what extent UAE people care about specifications of the self-driving car?
Dependent variables: user's interest in self-driving car's specification
Independent variables: Self-Driving car specifications (comfort, luxury, wheels and tires, braking-system, outside look, steering, number of passengers, seating, entertainment, safety system, multi-view technologies, car engine, speed, complete autonomous driving system, partial autonomous driving system)
Group: UAE people.
- For the second research question
 Q2: Does the specifications of the self-driving car impact the UAE people's intention to turn into using self-driving car?
Dependent variable: user's intention to turn into using self-driving car
Independent variable: self-driving car specifications (comfort, luxury, wheels and tires, braking-system, outside look, steering, number of passengers, seating, entertainment, safety system, multi-view technologies, car engine, speed, complete autonomous driving system, partial autonomous driving system)
Group: UAE people.

- For the third research question
Q3: Does the self-driving car's features impact the UAE people's intention to turn into using self-driving car?
Dependent variable: user's intention to turn into using self-driving car
Independent variable: self-driving car features (safety, performance, ease of use, benefits)
Group: UAE people.
- For the fourth research question:
Q4: To what extent people in United Arab Emirates have the intention to turn into using self-driving car?
Dependent variable: intention to turn into using self-driving
Group: UAE people.
- For the fifth research question:
Q5: Does the Gender factor have different impact on the intention to turn into using self-driving car?
Dependent variable: intention to turn into using self-driving
Group: Male and Female
- For the sixth research question:
Q6: Does the Driving Experience factor have different impact on the intention to turn into using self-driving car?
Dependent variable: intention to turn into using self-driving
Group: UAE people with different Driving Experience
- For the seventh research question:
Q7: Does the Education Level factor associated with the intention to turn into using self-driving car?
Dependent variable: intention to turn into using self-driving
Group: UAE people with different Education Level

The questionnaire questions uploaded into Google Forms to create online survey. Then the created survey was sent to the respondents. After gathering responses, file of responses was downloaded from Google Forms into SPSS software for analyzing results.

VI. DATA ANALYSIS (STATISTICAL TESTS)

Responses were gathered and uploaded into SPSS software for data analysis purposes, number of statistical tests conducted as follows:

a) Construct and scale validity

It is essential to start with construct and scale validity test for the questionnaire. Haradhan Kumar MOHAJAN, (2017) stated that reliability and validity considered as essential and critical for questionnaire evaluation of good research paper. Validity is essential to indicate the finding's truthfulness, while reliability indicate how stable the findings are. The first test researcher started with is construct validity test then scale validity test. Sections below present results of construct and scale validity tests.

i. Construct Validity

Construct validity test conducted to measure whether the construct measured what it supposed to measure. Nigel Norris, (1997) stated that one method for measuring the validity is by checking the bias as human nature may result in some activity failings. Researchers as human may create some failings and mistakes. checking common bias can be used to indicate the validity. Below Table 3 present construct validity test by checking common bias.

Table 3: Construct Validity test to check common bias

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.719	40.306	40.306	15.719	40.306	40.306	10.354	26.550	26.550
2	4.275	10.961	51.267	4.275	10.961	51.267	3.643	9.340	35.889
3	2.649	6.793	58.059	2.649	6.793	58.059	3.572	9.159	45.049
4	2.165	5.550	63.610	2.165	5.550	63.610	3.181	8.156	53.205
5	1.851	4.745	68.355	1.851	4.745	68.355	2.856	7.324	60.528
6	1.705	4.371	72.726	1.705	4.371	72.726	2.747	7.043	67.572
7	1.274	3.267	75.993	1.274	3.267	75.993	2.318	5.943	73.515
8	1.260	3.230	79.223	1.260	3.230	79.223	1.774	4.548	78.062
9	1.019	2.612	81.835	1.019	2.612	81.835	1.471	3.773	81.835
10	.919	2.356	84.192						
11	.760	1.948	86.139						
12	.744	1.907	88.046						
13	.662	1.697	89.744						
14	.656	1.681	91.425						

15	.526	1.350	92.775					
16	.424	1.086	93.861					
17	.377	.968	94.828					
18	.322	.826	95.654					
19	.320	.821	96.475					
20	.270	.693	97.168					
21	.217	.555	97.723					
22	.185	.475	98.198					
23	.149	.381	98.579					
24	.134	.344	98.923					
25	.093	.240	99.163					
26	.080	.205	99.367					
27	.063	.162	99.530					
28	.049	.125	99.655					
29	.038	.098	99.753					
30	.030	.078	99.831					
31	.022	.057	99.888					
32	.018	.047	99.935					
33	.016	.041	99.976					
34	.006	.014	99.990					
35	.003	.007	99.997					
36	.001	.002	99.999					
37	.000	.001	100.000					
38	8.073E-16	2.070E-15	100.000					
39	-5.243E-16	-1.344E-15	100.000					
Extraction Method: Principal Component Analysis.								

Data was checked for common bias; results from Table 3 above show that data in this case loaded on 39 components, and the first component is only explained 26.550 variation of data, therefore there is no common bias in the collected data.

ii. Scale Validity

In this research paper, the developed questionnaire utilizes 7-point Likert scales ranging from Agree Strongly to Disagree Strongly. It is essential to test the scales reliability to ensure the consistency of the questions of the questionnaire. Cronbach's Alpha is the

important value to measure in the reliability test as it indicated how questions are interrelated in the questionnaire. The higher the value of Cronbach's Alpha, the more reliability of the scale. Below are tables for scale validity i.e. reliability test.

The basic statistical measures of the constructs (Mean and Standard Deviations) are illustrated in Table 4, Table 7 and Table 10. No missing data has been detected as seen that valid N=39 is similar for all.

Reliability for self-driving car's specification construct's variables:

Table 4: Item statistics

Item Statistics			
	Mean	Std. Deviation	N
P1V1comfort	6.436	.8521	39
P1V2safetysystem	6.795	.9782	39
P1V3luxury	6.462	.6426	39
P1V4wheels	6.615	.9066	39
P1V5brakingsystem	6.846	.3655	39
P1V6look	6.436	.9678	39
P1V7passengers	6.282	.9719	39
P1V8seating	6.564	.7538	39
P1V9entertainment	6.282	.9162	39
P1V10multi-view	6.205	.9509	39
P1V11engine	6.462	.8840	39

P1V12speed	6.256	.8801	39
P1V13complete-autonomous	5.436	1.3916	39
P1V14partial-autonomous	6.231	.8099	39

Table 5: Reliability Statistics - Cronbach's Alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.771	.773	14

A reliability analysis was carried out. The scale covering 14 items i.e. construct's attributes. Cronbach's alpha in Table 5 showed the questionnaire to reach acceptable degree of reliability for the first construct i.e. self-driving car's specifications, Cronbach's Alpha (α) = 0.771 (Table5).

Table 6: Total Reliability Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
P1V1comfort	82.872	40.167	-.072	.264	.796
P1V2safetyssystem	82.513	37.099	.173	.534	.779
P1V3luxury	82.846	36.239	.447	.578	.755
P1V4wheels	82.692	34.640	.436	.696	.753
P1V5brakingsystem	82.462	38.939	.228	.409	.770
P1V6look	82.872	32.904	.565	.712	.739
P1V7passengers	83.026	32.710	.581	.741	.737
P1V8seating	82.744	34.038	.626	.841	.739
P1V9entertainment	83.026	34.289	.465	.737	.750
P1V10multi-view	83.103	32.831	.585	.728	.737
P1V11engine	82.846	35.502	.364	.777	.760
P1V12speed	83.051	35.260	.390	.386	.757
P1V13complete-autonomous	83.872	31.220	.447	.521	.755
P1V14partial-autonomous	83.077	36.915	.258	.438	.768

Table 6 shows that most items appeared to be worthy of retention, resulting in a decrease in the alpha if deleted. Except two items i.e. P1V1comfort and P1V2 safety system, which would increase the alpha to $\alpha = 0.796$ and $\alpha = 0.779$. There is no need to delete these items since the $\alpha = 0.771$ which is high and the increase in Cronbach's Alpha if item deleted is not significant.

Reliability for self-driving car's features construct's variables:

Table 7: Item statistics

Item Statistics			
	Mean	Std. Deviation	N
P2V1safe	5.513	1.2539	39
P2V2speed-limit	5.641	1.1353	39
P2V3road-rules	5.564	1.3138	39
P2V4reduce-accidents	5.205	1.4360	39
P2V5safety-encourage	5.718	1.1227	39
P2V6reach-destination	5.231	1.5638	39
P2V7fuel	5.436	1.3533	39
P2V8performane-encourage	5.615	1.1611	39
P2V9easy-to-use	5.564	1.3138	39
P2V10easy-to-learn	5.897	1.0953	39
P2V11easy-encourage	5.821	.8545	39
P2V12efficient-destination	5.513	1.2952	39
P2V13 benefit-comfort	5.974	1.0127	39
P2V14 reliable	5.179	1.4303	39
P2V15 benefit-safe	5.333	1.3045	39

P2V16 reduce-traffic	5.333	1.2425	39
P2V17road-time	6.000	1.1471	39
P2V18 reduce-pleasure	6.026	1.2028	39
P2V19 benefit-encourage	5.795	1.4722	39

Table 8: Reliability Statistics - Cronbach's Alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.957	.958	19

A reliability analysis was carried out. The scale covering 19 items i.e. construct's variables. Cronbach's alpha in Table 8 showed the questionnaire to reach high degree of reliability for the second construct i.e. self-driving car's features, $\alpha = 0.957$ (Table8).

Table 9: Total Reliability Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
P2V1safe	100.846	289.291	.728	.844	.954
P2V2speed-limit	100.718	290.366	.782	.750	.954
P2V3road-rules	100.795	288.536	.709	.789	.955
P2V4reduce-accidents	101.154	282.660	.770	.883	.954
P2V5safety-encourage	100.641	293.078	.718	.909	.955
P2V6reach-destination	101.128	279.536	.764	.808	.954
P2V7fuel	100.923	289.178	.672	.872	.955
P2V8performane-encourage	100.744	289.143	.796	.857	.953
P2V9easy-to-use	100.795	282.588	.851	.892	.952
P2V10easy-to-learn	100.462	299.045	.572	.897	.956
P2V11easy-encourage	100.538	300.150	.711	.826	.955
P2V12efficient-destination	100.846	288.239	.728	.764	.954
P2V13 benefit-comfort	100.385	295.874	.718	.872	.955
P2V14 reliable	101.179	282.625	.775	.807	.954
P2V15 benefit-safe	101.026	284.078	.822	.936	.953
P2V16 reduce-traffic	101.026	292.920	.646	.704	.956
P2V17road-time	100.359	293.131	.699	.837	.955
P2V18 reduce-pleasure	100.333	290.965	.719	.808	.955
P2V19 benefit-encourage	100.564	291.358	.565	.674	.957

Table 9 shows that all items appeared to be worthy of retention, resulting in a decrease in the alpha if deleted. Reliability for intention to turn into using self-driving car construct's variables:

Table 10: Item statistics

Item Statistics			
	Mean	Std. Deviation	N
P3V1 willing-pay	5.103	1.4653	39
P3V2 lot-benefits	5.872	.9509	39
P3V3 recommend-use	5.692	1.3984	39
P3V4 ease-of-use	5.692	1.2387	39
P3V5 willing-buy	5.410	1.4818	39
P3V6 own-idea	5.769	1.3468	39

Table 11: Reliability Statistics - Cronbach's Alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.942	.946	6

A reliability analysis was carried out. The scale covering 6 items i.e. construct's variables. Cronbach's alpha in Table 11 showed the questionnaire to reach high degree of reliability for the third construct i.e. intention to turn into using self-driving car, $\alpha = 0.942$ (Table11).

Table 12: Total Reliability Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
P3V1 willing-pay	28.436	33.779	.773	.620	.939
P3V2 lot-benefits	27.667	38.754	.797	.703	.939
P3V3 recommend-use	27.846	33.028	.878	.809	.925
P3V4 ease-of-use	27.846	35.818	.792	.701	.935
P3V5 willing-buy	28.128	32.062	.884	.865	.924
P3V6 own-idea	27.769	33.498	.884	.850	.924

Table 12 shows that all items appeared to be worthy of retention, resulting in a decrease in the alpha if deleted.

From construct and validity test it was found that there is no common bias in the collected data and the reliability test presented high score of Cronbach's Alpha which indicated high degree of reliability.

b) Univariate statistics

Data were collected and organized, the univariate test is simple test conducted in order to explore the data and measure the frequencies of attributes as well as mean, median and mode. Univariate test utilized for description purposes; it doesn't involve finding relationships between data.

In this research paper, questionnaire consists of 39 questions, univariate statistical test carried out for exploring frequencies and description purposes. Appendix B consists of the Univariate Statistics for construct's attributes as well as Univariate Statistics for Demographics. Tables below consists of comparison between frequencies of construct's attributes:

- i. Comparison of the percent of each of the specification of self-driving car that user interested in:

When comparing the self-driving car's specifications; statistics presented that respondents highly care about safety specifications. Statistics as well represented the following as seen in Table 13 and Figure 3 below:

1. Around 95% of respondents care about comfort specifications.

2. More than 97% of respondents with different degree of agreement care about safety, luxury, braking system, car's outside look, speed, number of passengers, wheels and seating's specifications, engine specifications of self-driving car.
3. Around 92% of respondents care about entertainment specifications.
4. Partial-autonomous cars are much preferred than complete autonomous cars.

From all above, it is clear that people highly care about all the specifications of the self-driving car.

