"Exploring consumer attitudes and preferences regarding electric vehicles in Goa"

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29/04/24

DECLARATION BY STUDENT

I hereby declare that the data presented in this Dissertation report entitled, **"Exploring consumer attitudes and preferences regarding electric vehicles in Goa"** is based on the results of investigations carried out by me in the **Commerce Discipline** at the **Goa Business School**, Goa University under the supervision of **PROFESSOR. K. B. SUBHASH** and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will not be responsible for the correctness of observations / experimental or other findings given the dissertation.

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COMPLETION CERTIFICATE

This is to certify that the dissertation report "**Exploring consumer attitudes and preferences regarding electric vehicles in Goa**" is a bonafide work carried out by **Mr. Shaikh Mohammed Sadiq Mamlekar** under my supervision in partial fulfillment of the requirements for the award of the degree of Master of Commerce in the Discipline Commerce at the Goa Business School, Goa University.

29/04/24

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Place: Goa University

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ABBREVIATIONS

Entities	Abbreviations Used
Performance Expectancy	PE
Effort Expectancy	EE
Facilitating Condition	FC
Social Influence	SI
Anxiety-Free Experience	AFE
Trust	TR
Personal Attitude	PA
Satisfaction	ST
Perceived Risk	PR
Environmental Concerns	EC
Government Support	GS
Adoption Intention	AI
Personal Integration	PI
Altruism	AL
Social Benefit	SB
Economic Benefit	EB
Hedonic Benefit	HB
Attitude	AT
Habit	HAB
Willingness to create content	WC
Structural Equation Modeling	SEM
Partial Least Squares	PLS
Unified Theory of Acceptance and Use of Technology	UTAUT

Abstract

This research investigates the factors influencing electric vehicle (EV) adoption and consumer engagement, focusing on attitudes, satisfaction, and content creation. Utilizing structural equation modeling (SEM) and rigorous statistical analyses, the study examines the relationships between various constructs such as Personal Attitude (PA), Satisfaction (ST), and Adoption Intention (AI), as well as factors influencing consumers' willingness to create content (WC) about their EV experiences. Data from respondents in North and South Goa provide insights into demographic profiles and consumer reactions. The findings reveal significant associations between PA, ST, and AI, highlighting their importance in shaping EV adoption decisions. Additionally, AT and HAB emerge as significant factors driving WC, while others such as Altruism (AL) and Economic Benefits (EB) show negligible influence. Validity and reliability analyses confirm the robustness of the constructs, although limitations in scope and sample size warrant caution in generalizing the findings. Nonetheless, the study contributes valuable insights into consumer behavior surrounding EV adoption and engagement, offering implications for industry stakeholders and avenues for future research.

Keywords: Electric vehicle adoption, consumer behavior, structural equation modeling (SEM), satisfaction, attitude, content creation, willingness to create content, demographic profiles, factor analysis, validity, reliability, managerial implications.

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Any vehicle that is propelled by electric motors is referred to as an "electric vehicle" (M. S. Hossain et al. 2022). The mid-1800s is when the earliest electric vehicles are thought to have existed (Naik 2023). Due to their enormous potential to meet environmental and energy security goals, electric vehicles have attracted a lot of attention from all around the world (Bera 2021) Using electric vehicles (EVs) instead of fossil fuels and carbon emissions is a smart strategy to reduce carbon emissions and fight climate change while also increasing overall energy efficiency. However, because the supply of electricity from renewable energy sources is unpredictable, energy systems must keep reserves in conventional energy storage devices. Using electric vehicles (EVs) could aid in achieving this aim because they have a greater capacity for battery charging when linked to a grid (Al-thani and Koç 2022).

For EVs in the 2W category, the EV penetration rate went from 5.2% in December 2023 to 5.6% in January 2024. (Reporter EV). Electric vehicles (EVs), judging by their current acceptance rate and projected improvement, provide a sustainable solution to environmental issues. According to Kongklaew et al. (2021), these advantages include lower greenhouse gas emissions, safety, financial savings, and less maintenance. When it decides consumers to buy newly presented products such as electric automobiles, attitudes are a significant factor in the transportation industry (Ottesen and Banna 2022). A consumer's choice or acceptance of a new product is influenced by a variety of factors, which affect their decision to purchase it or not (J. Al Hossain, Hasan, and Khan 2023). The Indian federal and state governments have put in place several regulations aimed at lowering transportation-related emissions (Jain, Bhaskar, and Jain 2022).

Higher fuel quality and pollution regulations for autos, the banning of older diesel cars in some areas, the introduction of cleaner fuels like natural gas, and the promotion of electric vehicles (EVs) and public transit, such as suburban metro trains, are a few of these (Jain, Bhaskar, and Jain 2022). The Goa government intends to launch a program to encourage electric vehicles in the state to accomplish the objectives set forth, improve air quality, and reduce greenhouse gas emissions ("ELECTRIC VEHICLES - Goa Energy Development Agency" 2024).

Electric vehicles are transforming the transportation sector by providing a more environmentally friendly and sustainable substitute for conventional gasoline-powered automobiles. The public is beginning to pay more attention to electric car technology as a viable solution for environmentally friendly transportation. However, there have been notable technological breakthroughs in recent years that have made electric vehicles more efficient and useful for daily usage. Growing environmental concerns are a major cause behind the greater acceptance and adoption of electric vehicles. By lowering emissions and reducing reliance on fossil fuels, electric vehicles provide a way to solve the problem of the greenhouse effect and climate change. The adoption of electric vehicles is also being greatly aided by government incentives and legislation. For instance, government subsidies and tax breaks make electric vehicles more accessible and consumer-friendly in nations like Norway and the Netherlands. There have been electric cars, or EVs, since before the turn of the century. Up until 1918 or so, they were quite well-liked and sold pretty well (Chan 1993). Encouraging people to adopt green energy is crucial for sustainable development in all nations, particularly when it comes to safeguarding the environment and public health. The target of lowering global carbon emissions by 48% will be made possible if by 2030 everyone on the planet acquires the essential knowledge about sustainable development, green energy consumption, green production, and zero waste products, as well as assumes responsibility for

maintaining the environment (Crespo et al. 2017). This will assist in achieving the goal of zero CO2 by 2050 (Ikram et al. 2022). As a key component of the global economy, the automobile sector has experienced significant change to safeguard sustainable consumption, promote the use of renewable and green energy, and safeguard the planet's future. Global oil consumption is predicted to increase by around 3.1 million barrels by the end of this year compared to 2021, and by 102 million 600 thousand barrels in 2023, reaching an average of 100 million 600 thousand barrels per day (Sea and America 2023).

India is currently in the top ten global automotive markets, with a rapidly growing middle class that can purchase and stable economic growth. However, over the past two years, the price of gasoline has risen by more than 50% in 13 separate increments. This signals the possible need for alternate automotive technologies in India, such as electric vehicles (EVs). The cost of the environment is now more of a concern than the cost of the car, even if the initial investment is about 1.5 times that of a traditional internal combustion engine (Barapatre 2016). In the end, people gain from the entire influence of the electric vehicle. Since they don't emit any particulate matter into the atmosphere through their tailpipe emissions, electric vehicles are believed to be 97% cleaner than gasoline-powered automobiles. According to articulate matter, carcinogens released into the atmosphere by gas-powered vehicles "can aggravate respiratory systems and exacerbate asthma conditions." One or more traction motors or electric motors are used to propel an electric vehicle (EV), also referred to as an electric drive vehicle. An electric car can run independently by converting fuel into electricity using a generator or battery, or it can run on energy from sources outside the car using a collector system.

Electric vehicles (EVs) include spaceships, electric rafts, rail and road vehicles, and surface and underwater watercraft. In the mid-1800s, electric vehicles (EVs) gained popularity as a motor

vehicle propulsion alternative due to their superior comfort and convenience compared to gasoline-powered vehicles. While other vehicle types, such as railroads and other smaller vehicles, have continued to use electric power extensively, For almost a century, internal combustion engines (ICEs) have been the main source of power for automobiles. The adoption of electric vehicles is being propelled by three key factors: low energy costs, energy independence, and environmental protection. Environmental contamination in India has reached hazardous proportions. Global warming and climate change are currently the two major problems that could significantly affect the environment and life on Earth Mishra et al. (2021) Global warming is caused by an increase in greenhouse gas (GHG) emissions, primarily from the release of carbon dioxide (CO2) (Bera 2021). Vehicle exhaust gas emissions are currently the primary source of air pollution, especially in areas with dense populations. According to Al-thani and Koç (2022), the fuel consumption of the transportation sector has a detrimental impact on the overall amount of greenhouse gas emissions as well as other gaseous and particle emissions in metropolitan areas. Even if estimates differ and depend on the economic impact of the transportation business in different locations, it is indisputable that CO2 emissions from road transportation must be decreased. According to Saurabh Kumar Encouraging the use of renewable energy is essential for sustainable development worldwide, especially when it comes to protecting the environment and public health (tugba). One major step in the direction of lowering air pollution from conventional gasoline-powered vehicles has been the introduction of electric vehicles. In densely populated places, the emissions of greenhouse gases and particulates are efficiently reduced by electric vehicles since they have zero exhaust emissions. An important reduction in air pollution could occur when more electric vehicles are used in the transportation sector, improving both the general public's health and the environment.

The transition to electric vehicles not only lowers air pollution but also supports renewable energy. By promoting the use of electric vehicles that are fueled by sustainable energy sources like wind or solar energy, the transportation industry may make a greater contribution to environmental preservation and sustainable development. This shift encourages the use of clean, renewable energy sources while simultaneously reducing dependency on fossil fuels. To address the environmental and health issues related to transportation emissions, electric vehicles must have a significant positive influence on air pollution reduction and the promotion of renewable energy. The potential for reducing air pollution and promoting sustainable development grows more and more promising as electric car technology develops and gains traction.

