

PEOPLE ATTITUDES TOWARDS ELECTRIC VEHICLES IN NEPAL

A Dissertation submitted to the Office of the Dean, Faculty of Management in partial
fulfillment of the requirements for the Master's Degree

by

Min Kumari Mahat
Exam Roll No.: 13580/19
Campus Roll No.: 3011/075
T.U. Regd. No.: 7-2-593-22-2014
Shanker Dev Campus

Kathmandu, Nepal
June, 2024

CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **“People Attitudes towards Electric Vehicles in Nepal”**. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

Min Kumari Mahat

Signature:

Date:

REPORT OF RESEARCH COMMITTEE

Ms. Min Kumari Mahat has defended research proposal entitled “**People Attitudes towards Electric Vehicles in Nepal**” successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidelines of supervisor Dr. Pitri Raj Adhikari and submit the thesis for evaluation and viva-voce examination.

Dr. Pitri Raj Adhikari
Dissertation Supervisor
Signature:

Dissertation Proposal Defended Date:
--

Dissertation Submitted Date:
--

Asso. Prof. Dr. Sajeeb Kumar Shrestha
Head, Research Department
Signature:

Dissertation Viva Voce Date:
--

APPROVAL SHEET

We, the undersigned, have examined the dissertation entitled “**People Attitudes towards Electric Vehicles in Nepal**” presented by Min Kumari Mahat, a candidate for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the dissertation is worthy of acceptance.

.....
Dr. Pitri Raj Adhikari

Dissertation Supervisor

.....
Internal Examiner

.....
Internal Expert

.....
External Expert

.....
Asso. Prof. Dr. Sajeeb Kumar Shrestha
Chairperson, Research Committee

.....
Asso. Prof. Dr. Krishna Prasad Acharya
Campus Chief

ACKNOWLEDGEMENTS

This study entitled “**People Attitudes towards Electric Vehicles in Nepal**” has been prepared in partial fulfillment for the Degree of Master of Business Studies (MBS) under the Faculty of Management, Tribhuvan University is based on research models involving the use of qualitative aspect of people attitude towards electric vehicles in Nepal.

I have great satisfaction and pleasure to express my appreciation and sincerity to my dissertation supervisor Dr. Pitri Raj Adhikari of Shanker Dev Campus, TU for his excellent and effective guidance and supervision. I will remain thankful for his valuable direction useful suggestion and comments during the course of preparing this dissertation without his help this work would not have come in this form. I also would like to extend my debt of gratitude Asso. Prof. Dr. Sajeeb Kumar Shrestha, Head of Research Department and I owe a deep debt of gratitude to Asso. Prof. Dr. Krishna Prasad Acharya, Campus Chief of Shanker Dev Campus who provided me an opportunity to undertake this research work.

I highly appreciate to Shanker Dev Campus Library and TU Central Library for their valuable advices and support in collecting and presenting the necessary data. I would also like to express my thankfulness to my friends, my family members as well as all known people who supported as well as inspired me directly or indirectly to complete this dissertation. With help and support, I have been able to complete this work. I would like to take the responsibility of any possible mistakes that may have occurred in the report. I would be delighted to welcome readers for their suggestion and recommendation to improve the report.

Min Kumari Mahat

Date:

TABLE OF CONTENTS

<i>Cover Page</i>	<i>i</i>
<i>Certification of Authorship</i>	<i>ii</i>
<i>Report of Research Committee</i>	<i>iii</i>
<i>Approval Sheet</i>	<i>iv</i>
<i>Acknowledgements</i>	<i>v</i>
<i>Table of Contents</i>	<i>vi</i>
<i>List of Tables</i>	<i>viii</i>
<i>List of Figures</i>	<i>ix</i>
<i>Abbreviations</i>	<i>x</i>
<i>Abstract</i>	<i>xi</i>
CHAPTER – I INTRODUCTION	1
1.1 Background of the Study	1
1.2 Problem Statement	4
1.3 Objectives of the Study	6
1.4 Research Hypotheses.....	6
1.5 Rationale of the Study	6
1.6 Limitations of the Study.....	7
CHAPTER II LITERATURE REVIEW.....	8
2.1 Theoretical Review	8
2.2 Empirical Review	15
2.3 Research Gap.....	23
CHAPTER III RESEARCH METHODOLOGY	25
3.1 Research Design.....	25
3.2 Population and Sample, and Sampling Design	25
3.3 Nature and Sources of Data, and Instruments of Data Collection	25
3.4 Method of Analysis	26
3.5 Research Framework and Definition of Variables.....	29

CHAPTER – IV RESULTS AND DISCUSSION	33
4.1 Results	33
4.1.1 Demographic Profile of Respondents.....	33
4.1.2 Descriptive Statistics Analysis	35
4.1.3 Summary of Descriptive Analysis	40
4.1.4 Correlation Analysis	41
4.1.5 Multiple Regression Analysis.....	42
4.3 Discussion	44
CHAPTER – V SUMMARY AND CONCLUSION	47
5.1 Summary	47
5.2 Conclusion.....	48
5.3 Implications.....	49
References	
Appendices	

LIST OF TABLES

Table 1	Summary of Empirical Review.....	20
Table 2	Gender Specification.....	33
Table 3	Age Description of Respondents	34
Table 4	Annual Income.....	34
Table 5	Respondent Status.....	35
Table 6	Environment Concern	36
Table 7	Economic Benefit	36
Table 8	Technological Concern	37
Table 9	Social Influence	38
Table 10	Infrastructure.....	39
Table 11	Purchase Intention.....	39
Table 12	Summary of Descriptive Analysis	40
Table 13	Pearson Correlation Coefficients of Study Variables	41
Table 14	Model Summary	42
Table 15	Analysis of Variance (ANOVA).....	43
Table 16	Regression Coefficient of Independent Variables on Purchase Intention ...	43

LIST OF FIGURE

Figure 1 Research Framework of the Study	30
--	----

ABBREVIATIONS

EB	:	Economic Benefit
EC	:	Environment Concern
IBM	:	International Business Machine Corporation
INF	:	Infrastructure
MS. DO	:	Microsoft Disk Operating System
PI	:	Purchase Intention
Res	:	Respondents
RS	:	Responsiveness
SEM	:	Structural Equation Modeling
SI	:	Social Influence
TC	:	Technological Concern
VIF	:	Variance Inflation Factors

ABSTRACT

This study investigates the perception towards electric vehicles in Nepal. The study has employed descriptive and casual comparative research design. This study used descriptive statistic, correlation analysis and regression analysis to analyze the data. This study found that employee agreed that infrastructure and technological concern factor highly affects their purchase intention towards electric vehicle and they believe that their purchase intention was also high. The correlation analysis shows that the correlation analysis reveals that environment concern and economic benefit have significant positive relationship with purchase intention. At the same time, there is significant positive association between technological concern and purchase intention. Similarly, correlation value between social influence and the purchase intention is significant positive. Moreover, correlation value between infrastructure and the purchase intention is significant positive. The regression analysis shows that there is significant positive effect of environment concern and economic benefit on purchase intention. Then, there is also significant positive effect of technological concern on purchase intention. At the meantime, social influence has significant positive impact on purchase intention. Finally, infrastructure has significant positive effect on purchase intention. However, all the factors have significant impact on purchase intention towards electric vehicle in Nepal.

Keywords: Purchase intention, environment concern, economic benefit, technological concern and social influence

CHAPTER - I

INTRODUCTION

1.1 Background of the Study

It is commonly known that the transportation sector plays a major part in both the primary environmental issues facing the world today and the global climate change. The Intergovernmental Panel on Climate Change (2007) stated that products derived primarily from petroleum are used in 95 percent of the world's present transportation systems, causing the discharge of dangerous pollutants into the atmosphere. Recently, a number of concerted efforts have been made to better align the transportation sector with a low-carbon, forward-looking viewpoint. This strategy has the potential to both mitigate climate change and save fuel costs over the long run.

Concerns about the environment today are pushing the growth and market share of electric vehicles. In 2018, the perception among Indian automakers that electric cars are the best substitutes for gasoline-powered cars—which are powered by conventional diesel or gasoline engines—saw a radical change. For example, the Indian domestic firms trying to maintain a strong hold on to the high growth phase of electric vehicles as a means of leveraging them into strategic competitive advantages in the market are Tata Motors, Mahindra & Mahindra, TVS Motors, and Bajaj Auto. Twenty further EV cars are being developed by Nissan Motors. Numerous strategic partnerships have resulted from this new growing market, including that between Tata Motors and Fiat, M & M and Ford and Renault, Bajaj Auto and Kawasaki, TVS and Suzuki, Jaguar Land Rover by Tata Motors, Ssangyong by M & M, and KTM by Bajaj Auto (Bhalla et al., 2018).

Electricity distribution should be viewed as a spectrum, the efficiency of which may be gauged from fully autonomous driving with fuel cell or battery electric technologies to mild hybridization with integrated gasoline and diesel systems (Weiss et al., 2012; Tamor et al., 2013). In comparison to conventional carbon vehicle technologies, emerging private transportation alternatives, like the electric vehicle (EV), provide consumers with high-performing, efficient solutions that emit less carbon. The goal of this exploratory research is to further the minimal discussion that has been had thus far on the reasons behind the difficulties that electric transportation

technologies have historically had in spreading into mainstream markets. When incorporating a sustainable story into this trend, it is important to take into account the emissions of the vehicle from the point of view of the power generated by it. Therefore, in order to promote a sustainability-focused agenda, the EV needs to be demonstrated to have the fewest emissions possible. The issue statement still holds true when evaluating the application of electricity to a vehicle: one electron should exit a system as effectively as feasible to create a unit of propulsion. This is because efficiency is a conventional metric for measuring vehicles. If high efficiency is not given priority in the endeavor, it is unlikely that the aim of electrifying the transportation industry would be achieved (Yegin & Ikram, 2022).

The upcoming electric vehicle (EV) will employ highly developed, cutting-edge technology that will provide long-range coverage while maintaining efficiency and comfort (Winter et al., 2010). Recent studies have examined the possibilities of electric mobility from an inner-urban, technological, economic, logistical, and environmental perspective (Bhalla et al., 2018). But studies also shown that electric cars have significant challenges in developing suitable markets, at least in terms of public perception and acceptance of these vehicles in India. The transition from fuel-powered automobiles to electric vehicles (EVs) necessitates extensive outreach and the establishment of trust within the electric vehicle industry. Nonetheless, there is still a lot of opposition to EV adoption.

Perception is an ongoing, broad assessment of individuals, things, commercials, or problems. Because they frequently persist throughout time, attitudes are long-lasting. The process by which individuals choose, arrange, and interpret sensations is known as perception. Electricity played a major role in the early history of the automobile industry. The automotive industry has been researching electric vehicles for several decades now due to a number of variables, yet the industry will need to overcome significant challenges in order to effectively commercialize this type of vehicle. The environmental sensitivity of customers about electric vehicles was one of the aspects that motivated us to conduct this investigation. We believe that electric cars will play a significant role in the future and that their introduction will result in a decrease in the use of fossil fuels. The goal of this research is to determine the degree to which

certain factors influence consumers' propensity to purchase electric vehicles (Digalwar & Rastogi, 2023).

Since the government reinstated tax incentives in the first half of 2021, imports of electric vehicles have increased dramatically; however, the far more significant battery-operated public transportation industry has not seen a comparable uptick in imports. Between July 2021 and December 2021, Nepal imported 1,113 electric vehicles, jeeps, and vans, which is about five times greater than the 249 such four-wheelers that were imported during the same period in the previous fiscal year. The government's revenue strategy, which discourages the use of fossil fuel automobiles, directly led to a rise in the import of electric vehicles. But unlike gasoline and diesel automobiles, which have a 50% cash margin requirement, electric vehicles have no such constraint, which has kept battery car prices high. Nevertheless, compared to petroleum-based vehicles, which are subject to far higher taxes, electric vehicles were competitive due to the reduction of excise and customs fees. Imports of electric four-wheelers totaled Rs3.24 billion from July to December of 2021, compared to just Rs105.1 million in the same period of the previous fiscal year (Nepali Times, 2022).

Considering a very environmentally conscious nation, people in Nepal will look into electric cars (EVs) if they decide to purchase a car of their own. They'll find that most of the specifications are shockingly similar to those of any car that runs on fuel. The cost of the EV is then revealed to them, which may be challenging. In addition to the price, the lack of charging outlets and unpredictable power outages discourage people from becoming too enthusiastic about cleaning and greening their place.

Even if the government intends to phase out fossil fuel-powered cars over the next ten years, the regulations are mediocre at best. In addition to proposing subsidy programs, the Environment-Friendly Vehicle and Transport Policy (2014) sought to raise the percentage of electric vehicles (EVs) to up to 20 percent by 2020. However, the market for EVs declined as the 2020/21 budget proposal increased the total excise and customs duty rate by 120–140 percent. However, the newly proposed budget eliminated the disputed increase and restored the previous level of customs fees at just 10%. For individuals who convert from gasoline-powered cars to electric vehicles, there are also no road or renewal taxes. The Nepal Electricity Authority (NEA) made

a praiseworthy attempt to install approximately 50 charging stations throughout the nation in the upcoming year. In addition to sapha tempos, or electric three-wheelers, the province of Bagmati also sought to implement electric buses (Ministry of Finance, 2022).