Table 13: Self-driving car specifications frequencies

	P1V1comfort	P1V2safetysystem	P1V3luxury	P1V4wheels	P1V5brakingsystem	P1V6look	P1V7passengers	P1V8seating	P1V9entertainment	P1V10multi-view	P1V11engine	P1V12speed	P1V13complete-autonomous	P1V14partial-autonomous
Strongly Disagree	0	2.6	0	0	0	0	0	0	0	0	0	0	0	0
Disagree	0	0	0	2.6	0	2.6	2.6	0	0	0	0	0	5.1	0
Slightly Disagree	2.6	0	0	0	0	0	0	0	0	2.6	2.6	2.6	5.1	0
Neutral	2.6	0	0	0	0	0	0	2.6	7.7	2.6	0	0	10.3	2.6
Slightly Agree	0	0	7.7	2.6	0	7.7	10.3	7.7	7.7	12.8	10.3	12.8	25.6	15.4
Agree	38.5	5.1	38.5	20.5	15.4	28.2	38.5	20.5	33.3	35.9	23.1	38.5	28.2	38.5
Agree Strongly	56.4	92.3	53.8	74.4	84.6	61.5	48.7	69.2	51.3	46.2	64.1	46.2	25.6	43.6

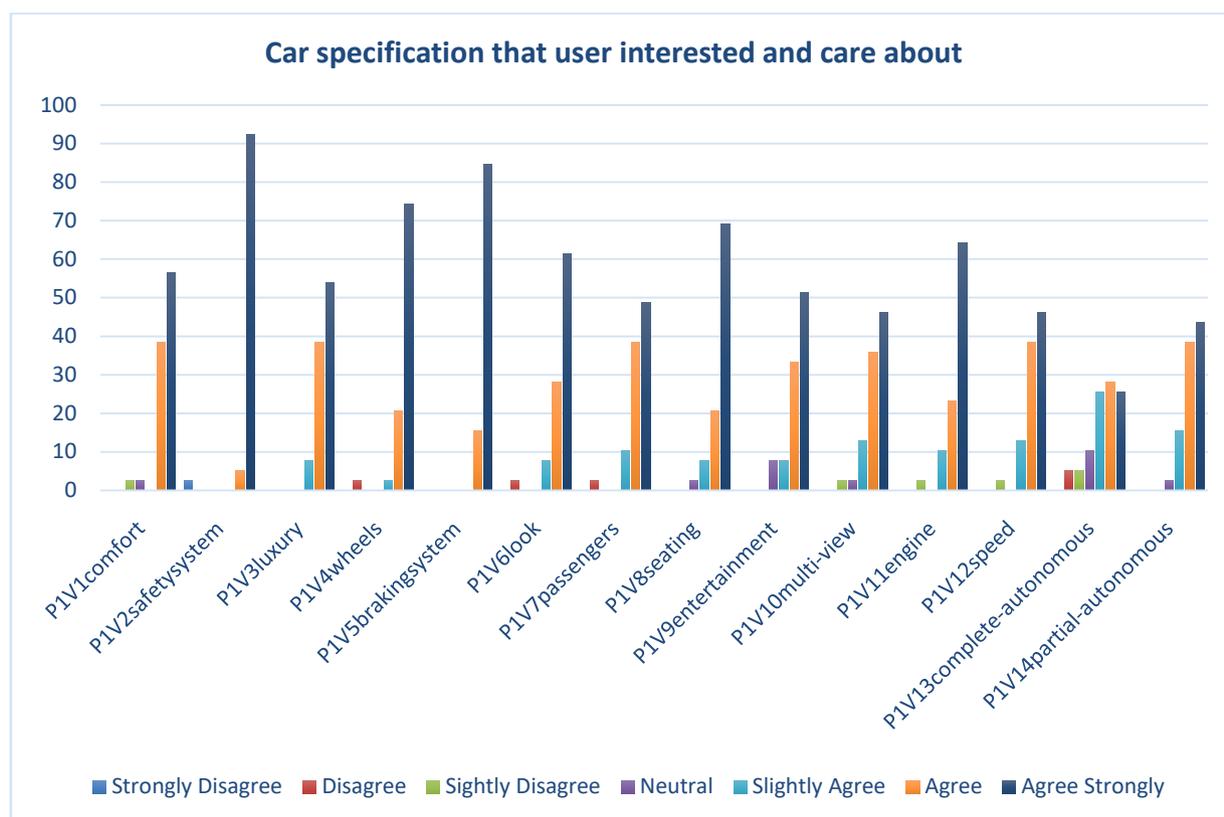


Figure 3: Self-driving car specifications frequencies

ii. Comparison of the percent of each of the user's expectations of self-driving car safety features:

Respondents highly care about safety of self-driving car. Statistics represented the following as seen in Table 14 and Figure 4 below:

1. More than 84% of respondents believe that self-driving car is safe.
2. More than 87% of respondents believe that self-driving car will never exceed speed limit.
3. More than 79% of respondents believe that self-driving car will never break road rules.
4. More than 69% of respondents believe that self-driving car will reduce car accidents while around 13% disagree that self-driving car will reduce car accidents.
5. More than 87% of respondents believe that self-driving car safety features have great impact that will encourage people to buy such car.

From all above, people highly believe that self-driving car would be a safe car, and safety features would encourage people to buy such car.

Table 14: Expected safety features frequencies

	P2V1safe	P2V2speed-limit	P2V3road-rules	P2V4reduce-accidents	P2V5safety-encourage
Strongly Disagree	2.6	0	0	2.6	0
Disagree	0	2.6	2.6	0	2.6
Slightly Disagree	2.6	2.6	5.1	10.3	0
Neutral	10.3	7.7	12.8	17.9	10.3
Slightly Agree	28.2	23.1	20.5	17.9	23.1
Agree	35.9	43.6	30.8	33.3	38.5
Agree Strongly	20.5	20.5	28.2	17.9	25.6

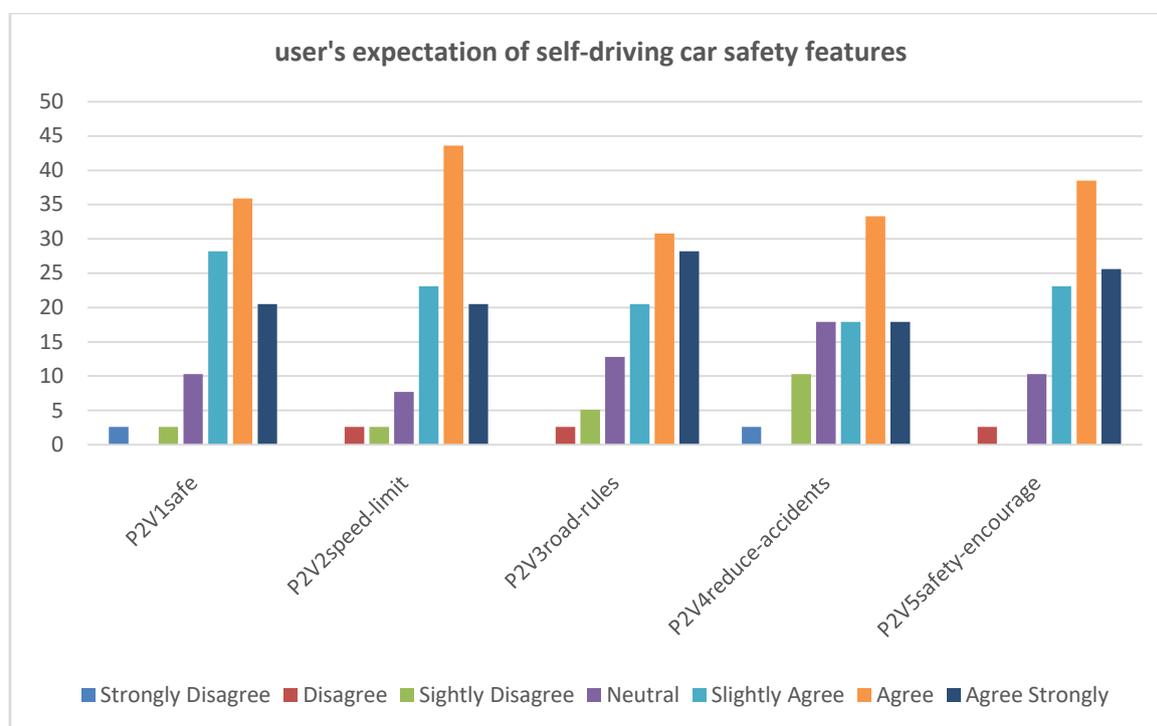


Figure 4: Expected safety features frequencies

iii. Comparison of the percent of each of the user's expectations of self-driving car performance:

Respondents have high expectations about performance of self-driving car. Statistics represented the following as seen in Table 15 and Figure 5 below:

1. More than 74% of respondents believe that self-driving car would efficiently reach destination fast, on the other side, around 15% disagree about this.
2. 80% of respondents believe that self-driving car will not consume much fuel.
3. More than 87% of respondents believe that the performance features of self-driving car will encourage them to buy it.

From all above, people highly believe that self-driving car would have great performance, and performance features would encourage people to buy such car.

Table 15: Expected performance features frequencies

	P2V6reach-destination	P2V7fuel	P2V8performane-encourage
Strongly Disagree	2.6	0	0
Disagree	5.1	2.6	2.6
Slightly Disagree	7.7	10.3	2.6
Neutral	10.3	5.1	7.7
Slightly Agree	20.5	30.8	28.2
Agree	33.3	25.6	35.9
Agree Strongly	20.5	25.6	23.1

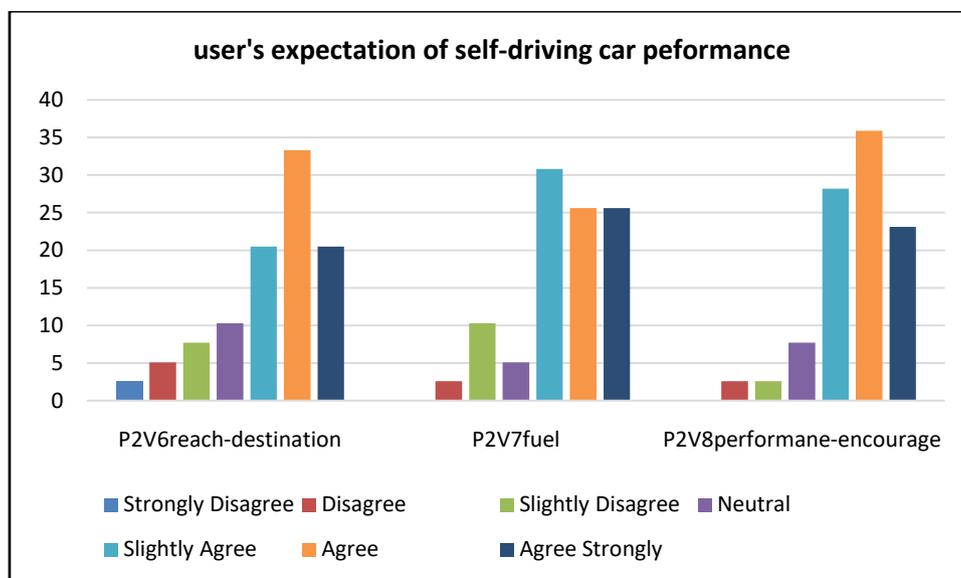


Figure 5: Expected performance features frequencies

iv. Comparison of the percent of each of the user's expectations of self-driving car ease of use features:

Respondents have high expectations about Ease of Use features of self-driving car. Statistics represented the following as seen in Table 16 and Figure 6 below:

1. Around 90% of respondents believe that self-driving car would be easy to use.

2. Around 95% of respondents believe that they will learn how to use self-driving car fast.

3. More than 92% of respondents believe that the Ease of Use features of self-driving car will encourage them to buy it.

From all above, people highly believe that self-driving car would be easy to use, and they will learn fast how to use it, people as well believe that Ease of Use features would encourage them to buy such car.

Table 16: Expected Ease of Use features frequencies

	P2V9easy-to-use	P2V10easy-to-learn	P2V11easy-encourage
Strongly Disagree	0	0	0
Disagree	7.7	2.6	0
Slightly Disagree	0	2.6	0
Neutral	2.6	0	7.7
Slightly Agree	30.8	23.1	23.1
Agree	35.9	41	48.7
Agree Strongly	23.1	30.8	20.5

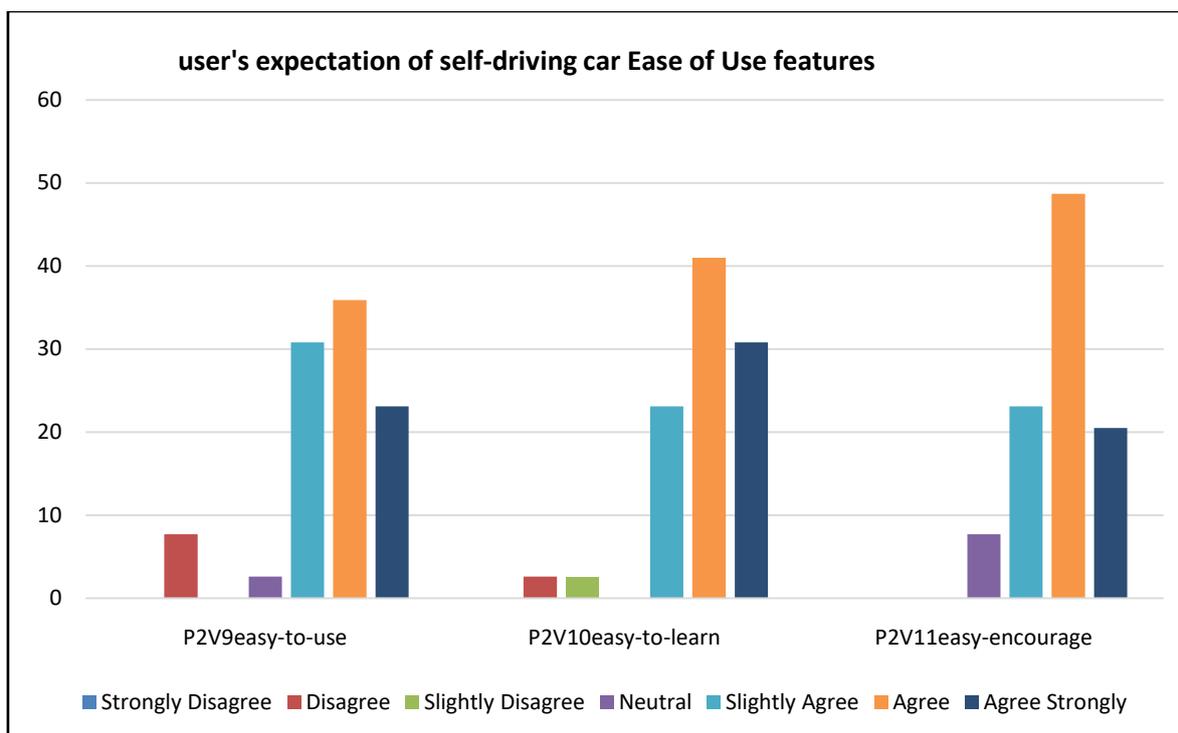


Figure 6: Expected Ease of Use features frequencies

v. Comparison of the percent of each of the user's expectations of self-driving usefulness:

Respondents have high expectations about the usefulness of self-driving car. Statistics represented the following as seen in Table 17 and Figure 7 below:

1. More than 92% of respondents believe that self-driving car would provide comfort to them.
2. More than 74% of respondents believe that self-driving car would be reliable car and it would reduce traffic jam.