1.2 BACKGROUND OF ELECTRIC VEHICLES

The automotive sector has experienced a notable transition in the past few years towards sustainable approaches to mitigate environmental issues and lower carbon emissions. With cleaner and more environmentally friendly driving options than conventional internal combustion engine vehicles, electric vehicles (EVs) have become a viable substitute. Promoting the adoption and usage patterns of electric vehicles requires an understanding of customer attitudes and preferences, particularly in areas like Goa where environmental consciousness and sustainable living are becoming more popular.

The earliest known electric automobiles date back to the start of the nineteenth century. The path toward the creation of modern electric cars and trucks began with the invention of electric carriages. The development of electric vehicles has been influenced gradually by changes in

customer needs, governmental changes, and technological advances (“The Electric Car’s History Goes Back Further Than You Think” 2023).

Numerous scholarly articles have made significant contributions to our understanding of various facets of consumer behavior and the adoption of electric vehicles. As an illustration, Naik (2023) explores an empirical study of Goan consumers' purchasing habits concerning electric vehicles, providing insight into the variables influencing purchasing decisions in the area. Comparably, Kumar and Jha (2020) discusses the difficulties in promoting the use of electric vehicles through the sharing economy and offers advice from an Indian viewpoint on how to remove these obstacles.

An important factor in determining the uptake and application of electric vehicles is consumer perception. The Kishore (2021) examines how Indian customers view electric cars (EVs) and provides information on their views and preferences in this regard. Policymakers and industry stakeholders must comprehend these attitudes to create strategies that effectively encourage the uptake of electric vehicles and the development of related infrastructure.

The construction of infrastructure, especially charging stations, is essential to the uptake of electric vehicles. (“7,” n.d.) delves deeply into the infrastructure of electric vehicle charging stations, legislative consequences, and emerging trends. It emphasizes how crucial a strong charging infrastructure is to easing the shift to electric transportation.

Moreover, the adoption of electric vehicles is greatly influenced by environmental factors. Hawkins et al. (2013) study compares the environmental life cycle assessments of electric and conventional vehicles, highlighting the advantages of switching to electric transportation for the environment.

Exploring consumer attitudes and preferences regarding electric vehicles in Goa needs to be investigated using a multifaceted strategy that takes into account historical viewpoints, empirical research, consumer perception studies, infrastructure analysis, and environmental factors. Policymakers, industry stakeholders, and researchers can collaborate to expedite the transition towards sustainable transportation systems in Goa and beyond by utilizing insights from academic studies and research articles. This will encourage the uptake of electric vehicles.

1.3 BACKGROUND OF CONTENT CREATION

The automobile industry has seen a dramatic transition in recent years toward more environmentally friendly forms of transportation, with electric cars (EVs) emerging as a viable substitute for conventional gasoline-powered vehicles. Numerous factors, such as customer preferences, attitudes, and perceptions regarding electric mobility, are influencing this shift toward the use of electric vehicles. The use of electric vehicles (EVs) has gained popularity as a practical way to lessen the impact on the environment as the world community steps up efforts to battle climate change and cut greenhouse gas emissions (Jain, Bhaskar, and Jain 2022).

Given that Goa is a place renowned for its breathtaking scenery and thriving tourism industry, it becomes even more important to explore consumer attitudes and preferences regarding electric vehicles. Goa, a well-liked vacation spot, faces environmental problems including pollution and traffic, which are made worse by an increase in cars at the busiest times of the year. Comprehending the determinants propelling Goan consumers' decisions to embrace electric vehicles is imperative for legislators, enterprises, and interested parties aiming to advance

environmentally friendly transportation options customized to the regional environment (Naik 2023).

The automotive industry has seen a transformation in customer behavior and decision-making processes due to the widespread adoption of digital technology and online platforms. Social media and virtual spaces are dynamic platforms where users create content and share their thoughts, views, and preferences about goods and services. User-generated content plays a crucial role in influencing adoption decisions by influencing customer attitudes and views about electric vehicles on social media sites like Facebook, Instagram, and YouTube (Kishore 2021) (Naik 2023) (Jain, Bhaskar, and Jain 2022) (Curtale, Liao, and van der Waerden 2021) (“7,” n.d.).

Electronic word-of-mouth, or eWOM, has become a powerful force in shaping consumer behavior in the digital age, alongside social media. Customers use eWOM to research products, look for advice, and confirm their selections. Adoption intentions can be influenced by positive electronic word-of-mouth (eWOM) surrounding electric vehicles, which can boost customer confidence and trust in EV technology (Kishore 2021) (Naik 2023) (Jain, Bhaskar, and Jain 2022).

It is crucial to comprehend the relationship between consumer attitudes, preferences, and the creation of digital content as Goa strives to adopt sustainable transportation options. Using knowledge from the body of research on consumer behavior, social media engagement, and sustainable mobility (Kishore 2021) (Naik 2023) (Jain, Bhaskar, and Jain 2022) (Curtale, Liao, and van der Waerden 2021), (Lorenzo-romero, Constantinides, and Brünink 2014).; (“7,” n.d.) this study seeks to determine the critical factors influencing consumer choices regarding the adoption of electric vehicles in Goa. To inform strategies for promoting electric mobility and accomplishing sustainable development goals in Goa, this study looks at the relationship between the creation of digital content and decisions about EV adoption.

1.4 MODEL DESCRIPTION OF THE FACTORS INFLUENCING

A total of three proposed models are tested with the help of UTAUT's "User acceptance of information technology: Toward a unified view" to determine the answers for this study, which aims to explain customers' purchase decisions. The Proposed model considers Eleven main constructs that are Performance Expectancy **(PE)**, Effort Expectancy **(EE)**, Perceived Risk **(PR)**, Facilitating Conditions **(FC)**, Social Influence **(SI)**, Environmental Concerns **(EC)**, Government Support **(GS)**, Anxiety-free Experience **(AFE)**, Personal Attitude **(PA)**, Satisfaction **(ST)** and Trust **(TR)** which are direct determinants towards Adoption Intention **(AI)**. Model development involves the construction of a theoretical framework that elucidates the factors influencing consumers' perceptions and attitudes toward electric vehicles (EVs) in Goa. Drawing from various research papers, we integrate several key variables into our model. Performance Expectancy **(PE)** reflects consumers' expectations regarding the performance and benefits of EVs (Jain, Bhaskar, and Jain 2022). Effort Expectancy **(EE)** denotes the perceived ease of using EVs and charging infrastructure (Jebril, Aboushi, and Khalaf 2021) Perceived Risk **(PR)** encompasses consumers' concerns about the potential drawbacks or uncertainties associated with EV adoption (Jain, Bhaskar, and Jain 2022). Facilitating Conditions **(FC)** represent the external factors that enable or hinder EV adoption, such as infrastructure availability and government policies (Jain, Bhaskar, and Jain 2022) (Mastoi et al.). Social Influence **(SI)** signifies the impact of social factors, such as peer recommendations and societal norms, on consumers' attitudes toward EVs (Tupe et al.). Environmental Concerns **(EC)** denote consumers' motivations to adopt EVs based on environmental sustainability (Jain, Bhaskar, and Jain 2022). Government Support **(GS)** refers to the influence of government policies, incentives, and regulations on EV adoption (Jain, Bhaskar, and Jain 2022). Anxiety-free Experience **(AFE)** represents consumers' comfort level and

confidence in using EVs (Curtale, Liao, and van der Waerden 2021). Personal Attitude **(PA)** encompasses individuals' overall inclinations and beliefs toward EVs (Tupe et al.). Satisfaction **(ST)** reflects consumers' post-purchase evaluations and experiences with EVs (Jebril, Aboushi, and Khalaf 2021). Trust **(TR)** signifies consumers' confidence and reliability in EV technology and brands (Buhmann and Criado). Perceived Risk (PR) encompasses consumers' concerns about the potential drawbacks or uncertainties associated with EV adoption (Jain, Bhaskar, and Jain 2022). Facilitating Conditions (FC) represent the external factors that enable or hinder EV adoption, such as infrastructure availability and government policies (Jain, Bhaskar, and Jain 2022). Social Influence (SI) signifies the impact of social factors, such as peer recommendations and societal norms, on consumers' attitudes toward EVs (Kishore 2021). Environmental Concerns (EC) denote consumers' motivations to adopt EVs based on environmental sustainability (Jain, Bhaskar, and Jain 2022). Government Support (GS) refers to the influence of government policies, incentives, and regulations on EV adoption (Jain, Bhaskar, and Jain 2022). Anxiety-free Experience (AFE) represents consumers' comfort level and confidence in using EVs (Curtale, Liao, and van der Waerden 2021). Personal Attitude (PA) encompasses individuals' overall inclinations and beliefs toward EVs (Anute, Adhikary, and Jalan 2022). Satisfaction (ST) reflects consumers' post-purchase evaluations and experiences with EVs (Jebril, Aboushi, and Khalaf 2021). Trust (TR) signifies consumers' confidence and reliability in EV technology and brands (Buhmann and Criado). Adoption Intention (AI) indicates consumers' willingness and propensity to adopt EVs based on the aforementioned factors (Jain et al.). Jain, Bhaskar, and Jain (2022). By incorporating these variables into our model, we aim to comprehensively assess and understand consumer perceptions and attitudes toward EVs in Goa, thereby informing strategies to promote EV adoption. A detailed explanation is provided in Chapter 2 which is the literature review.