Although there are many benefits to electric cars (EVs), their mainstream adoption has been impeded by their high initial cost, long charging times, and inadequate infrastructure. Despite the advantages of these incentives for EVs, Nepal's EV market penetration is very low because the nation is still in the early phases of vehicle electrification. Adoption is not finalized yet. The government needs to look closely at how the public perceives this new technology before EVs become a mature product to find problems and roadblocks that need to be fixed before EVs become extensively used.

The most significant barrier to successfully implementing such regulations and reaching these goals is accurately estimating and comprehending the expectations and reservations of consumers. To be more precise, no empirical study has been conducted that outlines the elements that will influence customers' inclination for electric cars or the public policy recommendations that the state will make as a result of this research. Therefore, this study examines the perception of people towards electric vehicles in Nepal.

1.2 Problem Statement

People's opinions about green products have evolved as the environment has gotten worse over the past few decades, and they are looking for methods to live "greener" lifestyles on a daily basis (Chen et al., 2010). The way that people buy cars reflects how society is always changing and how people are becoming more conscious of the environment (Kilbourne & Pickett, 2008). As was already noted, figures demonstrating the market's growth indicate that people increasingly view electric vehicles as a greener option than traditional automobiles. As seen by the national benchmark research on consumer attitudes on EVs, it is still a contentious issue and there is a widespread lack of consensus regarding them.

Coffman et al. (2017) stated that a wide range of factors significantly impact people's opinions toward electric vehicles. Driving distance, charge time, and car ownership costs are the main factors to take into account (Coffman et al., 2017). It is believed that these attributes will have the biggest influence on the adoption of electric vehicles, and this is further supported by (Rajper & Albrecht, 2020).

Lai et al. (2015) concluded that one of the main reasons driving the adoption of fully electric vehicles was the impression of cost benefit. Khazaei and Khazaei (2016) stated the adoption of electric automobiles as a new technology that necessitates new consumer characteristics as one of the primary problems. Bhalla et al. (2018) found that customers' attitudes toward buying electric cars were influenced by their degree of technological confidence and their environmental worries. Adoption backlash is caused by a multitude of reasons, such as infrastructure, cost, and public acceptance.

Lashari et al. (2021) found that opinions about the environment and the economics in relation to EV use were the most trustworthy predictors of an EV purchase. It was also shown that concerns about technology had a detrimental influence on plans to purchase electric vehicles. Bhat et al. (2022) found that consumers' intentions to adopt electric vehicles were positively correlated with environmental enthusiasm, technological enthusiasm, social image, social influence, perceived benefits, and performance expectancy, and negatively correlated with facilitating conditions and anxiety. Digalwar and Rastogi (2023) showed that infrastructural and financial factors had a positive influence on the rate of EV adoption in India, but performance elements had a negative effect.

One issue noted by the study's researchers is the dearth of quantitative data on the Nepalese EV market and consumer attitudes of the aforementioned characteristics and how much they influence purchase intent. The research problem serves as the basis for the investigation, and the theories employed in the study have a close relationship with the associated ideas. The crux of the issue lies in the ignorance of consumers' attitudes toward electric cars as a novelty in Sweden, their purchasing intentions, and the particular characteristics of electric cars that impact these notions. This study deals with following issues in context of Nepalese EV market.

- i. What is the level of environment consideration, economic benefit, technological concern, social influence, infrastructure relate to the varying degrees of purchase intention among individuals considering electric vehicles adoption?
- ii. How do environment consideration, economic benefit, technological concern, social influence & infrastructure availability effect people's intention to purchase electric vehicles in Nepal?

1.3 Objectives of the Study

The general objective of the study is to investigate the People attitude towards electric vehicles in Nepal. The specific objectives of this study are as follows:

- i. To assess the relationship between environment consideration, economic benefit, technological concern, social influence, infrastructure and purchase intention when people's considering electric vehicles adoption.
- ii. To evaluate the effect of environment consideration, economic benefit, technological concern, social influence & infrastructure availability on people's purchase intention to purchase electric vehicle in Nepal.

1.4 Research Hypotheses

The following hypotheses are derived from the previously listed study questions. Thus, the aim of this research was to assess the following ideas concerning the EV market in Nepal.

- i. H₁: There is positive effect of environment consideration, economic benefit, technological concern, social influence & infrastructure on purchase intention to EV in Nepal.
- ii. H₂: There is positive effect of Infrastructure availability on purchase intention to EV in Nepal.
- iii. H₃: There is positive relationship between independent variables & dependent variables on purchase intention to EV in Nepal.

1.5 Rationale of the Study

Many studies have examined people's opinions on different items; this one focuses just on electric vehicles in Nepal. The study suggests three constructs to bridge the

knowledge gap: economic benefit, environmental consideration, technical concerns, and social influence and purchase intention. It also examines how these ideas could impact Nepal's attempts to establish a climate conducive to the use of electronic cars. The manager's comprehension of EV marketing strategy and its influence on market performance has been greatly impacted by the consequences of that research. Manufacturers and marketers of EV Companies may utilize the study's findings to gain a deeper understanding of their target market. The following points can be used to discuss the significance and importance of this study.

- It offers facts and information from the perspective of entrepreneurs on EV marketing techniques, which will aid in the development and enhancement of appropriate marketing plans for the foreseeable future.
- The study also benefits other import and export businesses.
- It gives the insights of the relevant study to entrepreneurs, CEOs, and marketing managers in order to boost the competitive position of EV Companies. Thus, anyone interested in this study who is teachers, students, and policy makers in Nepal would gain from it.
- The company can build on this study's findings and carry out more research to develop plans.

1.6 Limitations of the Study

The research study has some limitations. The main limitations of the study are as follows:

- Only Kathmandu Valley is selected as sample area to conduct this study.
- Since a single hand performed the research activity, it was not be possible to collect all the information regarding the market situation.
- This study is totally based on the views and responses of 300 respondents.

CHAPTER II

LITERATURE REVIEW

In this chapter, it is divided into the three sections. The first section is a theoretical review; similarly, the second section is an empirical review and the third session addresses research gap.

2.1 Theoretical Review

The theories that reviewed in this study are; the diffusion of innovation theory, theory of technology acceptance, theory on purchase intent, theory of planned behavior and the value percept theory.

The Diffusion of Innovation Theory

Innovation and constant evolution have many benefits, but this does not guarantee that society will accept or adjust to them. Adapting to new developments can be challenging and time-consuming. Before society accepts an invention, it may need to mature for a number of years. Here's where the question of how to speed up this innovation adaptation process becomes really pertinent. The diffusion of innovations hypothesis (DOI) describes how inventions are spread across society via different communication channels (Rogers, 1983). Al-Jabri and Sohail (2012) stated that one of the most well-liked theories that has attempted to look at the various aspects that affect a person's readiness to accept new innovations or technology in their life is the willingness of domination theory (DOI).

The success of eco-innovations from the viewpoint of the customer can be thoroughly investigated using the theory of diffusion of innovations. It could be helpful to comprehend why various marketing approaches result in various eco-innovation outcomes (Moon, 2020). Furthermore, the author goes on to describe Eco-Innovations as those that are less harmful to the environment than traditional or well-established technologies. Accordingly, any technology or product used in any kind of company may be categorized as an eco-innovation if its impact on the environment is less than that of the standard design (Moon, 2020). Eco innovations must compete in the market with other products just like any other product, however many governments

have implemented various rules to allow companies that have eco-innovations to challenge the regular market (Sierzchula et al., 2012). This suggests that because of the benefits they provide for a cleaner environmental impact, EVs may qualify as eco-innovations (Moon, 2020).

Rogers (1983) mentioned four fundamental elements: time, social structure, communication channels, and innovation. These four elements make references to the proliferation of new technology. Rogers (1983) defined innovation as "an idea, practice, or object that is perceived as new by an individual." Since perception is a subjective experience, a concept is deemed innovative if it is new to the person. According to Rogers (1983)'s book, a technical advance might indicate a prospect for less doubt regarding the technology's knowledge base while simultaneously raising one type of confusion in the minds of potential customers about its possible impacts. It was demonstrated by Fliegel and Kivlin (1966) and MacVaugh and Schiavone (2010) that a number of factors affect how certain innovations are adopted. Features including price, yields, effectiveness, time and pain savings, perceived usefulness, and technology infrastructures. Furthermore, according to MacVaugh and Schiavone (2010), there are other "external" elements that affect the adoption of new technology because they are directly related to the features of outdated technology that innovation must replace.

Theory of Technology Acceptance

Consumer resistance to the advancement of technology has always existed. Scholars have made an effort to understand the factors that affect consumers, such as the uptake, acceptance, and continued use of technology. The technology acceptance model (TAM), created by Davis in 1989, is one of the most popular frameworks for analyzing these numerous components (Al-Emran & Shaalan, 2021). According to Davis (2014), the theory of reasoned action served as an influence for the model designers as they developed TAM. According to Fred Davis, TAM was created to give an overview of the idea of computer acceptance and to broadly explain user behavior across a broad spectrum of computing technologies. In addition, Davis (1989) noted in his study that TAM was created because consumer perceptions of new innovations and technologies impact consumers' intentions to utilize them, even when new technologies are implemented with care and diligence. Davis presents two factors

that prior studies have demonstrated are critical to understanding technology use (Chen & Chao, 2011).

The first variable is perceived usefulness. This variable suggests that users should base their choice to use an application on the potential improvement in results. The second component is perceived simplicity of usage. This variable states that a product may not be adopted by a consumer if it is not useful or easy to use; if the customer feels that the product is difficult to use, they may react negatively. It is made clearer that there is a relationship between and influence between these two things (Davis, 1989). Furthermore, the author states that the variables can be affected by external variables.

Theory on Purchase Intent

Although purchase intention is a wide topic with several study facets, the theory of planned action is the one that is most widely recognized. The idea is explained in the article by Ajzen (1991) as an expansion of the earlier notion of reasoned action. Along with discussing the various aspects, it also displays them. Ajzen (1991) posited the planned behavior is a helpful approach to examine consumer behavior. It is a hypothesis made up of various elements that all work together to explain a particular behavior. It uses the conventional definition of buying anything in the context of this essay. The theory's main goal is to comprehend the factors that affect consumers' decisions to buy and, eventually, the reasons behind those decisions. With this information, numerous consumers' tendencies may be examined, and conclusions can be made that can subsequently be applied to the corporate world (Ajzen, 1991).

Ajzen (1991) explained that the attitude of a person, which is the first variable in the theory, indicates whether they feel that they completed an action favorably or not. It goes on to say that any particular action or conduct is instantly viewed as either partially favorable or negatively. However, the variable of subjective norm captures any possible social pressure an individual may feel to engage in a particular action, which manifests when they act in a way that others believe is appropriate (Ajzen, 1991).

Perceived behavioral control, or the perceived abundance or shortage of necessary opportunities and resources, presents the control beliefs. It shows that someone is considering different options and resources and letting them influence the way they behave (Ajzen, 1991).

Indriani et al. (2019) indicated that attitudes toward green items are directly impacted by environmental knowledge, and intentions to make green purchases are subsequently directly impacted by this relationship. This suggests that as customers become more knowledgeable about environmental issues and potential solutions, they will become more aware of the products they buy and how they could affect the environment. Furthermore, this will boost customer desire to purchase environmentally friendly products (Indriani et al., 2019). In keeping with this, the authors also note that the findings indicate that attitude is shown to be significantly influenced by environmental information. These findings concur with a number of earlier research projects (Wulandari et al., 2015).

In situations when people require opportunities, knowledge, skills, or other resources to finish an action, they interpret barriers and impediments according to the resources' accessibility. The idea of planned behavior, which considers how easy or difficult the action is to complete, is appropriate in these situations (Hansen, 2008). When forecasting the adoption of electric vehicles, planned behavior control needs to be taken into account because it requires not only internal resources such as personal skills and self-efficacy but also external resources such as opportunities and knowledge; it also reflects the effects of social impact, a variable commonly linked to the Diffusion of Innovation theory (Liao et al., 2017).

Theory of Planned Behavior

Ajzen (1991) proposed the Theory of Planned conduct (TPB), which is predicated on the notion that conduct is primarily influenced by social contact. This theory offers a clear framework for examining the ways in which customers' intents to purchase environmentally friendly items are influenced by attitudes, individual and societal traits, and outcome expectations. If influential people encourage someone to do something (subjective norm) and the person feels good about the encouragement (attitude), they will be more motivated to pursue that action. The TPB may be

pertinent to this study because it provides a clear framework for the shift in consumer behavior from one that prioritizes consumption to one that also considers environmental issues. This might be as a result of the consumers' immediate surroundings encouraging them to make purchases that won't hurt the environment as much. Furthermore, it is the duty of the marketer who has the potential to be a powerful figure—to inspire consumer demands in the direction of consumption that causes the least amount of environmental harm.