3. More than 87% of respondents believe that self-driving car will reduce the pressure due to driving.
4. More than 87% of respondents believe that the benefits of self-driving car will encourage them to buy it.

From all above, people highly believe that self-driving car would provide benefits to them and these usefulness features would encourage them to buy such car.

Table 17: Expected Usefulness features frequencies

	P2V12 efficient-destination	P2V13 benefit-comfort	P2V14 reliable	P2V15 benefit-safe	P2V16 reduce-traffic	P2V17 road-time	P2V18 reduce-pressure	P2V19 benefit-encourage
Strongly Disagree	2.6	0	0	2.6	0	0	0	2.6
Disagree	0	0	7.7	2.6	0	0	2.6	2.6
Slightly Disagree	2.6	2.6	5.1	0	7.7	5.1	0	5.1
Neutral	12.8	5.1	12.8	15.4	17.9	5.1	10.3	2.6
Slightly Agree	25.6	20.5	28.2	28.2	30.8	17.9	12.8	15.4
Agree	33.3	35.9	28.2	35.9	20.5	28.2	28.2	33.3
Agree Strongly	23.1	35.9	17.9	15.4	23.1	43.6	46.2	38.5

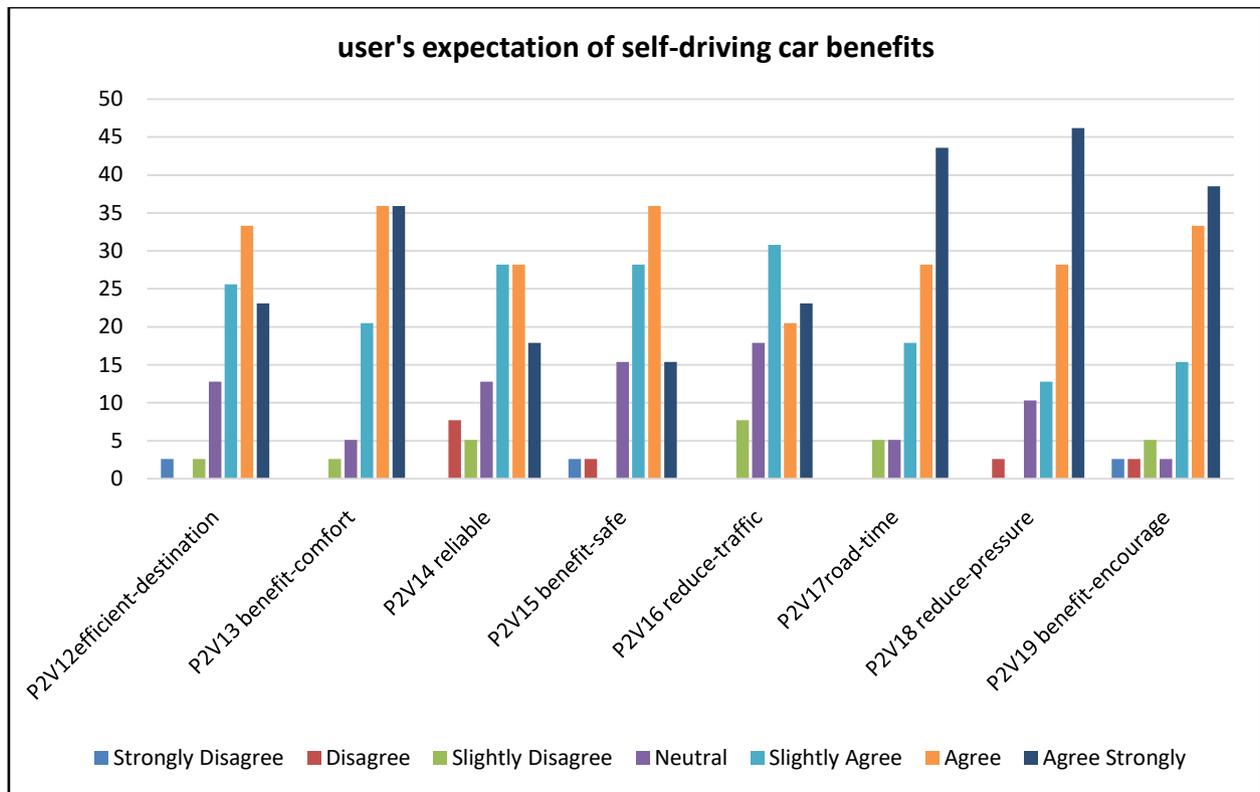


Figure 7: Expected Usefulness features frequencies

vi. Comparison of the percent of the attributes of the people's intention to turn into using self-driving car construct:

Respondents have high intention to turn into using self-driving car. Statistics represented the following as seen in Table 18 and Figure 8 below:

1. More than 71% of respondents are willing to pay even more for the self-driving car while around 13% disagree about this.

2. 77% of respondents would recommend using self-driving car.

3. More than 87% think that owning self-driving car is a good idea even that only 77% of respondents have the intention to buy self-driving car in the future while around 10% haven't the intention to buy such car in the future.

From all above, people in UAE have great intention to turn into using self-driving car in the future.

Table 18: Intention to turn into using self-driving car frequencies

	P3V1 willing-pay	P3V2 lot-benefits	P3V3 recommend-use	P3V4 ease-of-use	P3V5 willing-buy	P3V6 own-idea
Strongly Disagree	2.6	0	2.6	0	0	2.6
Disagree	2.6	0	0	2.6	7.7	0
Slightly Disagree	10.3	0	0	2.6	2.6	2.6
Neutral	12.8	10.3	20.5	10.3	12.8	7.7
Slightly Agree	25.6	20.5	15.4	23.1	23.1	25.6
Agree	30.8	41	23.1	30.8	25.6	23.1
Agree Strongly	15.4	28.2	38.5	30.8	28.2	38.5

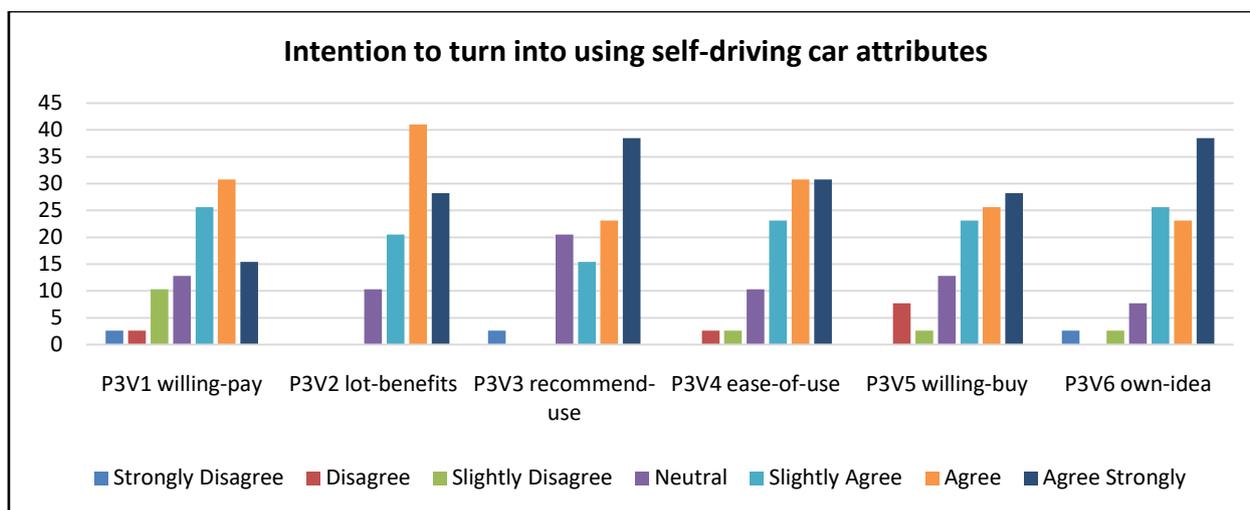


Figure 8: Intention to turn into using self-driving car frequencies

c) Results of Research Questions and Hypothesis Testing

In order to investigate the answer for the research questions and testing the defined hypothesis for the research, number of statistical tests are conducted as presented below:

i. Frequency test to measure UAE people interest about self-driving car's specifications:

Q1: To what extent UAE people care about specifications of the self-driving car?

H1: UAE people highly care about the specification of self-driving car.

When comparing the self-driving car's specifications; statistics presented that respondents highly care about self-driving car's specifications. Statistics as well represented the following as seen in Table 19 and Figure 9 below:

1. Around 95% of respondents care about comfort specifications.
2. More than 97% of respondents with different degree of agreement care about safety, luxury, braking system, car's outside look, speed, number of passengers, wheels and seating's specifications, engine specifications of self-driving car.
3. Around 92% of respondents care about entertainment specifications.
4. Partial-autonomous cars are much preferred than complete autonomous cars.

From all above, it is clear that UAE people highly care about all the specifications of the self-driving car, Thus Hypothesis H1 is accepted.

Table 19: Specifications of self-driving car that UAE people care about

	P1V1 comfort	P1V2 safety system	P1V3 luxury	P1V4 wheels	P1V5 braking system	P1V6 look	P1V7 passengers	P1V8 seating	P1V9 entertainment	P1V10 multi-view	P1V11 engine	P1V12 speed	P1V13 complete autonomous	P1V14 partial autonomous
Strongly Disagree	0	2.6	0	0	0	0	0	0	0	0	0	0	0	0
Disagree	0	0	0	2.6	0	2.6	2.6	0	0	0	0	0	5.1	0
Slightly Disagree	2.6	0	0	0	0	0	0	0	0	2.6	2.6	2.6	5.1	0
Neutral	2.6	0	0	0	0	0	0	2.6	7.7	2.6	0	0	10.3	2.6
Slightly Agree	0	0	7.7	2.6	0	7.7	10.3	7.7	7.7	12.8	10.3	12.8	25.6	15.4
Agree	38.5	5.1	38.5	20.5	15.4	28.2	38.5	20.5	33.3	35.9	23.1	38.5	28.2	38.5
Agree Strongly	56.4	92.3	53.8	74.4	84.6	61.5	48.7	69.2	51.3	46.2	64.1	46.2	25.6	43.6

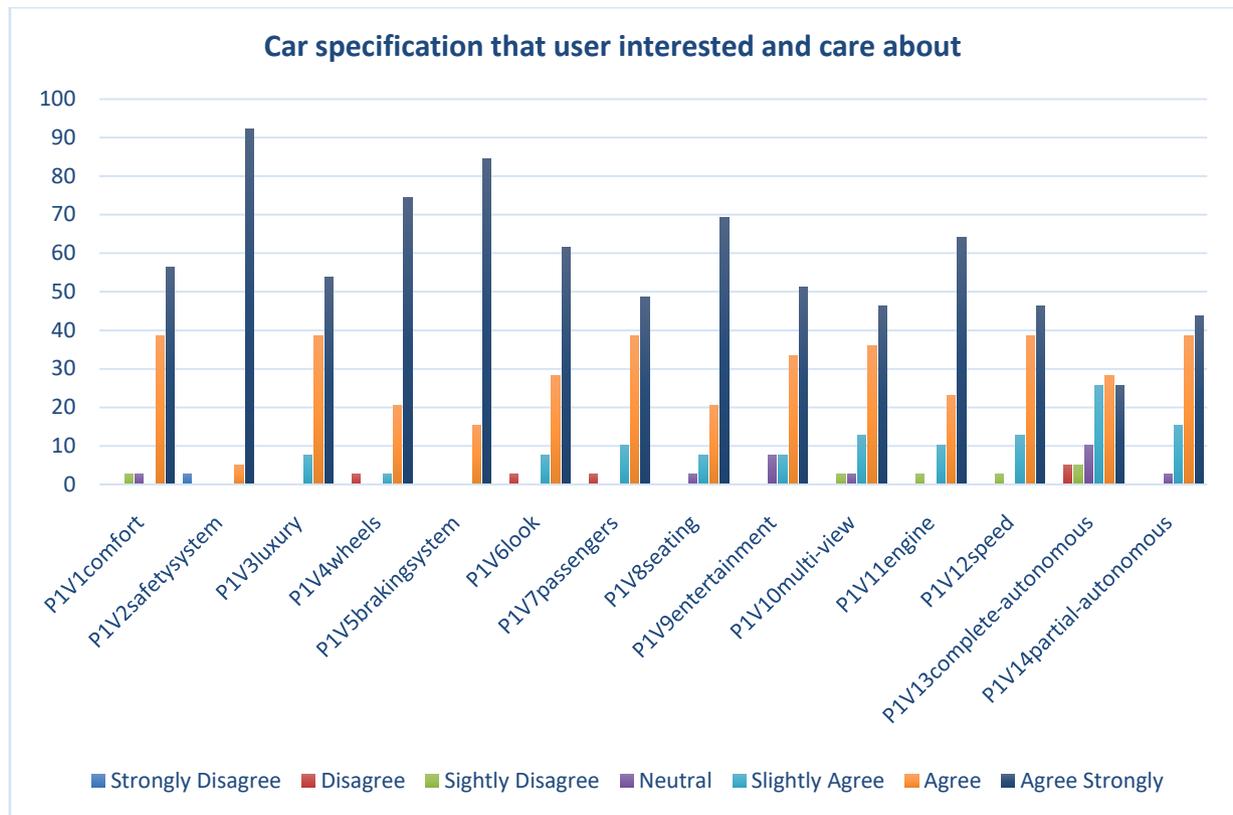


Figure 9: Specifications of self-driving car that UAE people care about

- ii. Correlation test and Regression test to measure the relationship between self-driving car's specification and people's intention to turn into using self-driving car:

Q2: Does the specifications of the self-driving car impact the UAE people's intention to turn into using self-driving car?