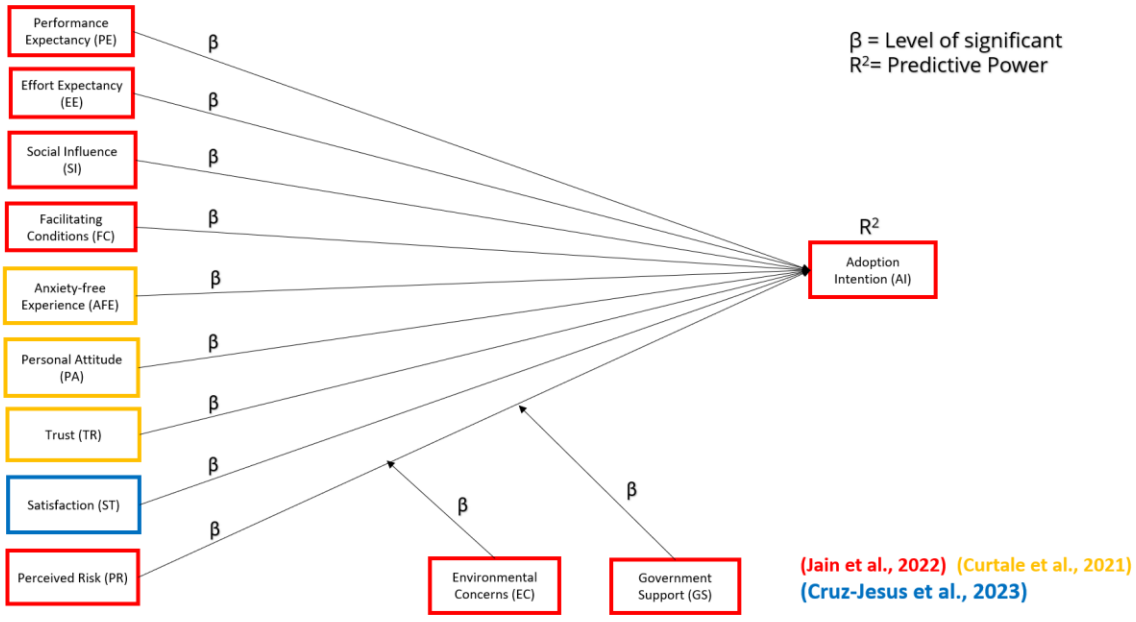

Figure 1.1 Model Description of Factors Influencing

1.5 MODEL DESCRIPTION OF CONTENT CREATION

According to Mayangsari (2018), the model for consumers' propensity to contribute content on social media and other platforms is based on the Uses and Gratification theory. Eight primary categories from earlier research are included in the model: Personal Integrative **(PI)**, Altruism **(AL)**, Social Benefits **(SB)**, Economic Benefits **(EB)**, Hedonic Benefits **(HB)**, Attitude **(AT)**, Habit **(HAB)**, and Willingness to Create Content **(WC)**. Based on findings from (Mayangsari 2018) and Lorenzo-romero, Constantinides, and Brünink (2014), Personal Integrative **(PI)** measures consumers' increases in status or reputation as well as their growth in self-efficacy. According to(Bronner and Hoog 2011) Altruism **(AL)** investigates how people are driven by their well-being in online marketing situations and how this conduct might help society as a whole. Informed by Mayangsari (2018), and Hoyer et al. (2010), Social Benefits **(SB)** evaluate the perceived benefit of online buying in terms of social interaction and connection. Economic

Benefits **(EB)**, which is based on research by Hennig-Thurau et al. (2014), represents the financial usefulness that people receive from purchasing online. Hedonic Benefits **(HB)** leverages concepts from Fishbein and Ajzen (1975) to investigate the pleasure and happiness that come from creating and disseminating material connected to online buying. These characteristics have an impact on attitudes **(AT)** and behaviors **(HAB)** related to online purchasing, as (M. Kim and Son 2021) have noted. As highlighted by Opata et al. (2019), these constructs taken together contextualize the adoption of online purchasing and influence people's propensity to generate content. The present study's research objectives, questions, and hypotheses are formulated based on the integration of these variables.

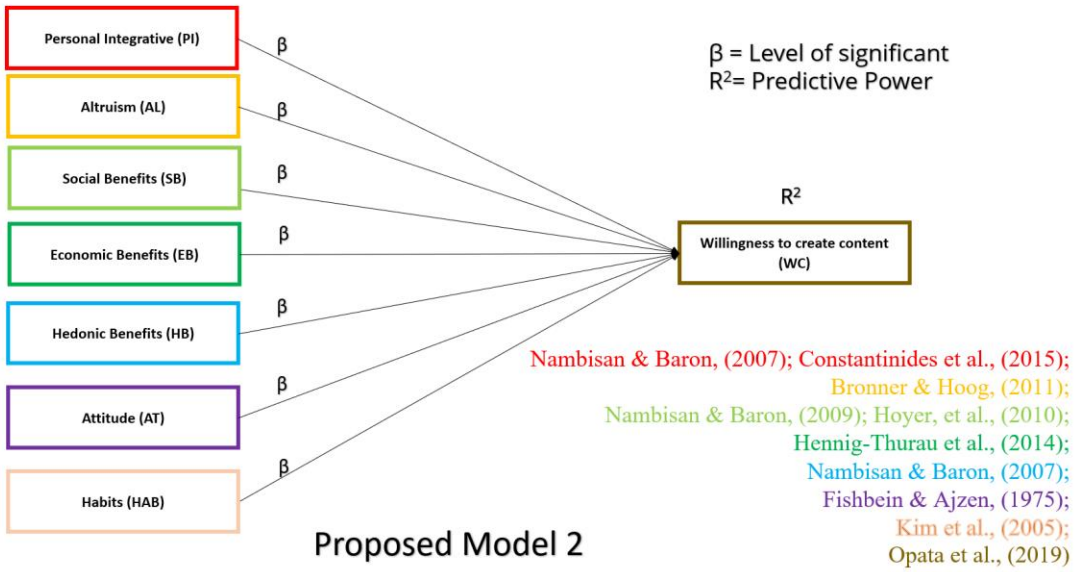

Figure 1.2 Model Description of How They React

1.6 SCOPE OF THE STUDY

This research aims to comprehensively investigate the attitudes and preferences of consumers towards electric vehicles (EVs) within the geographical context of Goa, India. Central to the study is an exploration of the multifaceted factors that influence consumers' decisions to adopt EVs and their subsequent engagement with EV-related content on social media platforms. The study will delve into the underlying determinants of consumer behavior, drawing insights from existing literature and empirical data. Specifically, it seeks to understand the intricate interplay of factors such as Performance Expectations, Trust, Satisfaction, Perceived Risks, Environmental Concerns, and Government Support in shaping consumers' attitudes toward EV adoption. Furthermore, the research endeavors to examine post-purchase behaviors, particularly the motivations driving consumers' participation in content co-creation and sharing on social media platforms after acquiring an electric vehicle. By conducting a comparative analysis of predictive models derived from prior research, the study aims to discern the most salient factors driving EV adoption in the Goan context. Methodologically, a mixed-methods approach will be employed, encompassing quantitative surveys and statistical analysis techniques such as Structural Equation Modeling (SEM), Cross-tabulation, and Confirmatory Factor Analysis (CFA). Data will be collected through purposive and snowball sampling methods, targeting a diverse demographic of EV owners across both South and North Goa. Adhering to strict ethical guidelines, the research will uphold principles of informed consent, data privacy, and integrity throughout the research process. Through these endeavors, the study endeavors to contribute valuable insights to academia and industry stakeholders, aiding in the development of effective strategies to promote EV adoption and sustainability in Goa and beyond.

1.7 RESEARCH QUESTIONS, OBJECTIVES, AND RELATED HYPOTHESIS

RQ1: “What factors influence your decision to choose an electric vehicle?”

This RQ tries to find “what are the factors influencing consumers' decisions to purchase electric vehicles (EVs).

The related objective (O) framed and the hypothesis (H) to be tested is:

O1: “To identify the key factors influencing consumers' choices when considering electric vehicle adoption in Goa and whether are they happy”

H1: "There is a significant influence of factors on the decision-making process of consumers in Goa regarding their adoption."

RQ2: “How do the customers react based on their experience?”

This RQ tries to find “how satisfied customers react after experiencing electric vehicles”. The related objective (O) framed and the hypothesis (H) to be tested is:

O2: “To identify various factors influencing respondents social media reactions”

H2: "There is a significant impact of various factors on respondent’s social media reactions towards electric vehicles in Goa."

RQ3: “Will the developed composite model provide a better understanding?”

1.8 CHAPTERISATION SCHEME

The entire research is divided into four chapters,

Chapter1: Introduction

This chapter includes the Introduction, Background of Electric Vehicles, Background on Content Co-Creation, Model Description of Factors Influencing, Model Description of Consumer's Willingness to Create Content, Scope of the Study, Research Questions, Objectives, and Related Hypothesis for the Study.

Chapter2: Literature Review

This chapter thoroughly examines and investigates the existing literature on consumer attitudes and preferences regarding electric vehicles in Goa. It includes an introduction, demographic profile of the respondents, model development on factors influencing consumers' adoption intention on EVs, and model development for content creation. The chapter also includes the research gap of the study and the research methodology along with a summary of the entire chapter.

Chapter 3: Data Analysis and Results

This chapter outlines the different methodologies employed to address the research questions. For the Demographic profile, tabulation was utilized to ascertain the profiling of respondents. For RQ1, Structural Equation Modeling (SEM) was applied to investigate the factors influencing consumer's decisions regarding electric vehicle (EV) adoption in Goa. Measures such as Cronbach's Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE) were computed to assess the reliability and validity of the constructs. Additionally, path

coefficients, T-values, R^2, Q^2, F^2, and Effect Size were examined to analyze the relationships between variables and the explanatory power of the model. Similarly, for RQ2, SEM was employed to explore the factors influencing consumers' willingness to engage in content creation related to electric vehicles. The same statistical measures were utilized to evaluate the model's performance and assess the significance of the relationships among variables.