The Value Percept Theory

Westbrook and Reilly (1983) make a similar argument to LaTour and Peat's: that the Expectancy-Disconfirmation paradigm may not be the best model to explain customer satisfaction because comparative standards other than expectations are more likely to determine customer satisfaction or dissatisfaction. They suggested a Value-Percept Disparity hypothesis as a counter to the Expectation Disconfirmation paradigm; this theory was first developed by La Tour and Peat (1979). Westbrook and Reilly challenge the predictive expectations that serve as a benchmark in the conventional Disconfirmation paradigm, contending that expectations do not always align with desires or values associated with a product. On the other hand, what is valued could or might not match expectations. Values, rather than expectations, have therefore been suggested as a superior comparing criterion to explain consumer pleasure or discontent. The value percept theory states that an emotional reaction known as satisfaction is brought about by a cognitive evaluative process in which an individual compares their perceptions of an offer to their needs, wants, desires, and values (Westbrook & Reilly, 1983). As with the Expectancy/Disconfirmation paradigm, a widening gap between values and perceptions (value-perception) denotes a rising degree of discontent.

Consumer Beliefs and Behaviour

Perceived mobility need (PMN), which measures the need to be mobile at all times, rises as a result of growing labor participation, the need for contemporary living, and the labor market's rising demand for flexibility and mobility (Haustein & Hunecke, 2007). The ever-growing demand for LDVs in the world's emerging markets may be explained by PMN.

There is a direct correlation between rising greenhouse gas emissions and consumption patterns and climate change. The resources consumed and the life cycle process of a good or service are defined by the purchasing habits and behaviors of the final customers. The study of consumer behavior focuses on how people choose, use, and discard goods and services while making purchases in order to satisfy their requirements and satisfy their desires. All actions related to the acquisition, utilization, and disposal of goods and services are included in consumer behavior, as are the consumer's emotional, mental, and behavioral reactions that either precede or follow these actions (Kardes, Cronley, & Cline, 2010).

Individual consumer behavior is affecting the environment in ways never seen before (Stern, 2000). It is necessary to have a deep grasp of consumer behavior and attitudes in order to promote sustainable consumption. While ethical consumption has become increasingly prominent in consumer behavior in recent decades, research on broad ethical practices has been restricted to the Consumers Ethics Scale. Eco-friendly purchasing behavior is still uncommon in the realm of ethical consumerism, despite persistent pressure from scientists and environmentalists. It has been determined that adopting green behaviors and moving toward a low-carbon society are urgently important from a strategic standpoint for the whole society (Kronrod, Grinstein, & Wathieu, 2011). Unfortunately, emerging markets have not yet adopted this idea widely, which has led to a lack of commitment and attempts to create a low-carbon society.

Comprehending consumer behavior is a crucial element in tackling worldwide environmental issues. By 2020, the whole cost and risk of climate change will be equal to losing 20 percent of GDP annually, according to Stern's 2000 analysis of the economics of climate change. On the other hand, taking action would only cost two percent of GDP. Sustainability adds another layer of complexity to the already complex issue of consumer behavior.

One of the main things impacting green purchasing is the attitudes and actions of the consumer. According to Solomon (2016), consumer belief is a gauge of a person's knowledge and perceptions about a certain item or service, which in turn influences their attitudes toward it. The idea of being a green consumer has led to the emergence

of the normative "citizen consumer," who is a conscientious, socially conscious, anticipatory, and socially conscious consumer whose actions should be morally justified and who sometimes needs to be willing to make sacrifices. Consumer attitudes and beliefs have a significant role in pro-environmental behavior and impact the purchase decision.

Apart from the actions and convictions of the consumer, policies and incentives also have a significant impact on the purchasing decisions made by the latter. Zhang et al. (2018) argued that the adoption of electric vehicles is mostly influenced by perceived risks, perceived environmental advantages, and perceived economic benefits (Zhang, Baia, & Shang, 2018).

Policies and Taxation for Electric Vehicles in Nepal

The laws that promote the usage of electric vehicles in Nepal were put in place at the beginning of 1997. When compared to cars powered by petroleum fuels, which had an import tax of 234 percent, the then-government of Nepal's EV tax was announced in the national budget at a rate of 231 percent (Shahi, 2017). The government's decision to impose an import tax of 240 percent on electric vehicles (EVs) was reversed by lobbyists for internal combustion engines, despite the tax rules for EVs being established at 10 percent in 2002 (Shahi, 2017). With the introduction of new cars with internal combustion engines at the same time, this was a significant step backward for Nepal's future with regard to electric vehicles. Even now, these vehicles rule the Nepalese auto industry.

The Nepalese government needed an additional 13 years to bring back the 1997 tax laws pertaining to electric vehicles. The 2016/17 Nepalese Budget eliminated all import taxes on big EVs intended for use in public transit and lowered the tariff on private EVs to 10 percent. The tax on public EVs was also lowered to 1 percent (Ministry of Finance, GON, 2016). The Government of Nepal's Transportation Management Department states that electric vehicles are not subject to taxes. The annual tax rate for vehicles powered by gasoline or diesel ranges from NPR 8,000 to NPR 15,000, contingent upon the engine type (Transportation Management Department, 2017).

Nepal has one of the highest rates of vehicle importation globally, with an import fee of 238 percent. The industries that recycle old batteries and make new ones will only be required to pay 1 percent of customs charges and no VAT. Private electric car import duties are 7.5 percent in the South Asian Association for Regional Cooperation (SAARC), which includes Afghanistan, Bangladesh, Bhutan, India, Pakistan, Sri Lanka, and the Maldives. However, foreign private electric vehicles from other countries are subject to an import tariff of 10 percent. For big electric cars utilized for public transportation, there will be no excise cost and a one percent custom duty (Upadhya, 2016).

2.2 Empirical Review

Lai et al. (2015) investigated factors influencing the behavioural intention towards full electric vehicles: an empirical study in Macau. This study examined the variables influencing people's inclinations to buy fully electric cars. A sample including 308 participants was gathered from Macau's streets. Confirmatory factor analysis and structural equation modeling were used to examine the gathered data. The findings showed that perceptions of environmental policies and environmental concerns are precursors to the perception of fully electric vehicles, which in turn affects the behavioral intention to buy fully electric automobiles. This study indicates that one significant factor propelling the adoption of completely electric automobiles is the perception of economic benefit. What automakers desire for their bottom line is long-term fuel savings, low power costs, and high energy efficiency. Therefore, the government needs to do more to promote environmental issues to the general people, enact strong environmental regulations, and provide long-term financial and strategic support for electric vehicles (EVs) in order to boost low-carbon transportation.

Khazaei and Khazaei (2016) examined electric vehicles and factors that influencing their adoption moderating effects of driving experience and voluntariness of use. This study examined the relationships between social influence, perceived enjoyment, anxiety, facilitation condition, and intention to use in the Malaysian electric vehicle market, as well as the moderating impacts of driving experience and voluntariness. To design the questionnaires for this study, a quantitative technique and sampling will be employed. Data collection will involve the distribution and collection of

questionnaires. Multiple regression analysis used to analyze the data. This analysis showed that one of the main challenges is the adoption of electric cars as a new technology that requires new customer behaviors. As a result, this study offers a new conceptual framework and identifies and describes the variables that affect the acceptability of electric automobiles. The UTAUT and UTAUT2 models are just two of the many technological acceptance models that are integrated into the framework to forecast and offer insight into the adoption of electric vehicles. Range anxiety and environmental concern were included in this study as pertinent add-ons to the model that was recommended for further investigation.

Wang et al. (2016) investigated predicting consumers' intention to adopt hybrid electric vehicles: using an extended version of the theory of planned behavior model. The main objective of this research was to carry out a thorough analysis and get more insight into customers' intentions to purchase HEVs. Using an expanded theory of planned behavior model, 433 respondents were gathered in China in order to forecast the consumers' intention to purchase hybrid electric vehicles (HEVs) (TPB). The empirical findings demonstrated that the three main components of the TPB model attitude toward HEVs, subjective norm, perceived behavioral control, and personal moral norm partially moderate the relationship between consumers' environmental concern and their desire to purchase HEVs. The adoption intention is indirectly influenced by consumers' environmental concerns, which were found to be strongly positively correlated with attitudes toward hybrid electric vehicles (HEVs), subjective norms, perceived behavioral control, and personal moral norms.

Degirmenci and Breitner (2017) examined consumer purchase intentions for electric vehicles: Is green more important than price and range? This study explored into consumer intentions to acquire electric vehicles. Two empirical studies were carried out: a survey with 167 more participants who took part in test drives with plug-in battery electric vehicles and interviews with 40 end-user subjects. Structural equation modeling was employed to examine the impact of pricing value, range confidence, and environmental performance on attitude and, consequently, buy intention using the collected data. This study found that range confidence and pricing value were not as reliable indicators of EV environmental performance as they previously were. Considering the importance of global warming, climate change, and air quality, the

transportation sector has the power to drastically reduce greenhouse gas emissions. Considering that electricity is produced from renewable resources, EVs are considered a viable option for transportation in this scenario.

Bhalla et al. (2018) analyzed a study of consumer perception and purchase intention of Electric Vehicles. It is necessary to research the elements influencing customer acceptability of these cars in order to understand the commercial success and purchase intention of electric vehicles among Indians. Buyers of cars are influenced by a number of elements, including their own perceptions of things like cost, trust, environmental difficulties, technological advancements, infrastructure, and societal acceptance. The findings showed that customer faith in technology and environmental concerns are precursors to perceptions about buying electric vehicles, and that infrastructure, cost, and societal acceptance are variables that impede adoption. Thus, the government must take the lead in promoting the sale of electric vehicles by developing infrastructure, environmental policies, and automotive subsidies or by lowering bank lending rates.

Malladi et al. (2020) examined the client perception of electric vehicles and its impact on sales. The objective of the study was to identify the impact of client perception of Electric Vehicles on the sale of Electric Vehicles. In order to achieve the research goal, this study employed Pearson product-moment correlation coefficient analysis to examine the gathered data. The correlation table between EV sales and client perception components of EV revealed a favorable relationship between client perception of EV and its effect on EV sales. Furthermore, a high positive correlation was found in the relationship between the variables that reflect customer perception, including sales of electric vehicles, comfort level when driving them, social acceptability, and investment in electric vehicles. However, a weak correlation was found between the mileage component, electric car sales, and aspects of the customer experience such as satisfaction of personal desires and personal rating.

Lashari et al. (2021) analyzed consumers' intention to purchase electric vehicles: Influences of user attitude and perception. The purpose of this study was to evaluate at these issues, with an emphasis on the attitudes and views of users. A total of 1,500 valid survey responses were collected, and for an empirical study, research was done

utilizing regression trees and binary logistic regression. The findings showed that the two most powerful attitudinal characteristics for predicting an EV purchase were attitudes of the environment and economy around EV use. Furthermore, it was discovered that EV buying intentions were negatively impacted by technology worries. The study's conclusions may offer EV stakeholders useful guidance for developing marketing plans and a point of reference for enhancing the suitability of the laws currently in place to encourage EV adoption.

Shandilya and Skotte (2021) investigated people perception towards adoption of electric vehicle in Kathmandu valley. The purpose of this study was to determine attitudes, views, and behavioral intentions regarding the widespread use of electric vehicles as well as the benefits and obstacles facing consumer acceptance. A questionnaire poll was carried out, and 251 persons were questioned about their opinions on the use of electric cars. Sociodemographics, human travel behavior, experience with electric vehicles, attitude, behavior, knowledge, awareness, and public transit (accessibility, availability, affordability, safety, and comfort) were the factors utilized to measure perception. For analysis, the Likert scale which has a rating range of 1 to 5 was employed. In order to evaluate perception, regression and correlation analysis were also carried out using SPSS. Log frame analysis was employed for the qualitative investigation. Relatively few people actually buy electric automobiles, despite data showing that consumers are disposed positively toward sustainability and electric cars. Restrictions related to cost, infrastructure, and policies make up the majority of the difference. Evidence-based policy must be addressed.

Vashisth, and Gupta (2021) examined consumer perception towards Electric Vehicle. The primary goal of the study was to determine the general dynamics and barriers that prevent consumers from adopting electric automobiles. The one-factor ANOVA test was one of the statistical techniques and graphic aids used in this investigation. The study found a strong correlation between the parameters and how an electric automobile is perceived after evaluating a number of hypotheses. This showed that income and educational attainment, in addition to demographic traits, have an impact on consumers' decisions to buy electric automobiles. According to the majority of respondents, purchasing electric vehicles was highly anticipated in terms of infrastructure.

Varghese et al. (2021) investigated a study on consumer perception and purchase intention of electric vehicles in India. The primary objective of this research was to examine Indian consumers' perceptions about and intentions to buy electric automobiles. India is developing regulations that would encourage the sales of electric vehicles in order to fulfill the UN climate targets of lowering greenhouse gas emissions, despite the country's environmental challenges. Furthermore, India is among the world's biggest automobile markets, and the market for electric vehicles has bright future prospects. This study investigates the issue statement using surveys and a quantitative methodology. In this study, the impact of variables influencing Indian customers' perceptions of electric vehicles and their propensity to buy them is experimentally investigated.