Correlation Test:

H2: There is significant association between self-driving car's specifications and the UAE people's intention to turn into using self-driving car.

For this research question, global variables identified as following:

INT: intention into using self-driving car
SPC: specification of self-driving car

Table 20: Correlation test

Correlations			
		INT	SPC
INT	Pearson Correlation	1	.383*
	Sig. (2-tailed)		.016
	N	39	39
SPC	Pearson Correlation	.383*	1
	Sig. (2-tailed)	.016	
	N	39	39

*. Correlation is significant at the 0.05 level (2-tailed).

A Bivariate correlation test was conducted as seen in the table 20 above. Correlation test was carried out to check if there is association between Intention to turn into using self-driving car (INT) and specification (SPC) of self-driving car at (0.05) level, findings are:

- The correlation between features (SPC) and intention (INT) is intermediate = 0.383, i.e. $0.25 \leq r < 0.75$ and positive

The results show that there is an intermediate positive relationship between the constructs (Global Variables) along with intermediate correlation. So, the above suggested Hypotheses H2 is accepted.

Regression Test:

Regression test conducted to whether the specifications of self-driving car could predict the UAE people's intention to turn into using self-driving car.

Intermediate positive correlation exists between the self-driving car's specifications and the people's intention to turn into using self-driving car ($R = .383$) and the regression model predicted 14% of the variance. In

other words, UAE people's intention to turn into using self-driving car is intermediately predicted by self-driving car's specifications as seen in Table 21 below.

Table 21: Regression Model Summary

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.383 ^a	.147	.124	6.55839	.147	6.376	1	37	.016
a. Predictors: (Constant), SPC									
b. Dependent Variable: INT									

As seen in table 22 below, the regression model can predict the dependent variable (INT) by checking the regression row and the (Sig) column it is clear that the statistical significance of the regression model that

was run; Here, $p < 0.05$, and indicates that, overall, the regression model can significantly predicts the outcome variable.

Table 22: Analysis of Variance for intention to use self-driving car based on its specifications

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	274.231	1	274.231	6.376	.016 ^b
	Residual	1591.462	37	43.012		
	Total	1865.692	38			
a. Dependent Variable: INT						
b. Predictors: (Constant), SPC						

Also, Table 23 below shows that the for the independent variable (SPC), the probability for the t statistic (2.525) for b coefficient is .016 which is less than the level of significance (.05). So, there is a statistically significant relationship between the specifications of the self-driving car and the intention to

use that car. Therefore, H2 is accepted. Also, b coefficient that associated with SPC (.383) is positive and implies that the better the specifications of the self-driving car the higher intention of the user to turn into using self-driving car.

Table 23: Coefficients of intention to use self-driving car based on its specifications

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-4.342	15.039		-.289	.774	-34.813	26.130		
	SPC	.424	.168	.383	2.525	.016	.084	.765	1.000	1.000
a. Dependent Variable: INT										

- iii. *Correlation test and Regression test to measure the relationship between self-driving car's features and people's intention to turn into using self-driving car:*

Q3: Does the self-driving car's features impact the UAE people's intention to turn into using self-driving car?

H3: There is significant association between self-driving car's features and the UAE people's intention to turn into using self-driving car.

H4: There is significant association between self-driving car's safety features and the UAE people's intention to turn into using self-driving car.

H5: There is significant association between self-driving car's performance features and the UAE people's intention to turn into using self-driving car.

H6: There is significant association between self-driving car's Ease of Use features and the UAE people's intention to turn into using self-driving car.

H7: There is significant association between self-driving car's Usefulness features and the UAE people's intention to turn into using self-driving car.

For this research question, global variables identified as following:

FET: expected features of self-driving car
 SFET: expected Safety features of self-driving car
 PFET: expected Performance features of self-driving car

EFET: expected Ease of Use features of self-driving car
 BFET: expected Usefulness features of self-driving car
 INT: intention into using self-driving car

Correlation Test:

Table 24: Correlation for features of self-driving car and intention to use the car

		Correlations					
		FET	SFET	PFET	EFET	BFET	INT
FET	Pearson Correlation	1	.882**	.823**	.812**	.939**	.856**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	39	39	39	39	39	39
SFET	Pearson Correlation	.882**	1	.676**	.638**	.760**	.741**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	39	39	39	39	39	39
PFET	Pearson Correlation	.823**	.676**	1	.556**	.711**	.686**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	39	39	39	39	39	39
EFET	Pearson Correlation	.812**	.638**	.556**	1	.760**	.787**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	39	39	39	39	39	39
BFET	Pearson Correlation	.939**	.760**	.711**	.760**	1	.772**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	39	39	39	39	39	39
INT	Pearson Correlation	.856**	.741**	.686**	.787**	.772**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	39	39	39	39	39	39

** . Correlation is significant at the 0.01 level (2-tailed).

A Bivariate correlation test was conducted as seen in the table24. Correlation test was carried out to check if there is association between Intention to turn into using self-driving car (INT) and features (FET), safety features (SFET), performance features (PFET), ease of use features (EFET) and usefulness (BFET) of self-driving car at (0.01) level, findings are:

- The correlation between features (FET) and intention (INT) is strong = 0.856, i.e. $0.75 < r < 1$ and positive
- The correlation between safety (SFET) and intention (INT) is intermediate = 0.741, i.e. $0.25 \leq r < 0.75$ and positive
- The correlation between performance (PFET) and intention (INT) is intermediate = 0.686, i.e. $0.25 \leq r < 0.75$ and positive
- The correlation between ease of use (EFET) and intention (INT) is strong = 0.787, i.e. $0.75 \leq r < 1$ and positive

- The correlation between usefulness (BFET) and intention (INT) is strong = 0.772, i.e. $0.75 \leq r < 1$ and positive

The results show that there is a strong positive relationship between all of the constructs (Global Variables) along with strong correlation. So, the above suggested Hypotheses are all accepted, and all the null Hypotheses were rejected.

Regression Test:

Regression test conducted to whether the features of self-driving car could predict the UAE people's intention to turn into using self-driving car. Strong positive correlation exists between the self-driving car's features and the people's intention to turn into using self-driving car ($R = .875$) and the regression model predicted 76% of the variance. In other words, UAE people's intention to turn into using self-driving car is strongly predicted by self-driving car's features as seen in Table 25 below.

Table 25: Regression Model Summary

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.875 ^a	.766	.731	3.63367	.766	21.660	5	33	.000

a. Predictors: (Constant), BFET, PFET, EFET, SFET, FET

b. Dependent Variable: INT

As seen in table 26 below, the regression model can predict the dependent variable (INT) efficiently by checking the regression row and the (Sig) column it is clear that the statistical significance of the regression

model that was run; Here, $p < 0.05$, and indicates that, overall, the regression model can significantly predicts the outcome variable.

Table 26: Analysis of Variance for intention to use self-driving car based on

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1429.974	5	285.995	21.660	.000 ^b
	Residual	435.718	33	13.204		
	Total	1865.692	38			
a. Dependent Variable: INT						
b. Predictors: (Constant), BFET, PFET, EFET, SFET, FET						

Also, Table 27 below shows that the for the independent variable (FET), the probability for the t statistic (10.054) for b coefficient is .000 which is less than the level of significance (.05). So, there is a statistically significant relationship between the perceived features of the self-driving car and the

intention to use that car. Therefore, H3 is accepted. Also, b coefficient that associated with FET (.856) is positive and implies that the much excellent features of the self-driving car the higher intention of the user to turn into using self-driving car.

Table 27: Coefficients of intention to use self-driving car based on car's features

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-2.000	3.583		-.558	.580	-9.261	5.261		
	FET	.334	.033	.856	10.054	.000	.267	.401	1.000	1.000
a. Dependent Variable: INT										

Also, Table 28 below shows that the for the independent variable (SFET), the probability for the t statistic (6.717) for b coefficient is .000 which is less than the level of significance (.05). So, there is a statistically significant relationship between the perceived features of the self-driving car and the

intention to use that car. Therefore, H4 is accepted. Also, b coefficient that associated with FET (.741) is positive and implies that the much excellent Safety features of the self-driving car the higher intention of the user to turn into using self-driving car.

Table 28: Coefficients of intention to use self-driving car based on car's safety features

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	8.419	3.817		2.206	.034	.685	16.152		
	SFET	1.146	.171	.741	6.717	.000	.800	1.491	1.000	1.000
a. Dependent Variable: INT										

Also, Table 29 below shows that the for the independent variable (PFET), the probability for the t statistic (5.733) for b coefficient is .000 which is less than the level of significance (.05). So, there is a statistically significant relationship between the perceived features of the self-driving car and the

intention to use that car. Therefore, H5 is accepted. Also, b coefficient that associated with FET (.686) is positive and implies that the much excellent Performance features of the self-driving car the higher intention of the user to turn into using self-driving car.

Table 29: Coefficients of intention to use self-driving car based on car's Performance features

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	14.471	3.427		4.222	.000	7.526	21.415		
	PFET	1.788	.312	.686	5.733	.000	1.156	2.419	1.000	1.000

a. Dependent Variable: INT

Also, Table 30 below shows that the for the independent variable (EFET), the probability for the t statistic (7.765) for b coefficient is .000 which is less than the level of significance (.05). So, there is a statistically significant relationship between the perceived features of the self-driving car and the

intention to use that car. Therefore, H6 is accepted. Also, b coefficient that associated with FET (.787) is positive and implies that the much excellent Ease of Use features of the self-driving car the higher intention of the user to turn into using self-driving car.

Table 30: Coefficients of intention to use self-driving car based on car's Ease of Use features

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	5.242	3.711		1.413	.166	-2.277	12.762		
	EFET	2.469	.318	.787	7.765	.000	1.825	3.113	1.000	1.000

a. Dependent Variable: INT

Also, Table 31 below shows that the for the independent variable (BFET), the probability for the t statistic (7.386) for b coefficient is .000 which is less than the level of significance (.05). So, there is a statistically significant relationship between the perceived features of the self-driving car and the

intention to use that car. Therefore, H7 is accepted. Also, b coefficient that associated with FET (.772) is positive and implies that the much excellent Usefulness features of the self-driving car the higher intention of the user to turn into using self-driving car.

Table 31: Coefficients of intention to use self-driving car based on car's Usefulness features

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.183	4.173		.763	.450	-5.272	11.637		
	BFET	.771	.104	.772	7.386	.000	.560	.983	1.000	1.000

a. Dependent Variable: INT

iv. Frequency test to measure UAE people intention to turn into using self-driving car:

Q4: To what extent people in United Arab Emirates have the intention to turn into using self-driving car?

H8: People in United Arab Emirates have great intention to turn into using self-driving car.

Results presented that UAE people have high intention to turn into using self-driving car. Statistics represented the following as seen in Table 32 and Figure 10 below:

1. More than 71% of respondents are willing to pay even more for the self-driving car while around 13% disagree about this.
2. 77% of respondents would recommend using self-driving car.
3. More than 87% think that owning self-driving car is a good idea even that only 77% of respondents have the intention to buy self-driving car in the future while around 10% haven't the intention to buy such car in the future.

From all above, people in UAE have great intention to turn into using self-driving car in the future. Thus, Hypothesis H8 is accepted.

Table 32: UAE people's intention to turn into using self-driving car

	P3V1 willing-pay	P3V2 lot-benefits	P3V3 recommend-use	P3V4 ease-of-use	P3V5 willing-buy	P3V6 own-idea
Strongly Disagree	2.6	0	2.6	0	0	2.6
Disagree	2.6	0	0	2.6	7.7	0
Slightly Disagree	10.3	0	0	2.6	2.6	2.6
Neutral	12.8	10.3	20.5	10.3	12.8	7.7
Slightly Agree	25.6	20.5	15.4	23.1	23.1	25.6
Agree	30.8	41	23.1	30.8	25.6	23.1
Agree Strongly	15.4	28.2	38.5	30.8	28.2	38.5

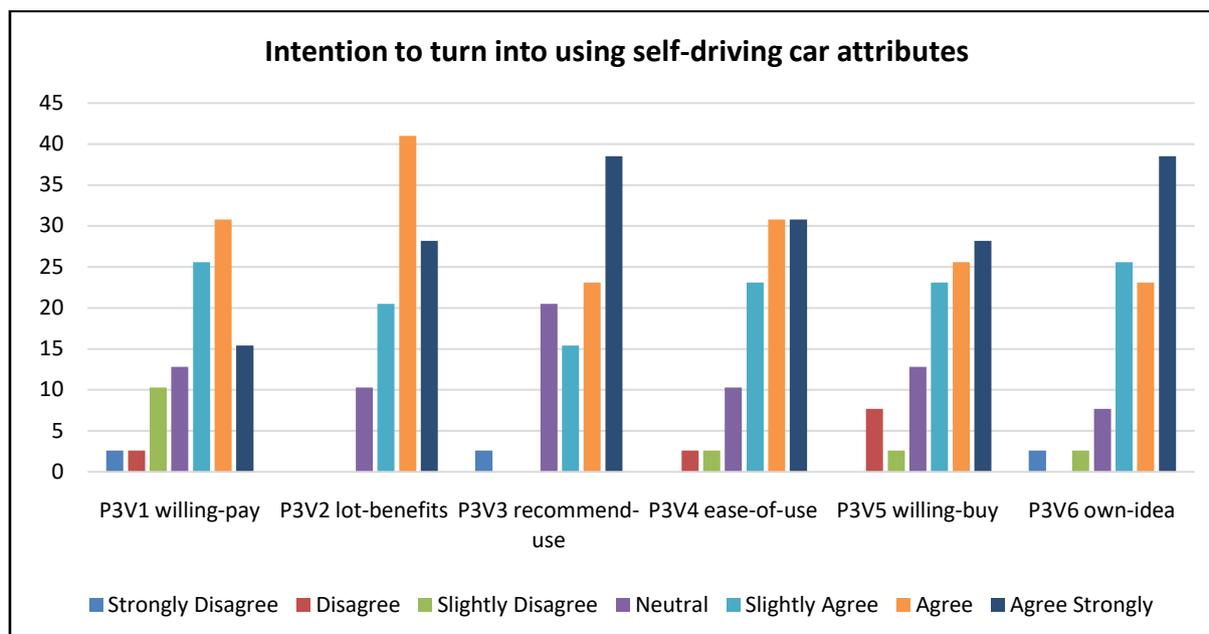


Figure 10: UAE people's intention to turn into using self-driving car

- v. *T-Test to investigate whether the gender factor have different impact on the intention to use self-driving car:*

Q5: Does the Gender factor have different impact on the intention to turn into using self-driving car?