Chapter 4: Findings, Summary and Conclusion

The last chapter includes the introduction, findings, and summary of the demographic profile, factors influencing decisions regarding electric vehicle (EV) adoption in Goa, and the factors influencing consumer's willingness to create content, the chapter also provides the conclusion, managerial implications, theoretical implications and limitations and suggestion for further research of the study.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This study delves into the multifaceted realm of consumer behavior surrounding Electric Vehicles (EVs) in Goa, India, aiming to bridge critical gaps in existing literature while offering valuable insights for policymakers, industry stakeholders, and researchers. Through a meticulously crafted composite model integrating objectives focused on understanding customer attitudes towards EVs and their post-purchase behaviors, this research endeavors to unravel the complex interplay of factors shaping EV adoption and subsequent consumer engagement. By employing a comprehensive methodology that includes survey-based data collection and advanced statistical analyses, this study seeks to provide actionable insights into the decision-making processes and behaviors of consumers in the context of sustainable transportation solutions. With a specific focus on the emerging market of Goa, India, this investigation aims to contribute to the advancement of knowledge in the field of EV adoption, offering implications for academia, industry, and policymakers involved in promoting environmentally friendly mobility solutions.

2.2 DEMOGRAPHIC PROFILE

The analysis of demographic profiles is pivotal in comprehending consumer attitudes and behaviors towards electric vehicles (EVs). Leveraging machine learning techniques, the study by Priyam, Ruan, and Lv (2024) delves into public opinion across diverse demographic groups on social platforms, offering nuanced insights into how factors like age, gender, and income shape perceptions of EVs. This intersects with the findings of the systematic literature review on Bryła, Chatterjee, and Ciabiada-Bryła (2023), which synthesizes methodologies and variables from

publications spanning 2015 to 2022, uncovering trends in consumer behavior. By scrutinizing demographic factors such as age, education, and location, this review elucidates the drivers and barriers to EV adoption, enriching our understanding of consumer decision-making processes. Complementarily, the investigation into Selva and Arunmozhi (2020) examines the demographic profile of respondents to discern preferences and evaluate EV effectiveness on a global scale. Integrating findings from these studies underscores the multifaceted nature of consumer preferences and behaviors, underscoring the necessity of tailored strategies for EV promotion. Through synthesizing these insights, researchers and policymakers can craft targeted interventions to catalyze the shift towards sustainable transportation, informed by a holistic understanding of demographic dynamics within the EV market.

2.3 FACTORS INFLUENCING CONSUMER'S ADOPTION INTENTION

2.3.1 Model Development

A total of three proposed models are tested with the help of UTAUT's "User acceptance of information technology: Toward a unified view" to determine the answers for this study, which aims to explain customers' purchase decisions. The Proposed model considers Twelve main constructs that are Performance Expectancy **(PE)**, Effort Expectancy **(EE)**, Perceived Risk **(PR)**, Facilitating Conditions **(FC)**, Social Influence **(SI)**, Environmental Concerns **(EC)**, Government Support **(GS)**, Anxiety-free Experience **(AFE)**, Personal Attitude **(PA)**, Satisfaction **(ST)** and Trust **(TR)** which are direct determinants towards Adoption Intention **(AI)**. Model development involves the construction of a theoretical framework that elucidates the factors influencing consumers' perceptions and attitudes toward electric vehicles (EVs) in Goa. Drawing from various research papers, we integrate several key variables into our model. Performance Expectancy **(PE)** reflects consumers' expectations regarding the performance and benefits of EVs (Jain, Bhaskar,

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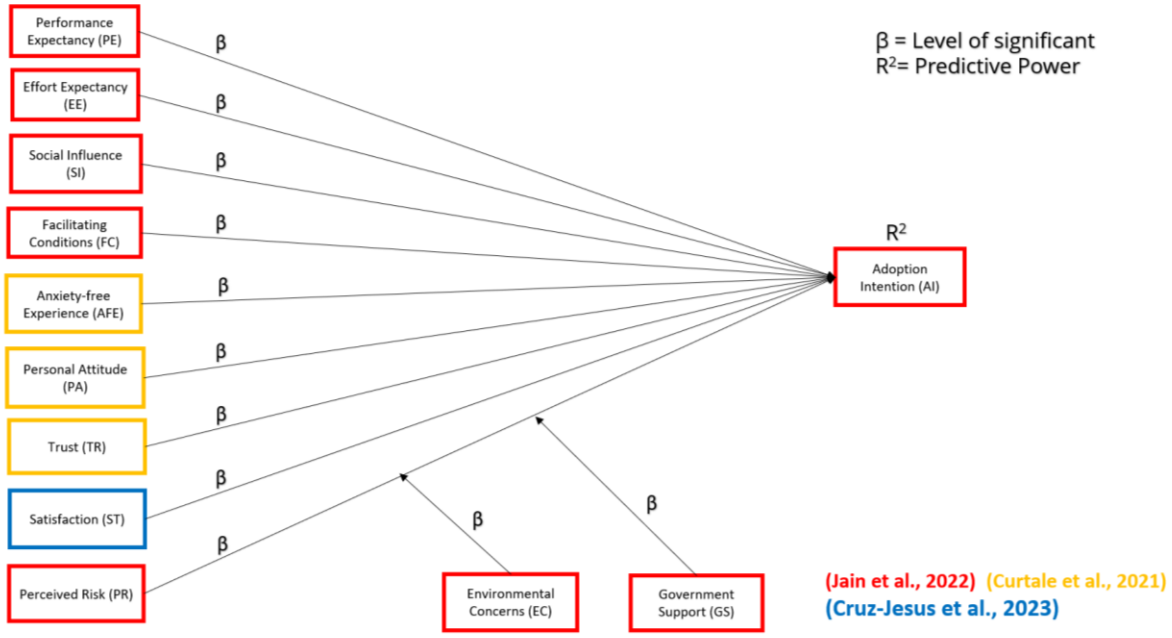

Figure 2.1 Model Development for Factors Influencing

2.3.2 Performance Expectancy (PE)

Venkatesh et al. (2003) Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her attain gains in job performance. The perception of performance is the measurement thought to have an impact on attitudes regarding the use of electric vehicles. Gunawan et al. (2022) It represents the technological value that consumers receive from it, as acknowledged by other technology acceptance models like the TAM's perceived utility (Yuan et al. 2015). Venkatesh et al. (2003) found that PE has a significant impact on behavior intention.

H2a: *Performance Expectancy (PE) has an insignificant influence on Adoption Intention (AI).*

2.3.3 Effort Expectancy (EE)

Effort expectancy is defined as the degree of ease associated with the use of the system (Venkatesh et al. 2003). A notion included in the Unified Theory of Acceptance and Use of Technology (UTAUT) is effort expectation. It describes how much people think a technology is simple to use (Kwarteng et al. 2022). The effect of effort expectancy on the uptake and use of various technologies has been a topic of numerous research. Kwarteng et al. (2022) discovered that owner-managers intentions toward digitization in European SMEs are highly influenced by effort expectancy. "Implementation IBS Core Banking System with UTAUT Model to Understand Behavioral Intention" (2021) discovered that users of the IBS Core Banking System's behavioral intention are not significantly impacted by effort expectancy. These studies highlight the importance of EE.

H2b: *Effort Expectancy (EE) has an insignificant influence on Adoption Intention (AI).*

2.3.4 Social Influence (SI)

Venkatesh et al. (2003) Social influence is defined as the degree to which an individual perceives that important others believe he or she should use the new system. It has been determined to be among the major determinants of behavioral intention, which in turn affects how technology or services are used. The significance of social surroundings in persuading someone to adopt the new system is known as social influence. This implies that receiving counsel from others in a person's immediate vicinity, particularly those who are closest to them may have an impact on their intention to use the system ("Implementation IBS Core Banking System with UTAUT Model to Understand Behavioral Intention" 2021)

H2c: *Social Influence (SI) has an insignificant influence on Adoption Intention (AI).*

2.3.5 Facilitating Conditions (FC)

Venkatesh et al. (2003) defined Facilitating conditions as the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system. It is claimed that enabling conditions are elements of the surroundings that either help or hinder people's adoption of technology (Yuan et al. 2015).

H2d: *Facilitating Condition (FC) has an insignificant influence on Adoption Intention (AI).*

2.3.6 Anxiety-Free Experience (AFE)

Anxiety plays a significant role in this model. Given that anxiety over the experience is a cause for concern and lower use of sharing services, particularly with driving range and return worries, an anxiety-free experience is included (Jiao et al. 2017). As a result, accepting ECS may be made easier if one has less anxiety or perceives the trip as anxiety-free D. Kim, Ko, and Park (2015). anxiety and time required for recharging by users affect EV adoption. To increase acceptance and use of electric vehicles and provide a more satisfying and productive user experience, it is imperative to comprehend and reduce anxiety within the context of the UTAUT2 model.

significant influence towards

H2e: *Anxiety-Free Experience (AFE) has a significant influence on Adoption Intention (AI).*

2.3.7 Personal Attitude (PA)

In previous CS investigations, a person's attitude toward an environmentally beneficial behavior is a driver of higher behavioral intention (D. Kim, Ko, and Park 2015). The outcome of Curtale, Liao, and van der Waerden (2021) supports the conclusions of previous research D. Kim, Ko, and Park (2015) suggest that ECS may be appealing to individuals seeking to lessen the environmental

effects of their mobility; this is particularly true for individuals with greater education and CS experience, but the effect becomes less pronounced as the number of owned cars rises.

H2f: *Personal Attitude (PA) has an insignificant influence on Adoption Intention (AI).*

2.3.8 Trust (TR)

With the COVID-19 pandemic predicted to have a significant impact on mobility behavior, trust has been included in particular, it was taken into account how confident individuals are in ECS's ability to maintain cleanliness, hygienic standards, vehicle integrity, and insurance-related matters (Curtale, Liao, and van der Waerden 2021). Travelers must have faith in the ECS operators to believe that their trip will not have any negative effects. A greater level of confidence in the operator's adherence to insurance and hygienic standards, as well as in the condition of the vehicles, would boost behavioral intention (Curtale, Liao, and van der Waerden 2021).

H2g: *Trust (TR) has an insignificant influence on Adoption Intention (AI).*

2.3.9 Satisfaction (ST)

Even though EVs have a strong potential to reduce greenhouse gas emissions, the majority of prior research on EVs has focused on adoption intentions, indicating a lack of understanding of EV drivers' contentment (Cruz-Jesus et al. 2023). It is worthwhile to look into the factors that influence EV owners' contentment and intention to stick with the vehicle, especially as EVs can minimize air and noise pollution by not emitting CO2. Therefore, in contrast to (most) other studies, we concentrate on the satisfaction and intention to continue using EVs of individuals who have already adopted one, rather than the adoption or intention (Cruz-Jesus et al. 2023).