Bhat et al. (2022) analyzed measuring and modeling electric vehicle adoption of Indian consumers. This study used structural equation modeling to investigate the effects of eight factors on consumers' intention to purchase electric vehicles: environmental enthusiasm, technological enthusiasm, anxiety (or perceived risk), social image, social influence, perceived benefits, performance expectancy, and facilitating conditions. The study revealed a positive correlation between consumers' adoption intention and environmental enthusiasm, technological enthusiasm, social image, social influence, perceived benefits, and performance expectancy. Conversely, a negative correlation was observed between consumers' adoption intention and anxiety. This study adds to the little body of literature on the subject in the context of developing economies. The results of the study might be useful to legislators and planners in accelerating the real-world adoption of electric vehicles.

Yegin and Ikram (2022) investigated analysis of consumers' electric vehicle purchase intentions: An expansion of the theory of planned behavior. This study examined the behavioral factors that affect the intention to purchase electric vehicles (EVPI) of consumers residing in Turkey. This study used correlation analysis to analyze the data. The study showed compatibility with EV purchasing intentions, according to the CFA results. The SEM findings showed a good correlation between the behavioral constructs of AT, PBC, EC, and GT and EV purchase intentions. Additionally, our new ETPB model, which was expanded to include EC and GT, was able to predict consumers' EVPI, indicating that behavioral constructions are the cause of EVPI.

However, it was discovered that SN had a negative impact on consumers' EVPI; this finding was inconsistent with other research in the literature but consistent with certain studies in the literature. Through the disclosure of customer responses and the augmentation of marketing efforts, this study benefits the electric vehicle (EV) sector. This result provides a thorough model for future studies on EVs, ETPB, EVPI, and sustainable consumerism.

Digalwar and Rastogi (2023) assessed of social factors responsible for adoption of electric vehicles in India: a case study. The main objective of this research was to assess the social acceptability and sustainability of EVs, identify social determinants, draw conclusions from the data, and assist in guiding decision-makers and manufacturers toward a quicker uptake of EVs. The Statistical Package for the Social Sciences' descriptive statistics, structural equation modeling, and hypothesis testing tools are used to assess and validate the survey data. The findings showed that while infrastructure and financial factors have a positive influence on the rate of EV adoption in India, vehicle performance parameters have a negative impact on EV adoption. This shows that respondents to the study who give car performance characteristics the greatest priority have a more indifferent attitude about the introduction of electric vehicles.

Table 1

Summary of Empirical Review

S.N.	Author(s) Years	Variables	Methodology	Major Findings
1	Lai et al. (2015)	Dependent: Behavioural Intention Independent: Environmental concern, perception of environmental policy, perception of electric vehicles and perception of economic benefit.	Confirmatory factor analysis and structural equation modeling were used to examine the gathered data.	The findings showed that perceptions of environmental policies and environmental concerns are precursors to the perception of fully electric vehicles, which in turn affects the behavioral intention to buy fully electric automobiles. This study indicates that one significant factor propelling the adoption of completely electric automobiles is the perception of economic benefit.
2	Khazaei and Khazaei (2016)	Dependent: Intention to use Independent variables: Social	Multiple regression analysis used to analyze the	This analysis showed that one of the main challenges is the adoption of electric cars as a new technology that requires new

		influence, vacillating condition, anxiety and environmental concern and perceived enjoyment.	data.	customer behaviors. As a result, this study offers a new conceptual framework and identifies and describes the variables that affect the acceptability of electric automobiles.
3	Wang et al. (2016)	Dependent: Intention to adopt HEV Independent: Environmental concern, attitude toward adopting a HEV, subjective norm, perceived behavioral control, personal moral norm.	This study is used correlation and multiple regression analysis.	This study found that the three main components of the TPB model attitude toward HEVs, subjective norm, perceived behavioral control, and personal moral norm partially moderate the relationship between consumers' environmental concern and their desire to purchase HEVs. The adoption intention is indirectly influenced by consumers' environmental concerns, which were found to be strongly positively correlated with attitudes toward hybrid electric vehicles.
4	Degirmenci and Breitner (2017)	Dependent: Purchase Intention Independent: Environment performance, price value, range confidence and attitude towards electric vehicle.	To analyze the collected data, structural equation modeling (SEM) was conducted.	This study found that range confidence and pricing value were not as reliable indicators of EV environmental performance as they previously were. Considering the importance of global warming, climate change, and air quality, the transportation sector has the power to drastically reduce greenhouse gas emissions.
5	Bhalla et al. (2018)	Dependent: Purchase Intention Independent: Environment concern, cost of vehicle, comfort, trust, technology, infrastructure and social acceptance.	This study used correlation analysis to analyze the data.	The findings showed that customer faith in technology and environmental concerns were precursors to perceptions about buying electric vehicles, and that infrastructure, cost, and societal acceptance are variables that impede adoption.
6	Malladi et al. (2020)	Dependent: Purchase of EV Independent: Investment on EV, comfort ability, social acceptance, economical factor, availability of charge station,	In order to achieve the research goal, this study employed Pearson product-moment correlation coefficient analysis to	revealed a favorable relationship between client perception of EV and its effect on EV sales. Furthermore, a high positive correlation was found in the relationship between the variables that reflect customer perception, including sales of electric vehicles, comfort level when driving them, social acceptability, and investment in electric vehicles.

		personal rating, fulfilling personal needs and mileage factor.	examine the gathered data.	
7	Lashari et al. (2021)	Dependent: Intention to purchase EV Independent: Innovativeness, technological concern, economic benefit, purchase subsidy, environmental benefit and social influence/image.	This study used binary logistic regression and regression tree were conducted for an empirical analysis	The findings showed that the two most powerful attitudinal characteristics for predicting an EV purchase were attitudes of the environment and economy around EV use. Furthermore, it was discovered that EV buying intentions were negatively impacted by technology worries.
8	Shandilya and Skotte (2021)	Dependent: Purchase intention Independent: Advantage, EV experience, EV behavior, infrastructure and concern behavioral.	In order to evaluate perception, regression and correlation analysis were also carried out using SPSS	This study showed people having positive affinity for sustainability and electric vehicles, very few actually owned electric vehicles. The gap is mainly due to barriers of cost, infrastructure and policies. Evidence based policies need to be addressed.
9	Vashisth, and Gupta (2021)	Dependent: Adoption EV Independent: Overall cost, sustainable environment, pollution regulations and technology of the features.	The one-factor ANOVA test was one of the statistical techniques and graphic aids used in this investigation.	The study found a strong correlation between the parameters and how an electric automobile is perceived after evaluating a number of hypotheses. This showed that income and educational attainment, in addition to demographic traits, have an impact on consumers' decisions to buy electric automobiles.
10	Varghese et al. (2021)	Dependent: Purchase Intention Independent: Environmental concern, value for money, driving range and infrastructure	Panel data techniques, namely the pooled ordinary least squares (pooled OLS), fixed effects and random effects estimators were employed for this study.	This study found that environmental concern, value for money, driving range and infrastructure have significant positive relationship with purchase intention.
11	Bhat et al. (2022)	Dependent: Adoption intention. Independent:	To test our research model, diagonally	The study revealed a positive correlation between consumers' adoption intention and environmental enthusiasm,

		Environmental enthusiasm, technological enthusiasm, anxiety, social image, social influence, perceived benefits, performance expectancy and facilitating conditions.	weighted least square (DWLS) estimation was employed.	technological enthusiasm, social image, social influence, perceived benefits, and performance expectancy. Conversely, a negative correlation was observed between consumers' adoption intention and anxiety.
12	Yegin and Ikram (2022)	Dependent: EV purchase intention Independent: Environment concern, attitude, perceived behavioral control, subjective norm and green trust.	This study used correlation analysis to analyze the data.	The study showed compatibility with EV purchasing intentions, according to the CFA results. The SEM findings showed a good correlation between the behavioral constructs of AT, PBC, EC, and GT and EV purchase intentions. Additionally, our new ETPB model, which was expanded to include EC and GT, was able to predict consumers' EVPI, indicating that behavioral constructions are the cause of EVPI.
13	Digalwar and Rastogi (2023)	Dependent: Public acceptance for EVs Independent: Financial factors, vehicle performance factors and infrastructure factors..	This study used descriptive statistics, structural equation model using SPSS and hypothesis testing	The findings showed that while infrastructure and financial factors had a positive influence on the rate of EV adoption in India, vehicle performance parameters had a negative impact on EV adoption.

2.3 Research Gap

The literature provided several important insights for the investigation, such as the empirical support for the variable indicators and the theoretical stances that have been employed to examine customer perception. Nonetheless, a number of information gaps become apparent, which the study attempted to try and fill. Although there is a lot of research being done in the automotive industry, very little of it focuses on how consumers view electric vehicles. This cutting-edge study creates connections with how customers view electric cars. There is gap between the present research and previous researches in terms of some objectives, tools used for analysis, period of data

collection and so on. The topic is also considered as the difference between the previous researches and the current research. The main objective here is to draw a genuine conclusion about the customer perception towards electric vehicle considering the previous studies. In this context, the previous studies can't be ignored because they provide the foundation to present study. In order to make the research process efficient and seamless, a wide range of books, journals, articles, and both published and unpublished dissertations are consulted in order to finish this piece of study.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology is the disciplined process of addressing a problem by the systematic collection, documentation, analysis, interpretation, and reporting of data pertaining to the various facets of a phenomenon being studied. The research methodology for this paper describes the steps and techniques employed in each phase of the investigation. This chapter describes research design, population and sample, and sampling design, nature and sources of data, method of analysis and research framework and definition of variables.

3.1 Research Design

This study is based on descriptive research design and causal-comparative research design to deal with fundamental issues associated with the factor affecting purchase intention towards electric vehicle in Nepal. This study adopts descriptive research design to analyze the factors of purchase intention in Nepalese automobiles market. Causal-comparative design is used to find the cause and effect of relationship between different factors and purchase intention towards electric vehicles.

3.2 Population and Sample, and Sampling Design

The population under study comprises all consumers, dealers, and employees of EV companies in the Kathmandu valley. However, only 365 questionnaires are distributed, out of them, 312 questionnaires received but only 300 responses were valid. Therefore, the sample size of the study is 300. The sampling technique for the study followed non-probability sampling technique i.e. convenience sampling.

3.3 Nature and Sources of Data, and Instruments of Data Collection

The primary data is developed by the researcher specifically with the goal of resolving the current problem. Even though obtaining primary data might be expensive and time-consuming, they are seen to be the most important as they were gathered through systematic surveys. The survey and interview data were the main sources of information used in this investigation. A set of standardized questionnaires with a 5-point Likert scale were given to the respondents.

3.4 Method of Analysis

Various statistical methods were used in the investigation. The following subsections discuss the statistical instruments that were employed in this write-what statistical study to evaluate the data findings:

Mean

The mean, which is obtained by dividing the total number of values by the number of values, is the arithmetic mean of a range of values or quantities. It alludes to the average that is examined or utilized to determine the data's central tendency. A widely used and easily understood metric of central tendency is the arithmetic mean. To find it, tally up all of the population's data points, then divide the total by the number point. The mean is computed in this study to determine the average of the respondents' answers to the various variables in the Likert scale question. On all samples, the mean value of the answers to the Likert scale question is computed.

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n}$$

Where,

$\sum X$ = Value of responses of each independent or dependent variable

n = No. of statements

Standard Deviation

The standard deviation, which measures dispersion, is used to express how much a collection of data values vary or are dispersed. The positive square root of variance is one way to describe it. One helpful characteristic of the standard deviation is that, in contrast to variance, it has the same units of measurement as the data. There is a larger deviation within the data set if the data points deviate further from the mean. Therefore, the standard deviation increases with data dispersion. The SD is computed for each sample in this study based on the Likert scale responses.

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (X - \bar{X})^2}{n}}$$

Where,

X = Value of responses of each dependent or independent variable

\bar{X} = Mean value of responses of each dependent or independent variable

n = No. of responses

Variance

Variance is a measure of the variation in numbers within a set of data. The variance of a set shows how far each number deviates from the mean. To calculate the variance, take the difference between each value in the set and the mean, square the differences, then divide the sum of the squares by the total number of values in the set. Based on replies on a Likert scale, variance is calculated for each sample in this study. Variance is a statistical measure of how much an observation set varies from another. Variance is used in statistics for probability distribution since it measures the deviation from an average or mean.

ANOVA

ANOVA, or analysis of variance, is a group of statistical models and the corresponding estimate techniques that are used to examine how group averages in a sample differ from one another. ANOVA is used to examine overall differences in means as opposed to particular ones. This method evaluates possible variations in a dependent variable at the scale level using a nominal variable with two or more categories. In its most basic version, an ANOVA expands the scope of the t-test to include more than two groups and offers a statistical test to determine if the population means of many groups are equal. When comparing the means of three or more groups for statistical significance, an ANOVA is helpful. The Fisher analysis of variance is another name for this test.