H9: there is no significant difference between males and females in their intention to turn into using self-driving car.

T-Test conducted to compare the intention to turn into using self-driving car based on the gender. An independent samples test was carried out to compare the intention to turn into using self-driving car based on gender. As seen in table 33 and table 34 There is no

significant difference in the intention between Male and Female, $t(39) = -0.533$, $p > 0.05$, two tailed with Female ($M = 34.1579$, $SD = 7.80501$) have slight higher intention to turn into using self-driving car than Male ($M = 32.9500$, $SD = 6.30351$). the magnitude of the difference in the means (mean difference $34.1579 - 32.9500 = 1.2079$, 95% CI: -5.79966 to 3.38387) was small (eta squared = 0.0076). Since there is no significant difference in the intention between Male and Female to turn into using self-driving car, therefore, H9 is accepted.

Table 33: Simple statistics of intention to turn into using self-driving car based on gender

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
INT	Male	20	32.9500	6.30351	1.40951
	Female	19	34.1579	7.80501	1.79059

Table 34: Independent sample T test of intention to turn into using self-driving car based on gender

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
INT	Equal variances assumed	.094	.761	-.533	37	.597	-1.20789	2.26620	-5.79966	3.38387
	Equal variances not assumed			-.530	34.624	.599	-1.20789	2.27880	-5.83590	3.42011

vi. Anova test to investigate whether the Driving Experience factor have different impact on the intention to use self-driving car:

H10: Driving Experience have positive impact on the intention to turn into using self-driving car.

Q6: Does the Driving Experience factor have different impact on the intention to turn into using self-driving car?

Table 35: Descriptive statistics of UAE people's intention to turn into using self-driving car based on Driving Experience

Descriptives								
INT								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Never	4	33.2500	5.31507	2.65754	24.7925	41.7075	27.00	40.00
Less than 5 years	5	35.4000	5.54977	2.48193	28.5090	42.2910	28.00	42.00
5-9	2	39.5000	3.53553	2.50000	7.7345	71.2655	37.00	42.00
10-14	6	35.0000	9.01110	3.67877	25.5434	44.4566	20.00	42.00
15 - 20	13	33.1538	8.47394	2.35025	28.0331	38.2746	14.00	42.00
More than 20 years	9	30.8889	5.13431	1.71144	26.9423	34.8355	21.00	36.00
Total	39	33.5385	7.00694	1.12201	31.2671	35.8098	14.00	42.00

From table 36 below, it is clear that there are no statistically differences between the groups as a whole since the sig > 0.05.

Table 36: Analysis of variance for intention to turn into using self-driving car based on Driving Experience

ANOVA					
INT					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	166.661	5	33.332	.647	.665
Within Groups	1699.031	33	51.486		
Total	1865.692	38			

One-way between groups analysis of variance was conducted to explore the impact of Driving Experience on the intention to turn into self-driving car. Participant were divided into six groups as the following (Never, Less than 5, 5-9, 10-14, 15-20, More than 20). We can see that the significance values 0.998, 0.913, 0.999, 0.994, 0.983, 0.991, 0.867, 0.971, 0.850, 0.645, 0.995, 0.883, 0.997 and 1.000 (i.e., p= values 0.998,

0.913, 0.999, 0.994, 0.983, 0.991, 0.867, 0.971, 0.850, 0.645, 0.995, 0.883, 0.997 and 1.000) which is above 0.05 as seen in table 37 below. Therefore, there is no statistically significant difference in the rating of intention to turn into using self-driving car based on the Driving Experience of the respondents. Thus, hypothesis H10 is rejected.

Table 37: Multiple comparisons for the intention to turn into using self-driving car based on Driving Experience

Multiple Comparisons						
Dependent Variable: INT						
Tukey HSD						
(I) Driving Experience	(J) Driving Experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Never	Less than 5 years	-2.15000	4.81338	.998	-16.7034	12.4034
	5-9	-6.25000	6.21404	.913	-25.0384	12.5384
	10-14	-1.75000	4.63168	.999	-15.7540	12.2540
	15 - 20	.09615	4.10267	1.000	-12.3084	12.5007
	More than 20 years	2.36111	4.31185	.994	-10.6759	15.3981
Less than 5 years	Never	2.15000	4.81338	.998	-12.4034	16.7034
	5-9	-4.10000	6.00334	.983	-22.2513	14.0513
	10-14	.40000	4.34490	1.000	-12.7369	13.5369
	15 - 20	2.24615	3.77592	.991	-9.1705	13.6628
	More than 20 years	4.51111	4.00222	.867	-7.5897	16.6120
5-9	Never	6.25000	6.21404	.913	-12.5384	25.0384
	Less than 5 years	4.10000	6.00334	.983	-14.0513	22.2513
	10-14	4.50000	5.85866	.971	-13.2138	22.2138
	15 - 20	6.34615	5.45008	.850	-10.1323	22.8246
	More than 20 years	8.61111	5.60924	.645	-8.3486	25.5708
10-14	Never	1.75000	4.63168	.999	-12.2540	15.7540
	Less than 5 years	-.40000	4.34490	1.000	-13.5369	12.7369
	5-9	-4.50000	5.85866	.971	-22.2138	13.2138
	15 - 20	1.84615	3.54139	.995	-8.8613	12.5536
	More than 20 years	4.11111	3.78175	.883	-7.3231	15.5453
15 - 20	Never	-.09615	4.10267	1.000	-12.5007	12.3084
	Less than 5 years	-2.24615	3.77592	.991	-13.6628	9.1705
	5-9	-6.34615	5.45008	.850	-22.8246	10.1323
	10-14	-1.84615	3.54139	.995	-12.5536	8.8613
	More than 20 years	2.26496	3.11144	.977	-7.1426	11.6725
More than 20 years	Never	-2.36111	4.31185	.994	-15.3981	10.6759
	Less than 5 years	-4.51111	4.00222	.867	-16.6120	7.5897
	5-9	-8.61111	5.60924	.645	-25.5708	8.3486
	10-14	-4.11111	3.78175	.883	-15.5453	7.3231
	15 - 20	-2.26496	3.11144	.977	-11.6725	7.1426

vii. Correlation test to investigate there is association between Education Level and the intention to turn into using self-driving car:

Q7: Does the Education Level factor associated with the intention to turn into using self-driving car?

H11: Level of Education is not associated with the intention to turn into using self-driving car.

A Bivariate correlation test was conducted as seen in the table 38 below. Correlation test was carried out to check if there is association between Intention to turn into using self-driving car (INT) and the Education level, test presented that:

- The correlation between Education Level and intention to turn into using self-driving car (INT) is weak and positive = 0.175, i.e. $0 < r < 0.25$ and positive. Therefore, hypothesis H11 is rejected.

Table 38: Correlation for Education Level and intention to use the car

Correlations			
		Education	INT
Education	Pearson Correlation	1	.175
	Sig. (2-tailed)		.287
	N	39	39
INT	Pearson Correlation	.175	1
	Sig. (2-tailed)	.287	
	N	39	39

viii. *Chi-squared test to investigate whether there is association between gender and Driving Experience:*

H12: there is significant association between gender and driving experience.

The sample size is less than 40, i.e. 39 so the smallest expected frequency is at least 5. Chi-Square

test can be used to compare if there is an observed frequency distribution with an expected frequency distribution. Chi-Square test will be used to compare if there is observed frequency between driving experience and gender within the population.

Table 39 displays how gender is associated with driving experience.

Table 39: Crosstabs (Gender*Driving Experience)

Gender * Driving Experience Crosstabulation									
			Driving Experience					Total	
			Never	Less than 5 years	5-9	10-14	15 - 20		More than 20 years
Gender	Male	Count	0	0	1	3	8	8	20
		% within Gender	0.0%	0.0%	5.0%	15.0%	40.0%	40.0%	100.0%
		% within Driving Experience	0.0%	0.0%	50.0%	50.0%	61.5%	88.9%	51.3%
		% of Total	0.0%	0.0%	2.6%	7.7%	20.5%	20.5%	51.3%
	Female	Count	4	5	1	3	5	1	19
		% within Gender	21.1%	26.3%	5.3%	15.8%	26.3%	5.3%	100.0%
		% within Driving Experience	100.0%	100.0%	50.0%	50.0%	38.5%	11.1%	48.7%
Total	% of Total	10.3%	12.8%	2.6%	7.7%	12.8%	2.6%	48.7%	
	Count	4	5	2	6	13	9	39	
	% within Gender	10.3%	12.8%	5.1%	15.4%	33.3%	23.1%	100.0%	
	% within Driving Experience	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
		% of Total	10.3%	12.8%	5.1%	15.4%	33.3%	23.1%	100.0%

When interpreting results from table 40 below, results of Pearson Chi-Square row shows that $\chi^2 = 15.121$, corresponding to $p < 0.05$ (note: the Asymptotic Significance (2-sided) value in this row, 0.010, is the p value rounded to 5 decimal places and should not be

quoted in this form. Since p is less than 0.05 then there is an evidence of strong relationship between the gender and driving experience. This indicates that there is statistically significant association between Gender and Driving Experience.

Table 40: Chi-Square tests

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.121 ^a	5	.010
Likelihood Ratio	19.347	5	.002
Linear-by-Linear Association	13.895	1	.000
N of Valid Cases	39		

a. 10 cells (83.3%) have expected count less than 5. The minimum expected count is .97.

Phi and Cramer's are both tests of the strength of association. From table 41 below, we can see that the strength of the association between variables is

moderate and significant. P is less than 0.05 then hypothesis H12 is accepted.

Table 41: Symmetric Measure to examine strength of association

Symmetric Measures			
		Value	Approximate Significance
Nominal by Nominal	Phi	.623	.010
	Cramer's V	.623	.010
N of Valid Cases		39	

VII. FINDINGS

Statistical Analysis conducted in previous section in order to answer research questions as well as examining hypothesis, table below present whether the hypothesis accepted or rejected:

Table 42: Findings of research questions and related hypothesis

Research Question	Related Hypothesis
Q1: To what extent UAE people care about specifications of the self-driving car?	<i>H1:</i> UAE people highly care about the specification of self-driving car.(Accepted)
Q2: Does the specifications of the self-driving car impact the UAE people's intention to turn into using self-driving car?	<i>H2:</i> There is significant association between self-driving car's specifications and the UAE people's intention to turn into using self-driving car. (Accepted)
Q3: Does the self-driving car's features impact the UAE people's intention to turn into using self-driving car?	<i>H3:</i> There is significant association between self-driving car's features and the UAE people's intention to turn into using self-driving car. (Accepted)
	<i>H4:</i> There is significant association between self-driving car's safety features and the UAE people's intention to turn into using self-driving car. (Accepted)
	<i>H5:</i> There is significant association between self-driving car's performance features and the UAE people's intention to turn into using self-driving car. (Accepted)
	<i>H6:</i> There is significant association between self-driving car's Ease of Use features and the UAE people's intention to turn into using self-driving car. (Accepted)
Q4: To what extent people in United Arab Emirates have the intention to turn into using self-driving car?	<i>H7:</i> There is significant association between self-driving car's Usefulness features and the UAE people's intention to turn into using self-driving car. (Accepted)
	<i>H8:</i> People in United Arab Emirates have great intention to turn into using self-driving car. (Accepted)

Table 43: Findings of demographic questions and related hypothesis

Demographic Questions	Related Hypothesis
Q5: Does the Gender factor have different impact on the intention to turn into using self-driving car?	<i>H9:</i> there is no significant difference between males and females in their intention to turn into using self-driving car. (Accepted)
Q6: Does the Driving Experience factor have different impact on the intention to turn into using self-driving car?	<i>H10:</i> Driving Experience have positive impact on the intention to turn into using self-driving car. (Rejected)
Q7: Does the Education Level factor associated with the intention to turn into using self-driving car?	<i>H11:</i> Level of Education is not associated with the intention to turn into using self-driving car. (Rejected)
Q8: Does the Gender and Driving Experience associated?	<i>H112:</i> there is significant association between gender and driving experience. (Accepted)

Statistical Analysis conducted as well for construct and scale validity; it was found that there is no common bias in the collected data and the reliability test presented high score of Cronbach's Alpha which indicated high degree of reliability.

Univariate statistical test carried out for exploring frequencies and description purposes and results reported in previous section.

VIII. DISCUSSION

In this research paper, Technology Acceptance Model modified by the author of this research paper to include additional constructs. The aim of this research paper to investigate the validity of the modified model in case for the acceptance of self-driving car in United Arab Emirates as the research main purpose is to investigate the intention of UAE people to turn into using self-driving car.