H2h: *Satisfaction (ST) has a significant influence on Adoption Intention (AI).*

2.3.10 Perceived Risk (PR)

The goal of including this variable is to investigate how perceived risk and UTAUT characteristics affect EV adoption intentions (Jiao et al. 2017). The intention to use electric vehicles (EVs) is negatively impacted by perceived risk (D. Kim, Ko, and Park 2015). However, norm activation theory (Schwartz, n.d.) suggests that customers' environmental awareness may mitigate this inverse effect. Additionally, Mahony (2018) suggests that government assistance in the form of tax breaks and subsidies may help consumers accept electric vehicles by reducing their perceived risk. Consequently, to examine the intention of EV adoption, this study used an integrated UTAUT model that took into account perceived risk, environmental concerns, and regulatory support. therefore, there is a moderation effect of environmental concern and government support

H2i: *Perceived Risk (PR) has an insignificant influence on Adoption Intention (AI).*

2.3.11 Environmental Concerns (EC)

Environmental pollution remains a pressing issue. India, including Goa, ranks among the countries most vulnerable to climate change (Jain, Bhaskar, and Jain 2022). To combat this, the Indian government actively promotes the adoption of electric vehicles (EVs). EVs play a crucial role in reducing emissions, minimizing dependence on fossil fuels, and contributing to a cleaner environment. Factors such as low maintenance costs, eco-friendliness, and noise-free operation make EVs an attractive choice. By transitioning to EVs, Goa can significantly contribute to environmental preservation and a more sustainable future (Jain, Bhaskar, and Jain 2022).

H2i: *Environmental Concerns (EC) moderate the relationship between Perceived Risk (PR) and Adoption Intention (AI).*

2.3.12 Government Support (GS)

The adoption of electric vehicles (EVs) in India hinges significantly on government policies and support. Recognizing the urgent need to combat environmental pollution, the Indian government has committed to the ambitious 'EV 30@30' campaign, aiming for a 30% EV penetration by 2030. This commitment aligns with global efforts to reduce emissions and fossil fuel dependence. EVs offer advantages such as low maintenance costs, noise-free operation, and environmental friendliness. The government's role is crucial in incentivizing EV adoption through policy measures, investment in charging infrastructure, and creating an enabling environment for sustainable mobility (Jain, Bhaskar, and Jain 2022) (Naik 2023). India, as a nation, has actively promoted EV adoption to combat environmental pollution and reduce dependence on fossil fuels. Initiatives such as charging infrastructure development, incentives, and regulatory frameworks are critical for accelerating the transition to sustainable mobility. Policymakers must continue prioritizing these measures to foster the growth of the EV industry in Goa and beyond. While government support is essential, challenges remain. Goa, like other regions, faces hurdles such as inadequate charging infrastructure, consumer awareness, and affordability. Policymakers must address these gaps to accelerate EV adoption. Incentives like tax breaks, subsidies, and awareness campaigns can encourage consumers to embrace electric mobility. By fostering collaboration between government bodies, industry stakeholders, and citizens, Goa can pave the way for a cleaner, greener transportation future (Naik 2023).

H2j: *Government Support (GS) moderates the relationship between Perceived Risk (PR) and Adoption Intention (AI).*

2.3.13 Adoption Intention (AI)

The adoption of electric vehicles (EVs) is a critical step toward sustainable transportation. Existing research highlights several factors influencing consumers' adoption intentions (Jain, Bhaskar, and Jain 2022) These include government policies (such as tax incentives and charging infrastructure), awareness campaigns, consumer preferences, and risk-benefit beliefs. By addressing these factors, policymakers and industry stakeholders can promote EV adoption in Goa. The adoption of electric vehicles (EVs) is crucial for mitigating environmental challenges, particularly the overreliance on fossil fuels. Despite this awareness, actual adoption rates have been disappointing. Researchers have explored various factors influencing adoption intention, including purchase intentions, behavioral aspects, and usage intentions (Bryła, P., Chatterjee, S., & Ciabiada-Bryła, B., 2023).

2.4 FACTORS INFLUENCING CONSUMER'S WILLINGNESS TO CREATE CONTENT

2.4.1 Model Development

According to Mayangsari (2018), the model for consumers' propensity to contribute content on social media and other platforms is based on the Uses and Gratification theory. Eight primary categories from earlier research are included in the model: Personal Integrative **(PI)**, Altruism **(AL)**, Social Benefits **(SB)**, Economic Benefits **(EB)**, Hedonic Benefits **(HB)**, Attitude **(AT)**, Habit **(HAB)**, and Willingness to Create Content **(WC)**. Based on findings from Mayangsari (2018), and Lorenzo-romero, Constantinides, and Brünink (2014), Personal Integrative **(PI)** measures consumers' increases in status or reputation as well as their growth in self-efficacy. According to (Bronner and Hoog 2011), Altruism **(AL)** investigates how people are driven by their well-being in online marketing situations and how this conduct might help society as a whole. Informed by (Mayangsari 2018) and Hoyer et al. (2010), Social Benefits **(SB)** evaluate the

perceived benefit of online buying in terms of social interaction and connection. Economic Benefits **(EB)**, which is based on research by Hennig-Thurau et al. (2014), represents the financial usefulness that people receive from purchasing online. Hedonic Benefits **(HB)** leverages concepts from Fishbein and Ajzen (1975) to investigate the pleasure and happiness that come from creating and disseminating material connected to online buying. These characteristics have an impact on attitudes **(AT)** and behaviors **(HAB)** related to online purchasing, as (M. Kim and Son 2021) have noted. As highlighted by Opata et al. (2019), these constructs taken together contextualize the adoption of online purchasing and influence people's propensity to generate content. The present study's research objectives, questions, and hypotheses are formulated based on the integration of these variables.

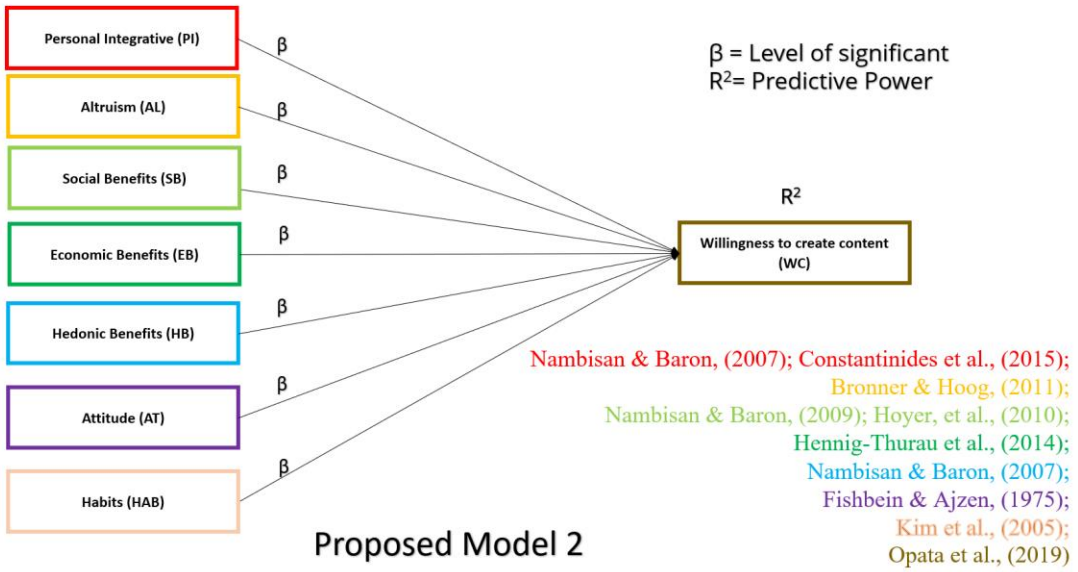

Figure 2.2 Model Development for How They React

2.4.2 Personal Integrative (PI)

People who have undergone personal integration tend to be more confident, trustworthy, and well-established. Customers can use a virtual customer environment to display their product and analytical skill knowledge on a platform. By providing reviews and feedback regarding product support, customers can enhance their standing and reputation with peers, relevant customers, and product vendors (Harhoff, Henkel, & Von Hippel, 2003; McLure Wasko & Faraj, 2000; Yen, Hsu, & Huang, 2011) studies as cited in (Yadav and Mahara 2018). Clients who participate in online co-creation procedures could feel more assured about their capacity to support an organization's creative workflows. The customer's growing ability to solve problems and increasing level of product-related knowledge has contributed to this perception. Clients can improve their standing and achieve a very important position connected to competence, such as elevated credibility, status, and self-efficacy, by delivering innovative ideas with substantial potential (Rahimi, Kumar, and Moazzamigodarzi 2022). Customers may engage in co-creation activities on social media and other platforms because they wish to improve their self-efficacy and social standing. According to research by Lorenzo-romero, Constantinides, and Brünink (2014), customers' propensity to participate in value creation in a virtual customer environment is significantly influenced by their personal integration. This was consistent with earlier research by Rahimi, Kumar, and Moazzamigodarzi (2022), which found that customers take personal integration into account and that this influences their desire to contribute to the value-creation process that supports the product. According to Yadav and Mahara (2018), customers' intentions to use social commerce platforms were significantly influenced by personal relationships. To improve their social standing, consumers ought to engage with material connected to the products they purchase. Social standing rises gradually when one actively contributes to the creation of product-related content that

benefits other consumers by enhancing their reputation for expertise in the community and assisting them in making wise judgments when making future product purchases. The following hypothesis is framed as follows:

H3a: *Personal Integrative (PI) has an insignificant influence on consumer's willingness to create content (WC).*