Correlation Coefficient (r)

The correlation coefficient shows how one independent variable and another independent variable are related. It is a method for determining the relationship between these two variables. When there is a substantial correlation between the two variables that is, when changes in the value of the independent variable also have an impact on the value of the dependent variable there is a correlation coefficient. Correlation is estimated for Likert scale responses in order to ascertain the association between independent and dependent variables for each sample in this study.

$$\text{Correlation Coefficient (r)} = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2} \sqrt{n\sum Y^2 - (\sum Y)^2}}$$

Where,

X = Value of independent variable

Y = Value of dependent variable

n = Number of responses

t- Statistics

It is used in hypothesis testing via Student's t-test. The t-statistic is used in a t-test to determine whether to support or reject the null hypothesis. Set up Hypothesis

Null hypothesis (H_0); $\rho = 0$ i.e. There is no correlation between the considered variables.

Alternative Hypothesis (H_1); $\rho \neq 0$ i.e. There is significant correlation between the considered variables.

Test statistic under H_0 ;

$$t_{\text{cal.}} = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

Where,

r = Sample correlation between two variables

r^2 = Coefficient Determination

n = No of Pair of observations

Level of significance: Level of significance $\alpha = 5$ percent

Critical Value: Tabulated or critical value of t at α percent level of significance for (n - 2) degree of freedom obtain from 't' tables.

Decision

i. If calculated 't' is less than or equal to tabulated value of 't' it falls in the accepted region and the null hypothesis is accepted and if calculated 't' is greater than tabulated 't' null hypothesis is rejected.

ii. If p-value calculated is less than the level of significance i.e. 5 percent, null hypothesis is rejected and if p-value calculated is higher than the level of significance i.e. 5 percent, null hypothesis accepted.

Regression

Regression analysis is a statistical approach used to determine the strength of a relationship between one or more independent variables and one or more dependent

variables. It covers a wide range of techniques for analyzing and modeling several variables to find their relationships. Based on responses on a Likert scale, regression analysis is utilized in this study to ascertain the direction of the relationship between the independent and dependent variables for each sample. The relationship's theoretical model is represented by the equation below:

$$PI = \beta_0 + \beta_1 EC + \beta_2 EB + \beta_3 TC + \beta_4 SI + \beta_5 INF + \varepsilon$$

Where,

PI = Purchase Intention

EC = Environment Consideration

EB = Economic Benefit

TC = Technological Concern

SI = Social Influence

INF = Infrastructure

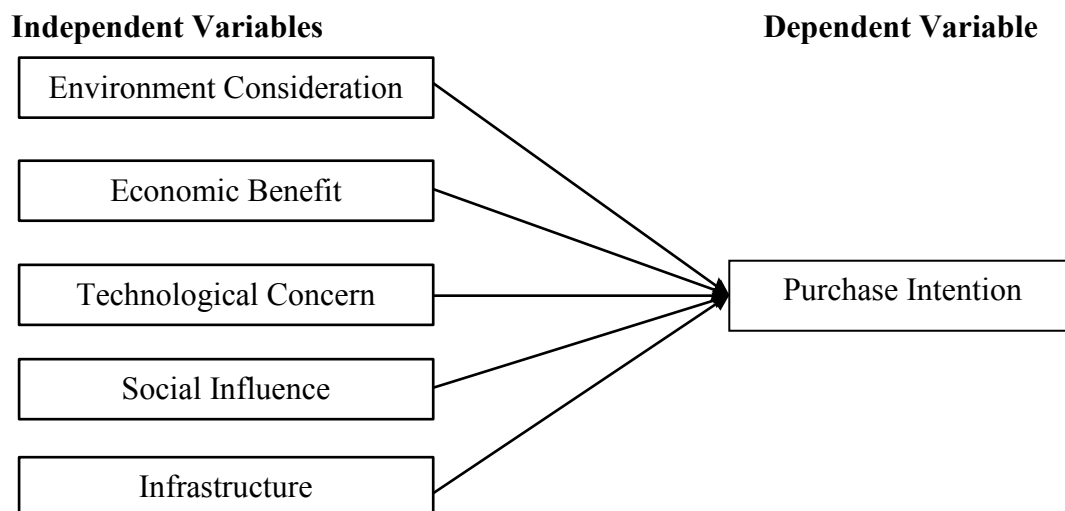
β_0 = The intercept (constant)

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Coefficient of variables

ε = Error term.

3.5 Research Framework and Definition of Variables

A conceptual framework is a representation of the relationship the researcher expects to see between variables, or the characteristics or properties that researcher want to study. The main objective of this study is to examine the perception of people towards electric vehicles in Nepal. As it described previously in the related literature review parts, purchase intention as dependent variable which can be affected by its specific variables of environment consideration, economic benefit, technological concern, social influence & infrastructure. In the previous researches of Lai et al. (2015); Bhalla et al. (2018); Lashari et al. (2021) different factors of purchase intention has been used for the analysis towards electric vehicle. According to the theory on purchase intent, the different factors that effect on consumers' decisions to buy and, eventually, the reasons behind those decisions. Further, theory of planned behavior proved that the purchase intention is primarily influenced by social influence. In view of theoretical perspective and empirical review, the following conceptual model is framed to summarize the main focus and scope of this study in terms of variables included.



Source: Lai et al. (2015); Bhalla et al. (2018); Lashari et al. (2021)

Figure 1 Research Framework of the Study

Independent Variables

Environment Consideration

Environmental considerations are typically centered on the idea that something is wrong with the environment. The degree to which people are aware of environmental issues, support attempts to address these issues, and/or express a willingness to directly contribute to the solution is known as their level of environmental consideration. Lai et al. (2015) demonstrated that the behavioral intention to purchase fully electric vehicles is influenced by the perception of environmental legislation and environmental consideration, which precede the perception of fully electric vehicles. Bhalla, Ali and Nazneen (2018) showed that people's attitudes regarding purchasing electric vehicles are predisposed by environmental considerations.

Economic Benefit

The acceptance of a product is sometimes influenced by an individual's subjective evaluation of its financial advantage. Sales of hybrid automobiles are positively impacted by growing fuel costs in comparison to gasoline-powered vehicles, as complete electric vehicles require less upkeep and running costs (Berensteanu & Li, 2011). Lai et al. (2015) stated that one of the main variables driving the adoption of fully electric cars is the sense of economic gain. Cheap electricity and expensive gas are two excellent reasons to purchase an electric automobile as opposed to a gas-

powered one. These are advantages that buyers may take into account when deciding whether to buy a new vehicle.

Technological Concern

Based on the responses provided, it can be inferred that although people rely on technology, it is developing at a rate that will eventually exhaust itself. As a result of this rapid shift, people are either unprepared for it or are unsure of which technology to utilize. This may be said in light of the fact that although people believe that new technologies are excellent and helpful, their adoption is extremely sluggish. Bhalla, Ali, and Nazneen (2018) found that consumers' perceptions of purchasing electric vehicles were impacted by their degree of technological concern.

Social Influence

Social influence is the extent to which an individual thinks that other individuals, whose opinions matter to them, feel the same way about a new technology. The Theory of Reasoned Action model's subjective norm constructs. Social impact is defined as a subjective norm in the technology acceptance model (TAM2) and the unified theory of acceptance and use of technology; in other models, social aspects are referred to as variables. When describing their theory, Thompson et al. (1991) utilized the term "social norms," acknowledging that it corresponded to a subjective standard found in the Theory of Reasoned Action model.

Infrastructure

Infrastructure is a fundamental need for each new idea to become a reality. Innovations that lack infrastructure fail at the inception stage. Roads, recharging stations, battery exchange stations, and service stations are among the infrastructure needed to foster a favorable view of electric cars and ultimately encourage their adoption. Customers are being forced to resist investing in the adoption of electric vehicles due to the lack of availability or the bad state of the current infrastructure.

Dependent Variable

Purchase Intention

Davis et al. (1989) and Warshaw (1980) defined purchase intention to employ technology as the degree to which an individual has intentional plans to act or abstain

from behaving in a specific way in the future. This study was designed to find out whether consumers thought using EVs was a good or bad idea. The primary focuses of this study are the intentions of potential consumers to use EV technology and how those intentions relate to the study's independent factors.

CHAPTER - IV

RESULTS AND DISCUSSION

The main objective of this study is to ascertain People attitude towards electric vehicles in Nepal, as the researcher covered in earlier chapters. Thus, this chapter, which is divided into three sections, deals with the discussion's analysis and results. The demographic profile, descriptive, and correlation analyses of the study's variables were reported in the first section. The assumptions of the linear regression model were fulfilled in the second section, and the regression's results were presented in the third section. For additional statistical analysis, the ratio of the designated dependent and independent variables as well as the ratio scale measurement were computed using data analysis techniques. The statistical analysis of the gathered data was conducted with the assistance of SPSS version 26.

4.1 Results

4.1.1 Demographic Profile of Respondents

This section covers the demographic analysis and interpretation of primary data collected through surveys. This part looked at the respondents' age and gender profiles. All the respondents were from the Kathmandu Valley.

Table 2

Gender Specification

Options	No. of Respondents	Response (percent)
Male	204	68
Female	96	32
Total	300	100

Source: Opinion Survey, 2023

Table 2 shows the distribution of the respondents on the basis of gender. For this study, information from 300 respondents are collected and analyzed. 68.00 percent of all respondents are men, indicating that men make up the majority of respondents. Men make up a higher percentage of the 300 responders than women do. However, 32.0 percent of those surveyed expressed a negative opinion of electric cars in Nepal. These results suggest that men are more likely than women to own electric vehicles. This allows the Nepalese EV firm to conclude that both men and women made up the majority of survey respondents.

Table 3

Age Description of Respondents

Options	No. of Respondents	Response (percent)
20-29	60	20
30-39	82	27.33
40 and above	158	52.67
Total	300	100

Source: Opinion Survey, 2023

Table 3 presents the age distribution of the respondents, 52.67 percent of the respondents are over 40 years old. The age range of 20-29 has the lowest percentage of people who intend to buy electric vehicles. Nonetheless, the bulk of responders are elderly. Furthermore, of the respondents, 27.33 percent identified as belonging to the 30-39 age group and 20.00 percent as representing the 20-29 age group. This indicates that more than half of all EV buyers were elderly people who intended to purchase an electric vehicle.

Table 4

Annual Income

Options	No. of Respondents	Response (percent)
Up to 500000	21	7
Rs.501,000- Rs.1000,000	120	40
Rs.1001,000 and above	159	53
Total	300	100

Source: Opinion Survey, 2023

Table 4 states the information regarding annual income level of respondents. The majority of respondents 53.00 percent have yearly incomes of up to Rs.500,000, 40.00 percent fall between Rs.501,000 and Rs.1,000,000. The remaining 7.00 percent earn between Rs.1001,000 and above.

Table 5

Respondent Status

Options	No. of Respondents	Response (percent)
Student	6	2
Self Employed	36	12
Service (Private/Civil)	111	37
Business	123	41
Others	24	8
Total	300	100

Source: Opinion Survey, 2023

Table 5 also stated information regarding respondent's status. Most of the respondents, 41.00 percent are business, 37.00 percent are in private or public service, 12.00 percent are self-employed, 8.00 percent have other sources of income, 2 percent of respondents are student.

4.1.2 Descriptive Statistics Analysis

The data in this study are analyzed using the mean and standard deviation methods. A higher mean value indicates that a greater number of respondents concur that the characteristic may significantly influence purchasing intention.

Environment Consideration

Through descriptive analysis, this section investigates how environmental consideration affects Nepalese consumers' intentions to buy electric vehicles. There are four statements related to environmental consideration in this research. A five-point Likert scale is used to measure the variable. 1 being very disagreed and 5 being firmly agreed. The mean and standard deviation of the responses are calculated to observe the respondents' opinions. The standard deviation displays the variation from the average mean of the respondents, whereas the mean value indicates the average state of the respondents' feelings. The data presented below represent the impact of environment consideration on purchase intention of electric vehicle in Nepal.

Table 6

Environment Consideration

Scale Items of Environment Consideration	Mean	Std. Dev.
EC1 I want to preserve the environment	3.7367	1.18547
EC2 I want to buy electric car because of air pollution crisis	3.8633	1.09330
EC3 I love to see green environment	3.7867	1.07315
EC4 I care about energy conservation	3.8533	1.05619

Source: Appendix-I

Table 6 presents descriptive statistics for four distinct scale items indicating customers' environmental consideration with electric vehicles. The item EC2 "I want to buy electric car because of the air pollution crisis" earned the highest mean score of all the scale items, 3.8633. The least mean, 3.7367, was found for scale item EC1, "I want to preserve the environment." It can be inferred that consumers worry about energy saving and are eager to purchase electric vehicles due to the air pollution crisis.

Economic Benefit

Through descriptive analysis, this section investigates how Nepalese consumers' intentions to acquire electric vehicles are influenced by economic benefits. The term "economic benefit" in this study refers to four claims. A five-point Likert scale is used to measure the variable. 1 being very disagreed and 5 being firmly agreed. The mean and standard deviation of the responses are calculated to observe the respondents' opinions. The standard deviation displays the variation from the average mean of the respondents, whereas the mean value indicates the average state of the respondents' feelings.