Statistical tests for answering first research question presented that UAE people highly care about the specifications of self-driving car. Responses showed that each of the specifications is important, but the most important specifications are safety, luxury, system, wheels and car's outside look. This result indicated that people are in UAE become more aware about their rights as customers to know about the product's specifications. People as well become more knowledgeable about the importance of each of the specifications of the self-driving car.

Results from statistical tests for answering second research question presented that self-driving car's specification is associated with the intention to turn into using self-driving car.

Results from statistical tests for answering third research question presented that self-driving car's features have strong positive impact on the UAE people's intention to turn into using self-driving car. This result is compatible with the Technology Acceptance Model that was introduced by Davis as stated by Paul Legrisa, John Inghamb, Pierre Collettec, (2003). The Ease of Use features are strongly associated with the UAE people's intention to turn into using self-driving car. Results presented as well that the Usefulness features are strongly associated with the UAE people's intention to turn into using self-driving car. These results are consistent with the Technology acceptance Model. Author of this research paper investigated Safety features and performance features effects, and results presented that both of the defined features strongly associated with the intention to turn into using self-driving car. Hence, self-driving car's features are strongly associated with the intention to turn into using self-driving car. The features of self-driving car have stronger impact on the intention to turn into using self-driving car than the specification does.

Fourth research question results presented that people in United Arab Emirates have high intention to turn into using self-driving car as results showed that people are willing to pay even more for the self-driving car, they would recommend using self-driving car for others and they think that owning such car is a good idea. This Result is consistent and compatible with the Technology Acceptance Model as the features of self-driving car positively impacted the people's intention to use the car.

Statistical tests conducted to answer fifth research question and results showed that there is no significant difference in the intention between Male and Female to turn into using self-driving car. Therefore, the gender factor has no impact on the intention to turn into using self-driving car. Statistical tests for answering sixth research question presented that Driving Experience as well has no impact on the intention to turn into using self-driving car.

Seventh research question results showed that the Education Level slightly impact the people's intention to turn into using self-driving car. Hence from all above statistical experiments conducted, the features as well as specifications of self-driving car is strongly associated with the intention to turn into using the car, hence the features and specifications of self-driving car impacted UAE people's intention to accept and turn into using such car and this result consistent and compatible with the Technology Acceptance Model. Below is the updated conceptual research model.

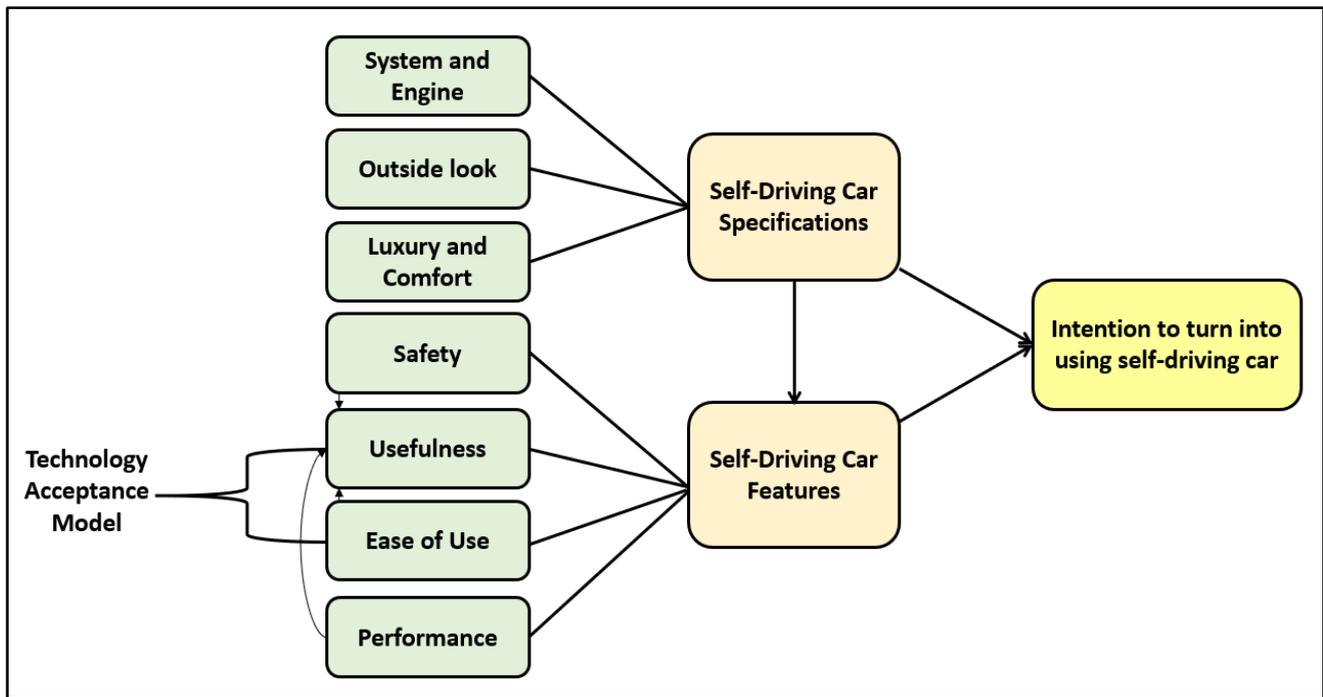


Figure 11: Adjusted conceptual model for research

Figure 11 above illustrated findings of this research paper, i.e. both the specifications of self-driving car as well as the features impacted the intention to turn into using self-driving car. The features of self-driving car have stronger impact on the intention to turn into using self-driving car than the specification does.

IX. CONCLUSION

The emergence of self-driving cars has raised the interest of the media as well as individuals in it and how reliable and what benefits the user may get when using this type of car. Although the self-driving car may provide huge benefits to the user compared to the traditional car that the user drive, the people perception to turn into using this type of car may vary as some users prefer to engage in driving by themselves. This research paper aim to explore UAE people's intention to turn into using self-driving car. To explore the research aim, based upon standard Technology Acceptance Model (TAM), author of this research paper adjusted TAM by adding new constructs. Quantitative methodology followed in this research paper and questionnaire was prepared and sent to respondents i.e. people live in UAE. Results presented that UAE people have high intention to turn into using self-driving car. Results presented as well that both specifications and features of self-driving car have great impact on people's intention to use the car and this result consistent with TAM. It is recommended for future research to investigate the infrastructure requirements for the adoption of self-driving car, and the impacts of the adoption of self-driving car as well.

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APPENDICES

APPENDIX A

Demographic Questions	
Gender	Age
<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> less than 30 <input type="checkbox"/> 30-39 <input type="checkbox"/> 40-49 <input type="checkbox"/> 50-59 <input type="checkbox"/> 60 and above
Education	
<input type="checkbox"/> High School <input type="checkbox"/> Diploma <input type="checkbox"/> Bachelor <input type="checkbox"/> Master <input type="checkbox"/> PhD	
Driving Experience	
<input type="checkbox"/> Never <input type="checkbox"/> Less than 5 years <input type="checkbox"/> 5-9 <input type="checkbox"/> 10-14 <input type="checkbox"/> 15 – 20 <input type="checkbox"/> More than 20 years	
1. Self-driving car specifications that users care about (SPC)	
I care about comfort features in the self-driving car	P1V1comfort
I care about safety system in the self-driving car	P1V2safetysystem
I care about luxury features in the self-driving car	P1V3luxury
I care about wheels and tires features in the self-driving car	P1V4wheels
I care about braking-system features in the self-driving car	P1V5brakingsystem
I care about the outside look of the self-driving car	P1V6look
I care about number of passengers in the self-driving car	P1V7passengers
I care about seating features in the self-driving car	P1V8seating
I care about entertainment features in the self-driving car	P1V9entertainment
I care about multi-view technologies in the self-driving car	P1V10multi-view

	I care about car engine features in the self-driving car	P1V11engine
	I care about speed features in the self-driving car	P1V12speed
	I prefer complete autonomous driving system in the self-driving car	P1V13complete-autonomous
	I prefer partial autonomous driving system in the self-driving car	P1V14partial-autonomous
2. Perceived self-driving car features (FET)		
2.1 Safety (SFET)	2.1 I believe self-driving car is safe	P2V1safe
	2.1 I believe self-driving car will never exceed speed limit	P2V2speed-limit
	2.1 I believe self-driving car will never break road rules	P2V3road-rules
	2.1 I believe self-driving car will reduce the incident of car accident	P2V4reduce-accidents
	2.1 I believe that the safety system in the self-driving car will encourage me to use the car	P2V5safety-encourage
2.2 Performance (PFET)	2.2 Self-driving car efficient in reaching destination fast	P2V6reach-destination
	2.2 Self-driving car will not consume much fuel	P2V7fuel
	2.2 I believe that the performance of the self-driving car will encourage me to use the car.	P2V8performane-encourage
2.3 Ease of Use (EFET)	2.3 I believe that self-driving car is easy to use	P2V9easy-to-use
	2.3 I believe that I will learn fast how to use self-driving car	P2V10easy-to-learn
	2.3 I believe that the ease of use of the self-driving car will encourage me to use the car	P2V11easy-encourage
2.4 Usefulness (BFET)	2.4 I believe self-driving car is efficient in reaching destination faster	P2V12efficient-destination
	2.4 I believe self-driving car provides comfort to me	P2V13 benefit-comfort
	2.4 I believe self-driving car is reliable as it depends on computers to work	P2V14 reliable
	2.4 I believe that self-driving car would be safe car	P2V15 benefit-safe
	2.4 I believe self-driving car would reduce traffic jam	P2V16 reduce-traffic
	2.4 Self-driving car will give me the chance to take benefit of the road time	P2V17road-time
	2.4 Self-driving car will reduce the pressure due to driving cars	P2V18 reduce-pleasure
	2.4 I believe that the benefits of the self-driving car will encourage me to own the car	P2V19 benefit-encourage

3. Intention to turn into using self-driving (INT)	
I am willing to pay more for self-driving car	P3V1 willing-pay
I believe self-driving car has a lot of benefits	P3V2 lot-benefits
I would recommend trying self-driving car	P3V3 recommend-use
I believe that self-driving car is easy to use	P3V4 ease-of-use
I would buy self-driving car in future	P3V5 willing-buy
Owning self-driving car is a great idea	P3V6 own-idea

Figure 12: Questionnaire used in the study

	P1V1comfort	P1V2safetysystem	P1V3luxury	P1V4wheels	P1V5brakingsystem	P1V6look	P1V7passengers	P1V8seating	P1V9entertainment	P1V10multiview	P1V11e...
1	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
2	6.0	7.0	5.0	5.0	7.0	7.0	6.0	4.0	6.0	3.0	
3	3.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
4	7.0	7.0	6.0	7.0	7.0	6.0	6.0	7.0	5.0	6.0	
5	7.0	7.0	6.0	7.0	7.0	6.0	7.0	7.0	6.0	6.0	
6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
7	7.0	7.0	6.0	7.0	7.0	6.0	2.0	5.0	4.0	4.0	
8	6.0	6.0	7.0	7.0	6.0	6.0	6.0	6.0	7.0	7.0	
9	4.0	7.0	6.0	7.0	7.0	6.0	7.0	7.0	7.0	7.0	
10	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
11	7.0	7.0	6.0	6.0	7.0	7.0	6.0	7.0	7.0	5.0	
12	7.0	6.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
13	6.0	7.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	6.0	
14	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
15	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
16	6.0	7.0	5.0	6.0	7.0	6.0	7.0	7.0	6.0	6.0	
17	6.0	1.0	6.0	7.0	7.0	5.0	5.0	7.0	4.0	5.0	
18	7.0	7.0	7.0	2.0	6.0	2.0	5.0	5.0	6.0	6.0	
19	6.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
20	6.0	7.0	6.0	6.0	7.0	7.0	7.0	6.0	6.0	7.0	
21	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
22	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	

Figure 13: Data view in SPSS for the valid 39 survey entries

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
P1V1comfort	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V2safetysystem	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V3luxury	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V4wheels	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V5brakingsystem	Numeric	12	1		{1.0, Disagr...	None	14	Right	Ordinal	Input
P1V6look	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V7passengers	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V8seating	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V9entertainment	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V10multiview	Numeric	12	1	P1V10multi-view	{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V11engine	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V12speed	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V13complete...	Numeric	12	1	P1V13complet...	{1.0, Disagr...	None	12	Right	Ordinal	Input
P1V14partialauto...	Numeric	12	1	P1V14partial-a...	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V1safe	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V2speedlimit	Numeric	12	1	P2V2speed-limit	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V3roadrules	Numeric	12	1	P2V3road-rules	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V4reduceacid...	Numeric	12	1	P2V4reduce-ac...	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V5safetyncou...	Numeric	12	1	P2V5safetyn-en...	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V6reachdestin...	Numeric	12	1	P2V6reach-des...	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V7fuel	Numeric	12	1		{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V8performane...	Numeric	12	1	P2V8performan...	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V9easytouse	Numeric	12	1	P2V9easy-to-use	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V10easytolearn	Numeric	12	1	P2V10easy-to-l...	{1.0, Disagr...	None	12	Right	Ordinal	Input
P2V11easyto...	Numeric	12	1	P2V11easy-to...	{1.0, Disagr...	None	12	Right	Ordinal	Input

Figure 14: Variable view in SPSS for the survey used in the study

APPENDIX B

a) *Univariate Statistics for Demographics:*i. *Descriptive Statistics: Demographics*

The responses showed that percentage of Male respondent is (51.3%) which slightly bigger than Female respondent's percentage that is (48.7%) as seen in (Table 44 and figure15).