2.4.3 Altruism (AL)

The desire to better the lives of others without taking one's own interests into account is known as altruism. Altruism is the main reason people join online social communities (Baethge, Klier, and Klier 2016). It is the idea that individuals have a moral obligation to prioritize the needs of others over their own, even if doing so requires sacrificing their own needs and wants. Consumers who have purchased and used a specific brand of smartphone may frequently share their thoughts on social media platforms to discuss their experiences with the device, without thinking about the potential financial or personal gain from doing so. The role that altruism plays as a motivator or driver in customers' E-WOM spreading has been the subject of numerous research. In a study published in 2012, Cheung and Lee examined consumers' intentions to use eWOM on online consumer opinion forums concerning altruism. Co-creation activities can be pursued by consumers who are eager to contribute to the growth and improvement of a brand or company, believing that doing so will enhance the current offering. Furthermore, they don't care about getting paid for sharing their experiences. Fang and Chiu (2010) claim that the belief that altruism significantly contributes to knowledge-sharing intentions is corroborated by the observation that members of virtual communities who exhibit altruistic behaviors are more likely to intend to share knowledge. According to the study Hennig-Thurau et al. (2004), people may be driven to express themselves

online by altruism. Another study by Javid et al. (2022) discovered that customers' eWOM involvement on commerce platforms was significantly influenced by altruism. The following hypothesis is framed as follows:

H3b: *Altruism (AL) has an insignificant influence on consumer's willingness to create content (WC).*

2.4.4 Social Benefits (SB)

Consumers frequently post about their experiences with products on social media and other platforms in the hopes of meeting other users of these platforms and social media. The younger generation engages in global communication through social media and other platforms like YouTube, among others, in the contemporary world. Social integrative benefits are those that come from the rational and social connections that are made when a consumer engages in virtual customer environments. Expanding the social network and fostering a sense of community amongst clients and service providers are key components of virtual co-creation. Co-creation has social benefits such as improved self-worth, raised social status, and strengthened relationships with relevant people (Mayangsari 2018). Close relationships with other users help customers develop a feeling of social identity and belonging to the online community, which is viewed as advantageous. In the co-creation process, they might also take part (Hoyer et al. 2010; (Mayangsari 2018). Consumers frequently post comments on websites because it shows that they are active participants in the virtual community and makes it feasible for them to benefit socially from their online communities. According to Yadav and Mahara's (2018) study, social benefits significantly and favorably affect consumers' propensity to engage in content creation on social media and other platforms. Lorenzo-romero, Constantinides, and Brünink (2014), discovered in another study that

social integrative advantages significantly influenced the communities' use of online platforms. According to Lorenzo-romero, Constantinides, and Brünink (2014), social advantages have an impact on consumers' engagement in virtual customer environments, which promotes the creation or improvement of products. The following hypothesis is framed as follows:

H3c: *Social benefits (SB) have an insignificant influence on consumer's willingness to create content (WC).*

2.4.5 Economic Benefits (EB)

When there is a financial incentive involved, consumers can contribute to the creation of content. Users can produce content just as a means of making money. They can make money by sharing their experiences online and producing content, which increases their revenue as time goes on and they attract more and more viewers. Economic rewards have a big impact on human behavior in general and are viewed by people who get them as an indication of the giver's appreciation for their behavior. "Money and non-monetary benefits are included in the definition of economic benefits (ECB)" (Kohler et al. 2011). Kohler et al. (2011) research revealed that customers might engage in co-creation endeavors solely to generate financial benefits through creating content on the product. Some users merely wish to provide material to profit financially. Poch and Martin (2015) discovered in another study that financial incentives had a more significant impact on the production of high-quality user-generated branded video content on social media and other platforms. Customers might not upload product-related content on social media sites to share their online experiences with it, but rather to profit from publishing the product's information there. For content creators to profit financially from social media sites like YouTube, they need to make sure that their channels have a sufficient number of followers. After obtaining the necessary number of

subscribers, content providers begin to get payment for the material they produce on the platform. To demonstrate that users were successful in acquiring a significant number of subscribers, the social media platform rewards users for producing content by giving them things like subscribers as accomplishment awards. The following hypothesis is framed as follows:

H3d: *Economic Benefits (EB) have an insignificant influence on consumer's willingness to create content (WC).*

2.4.6 Hedonic Benefits (HB)

Customers' aesthetic or pleasurable experiences are enhanced by hedonic benefits. When customers are delighted with a product, they frequently want to tell others about it on social media and other platforms so that other customers will also know that the product is wonderful and that it is worthwhile for them to purchase. Research on virtual communities shows that users love chatting with other users. Conversation topics can range from product features to final product usage (Sashi 2012). Numerous delightful, fascinating, and unique experiences may also result from consumer interactions in the virtual customer environment. Consumers may find it very fun to collaborate with others to solve problems they are currently facing and to discuss and exchange ideas for new goods or services. This could motivate them to use social media and other platforms. User interaction enhances users' virtual identities within the community and creates opportunities for product issue resolution (Mayangsari 2018). According to Muniz & O'Guinn (2001), conversations concerning the product's unusual or peculiar features typically give a great lot of happiness to consumers.

The following hypothesis is framed as follows:

H3e: *Hedonic Benefit (HB) has an insignificant influence on consumer's willingness to create content (WC).*

2.4.7 Attitude (AT)

According to Ferm and Thaichon (2021), attitude toward behavior is the extent to which an activity's performance is viewed favorably or unfavorably. Customers who support co-creation on social media platforms would be more inclined to start out intending to follow through on their co-creation values. According to Ferm and Thaichon (2021), attitudes have an impact on people's intent to use technology. Customers' attitudes are thought to be essential for participating in co-creation activities. Following their purchase of an electric vehicle, consumers may feel differently about the brand of car. If customers are enthusiastic about electric vehicles, they will post information about their wonderful qualities and features on social media and other platforms, which could sway other customers' decisions to buy EVs. If a customer has a bad or negative experience with an electric vehicle, they are likely to develop a negative attitude toward them and may produce content that informs other customers about their negative experience, which could have an impact on sales of electric vehicles. Research has indicated that those who have access to more trustworthy information are more likely to adopt a positive mindset and intend to make a purchase (Sundararaj and Rejeesh 2021). The following hypothesis is framed as follows:

H3f: *Attitude (AT) has a significant influence on consumer's willingness to create content (WC).*

2.4.8 Habit (HAB)

When people are exposed to and learn something repeatedly, they frequently form habits that make some acts automatic (Limayem, Hirt, and Hirt 2003). According to Cruz-Jesus et al. (2023),

customers who regularly engage with EV-related tasks and technologies may develop habits connected to the adoption of electric vehicles (EVs). Customers who regularly use their electric vehicles (EVs) for charging or commuting, for example, may eventually become accustomed to and comfortable with the technology. In the context of information systems, habit is defined by Limayem, Hirt, and Hirt (2003) as the degree to which people interact with particular systems regularly under particular circumstances. According to research by Limayem, Hirt, and Hirt (2003), habit development is influenced by prior behavior frequency, and it is suggested that habitual behavior influences the relationship between intention and continuing use of information systems. In a similar vein, Viswanath Venkatesh (2012) discovered a favorable correlation between habit and intention to surf the web on mobile devices. Furthermore, research by Amoroso and Lim (2017) and Mishra et al. (2021) shows that habit is a powerful indicator of continuing technology use and enjoyment. Regarding EV adoption, users may build routines involving the use and evaluation of EVs on social media sites such as YouTube, which feeds into a consumer decision-making cycle and information exchange. This pattern of behavior could affect judgments about what to buy in the future and add to the conversation about EV adoption in general. The following hypothesis is framed as follows:

H3g: *Habit (HAB) has a significant influence on consumer's willingness to create content (WC).*

2.4.9 Willingness to Create Content (WC)

Online buying has increased dramatically in the digital age, and user-generated content on social media platforms has also increased (Niederhoffer et al., 2007; Daugherty et al., 2008). For businesses to obtain insights and improve their offers, co-creation—in which customers actively participate in product development—is essential (O'Hern & Rindfleisch, 2010; Stappers, 2008;

Satish Nambisan, 2002). Finding clients that are open to co-creation, however, continues to be difficult for many companies (Lorenzo-romero, Constantinides, and Brünink 2014). Positive experiences with the company encourage customers to engage in electronic word-of-mouth (eWOM) communication (Yu 2022). Customers' propensity to participate in co-creation activities is influenced by several aspects, including interaction, efficiency, fulfillment, and remuneration (Sang, Yu, and Han 2022). Customers' propensity to participate is influenced by several elements, such as rewards, convenience, efficiency, and fulfillment. Engagement platforms are being used by businesses more frequently to enable ongoing client interactions (Prahalad and Ramaswamy 2004). Customers' desire to engage in online co-creation is influenced by how they view these platforms (Sang, Yu, and Han 2022). In order to improve products and services, businesses depend on clients who are prepared to contribute their knowledge and insights during co-creation processes. Delivering value to customers requires co-creation experiences with enterprises (Prahalad and Ramaswamy 2004). Customer co-creation activities require the company's resources and assistance (Moeller, 2008; Payne et al., 2008). In the end, the willingness of the consumer to participate in the content development process determines how much (Lazarus, Krishna, and Dhaka 2014). According to Lazarus, Krishna, and Dhaka (2014), the degree of customer interaction in content creation is greatly influenced by the willingness of the customer.

2.5 COMPOSITE MODEL

The composite model integrates objectives two and three, aiming to delve into customer behavior concerning electric vehicles (EVs) with meticulous detail. Its primary goal is to elucidate the impact of customer attitudes and perceptions towards EVs on their purchase decisions, as well as their subsequent engagement in content creation across social media and other platforms post-

purchase. Preceding sections of Chapter 2 extensively elucidate the myriad elements considered within objectives two and three, obviating the need for redundant explanations in this section. Chapter 3 presents the outcomes of testing the amalgamated models derived from both objectives, thereby offering insights into the complex interplay of factors influencing customer behavior in the realm of EV adoption and post-purchase engagement.