Table 7

Economic Benefit

Scale Items of Economic Benefit	Mean	Std. Dev.
EB1 I think that electric vehicles could provide the benefit of fuel savings	3.8167	1.00653
EB2 Expenditure on fuel and maintenance will be reduced compared to vehicles with internal combustion engines	3.8233	1.02744
EB3 I think that electric vehicles could provide the benefit of cheap electricity	3.7733	1.14001
EB4 The price of electric vehicles today is quite affordable and reasonable	3.7900	1.09081

Source: Appendix-I

Table 7 presents descriptive information for four distinct economic benefit scale items related to electric vehicles. The highest mean score (3.8233) of all the scale items was assigned to EB2, "Expenditure on fuel and maintenance will be reduced compared to vehicles with internal combustion engines." The lowest mean, 3.7733, was recorded for scale item EB3, "I think that electric vehicles could provide the benefit of cheap electricity." It may be inferred that consumers believe they would save money on gasoline and maintenance, and they believe that driving an electric vehicle will result in fuel savings.

Technological Concern

This section uses a descriptive study to demonstrate how technology concerns affect people's intentions to buy electric vehicles in Nepal. Four distinct assertions are included under "technological concern." The likert scale used to quantify this concept ranged from 1 for strongly disagreeing to 5 for highly agreeing. The mean and standard deviation of the responses were calculated to observe the respondents' opinions. The standard deviation displays the variation from the average mean of the respondents, whereas the mean value indicates the average state of the respondents' feelings.

Table 8

Technological Concern

Scale Items of Technological Concern	Mean	Std. Deviation
TC1 I have a lot of fear of new technology	3.8900	.89848
TC2 Eco-friendly vehicles will not be safe overall	3.8500	1.03493
TC3 Eco-friendly vehicles will be difficult to solve when unexpected problems occur	3.7633	1.03807
TC4 EV is compatible with other technologies	3.8433	.98081

Source: Appendix-I

Table 8 presents descriptive statistics for four distinct technology concern scale items related to electric vehicles. The scale item "I have a lot of fear of new technology" (TC1) obtained the highest mean score of all 3.8900. The lowest mean, 3.7633, was found for scale item TC3, "Eco-friendly vehicles will be difficult to solve when unexpected problems occur." It can be inferred that consumers are generally afraid of new technologies and believe that environmentally friendly cars won't be very safe.

Social Influence

Through descriptive analysis, the condition of social influence is examined in this part. The term "social influence" in this study refers to four claims. A five-point Likert scale is used to measure the variable. 1 being very disagreed and 5 being firmly agreed. The mean and standard deviation of the responses are calculated to observe the respondents' opinions. The standard deviation displays the variation from the average mean of the respondents, whereas the mean value indicates the average state of the respondents' feelings. The data presented below represent the impact of social influence on purchase intention of electric vehicle in Nepal.

Table 9

Social Influence

Scale Items of Social Influence	Mean	Std. Dev.
SI1 EVs have a positive image in society	3.7833	1.10171
SI2 People react positively when they see an EV on the road	3.8300	1.04790
SI3 People whose opinions are important to me find EVs good	3.8467	1.08030
SI4 An EV would reflect my personality	3.8233	1.01763

Source: Appendix-I

Table 9 presents descriptive statistics for four distinct scale items pertaining to respondents' social influence regarding electric vehicles. SI3 "People whose opinions are important to me find EVs good" earned the highest mean score of all the scale items, 3.8467. The lowest mean, 3.7833, was found for scale item SI1, "EVs have a positive image in society." It can be inferred that those whose opinions matter to me think favorably of EVs and respond favorably to seeing one on the road.

Infrastructure

This section uses descriptive analysis to illustrate the infrastructure. There are four distinct assertions in infrastructure. The likert scale used to quantify this concept ranged from 1 for strongly disagreeing to 5 for highly agreeing. The mean and standard deviation of the responses were calculated to observe the respondents' opinions. The standard deviation displays the variation from the average mean of the respondents, whereas the mean value indicates the average state of the respondents' feelings. The data presented below represent the impact of infrastructure on purchase intention of electric vehicle in Nepal.

Table 10

Infrastructure

Scale Items of Infrastructure	Mean	Std. Dev.
INF1 There are enough charging stations for electric vehicles	3.8267	1.03611
INF2 The infrastructure for electric vehicles needs to grow	3.9167	1.02301
INF3 There should be monetary benefits such as tax exemption, free parking, access to HOV lanes etc.	3.8067	1.00963
INF4 A well-established infrastructure will have significant control over the purchase intention	3.8533	1.02730

Source: Appendix-I

Table 10 presents descriptive information for four different infrastructure scale components. Out of all the scale items, INF2, "The infrastructure for electric vehicles needs to grow," had the highest mean score (3.9167). In addition, customers agreed less with statement INF3, which states, "There should be monetary benefits such as tax exemption, free parking, access to HOV lanes, etc." (3.8067) than they did with the other assertions. Thus, it can be concluded that people think that in order to accommodate electric vehicles, the infrastructure has to grow and that a developed infrastructure has a big impact on people's intentions to make purchases.

Purchase Intention

This section uses descriptive analysis to demonstrate the state of purchasing intention. Four distinct declarations are included in the purchase intention. The likert scale used to quantify this construct ranged from 1 (strongly disagree) to 5 (strongly agree). The mean and standard deviation of the responses were calculated to observe the respondents' opinions. The standard deviation displays the variation from the average mean of the respondents, whereas the mean value indicates the average condition of the respondents' feelings.

Table 11

Purchase Intention

Scale Items of Purchase Intention	Mean	Std. Deviation
PI1 I am willing to buy an EV in the near future	3.6700	1.14256
PI2 I am willing to spend more money to buy an EV	3.7867	1.02208
PI3 I would recommend others to purchase an EV	3.8167	1.02627
PI4 There is a high probability that my next vehicle will be an EV	3.7600	1.13727

Source: Appendix-I

Table 11 shows the individual scale components of purchase intention. Out of the four scale items, PI3, "I would recommend others to purchase an EV," got the highest mean score (3.8167 with a standard deviation of 1.02627). Next, scale item PI1, "I am willing to buy an EV in the near future," had the lowest score (3.6700 mean, 1.14256 standard deviation). According to the study's findings, EV consumers in Nepal are willing to spend more for an EV and would suggest that others get a new EV.

4.1.3 Summary of Descriptive Analysis

To identify perception towards electric vehicle in Nepal, the mean value and the standard deviation of each dimension was used. Creswel (2012) provided trustworthy sources from which the decision rule (cut-off point) for the mean values was derived and interpreted. Creswel (2012) states that the normal values are ≥ 4.0 =Very High, 3.0-4.0=High, 2.51-3.0= Moderate, 1.51-2.5=Low, and < 1.5 =Very Low. Based on this mean score evaluation, the researcher gave the participants' mean score for each category of variable descriptions.

Table 12

Summary of Descriptive Analysis

Study Variables	Mean	Std. Deviation	Evaluation of Mean Score
Environment Consideration	3.8100	.85738	High
Economic Benefit	3.8008	.79802	High
Technological Concern	3.8367	.76339	High
Social Influence	3.8208	.78031	High
Infrastructure	3.8508	.76452	High
Purchase Intention	3.7583	.80598	High

Source: Appendix-I

Based on Table 12, the result of the study shows that mean score for the purchase intention is recorded 3.7583 which show the level is high. It shows that all elements of electric vehicle in Nepal are at high level which all falls in the range from 3.8008 to 3.8508. The mean score value of infrastructure is 3.8508 which is the highest mean score value compared to the other elements, economic benefit, environment consideration, technological concern and social influence. This indicates that infrastructure is the dominant element in this study when it can be evidenced by the overall value of the highest mean score of 3.8508. In other word, it is obvious that majority of the respondents agreed that infrastructure is the factor highly affects their

purchase intention and they believe that their purchase intention level is also high. Meanwhile, environment consideration (EC), economic benefit (EB), technological concern (TC), social influence (SI), infrastructure (INF) and purchase intention (PI) element got an overall mean score of 3.8100, 3.8008, 3.8367, 3.8208, 3.8508 and 3.7583 respectively.

4.1.4 Correlation Analysis

Correlation analysis was carried out to identify people perception towards electric vehicle in Nepal. The relationship between the dependent and independent variables, or the inclination to buy an electric car in Nepal, is shown in the following tables. Correlation analysis was used in this study to determine the connection between the variables. Using the SPSS software, the researcher determined the correlation coefficient value for this analysis. The overall link between attributes and the desire to buy an electric car was the main subject of the correlation research.

Table 13

Pearson Correlation Coefficients of Study Variables

	EC	EB	TC	SI	INF	PI
Environment Consideration (EC)	1					
Economic Benefit (EB)	.692** (.000)	1				
Technological Concern (TC)	.499** (.000)	.516** (.000)	1			
Social Influence (SI)	.611** (.000)	.593** (.000)	.461** (.000)	1		
Infrastructure (INF)	.553** (.000)	.488** (.000)	.487** (.000)	.506** (.000)	1	
Purchase Intention (PI)	.723** (.000)	.734** (.000)	.677** (.000)	.707** (.000)	.609** (.000)	1

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

Source: Appendix-II

Table 13 reveals the correlation test between both dependent and independent variables using correlation coefficient matrix. The correlation analysis shows that there is significant position association between environment consideration and purchase intention with the coefficient of 0.723. Likewise, the correlation value between economic benefit and purchase intention is as 0.734 which has significant value 0.000. So, it can be clearly stated that there is significant positive association

between economic benefit and purchase intention ($P < 0.05$), also correlation value between technological concern and purchase intention is as 0.677 which has significant value 0.000 so it can be clearly stated that there is significant positive association between technological concern and the purchase intention ($P < 0.05$). Similarly, correlation value between social influence and the purchase intention is as 0.707 which has significant value 0.000 so it can be clearly stated that there is significant positive association between social influence and the purchase intention ($P < 0.05$). Finally, correlation value between infrastructure and the purchase intention is as 0.609 which has significant value 0.000 so it can be clearly stated that there is significant position association between infrastructure and the purchase intention ($P < 0.05$).

4.1.5 Multiple Regression Analysis

A range of modeling and analysis approaches are used to examine the link between a dependent variable (purchase intention among electric vehicle customers in Nepal) and independent factors (environment consideration, economic benefit, technological concern, social influence).

Table 14

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872 ^a	.761	.757	.39723

a. Predictors: (Constant), INF, TC, SI, EB, EC

Source: Appendix-III

The five parameters defined by the model environment consideration, economic benefit, technological concern, social influence and infrastructure predicted purchase intention. Variations in the independent variables are responsible for 76.10 percent of the observed variability in purchase intention, according to the models' R² value of 0.761. The other variables that explain the remaining 23.90 percent of the variance in purchase intention are not explained because they are not part of the model. If expressed otherwise, the model fits linearly.

Table 15

Analysis of Variance (ANOVA)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147.838	5	29.568	187.385	.000 ^b
	Residual	46.391	294	.158		
	Total	194.229	299			

a. Dependent Variable: EP

b. Predictors: (Constant), INF, TC, SI, EB, EC

Source: Appendix-III

An analysis using ANOVA (F-value) suggests that the influence of dependent variables may be explained by the greatest number of potential combinations of predictor variables. The buy intention indicator has a considerable influence, according to the results. Purchase intention is clearly correlated with the independent variables, as evidenced by the F-values of 187.385 ($p = 0.000 < 0.05$) for environment consideration, economic benefit, technological concern, social influence, and infrastructure as a proxy for purchase intention.

Table 16

Regression Coefficient of Independent Variables on Purchase Intention

Variables	Coefficients	t-statistics	p-value	VIF
Constant	-.492	-3.392	.001	
Environment Consideration (EC)	.180	4.355	.000	2.368
Economic Benefit (EB)	.253	5.890	.000	2.221
Technological Concern (TC)	.295	7.843	.000	1.560
Social Influence (SI)	.262	6.538	.000	1.859
Infrastructure (INF)	.123	3.179	.002	1.647

a. Dependent Variable: PI

Source: Appendix-III

Table 16 presents the regression coefficient of environment consideration, economic benefit, technological concern, social influence and infrastructure and the intercept value of dependent variable purchase intention. The environment consideration has a regression coefficient of β of 0.180. Purchase intention increased by 0.180 units if each environment consideration grew by one, according to the data, and the environment consideration's p value of 0.000 shows that it is statistically significant at the five percent significance level. Hence, this is significant positive effect of environment consideration on purchase intention towards electric vehicle. The

regression coefficient (β) for the economic benefit is 0.253. The data demonstrates that changes in a single economic benefit unit increase purchase intentions for electric vehicles by 0.253 units. At the five percent significance level, the economic benefit is statistically significant, as indicated by its p value of 0.000. Hence, this is significant positive effect of economic benefit on purchase intention.