Table 44: Gender Frequency in the population

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	20	51.3	51.3	51.3
	Female	19	48.7	48.7	100.0
	Total	39	100.0	100.0	

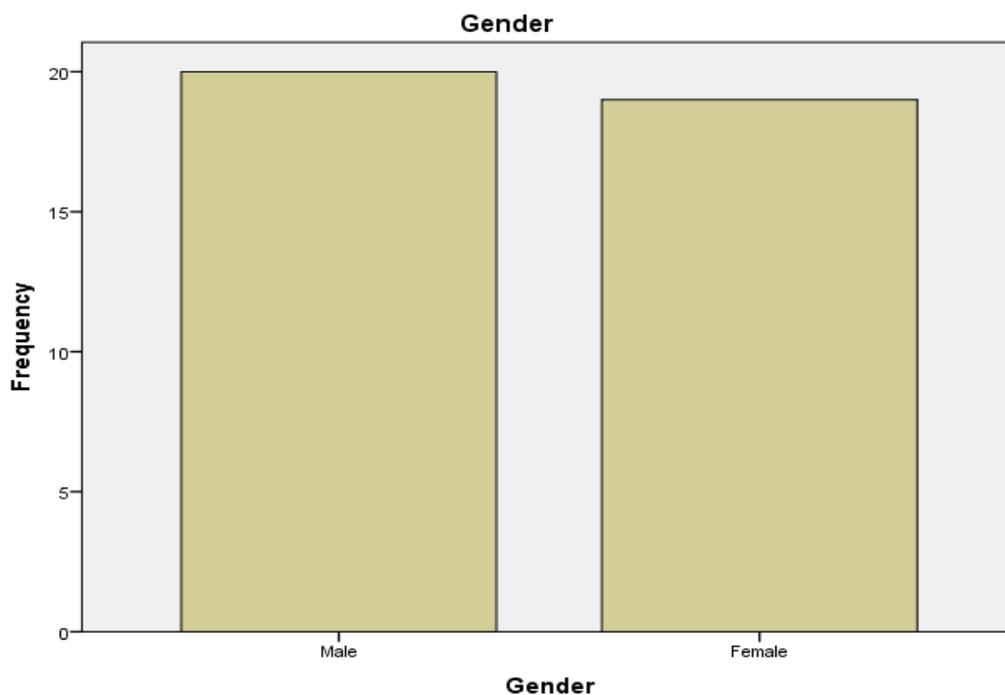


Figure 15: Presentation of Gender in the population

The responses showed that most of the respondents are between 30 and 49 years old, and only few respondents of age (50-59) participated in the survey of (7.7%) as seen in table 45 and figure 16 below.

Table 45: Age Frequency in the population

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 30	10	25.6	25.6	25.6
	30-39	13	33.3	33.3	59.0
	40-49	13	33.3	33.3	92.3
	50-59	3	7.7	7.7	100.0
	Total	39	100.0	100.0	

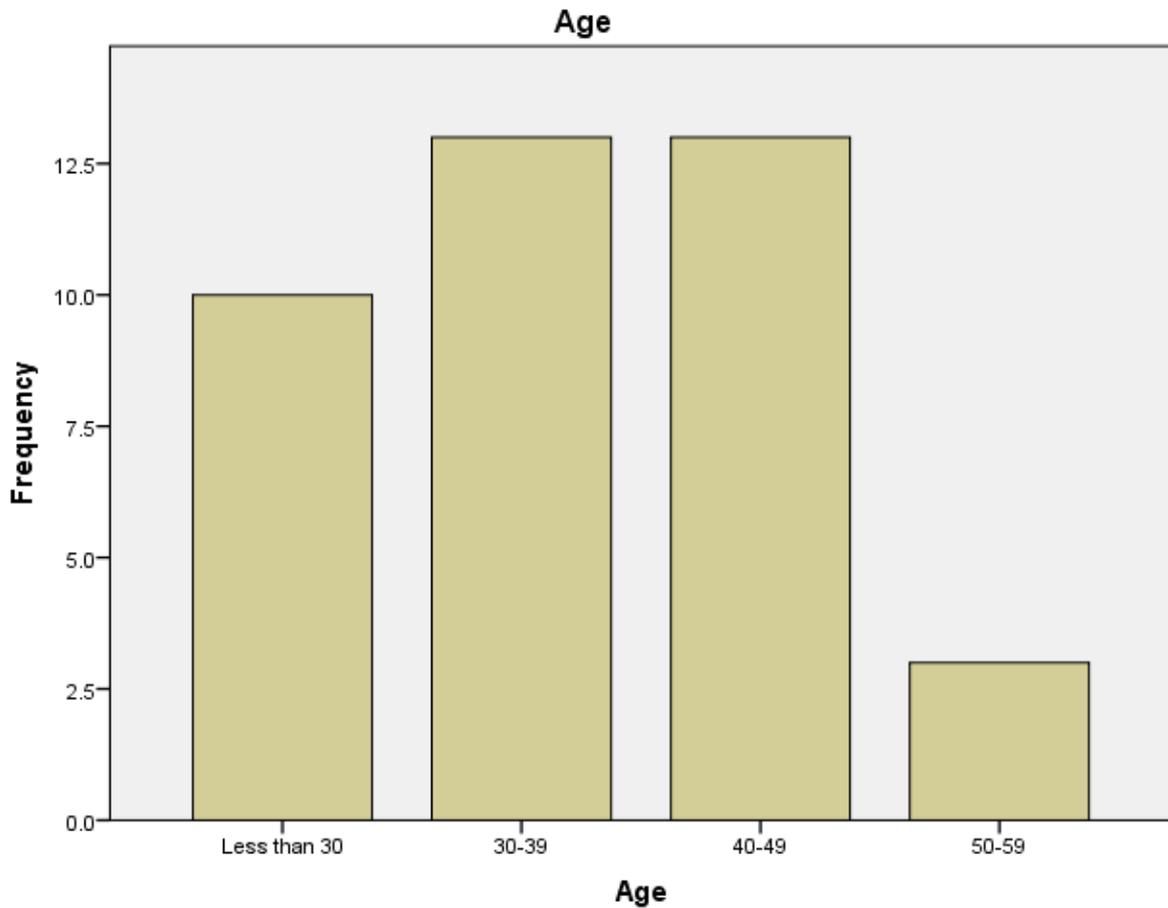


Figure 16: Presentation of Age in the population

The responses showed that people with bachelor's degree are the most respondents (64.1%) as shown in figure 17 and table 46.

Table 46: Level of Education Frequency in the population

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PHD	2	5.1	5.1	5.1
	Master	9	23.1	23.1	28.2
	Bachelor	25	64.1	64.1	92.3
	Diploma	1	2.6	2.6	94.9
	Highschool	2	5.1	5.1	100.0
	Total	39	100.0	100.0	

Education

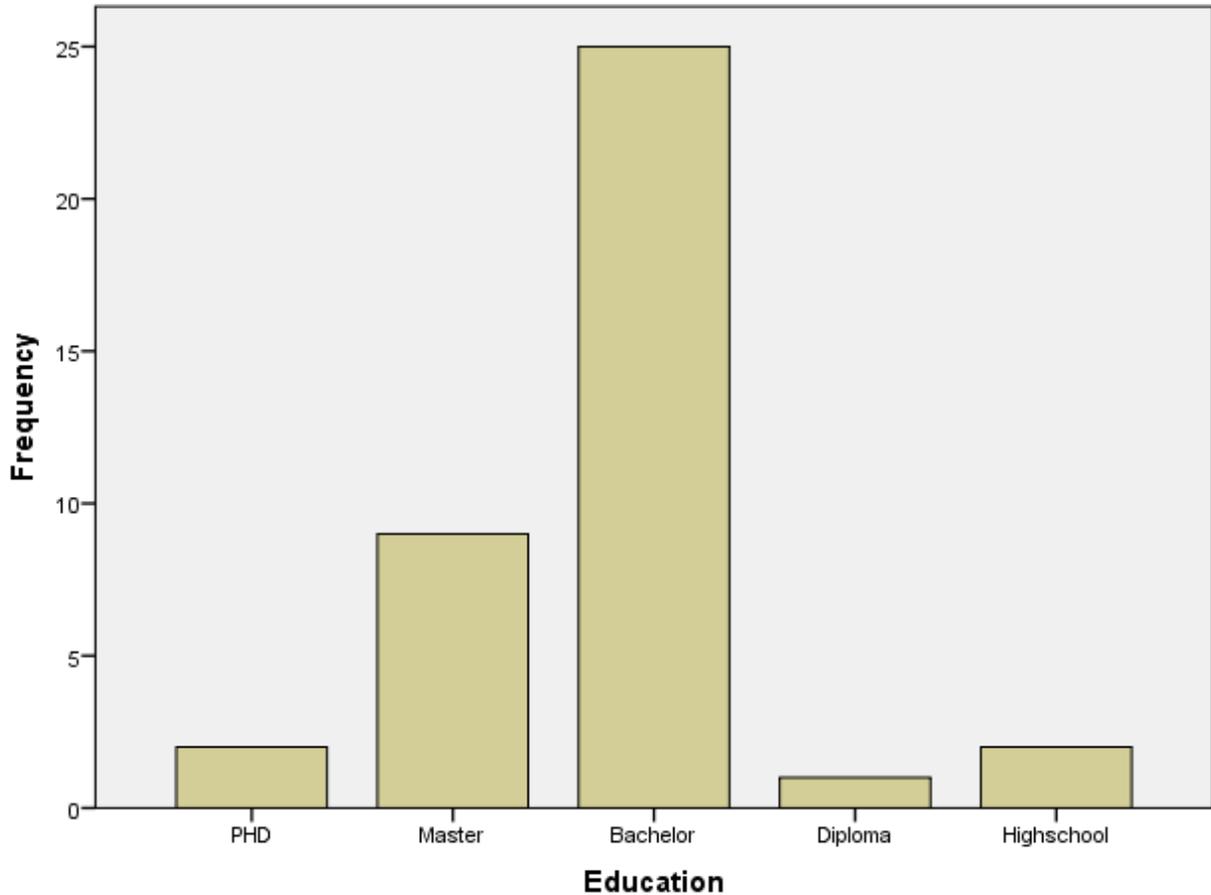


Figure 17: Presentation of Level of Education in the population

ii. *Descriptive Statistics: Driving Experience*

The responses showed that the majority (32.5%) of respondents have driving experience of 15 to 20 years, while only (7.5%) of respondents have driving experience of 5 to 9 years as seen in (Table 47 and figure 18) below.

Table 47: Driving Experience Frequency in the population

Driving Experience					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	4	10.3	10.3	10.3
	Less than 5 years	5	12.8	12.8	23.1
	5-9	2	5.1	5.1	28.2
	10-14	6	15.4	15.4	43.6
	15 - 20	13	33.3	33.3	76.9
	More than 20 years	9	23.1	23.1	100.0
	Total	39	100.0	100.0	

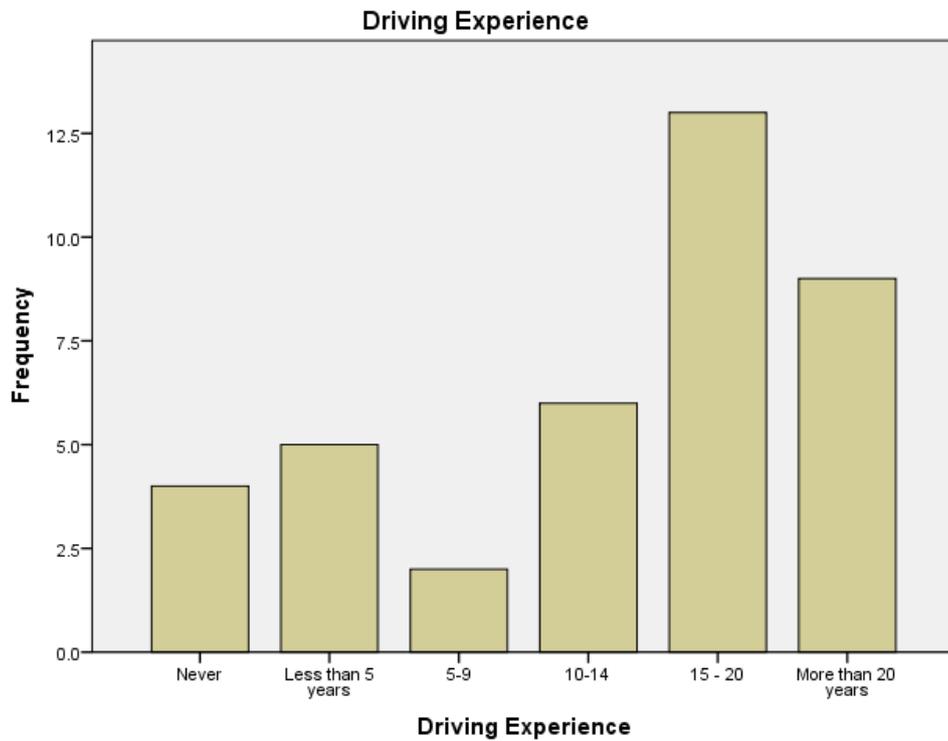


Figure 18: Presentation of driving experience in the population

iii. *Descriptive Statistics: Nationality*

The majority of respondent's nationality is UAE of (95%) while only (5%) of the respondents from Middle East as seen in (Table 48 and figure 19 below).