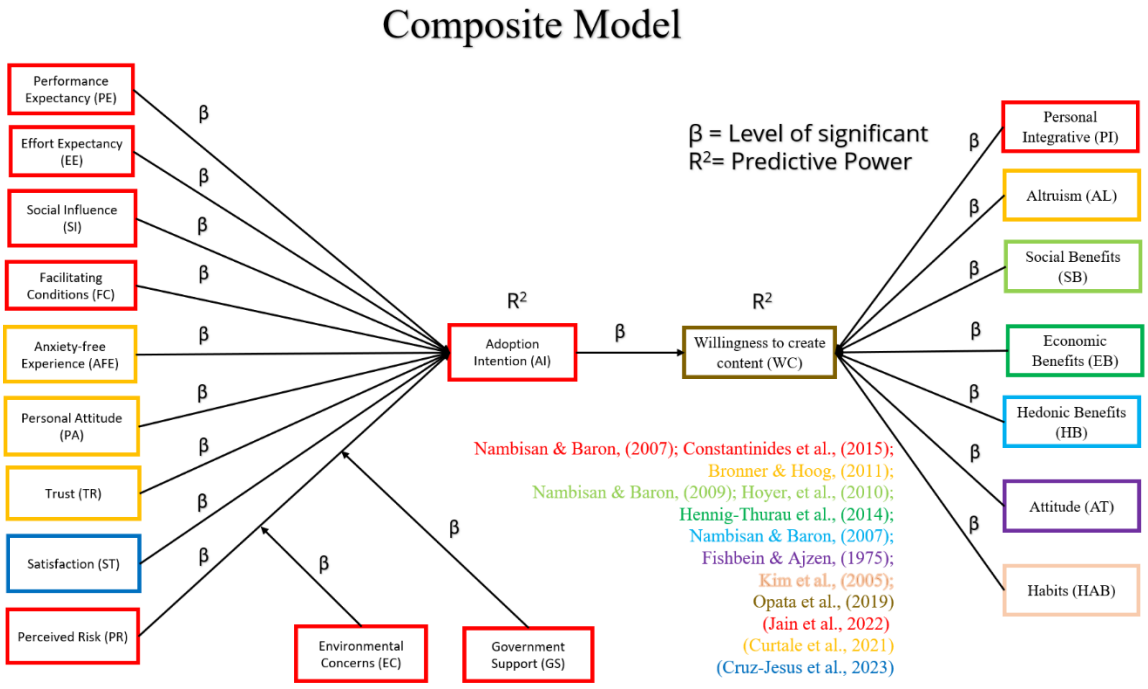

Figure 2.3 Model Development for Composite Model

2.6 RESEARCH GAP

The research topic, "Exploring Consumers' Attitudes and Preferences Regarding Electric Vehicles in Goa," aims to explore the criteria and preferences driving individuals in Goa towards the purchase of electric vehicles (EVs). This topic is particularly significant due to the limited research available on EV adoption in Goa, compounded by the emerging nature of EVs in the Indian market. Through an extensive literature review, it becomes evident that there is a dearth of comprehensive studies addressing all relevant factors influencing EV adoption in this region.

The study identifies twelve key constructs influencing the consideration of EV adoption namely Performance Expectancy (PE), Effort Expectancy (EE), Perceived Risk (PR), Facilitating Conditions (FC), Social Influence (SI), Environmental Concerns (EC), Government Support (GS), Anxiety-free Experience (AFE), Personal Attitude (PA), Satisfaction (ST) and Trust (TR) and Adoption Intention (AI), drawn from existing research papers. Notably, no previous study has synthesized these twelve constructs comprehensively, underscoring a significant research gap in the literature. Similarly, the examination of consumers' reactions to EV adoption encompasses eight constructs that are: Personal Integrative (PI), Altruism (AL), Social Benefits (SB), Economic Benefits (EB), Hedonic Benefits (HB), Attitude (AT), Habit (HAB), and Willingness to Create Content (WC), aggregated from various prior studies. By integrating these constructs into a cohesive model, the research fills another critical gap in the literature, as no previous study has concurrently analyzed both the factors influencing EV adoption and consumers' post-adoption behaviors.

The novel aspect of this research lies in the creation of a composite model, amalgamating all twelve factors influencing adoption and eight factors governing post-adoption reactions. This composite model is unique and has not been explored in previous research studies. By synthesizing these constructs, the study aims to provide a comprehensive understanding of the intricacies of EV adoption behavior in Goa, shedding light on the holistic decision-making process and subsequent reactions of consumers in this emerging market.

The research addresses significant gaps in the existing literature by comprehensively analyzing the factors influencing EV adoption and consumers' reactions post-adoption in Goa. Through the creation of a composite model, the study contributes to advancing our understanding of EV

adoption behavior, providing valuable insights for policymakers, industry stakeholders, and researchers in the field of sustainable transportation.

2.7 RESEARCH METHODOLOGY

The research endeavors to explore consumer attitudes and preferences towards electric vehicles (EVs) in the region of Goa, India, while also delving into their post-experience reactions. This investigation draws upon an exhaustive review of existing literature, revealing the prevalent utilization of survey methodologies in previous studies within this domain. Given the reliance of quantitative results on respondents' familiarity and encounters with EVs, the present study too adopts a survey-based approach to collect empirical data. To ensure a representative sample, a combination of purposive and snowball sampling techniques is employed, targeting EV owners across both South and North Goa. Leveraging the expansive reach and popularity of social media platforms, emails, WhatsApp, and QR codes in India, the survey instruments are disseminated over a period spanning from June 2023 to March 2024.

The questionnaire structure comprises three distinct sections: demographic profiling, factors influencing EV adoption decisions, and experiences and online engagement of EV owners. The demographic section encompasses inquiries about respondents' age, income, and gender, alongside supplementary details. Analyzing these demographic variables involves cross-tabulation to discern any notable disparities based on gender or geographical location.

Moving to the section on factors influencing EV adoption, the study delineates twelve constructs, including Performance Expectancy (PE), Effort Expectancy (EE), Facilitating Condition (FC), Social Influence (SI), Anxiety-Free Experience (AFE), Trust (TR), Personal Attitude (PA),

Satisfaction (ST), Perceived Risk (PR), Environmental Concern (EC), Government Support (GS) and Adoption Intention (AI). Participants are tasked with rating their agreement with a series of statements, utilizing a five-point Likert scale, thereby indicating the degree of their accord with assertions grounded in prior research.

Transitioning to the third segment, the research scrutinizes consumers' reactions to EV adoption within the realm of social media. Here, respondents are asked to rate their experiences across eight constructs, encompassing factors such as Personal Integrative (PI), Altruism (AL), Economic Benefits (EB), Hedonic Benefit (HB), Social Benefit (SB), Attitude (AT), Habit (HAB), and Willingness to Create Content (WC).

After data collection, the analysis is executed through a multifaceted approach, incorporating methodologies like Smart PLS, cross-tabulation, Confirmatory Factor Analysis, and Reliability tests. The cross-tabulation tests aim to elucidate any significant variances in respondent characteristics, while Structural Equation Modeling (SEM) with Partial Least Squares (PLS) is employed to ascertain the factors influencing EV adoption. This approach is favored for its adaptability to non-normally distributed data, which may be common in survey-based research contexts. Furthermore, Confirmatory Factor Analysis is employed to validate factors underpinning purchase decisions and the willingness to engage in content creation after EV experiences.

In essence, the study adopts a comprehensive and rigorous methodology, amalgamating quantitative techniques with statistical analyses, to furnish insights into the underlying determinants of consumer attitudes and behaviors concerning EV adoption in Goa. Through this holistic approach, the research endeavors to provide actionable insights pertinent to both academia and industry stakeholders in the burgeoning domain of electric mobility.

2.8 SUMMARY

This chapter delves into the nuances of consumer behavior concerning Electric Vehicles (EVs) in Goa, India, with a focus on understanding both purchase decisions and post-purchase engagement. By integrating two primary objectives into a composite model, the study aims to shed light on the intricate factors influencing EV adoption and subsequent consumer behaviors, filling significant gaps in the existing literature. Through an exhaustive literature review and a methodologically robust approach involving survey methodologies and advanced statistical analyses, the research endeavors to provide comprehensive insights into the dynamics of EV adoption in the context of a rapidly evolving market like Goa. The study's findings are expected to offer actionable insights for policymakers, industry stakeholders, and researchers, contributing to the advancement of knowledge in the realm of sustainable transportation solutions.

The study aims to provide valuable insights into EV adoption dynamics in Goa, contributing to both academic knowledge and practical policymaking for promoting sustainable transportation.

CHAPTER 3: DATA ANALYSIS AND RESULTS

3.1 INTRODUCTION

This chapter provides information about the data analysis carried out to find the answers to the three basic research questions framed, (1) Who the customers are? (2) What are the factors influencing buying behavior, and does satisfaction also influence making purchasing decisions? (3) How do the respondents react based on their experience? The details of the data analysis used to determine the answers to each of these three research questions, as well as the testing and derivation of related hypotheses, are provided in the following sections.

3.2 WHO THE CUSTOMERS ARE

This section examines cross-tabulations of user demographic characteristics based on Location to see whether there are significant differences between them. Based on demographic characteristics, the frequency test is used to test the hypothesis and determine whether there is a significant difference between the locations of the respondents using electric vehicles.

3.2.1 Result and Interpretation

In Table 3.1, labeled "Demographic Profile," an in-depth examination of the demographic attributes of electric vehicle users is provided, concentrating on the relationship between their geographical location (North Goa and South Goa) and several other factors like gender, age, education, occupation, marital status, and monthly income. The dataset comprises responses from a total of 99 participants, with the majority, 52 individuals (53%), originating from North Goa, while 47 respondents (47%) were from South Goa.