Regarding technical concern, the regression coefficient (β) is 0.295. Purchase intention increased by 0.295 units if each technical worry grew by one, according to the data. The technological concern's p value of 0.000 shows that it is statistically significant at the five percent significance level. Hence, this is significant positive effect of technological concern on purchase intention towards electric vehicle. The coefficient of regression (β) for the social influence is 0.262. As per the statistics, if each social influence increased by one, purchase intention would rise by 0.262 units. The statistical significance of the social impact at the five percent significance level is indicated by its p value of 0.000. Hence, social influence has significant positive impact on purchase intention. The coefficient of regression (β) for infrastructure is 0.123. According to the data, purchasing intention would grow by 0.123 units for every unit improvement in infrastructure. Furthermore, at the five percent significance level, the infrastructure's p value of 0.002 demonstrates statistical significance. Hence, this is significant positive effect of infrastructure on purchase intention towards electric vehicle.

4.3 Discussion

The most important goal of the study is to know the perception towards electric vehicle in Nepal. This study is broadly paying attention on different factors (like environment consideration, economic benefit, technological concern, social influence and infrastructure). This research also highlights the association between different factors and purchase intention. Research and previous literature supports the relationship between environment consideration, economic benefit, technological concern, social influence and infrastructure and purchase intention. The research literature validates that these factors directly influence purchase intention.

The correlation analysis shows that environment consideration is found to have positive and significant relationship with purchase intention towards electric vehicles.

This result is consistent with Lai et al. (2015); Varghese, Abhilash and Pillai (2021) identified positive relationship between environment consideration and purchase intention. This is also consistent with the finding of Wang et al. (2016); Bhalla, Ali and Nazneen (2018); Lashari, Ko and Jang (2021). Economic benefit has positive and statistically significant relationship with purchase intention. The result is consistent with Lai et al. (2015) which observed positive and significant relationship between economic benefit and purchase intention. The result is also consistent with Bhalla, Ali and Nazneen (2018); Lashari, Ko and Jang (2021); Malladi, Rokkam and Venkateshwar (2020). There is positive and significant relationship of technological concern and purchase intention. The result is line with the findings of Bhalla, Ali and Nazneen (2018); mentioned that technological concern has positive and significant positive relationship with purchase intention. The result is also consistent with Lashari, Ko and Jang (2021).

At the same time, there is positive and significant relationship of social influence benefit and purchase intention. This finding is similar with the previous study of Bhalla, Ali and Nazneen (2018) concluded that social structure had positive and significant positive relationship with purchase intention. The result is also consistent with Lashari, Ko and Jang (2021); Malladi, Rokkam and Venkateshwar (2020). Finally, infrastructure is found to have positive and significant relationship with purchase intention towards electric vehicle. The result is consistent with Bhalla, Ali and Nazneen (2018) which observed positive relationship between infrastructure and purchase intention. The result is also consistent with Shandilya and Skotte (2021); Varghese, Abhilash and Pillai (2021).

The multiple regression analysis found that environment consideration has significant positive impact on purchase intention towards electric vehicle. This is consistent with the finding of Lai et al. (2015). The result is also consistent with Wang et al. (2016); Bhalla, Ali and Nazneen (2018); Varghese, Abhilash and Pillai (2021); Bhat, Verma and Verma (2022); Yegin and Ikram (2022). Likewise, the economic benefit have significant positive impact on purchase intention towards electric vehicle. This finding is similar with the prior study of Lai et al. (2015); Bhat, Verma and Verma (2022). This result is also consistent with the finding of Bhalla, Ali and Nazneen (2018) found that economic benefit or cost had significant positive impact on

purchase intention. The result is also consistent with Lashari, Ko and Jang (2021); Malladi, Rokkam and Venkateshwar (2020).

At the same time, the technological concern has significant positive impact on purchase intention towards electric vehicle. This is consistent with the finding of Bhalla, Ali and Nazneen (2018); Bhat, Verma and Verma (2022). Then, the social influence has significant positive impact on purchase intention. This result is consistent with the finding of Bhalla, Ali and Nazneen (2018); Bhat, Verma and Verma (2022). Moreover, this study also line with the prior study of Malladi, Rokkam and Venkateshwar (2020) mentioned that social influence had significant positive influence on purchase intention. The result is also consistent with Bhalla, Ali and Nazneen (2018); Lashari, Ko and Jang (2021). Finally, the infrastructure has significant positive impact on purchase intention towards electric vehicle. This is consistent with the finding of Bhalla, Ali and Nazneen (2018); Varghese, Abhilash and Pillai (2021). This is also consistent with the previous study of Shandilya and Skotte (2021).

CHAPTER – V

SUMMARY AND CONCLUSION

5.1 Summary

A vehicle that has at least one electric engine or foothold engine for propulsion is called an electric vehicle (EV). The term "EV" is typically used to refer to an electric car. The client's initial impression of an item is what initiates their interaction with it. People's perceptions will influence their decision to choose or avoid a particular brand. When a customer perceives that their enticing things are delivered on time, they will typically form an opinion. Using EVs for transportation will lessen the harm that ICE cars do to the environment and contribute to the reduction of fuel imports. The purpose of the study is to ascertain consumer adoption hurdles and benefits as well as views, attitudes, and behavioral intentions about the widespread use of electric cars. The additional objectives are to identify possible barriers to EV adoption, assess policy responses to solve issues surrounding EV adoption, comprehend a nascent EV culture, and assess the impact of sustainability on EV purchasing decisions.

The general objective of the study is to investigate the People attitude towards electric vehicles in Nepal. The specific objectives of this study are to identify the impact of environment consideration on people perception towards electric vehicle in Nepal, to analyze the impact of economic benefit on people perception towards electric vehicle in Nepal, to examine the impact of technological concern on people perception towards electric vehicle in Nepal, to assess the impact of social influence on people perception towards electric vehicle in Nepal and to analyze the impact of infrastructure on people perception towards electric vehicle in Nepal. This study is based on descriptive research design and causal-comparative research design to deal with fundamental issues associated with the factor affecting employee retention in Nepalese commercial banks. This study adopts descriptive research design to analyze the factors of purchase intention in Nepalese commercial bank. Causal-comparative design is used to find the cause and effect of relationship between different factors and purchase intention. All consumers, dealers and employees of EV Companies of Kathmandu valley are population of the study. It is almost impossible to include the whole population in the study. Therefore, out of this population, only 300 persons have been taken as a sample for the study. In this study, descriptive analysis,

correlation analysis and multiple regressions are applied by using SPSS version 26. This study used employee retention as dependent variable and environmental consideration, economic benefit, technological concern, social influence and infrastructure.

This study found that employee agreed that infrastructure and technological concern factor highly affects their purchase intention towards electric vehicle and they believe that their purchase intention was also high. The correlation analysis shows that the correlation analysis reveals that environment consideration and economic benefit have significant positive relationship with purchase intention. At the same time, there is significant positive association between technological concern and purchase intention. Similarly, correlation value between social influence and the purchase intention is significant positive. Moreover, correlation value between infrastructure and the purchase intention is significant positive. The regression analysis shows that there is significant positive effect of environment consideration and economic benefit on purchase intention. Then, there is also significant positive effect of technological concern on purchase intention. At the meantime, social influence has significant positive impact on purchase intention. Finally, infrastructure has significant positive effect on purchase intention. However, all the factors have significant impact on purchase intention towards electric vehicle in Nepal.

5.2 Conclusion

It is sufficient to conclude that older consumers make up more than half of all EV buyers, and that male consumers are more likely than female customers to acquire electric vehicles. People with substantial annual salaries and their own enterprises make up the bulk of EV's clients. As per the study's findings, consumers expressed a strong inclination to purchase an electric car and acknowledged that issues related to infrastructure and technology plays a major role in their decision.

The correlation analysis concluded that the correlation analysis reveals that environment consideration and economic benefit have significant positive relationship with purchase intention. At the same time, there is significant positive association between technological concern and purchase intention. Similarly, correlation value between social influence and the purchase intention is significant positive. Moreover,

correlation value between infrastructure and the purchase intention is significant positive.

The multiple regression analysis concluded that there is significant positive effect of environment consideration and economic benefit on purchase intention. Then, there is also significant positive effect of technological concern on purchase intention towards electric vehicles. At the meantime, social influence has significant positive impact on purchase intention. Finally, infrastructure has significant positive effect on purchase intention. Therefore, all the factors are important for purchase intention towards electric vehicle in Nepal because these factors have significant impact.

5.3 Implications

On the basis of above summary and conclusion, following implications are made;

- i. The finding revealed that environment consideration, economic benefit, technological concern, social influence that have the more significant positive influence on purchase intention towards electric vehicle in Nepal. The findings of this study provide policy makers with a practical understanding of the factors that are likely to impact purchase intention in the automobile sector. Thereby attracting and gaining more customers.
- ii. Managers of the company will be able to develop more effective strategies for encouraging interest in purchasing electric vehicles thanks to the study's comprehension of the factors influencing purchase intention.
- iii. This study contains some of the most recent data, facts, and worries regarding plans to purchase electric vehicles. Thus, this study should be significant to owners/shareholders, creditors, debtors, upcoming researchers, and students.
- iv. This study provides information on the perceptions of electric vehicle in Nepal as well as a sound conceptual knowledge of the subject. Thus, future scholars can use this study as a reference.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Al-Emran, M., & Shaalan, K. (2021). *Recent Advances in Technology Acceptance Models and Theories*. Heidelberg: Springer International Publishing.
- Al-Jabri, I. M., & Sohail, M. S. (2012). Mobile banking adoption: Application of diffusion of innovation theory. *Journal of Electronic Commerce Research*, 13(4), 379-391.
- Berensteanuand, A., & Li, S. (2011). Gasoline price, government support and the demand for hybrid vehicles. *International Economic Review*, 52(3), 161–182.
- Bhalla, P., Ali, I. S., & Nazneen, A. (2018). A study of consumer perception and purchase intention of electric vehicles. *European Journal of Scientific Research*, 149(4), 362-368.
- Bhat, F. A., Verma, M., & Verma, A. (2022). Measuring and modeling electric vehicle adoption of Indian consumers. *Transportation in Developing Economies*, 8(6), 1-6.
- Chen, C. F., & Chao, W. H. (2011). Habitual or reasoned? Using the theory of planned behavior, technology acceptance model, and habit to examine switching intentions toward public transit. *Transportation Research Part F: Traffic Psychology and Behaviour*, 14(2), 128-137.
- Chen, T. B., & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers' perspective. *Management Science and Engineering*, 4(2), 27-39.
- Coffman, M., Bernstein, P., & Wee, S. (2017). Electric vehicles revisited: A review of factors that affect adoption. *Transport Reviews*, 37(1), 79-93.
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Boston, MA: Pearson.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 13(3), 319-339.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003.

- Degirmenci, K., & Breitner, M. (2017). Consumer purchase intentions for electric vehicles: Is green more important than price and range? *Transport and Environment*, 51(3), 250-260.
- Digalwar, A. K., & Rastogi, A. (2023). Assessments of social factors responsible for adoption of electric vehicles in India: A case study. *International Journal of Energy Sector Management*, 3(1), 1-15.
- Fliegel, F. C., & Kivlin, J. E. (1966). Attributes of innovations as factors in diffusion. *American Journal of Sociology*, 72(3), 235-248.
- Haustein, S., & Hunecke, M. (2007). Reduced use of environmentally friendly modes of transportation caused by perceived mobility necessities: An extension of the theory of planned behavior. *Journal of Applied Social Psychology*, 37(8), 1856-1883.
- Indriani, I. A. D., Rahayu, M., & Hadiwidjojo, D. (2019). The influence of environmental knowledge on green purchase intention the role of attitude as mediating variable. *International Journal of Multicultural and Multireligious Understanding*, 6(2), 627-635.
- Intergovernmental Panel on Climate Change. Working Group 3. (2007). *Climate Change 2007: Mitigation: Contribution of Working Group III to the fourth Assessment Report of the Intergovernmental Panel on Climate Change: Summary for Policymakers and Technical Summary*. New York: Cambridge University Press.
- Kardes, F. R., Cronley, M. L., & Cline, T. W. (2010). *Consumer Behavior*. Ohio: Southwestern Cengage Learning.
- Khazaei, H., & Khazaei, A. (2016). Electric vehicles and factors that influencing their adoption moderating effects of driving experience and voluntariness of use. *IOSR Journal of Business and Management (IOSR-JBM)*, 18(12), 60-65.
- Kilbourne, W., & Pickett, G. (2008). How materialism affects environmental beliefs, concern, and environmentally responsible behavior. *Journal of Business Research*, 61(9), 885-893.
- Kronrod, A., Grinstein, A., & Wathieu, L. (2011). Enjoy! hedonic consumption and compliance with assertive messages. *Journal of Consumer Research*, 39(1), 51-61.