Table 48: Nationality Frequency in the population

Nationality					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UAE	38	95.0	95.0	95.0
	Middle East	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

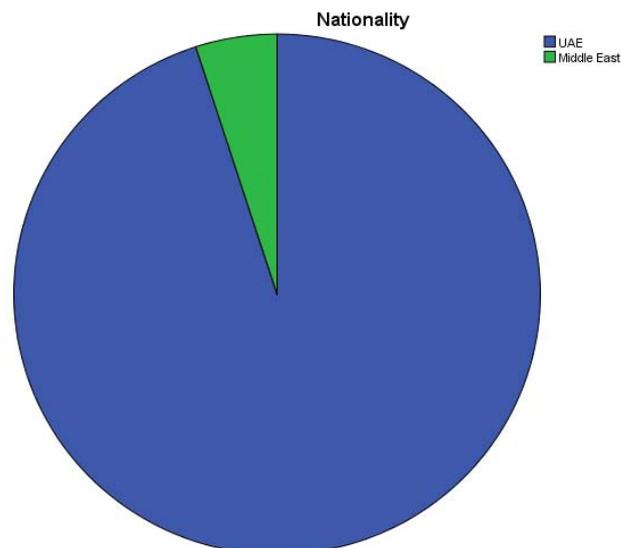


Figure 19: Presentation of Nationality of the population

iv. *Univariate Statistics for construct's variables:*a. *Univariate Statistics for the attributes of the construct: specifications of self-driving car that user cares about:*

Table 49: Descriptive Statistics: frequencies

P1V1comfort					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Disagree	1	2.6	2.6	2.6
	Neutral	1	2.6	2.6	5.1
	Agree	15	38.5	38.5	43.6
	Agree Strongly	22	56.4	56.4	100.0
	Total	39	100.0	100.0	

Table 50: Descriptive Statistics: frequencies

P1V2safetyssystem					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Agree	2	5.1	5.1	7.7
	Agree Strongly	36	92.3	92.3	100.0
	Total	39	100.0	100.0	

Table 51: Descriptive Statistics: frequencies

P1V3luxury					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Agree	3	7.7	7.7	7.7
	Agree	15	38.5	38.5	46.2
	Agree Strongly	21	53.8	53.8	100.0
	Total	39	100.0	100.0	

Table 52: Descriptive Statistics: frequencies

P1V4wheels					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Agree	1	2.6	2.6	5.1
	Agree	8	20.5	20.5	25.6
	Agree Strongly	29	74.4	74.4	100.0
	Total	39	100.0	100.0	

Table 53: Descriptive Statistics: frequencies

P1V5brakingsystem					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	6	15.4	15.4	15.4
	Agree Strongly	33	84.6	84.6	100.0
	Total	39	100.0	100.0	

Table 54: Descriptive Statistics: frequencies

P1V6look					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Agree	3	7.7	7.7	10.3
	Agree	11	28.2	28.2	38.5
	Agree Strongly	24	61.5	61.5	100.0
	Total	39	100.0	100.0	

Table 55: Descriptive Statistics: frequencies

P1V7passengers					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Agree	4	10.3	10.3	12.8
	Agree	15	38.5	38.5	51.3
	Agree Strongly	19	48.7	48.7	100.0
	Total	39	100.0	100.0	

Table 56: Descriptive Statistics: frequencies

P1V8seating					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	2.6	2.6	2.6
	Slightly Agree	3	7.7	7.7	10.3
	Agree	8	20.5	20.5	30.8
	Agree Strongly	27	69.2	69.2	100.0
	Total	39	100.0	100.0	

Table 57: Descriptive Statistics: frequencies:

P1V9entertainment					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	3	7.7	7.7	7.7
	Slightly Agree	3	7.7	7.7	15.4
	Agree	13	33.3	33.3	48.7
	Agree Strongly	20	51.3	51.3	100.0
	Total	39	100.0	100.0	

Table 58: Descriptive Statistics: frequencies

P1V10multi-view					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Disagree	1	2.6	2.6	2.6
	Neutral	1	2.6	2.6	5.1
	Slightly Agree	5	12.8	12.8	17.9
	Agree	14	35.9	35.9	53.8
	Agree Strongly	18	46.2	46.2	100.0
	Total	39	100.0	100.0	
P1V11engine					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Disagree	1	2.6	2.6	2.6
	Slightly Agree	4	10.3	10.3	12.8
	Agree	9	23.1	23.1	35.9
	Agree Strongly	25	64.1	64.1	100.0
	Total	39	100.0	100.0	

Table 59: Descriptive Statistics: frequencies

P1V12speed					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Disagree	1	2.6	2.6	2.6
	Slightly Agree	5	12.8	12.8	15.4
	Agree	15	38.5	38.5	53.8
	Agree Strongly	18	46.2	46.2	100.0
	Total	39	100.0	100.0	

Table 60: Descriptive Statistics: frequencies

P1V13complete-autonomous					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	5.1	5.1	5.1
	Slightly Disagree	2	5.1	5.1	10.3
	Neutral	4	10.3	10.3	20.5
	Slightly Agree	10	25.6	25.6	46.2
	Agree	11	28.2	28.2	74.4
	Agree Strongly	10	25.6	25.6	100.0
Total		39	100.0	100.0	

Table 61: Descriptive Statistics: frequencies

P1V14partial-autonomous					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	2.6	2.6	2.6
	Slightly Agree	6	15.4	15.4	17.9
	Agree	15	38.5	38.5	56.4
	Agree Strongly	17	43.6	43.6	100.0
	Total	39	100.0	100.0	

b. Univariate Statistics for the attributes of the construct: features of self-driving car that user interested in:

Table 62: Descriptive Statistics: frequencies

P2V1safe					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Slightly Disagree	1	2.6	2.6	5.1
	Neutral	4	10.3	10.3	15.4
	Slightly Agree	11	28.2	28.2	43.6
	Agree	14	35.9	35.9	79.5
	Agree Strongly	8	20.5	20.5	100.0
	Total	39	100.0	100.0	

Table 63: Descriptive Statistics: frequencies

P2V2speed-limit					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Disagree	1	2.6	2.6	5.1
	Neutral	3	7.7	7.7	12.8
	Slightly Agree	9	23.1	23.1	35.9
	Agree	17	43.6	43.6	79.5
	Agree Strongly	8	20.5	20.5	100.0
	Total	39	100.0	100.0	

Table 64: Descriptive Statistics: frequencies

P2V3road-rules					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Disagree	2	5.1	5.1	7.7
	Neutral	5	12.8	12.8	20.5
	Slightly Agree	8	20.5	20.5	41.0
	Agree	12	30.8	30.8	71.8
	Agree Strongly	11	28.2	28.2	100.0
	Total	39	100.0	100.0	

Table 65: Descriptive Statistics: frequencies

P2V4reduce-accidents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Slightly Disagree	4	10.3	10.3	12.8
	Neutral	7	17.9	17.9	30.8
	Slightly Agree	7	17.9	17.9	48.7
	Agree	13	33.3	33.3	82.1
	Agree Strongly	7	17.9	17.9	100.0
Total		39	100.0	100.0	

Table 66: Descriptive Statistics: frequencies

P2V5safety-encourage					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Neutral	4	10.3	10.3	12.8
	Slightly Agree	9	23.1	23.1	35.9
	Agree	15	38.5	38.5	74.4
	Agree Strongly	10	25.6	25.6	100.0
	Total		39	100.0	100.0

Table 67: Descriptive Statistics: frequencies

P2V6reach-destination					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Disagree	2	5.1	5.1	7.7
	Slightly Disagree	3	7.7	7.7	15.4
	Neutral	4	10.3	10.3	25.6
	Slightly Agree	8	20.5	20.5	46.2
	Agree	13	33.3	33.3	79.5
	Agree Strongly	8	20.5	20.5	100.0
Total		39	100.0	100.0	

Table 68: Descriptive Statistics: frequencies

P2V7fuel					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Disagree	4	10.3	10.3	12.8
	Neutral	2	5.1	5.1	17.9
	Slightly Agree	12	30.8	30.8	48.7
	Agree	10	25.6	25.6	74.4
	Agree Strongly	10	25.6	25.6	100.0
	Total		39	100.0	100.0

Table 69: Descriptive Statistics: frequencies

P2V8performane-encourage					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Disagree	1	2.6	2.6	5.1
	Neutral	3	7.7	7.7	12.8
	Slightly Agree	11	28.2	28.2	41.0
	Agree	14	35.9	35.9	76.9
	Agree Strongly	9	23.1	23.1	100.0
	Total		39	100.0	100.0

Table 70: Descriptive Statistics: frequencies

P2V9easy-to-use					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	7.7	7.7	7.7
	Neutral	1	2.6	2.6	10.3
	Slightly Agree	12	30.8	30.8	41.0
	Agree	14	35.9	35.9	76.9
	Agree Strongly	9	23.1	23.1	100.0
Total		39	100.0	100.0	

Table 71: Descriptive Statistics: frequencies

P2V10easy-to-learn					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Disagree	1	2.6	2.6	5.1
	Slightly Agree	9	23.1	23.1	28.2
	Agree	16	41.0	41.0	69.2
	Agree Strongly	12	30.8	30.8	100.0
	Total		39	100.0	100.0

Table 72: Descriptive Statistics: frequencies

P2V11easy-encourage					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	3	7.7	7.7	7.7
	Slightly Agree	9	23.1	23.1	30.8
	Agree	19	48.7	48.7	79.5
	Agree Strongly	8	20.5	20.5	100.0
	Total		39	100.0	100.0

Table 73: Descriptive Statistics: frequencies

P2V12efficient-destination					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Slightly Disagree	1	2.6	2.6	5.1
	Neutral	5	12.8	12.8	17.9
	Slightly Agree	10	25.6	25.6	43.6
	Agree	13	33.3	33.3	76.9
	Agree Strongly	9	23.1	23.1	100.0
	Total		39	100.0	100.0

Table 74: Descriptive Statistics: frequencies

P2V13 benefit-comfort					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Disagree	1	2.6	2.6	2.6
	Neutral	2	5.1	5.1	7.7
	Slightly Agree	8	20.5	20.5	28.2
	Agree	14	35.9	35.9	64.1
	Agree Strongly	14	35.9	35.9	100.0
	Total		39	100.0	100.0

Table 75: Descriptive Statistics: frequencies

P2V14 reliable					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	7.7	7.7	7.7
	Slightly Disagree	2	5.1	5.1	12.8
	Neutral	5	12.8	12.8	25.6
	Slightly Agree	11	28.2	28.2	53.8
	Agree	11	28.2	28.2	82.1
	Agree Strongly	7	17.9	17.9	100.0
	Total	39	100.0	100.0	

Table 76: Descriptive Statistics: frequencies

P2V15 benefit-safe					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Disagree	1	2.6	2.6	5.1
	Neutral	6	15.4	15.4	20.5
	Slightly Agree	11	28.2	28.2	48.7
	Agree	14	35.9	35.9	84.6
	Agree Strongly	6	15.4	15.4	100.0
	Total	39	100.0	100.0	

Table 77: Descriptive Statistics: frequencies

P2V16 reduce-traffic					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Disagree	3	7.7	7.7	7.7
	Neutral	7	17.9	17.9	25.6
	Slightly Agree	12	30.8	30.8	56.4
	Agree	8	20.5	20.5	76.9
	Agree Strongly	9	23.1	23.1	100.0
	Total	39	100.0	100.0	

Table 78: Descriptive Statistics: frequencies

P2V17road-time					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly Disagree	2	5.1	5.1	5.1
	Neutral	2	5.1	5.1	10.3
	Slightly Agree	7	17.9	17.9	28.2
	Agree	11	28.2	28.2	56.4
	Agree Strongly	17	43.6	43.6	100.0
	Total	39	100.0	100.0	

Table 79: Descriptive Statistics: frequencies

P2V18 reduce-pressure					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Neutral	4	10.3	10.3	12.8
	Slightly Agree	5	12.8	12.8	25.6
	Agree	11	28.2	28.2	53.8
	Agree Strongly	18	46.2	46.2	100.0
	Total	39	100.0	100.0	

Table 80: Descriptive Statistics: frequencies

P2V19 benefit-encourage					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Disagree	1	2.6	2.6	5.1
	Slightly Disagree	2	5.1	5.1	10.3
	Neutral	1	2.6	2.6	12.8
	Slightly Agree	6	15.4	15.4	28.2
	Agree	13	33.3	33.3	61.5
	Agree Strongly	15	38.5	38.5	100.0
Total		39	100.0	100.0	

c. Univariate Statistics for attributes of intention to turn into using self-driving car construct:

Table 81: Descriptive Statistics: frequencies

P3V1 willing-pay					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Disagree	1	2.6	2.6	5.1
	Slightly Disagree	4	10.3	10.3	15.4
	Neutral	5	12.8	12.8	28.2
	Slightly Agree	10	25.6	25.6	53.8
	Agree	12	30.8	30.8	84.6
	Agree Strongly	6	15.4	15.4	100.0
Total		39	100.0	100.0	

Table 82: Descriptive Statistics: frequencies

P3V2 lot-benefits					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	4	10.3	10.3	10.3
	Slightly Agree	8	20.5	20.5	30.8
	Agree	16	41.0	41.0	71.8
	Agree Strongly	11	28.2	28.2	100.0
	Total	39	100.0	100.0	

Table 83: Descriptive Statistics: frequencies

P3V3 recommend-use					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Neutral	8	20.5	20.5	23.1
	Slightly Agree	6	15.4	15.4	38.5
	Agree	9	23.1	23.1	61.5
	Agree Strongly	15	38.5	38.5	100.0
	Total	39	100.0	100.0	

Table 84: Descriptive Statistics: frequencies

P3V4 ease-of-use					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.6	2.6	2.6
	Slightly Disagree	1	2.6	2.6	5.1
	Neutral	4	10.3	10.3	15.4
	Slightly Agree	9	23.1	23.1	38.5
	Agree	12	30.8	30.8	69.2
	Agree Strongly	12	30.8	30.8	100.0
	Total	39	100.0	100.0	

Table 85: Descriptive Statistics: frequencies

P3V5 willing-buy					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	7.7	7.7	7.7
	Slightly Disagree	1	2.6	2.6	10.3
	Neutral	5	12.8	12.8	23.1
	Slightly Agree	9	23.1	23.1	46.2
	Agree	10	25.6	25.6	71.8
	Agree Strongly	11	28.2	28.2	100.0
Total		39	100.0	100.0	

Table 86: Descriptive Statistics: frequencies

P3V6 own-idea					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree Strongly	1	2.6	2.6	2.6
	Slightly Disagree	1	2.6	2.6	5.1
	Neutral	3	7.7	7.7	12.8
	Slightly Agree	10	25.6	25.6	38.5
	Agree	9	23.1	23.1	61.5
	Agree Strongly	15	38.5	38.5	100.0
	Total		39	100.0	100.0