- Lai, I. K. W., Liu, Y., Sun, X., Zhang, H., & Xu, W. (2015). Factors influencing the behavioural intention towards full electric vehicles: An empirical study in Macau. *Sustainability*, 7(3), 12564-12585.
- Lashari, Z. A., Ko, J., & Jang, J. (2021). Consumers' intention to purchase electric vehicles: Influences of user attitude and perception. *Sustainability*, 13(3), 1-14.
- LaTour, S. T. & Peat, N. C. (1979). Conceptual and methodological issues in consumer satisfaction research. *Advances in Consumer Research*, 6(1), 431-437.
- Liao, F., Molin, E., & van Wee, B. (2017). Consumer preferences for electric vehicles: A literature review. *Transport Reviews*, 37(3), 252-275.
- MacVaugh, J., & Schiavone, F. (2010). Limits to the diffusion of innovation: A literature review and integrative model. *European Journal of Innovation Management*, 13(2), 197-221.
- Malladi S. S. K., Rokkam, R. A., & Venkateshwar, A. (2020). The client perception of electric vehicles and its impact on sales. *International Journal of Applied Research*, 6(10), 735-739.
- Ministry of Finance (2022). *Economic Survey*. MOF, Government of Nepal.
- Moon, S. J. (2021). Integrating diffusion of innovations and theory of planned behavior to predict intention to adopt electric vehicles. *International Journal of Business and Management*, 15(11), 1-88.
- Nepali Times*. (2022). *Nepal goes electric, but conditions apply*. Retrieved from: <https://www.nepalitimes.com/latest/nepal-goes-electric-but-conditions-apply>.
- Rajper, S. Z., & Albrecht, J. (2020). Prospects of electric vehicles in the developing countries: a literature review. *Sustainability*, 12(5), 1906-1916.
- Rogers, E.M. (1983). *Diffusion of Innovations* (3rd ed.). New York: Free Press.
- Shahi, P. (2017). *Electric vehicles in Nepal: What you need to know*. The Kathmandu Post, pp. 12.
- Shandilya, D., & Skotte, H. N. (2021). People perception towards adoption of electric vehicle in Kathmandu valley. *Proceedings of 10th IOE Graduate Conference*, 10(3), 775 – 784.
- Sierzchula, W., Bakker, S., Maat, K., & Van Wee, B. (2012). Technological diversity of emerging eco-innovations: A case study of the automobile industry. *Journal of Cleaner Production*, 37(3), 211-220.

- Solomon, M. R. (2016). *Consumer Behaviour: A European Perspective*. London: Pearson.
- Stern, P. C. (2000). New environmental theories: Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424.
- Tamor, M. A., Gearhart, C., & Soto, C. (2013). A statistical approach to estimating acceptance of electric vehicles and electrification of personal transportation. *Transportation Research Part C: Emerging Technologies*, 26(3), 125-134.
- Thompson, R., Higgins, C., & Jane, H. (1991). Personal computing toward a conceptual model of utilization. *MIS Quarterly*, 15(1), 57-66.
- Transportation Management Department. (2017). *Vehicle Taxes*. Kathmandu: Government of Nepal.
- Upadhyya, T. (2016). *Nepal Taxation*. Kathmandu: Institute of Chartered Accountants in Nepal.
- Varghese, A. T., Abhilash, V. S., & Pillai, S. V. (2021). A study on consumer perception and purchase intention of electric vehicles in India. *Asian Journal of Economics, Finance and Management*, 4(2), 13-25.
- Vashisth, R., & Gupta, J. (2021). Consumer perception towards electric vehicle. *Journal of Contemporary Issues in Business and Government*, 27(6), 1763-1781.
- Wang, S., Fan, J., Zhao, D., Yang, S., & Fu, Y. (2016). Predicting consumers' intention to adopt hybrid electric vehicles: Using an extended version of the theory of planned behavior model. *Transportation*, 43(3), 123-143.
- Warshaw, P. R. (1980). A new model for predicting behavioral intentions: An alternative to Fishbein. *Journal of Marketing Research*, 17(1), 153-172.
- Weiss, M., Patel, M. K., Junginger, M., Perujo, A., Bonnel, P., & van Grootveld, G. (2012). On the electrification of road transport-learning rates and price forecasts for hybrid-electric and battery-electric vehicles. *Energy Policy*, 48(2), 374-393.
- Westbrook, R. A., & Reilly, M. D., (1983). Value-Percept disparity: An alternative to the disconfirmation of expectations theory of customer satisfaction. *Advances in Consumer Research, Association for Consumer Research*, 10(3), 256-261.
- Winter, M., Kunze, M., & Lex-Balducci, A. (2010). Into a future of electro mobility. *German Research*, 32(3), 20-24.

- Wulandari, A. S. A., Rahyuda, I. K., & Yasa, N. N. K. (2015). The role of attitude in mediating consumer knowledge influence towards the purchase intention of green product. *Jurnal Dinamika Manajemen*, 6(2), 96-102.
- Yegin, T., & Ikram, M. (2022). Analysis of consumers' electric vehicle purchase intentions: An expansion of the theory of planned behavior. *Sustainability*, 14(3), 120-131.
- Zhang, X., Baia, X., & Shang, J. (2018). Is subsidized electric vehicles adoption sustainable: Consumers' perceptions and motivation toward incentive policies, environmental benefits, and risks. *Journal of Cleaner Production*, 192(3), 71-79.

APPENDICES

Appendix-I Descriptive Analysis

	N	Mean	Std. Deviation
EC1	300	3.7367	1.18547
EC2	300	3.8633	1.09330
EC3	300	3.7867	1.07315
EC4	300	3.8533	1.05619
EB1	300	3.8167	1.00653
EB2	300	3.8233	1.02744
EB3	300	3.7733	1.14001
EB4	300	3.7900	1.09081
TC1	300	3.8900	.89848
TC2	300	3.8500	1.03493
TC3	300	3.7633	1.03807
TC4	300	3.8433	.98081
SI1	300	3.7833	1.10171
SI2	300	3.8300	1.04790
SI3	300	3.8467	1.08030
SI4	300	3.8233	1.01763
INF1	300	3.8267	1.03611
INF2	300	3.9167	1.02301
INF3	300	3.8067	1.00963
INF4	300	3.8533	1.02730
PI1	300	3.6700	1.14256
PI2	300	3.7867	1.02208
PI3	300	3.8167	1.02627
PI4	300	3.7600	1.13727
Valid N (listwise)	300		

Source: SPSS version 26

Descriptive Summary of Variables

	N	Mean	Std. Deviation
EC	300	3.8100	.85738
EB	300	3.8008	.79802
TC	300	3.8367	.76339
SI	300	3.8208	.78031
INF	300	3.8508	.76452
PI	300	3.7583	.80598
Valid N (listwise)	300		

Source: SPSS version 26

Appendix-II

Correlations

		EC	EB	TC	SI	INF	PI
EC	Pearson Correlation	1	.692**	.499**	.611**	.553**	.723**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	300	300	300	300	300	300
EB	Pearson Correlation	.692**	1	.516**	.593**	.488**	.734**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	300	300	300	300	300	300
TC	Pearson Correlation	.499**	.516**	1	.461**	.487**	.677**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	300	300	300	300	300	300
SI	Pearson Correlation	.611**	.593**	.461**	1	.506**	.707**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	300	300	300	300	300	300
INF	Pearson Correlation	.553**	.488**	.487**	.506**	1	.609**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	300	300	300	300	300	300
PI	Pearson Correlation	.723**	.734**	.677**	.707**	.609**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	300	300	300	300	300	300

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

Source: SPSS version 26

Appendix-III
Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872 ^a	.761	.757	.39723

a. Predictors: (Constant), INF, TC, SI, EB, EC

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147.838	5	29.568	187.385	.000 ^b
	Residual	46.391	294	.158		
	Total	194.229	299			

a. Dependent Variable: PI

b. Predictors: (Constant), INF, TC, SI, EB, EC

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.492	.145		-3.392	.001		
	EC	.180	.041	.191	4.355	.000	.422	2.368
	EB	.253	.043	.250	5.890	.000	.450	2.221
	TC	.295	.038	.279	7.843	.000	.641	1.560
	SI	.262	.040	.254	6.538	.000	.538	1.859
	INF	.123	.039	.116	3.179	.002	.607	1.647

a. Dependent Variable: PI

Source: SPSS version 26

People Attitudes towards Electric Vehicles in Nepal

Questionnaire

Dear Valued Customers,

I am conducting a research study on “People Attitudes towards Electric Vehicles in Nepal”. I am very pleased to have you as my respondent and really appreciate your contribution to this academic exercise. Your inputs will provide the most valuable information in disseminating finding for my research project. The information given will be treated as private and confidential and will only be used for the purpose of this research only.

Sincerely yours,

Min Kumari Mahat

Name of the Customer (Optional):

1. Gender

a) Male

b) Female

2. Age of Respondents

a) 20-29 years

b) 30-39 years

c) 40 and above 40

3. Annual Income

a) Up to Rs. 500,000

c) Rs. 501,000- Rs. 1000,000

d) Rs. 1001,000 and above

4. Respondent Status?

a) Student

b) Self Employed

c) Service (Private/Civil

d) Business

e) Others

Please indicate the extent of your agreement with the following statement about your attitude towards electric vehicles in Nepal. Please tick “√” only one statement in each box.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

S.N.	Items	Responses				
		1	2	3	4	5
5.	Environment Consideration					
5.1	I want to preserve the environment					
5.2	I want to buy electric car because of air pollution crisis					
5.3	I love to see green environment					
5.4	I care about energy conservation					
6.	Economic Benefit					
6.1	I think that electric vehicles could provide the benefit of fuel savings					
6.2	Expenditure on fuel and maintenance will be reduced compared to vehicles with internal combustion engines					
6.3	I think that electric vehicles could provide the benefit of cheap electricity					
6.4	The price of electric vehicles today is quite affordable and reasonable					
7.	Technological Concern					
7.1	I have a lot of fear of new technology					
7.2	Eco-friendly vehicles will not be safe overall					
7.3	Eco-friendly vehicles will be difficult to solve when unexpected problems occur					
7.4	EV is compatible with other technologies					
8.	Social Influence					
8.1	EVs have a positive image in society					
8.2	People react positively when they see an EV on the road					
8.3	People whose opinions are important to me find EVs good					
8.4	An EV would reflect my personality					
9.	Infrastructure					
9.1	There are enough charging stations for electric vehicles					
9.2	The infrastructure for electric vehicles needs to grow					
9.3	There should be monetary benefits such as tax exemption, free parking, access to HOV lanes etc.					
9.4	A well-established infrastructure will have significant control over the purchase intention					
11.	Intention to Purchase					
11.1	I am willing to buy an EV in the near future					
11.2	I am willing to spend more money to buy an EV					
11.3	I would recommend others to purchase an EV					
11.4	There is a high probability that my next vehicle will be an EV					

Thank You

EFFECT OF DIGITAL MARKETING ON CUSTOMER SATISFA...

By: Rajendra Raj Pandey

As of: Jun 26, 2024 1:50:43 PM

15,565 words - 94 matches - 5 sources

Similarity Index

10%

Mode: Summary Report ▾

sources:

1,020 words / 6% - from 25-Jun-2024 12:00AM

elibrary.tucl.edu.np

142 words / 1% - from 16-Feb-2024 12:00AM

elibrary.tucl.edu.np

178 words / 1% - from 23-Jun-2023 12:00AM

nepjol.info

103 words / 1% - Internet from 31-Oct-2022 12:00AM

iosrjournals.org

88 words / 1% - from 24-Jun-2024 12:00AM

www.abacademies.org**paper text:****CHAPTER- I INTRODUCTION 1.1 Background of the Study The**

twenty-first century's fast developing digital technology has drastically altered consumer online activity. In this digital era, marketers face both new possibilities and problems as a result of these developments. Customers may get information anywhere, at any time, with digital media. Additionally, people take into account the opinions of their friends, associations, peers, and—most importantly—the media in addition to what businesses have to say about their brands. Organizationally speaking, digital channels are more cost-effective and satisfy marketers' fundamental desire for regular, interactive consumer contact. These are a few of the primary issues that gave rise to digital marketing. The use of electronic media to contact people and promote goods and services is known as digital marketing. It encompasses a wide range of goods, services, and brand marketing strategies, with the internet serving as the primary medium for promotion in addition to conventional TV, radio, and mobile (Yasmin, Tasneem & Fatema, 2015). Digital platforms such as email, mobile phones, digital television, and the internet present new opportunities to build interactions with customers. Through consistent communication with consumers, marketers can increase customization at a minimal or moderate expense (Stanley & Chinelo, 2017). This may, in part, improve ties with clients and have an impact on their level of satisfaction. Digital technologies are so ubiquitous that new marketing strategies and consumer behavior insights are needed. Businesses must, for example, evaluate and calculate the value of app downloads for mobile devices, Facebook likes, Twitter tweets, and so on. Vargo and Lusch (2004) proposed that the main logic of marketing has changed from goods dominant to service dominant, emphasizing the importance of ongoing relationships, interactivity, and connection. Technology advancements and the rise of alternative media communication channels are to blame for this change. Considering the cost difference between digital media like email and the web and conventional media like sales force, the question of how should businesses engage with their clients emerges. The alarming rate of consumer adoption of