Regarding gender distribution, in North Goa, there were 30 male respondents (58%) and 22 female respondents (42%), while in South Goa, 29 males (62%) and 18 females (38%) participated in the

survey. Analysis of age demographics reveals that both regions predominantly consist of younger individuals. In North Goa, 29 respondents (85%) were up to 30 years old, with only 18 respondents (15%) above 30. Similarly, in South Goa, 41 respondents (87%) were below 30 years old, while the remaining 13% were above 30.

Marital status shows interesting disparities between the two regions. In North Goa, approximately 69% of respondents were unmarried (36 individuals), whereas only 31% were married (16 individuals). Conversely, in South Goa, the percentage of unmarried individuals was higher, with 41 respondents (87%) being unmarried, and only 13% (6 respondents) being married.

In terms of education, respondents were mainly graduates in both regions. In North Goa, the majority of 48% (25 individuals) identified as Graduates, followed by post-graduates (35%), HSSC (12%), and SSC (6%). Similarly, in South Goa, the bulk was made up of graduates (70%), then postgraduates (26%), HSSC (4%), and none of SSC (0%).

Occupationally, both regions showed a dominance of students among respondents. In North Goa, 62% (32 individuals) identified as students, followed by private employees (17%), government employees (13%), and self-employed individuals (8%). Similarly, in South Goa, the majority were students (45%), followed by private employees (34%), self-employed individuals (19%), and a negligible presence of government employees (2%).

In terms of monthly income, the majority of respondents from both regions earned below Rs. 50,000. Specifically, in North Goa, 36 respondents fell into this income bracket, while in South Goa, 29 respondents did. A smaller percentage of respondents in both regions earned between Rs. 50,000 to Rs. 1,00,000, with 14 respondents in North Goa and 13 in South Goa. Very few individuals reported earnings above Rs. 1,00,000, with only 2 respondents from North Goa and 5 from South Goa falling into this category.

Table 3.1 Demographic profile of the respondents

Demographic Characteristics		Location			
		North Goa (N=52)		South Goa (N=47)	
		#	%	#	%
Gender	Male	**30**	57.69	**29**	61.70
	Female	22	42.30	18	38.29
Age	Up to 30 Years	**29**	84.61	**41**	87.23
	Above 30 Years	18	15.38	6	12.76
Marital Status	Married	16	30.76	6	14.63
	Unmarried	**36**	69.23	**41**	87.23
Education	SSC	3	5.76	0	0.00
	HSSC	6	11.53	2	4.26
	Graduate	**25**	48.07	**33**	70.21
	Post Graduate	18	34.61	12	25.53
Occupation	Student	**32**	61.53	**21**	44.68
	Govt Employee	7	13.46	1	2.12
	Pvt Employee	9	17.30	16	34.04
	Self-Employee	4	7.69	9	19.14
Monthly Income	Below Rs. 50,000	**36**	69.23	**29**	61.70
	Between Rs.50,000-Rs.1,00,000	14	26.92	13	27.65
	Above Rs.1,00,000	2	3.84	5	10.63

Source: Compilation based on Primary Data

3.3 WHAT INFLUENCES THE CUSTOMERS

RQ1: What factors influence your decision to choose an electric vehicle?

1. *Performance Expectancy (PE) has an insignificant influence on Adoption Intention (AI) [**H2a**].*
2. *Effort Expectancy (EE) has an insignificant influence on Adoption Intention (AI) [**H2b**].*
3. *Social Influence (SI) has an insignificant influence on Adoption Intention (AI) **[H2c]**.*
4. *Facilitating Condition (FC) has an insignificant influence on Adoption Intention (AI) **[H2d]**.*
5. *Anxiety-Free Experience (AFE) has a significant influence on Adoption Intention (AI) **[H2e]**.*
6. *Personal Attitude (PA) has an insignificant influence on Adoption Intention (AI) **[H2f]**.*
7. *Trust (TR) has an insignificant influence on Adoption Intention (AI) **[H2g]**.*
8. *Satisfaction (ST) has a significant influence on Adoption Intention (AI) **[H2h]**.*
9. *Perceived Risk (PR) has an insignificant influence on Adoption Intention (AI) **[H2i]**.*
10. *Environmental Concerns (EC) moderates the relationship between Perceived Risk (PR) and Adoption Intention (AI). **[H2i]**.*
11. *Government Support (GS) moderates the relationship between Perceived Risk (PR) and Adoption Intention (AI). **[H2j]**.*

3.3.1 Result and Interpretation

Table 3.2 showcases the outcomes of an extensive examination of several constructs associated with the propensity to adopt electric vehicles. The independent variables scrutinized encompass Performance Expectancy (PE), Efforts Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Anxiety-Free Experience (AFE), Personal Attitude (PA), Trust (TR), Satisfaction (ST), and Perceived Risk (PR). These variables play a pivotal role in comprehending the determinants influencing individuals' inclinations toward embracing electric vehicles. Furthermore, two moderating variables, Environmental Concern (EC) and Government Support (GS), are explored concerning perceived risk.

Within the table, metrics such as Cronbach's alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE) are reported. These parameters serve as crucial benchmarks for assessing the reliability and validity of the constructs under investigation. Factor loading gauges the strength of the relationship between observed variables and latent constructs, with values surpassing 0.7 deemed significant. Cronbach's alpha values above 0.7 denote commendable internal consistency and reliability, ensuring that items within each construct consistently measure the same underlying concept. Similarly, Composite Reliability values exceeding 0.7 bolster the reliability of the constructs. AVE values above 0.5 suggest commendable convergent validity, indicating that constructs explicate a notable amount of variance relative to measurement error.

The findings within the table signify that all constructs meet the requisite thresholds for factor loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted. This implies their reliability and validity in appraising customers' intentions to embrace electric vehicles. Overall, these results furnish robust affirmation for the validity and reliability of the study's constructs in discerning customers' proclivities towards adopting electric vehicles.

3.3.1.1 Measurement Model

Table 3.2 Factor Loadings, CA, CR, and AVE

Variable	Codes	Factor Loading	CA	CR	AVE
Performance Expectancy	**PE**		0.797	0.88	0.71
I would find EV useful in my daily life Using	PE 1	0.888			
EV would help me travel quickly Using	PE 2	0.804			
EV would increase my productivity	PE 3	0.833			
Effort Expectancy	**EE**		0.764	0.846	0.58
Learning how to drive an EV would be easy for me	EE 1	0.74			
I would find EV easy to use	EE 2	0.813			
It would be easy for me to become skillful at using EV	EE 3	0.805			
Social Influence	**SI**		0.881	0.918	0.738
People who are important to me would think that I should use EV	SI 1	0.857			
People who influence my behavior would think that I should use EV	SI 2	0.868			
People whose opinions I value would prefer that I use EV	SI 3	0.909			
Driving an EV would make a good impression about me on other people	SI 4	0.799			
Facilitating Conditions	**FC**		0.74	0.85	0.655
I have the resources necessary to use EV	FC 1	0.798			
I have the knowledge necessary to use EV	FC 2	0.782			
EVs are compatible with other technologies I use (e.g., Bluetooth connectivity on smartphones)	FC 3	0.846			
Anxiety-free Experience	**AFE**		0.78	0.859	0.605
I expect the process of buying and canceling reservations for electric vehicles in Goa to be easy and without additional costs.	AFE 1	0.83			
I expect it to be convenient to find charging facilities for the purchased electric vehicle in Goa.	AFE 2	0.786			
I expect that the electric vehicle seller will prioritize customer interests in case of any conflicts or issues.	AFE 3	0.796			
Personal Attitude	**PA**		0.763	0.894	0.808
I prefer purchasing environmentally friendly means of transportation, including electric vehicles.	PA 1	0.91			
I believe buying electric vehicles in Goa will help improve air quality.	PA 2	0.888			

Trust	**TR**		0.771	0.897	0.813
I expect the purchased electric vehicle to be in optimal condition without hidden damages.	TR 1	0.918			
I expect the electric vehicle seller to provide comprehensive insurance coverage to address uncertainties related to the vehicle.	TR 2	0.884			
Satisfaction	**ST**		0.801	0.869	0.627
I am convinced that EVs serve my needs.	ST 1	0.746			
I am convinced that I will be satisfied with EV efficiency.	ST 2	0.717			
I am convinced that I will be satisfied with EV's effectiveness.	ST 3	0.904			
I am convinced that, overall, I will be satisfied with EV.	ST 4	0.786			
Perceived Risk	**PR**		0.778	0.851	0.588
I am afraid of suffering financial losses when using EVs	PR 1	0.756			
I would not feel totally safe when I drive an EV on the road	PR 2	0.729			
Considering the disadvantages of EVs (e.g., limited driving range and long recharging) I think using EVs could involve important time losses	PR 3	0.747			
I worry about whether EVs will really perform as well as traditional gasoline vehicles	PR 4	0.832			
Environmental Concerns	**EC**		0.749	0.857	0.668
I think human beings should live in harmony with nature in order to achieve sustainable development	EC 1	0.753			
I think we are not doing enough to save scarce natural resources from being used up	EC 2	0.873			
I think individuals have the responsibility to protect the environment	EC 3	0.82			
Government Support	**GS**		0.68	0.824	0.609
The government direct subsidy policy is attractive to me to adopt an EV	GS 1	0.779			
Exemption from road tolling is valuable to me to adopting an EV	GS 2	0.758			
Exemption from purchase tax is helpful to me in adopting an EV	GS 3	0.804			
Adoption Intention	**AI**		0.718	0.876	0.78
I plan to adopt an EV when adopting a vehicle in the near future	AI 1	0.882			
I would like to recommend others to adopt electric vehicles when they planned to adopt a vehicle	AI 2	0.884			

Source: Compilation based on Primary Data

Table 3.3 Discriminant Validity

	AFE	AI	EC	EE	FC	GS	PA	PE	PR	SI	ST	TR
AFE	**0.844**											
AI	0.62	**0.883**										
EC	0.635	0.626	**0.817**									
EE	0.394	0.336	0.402	**0.801**								
FC	0.351	0.404	0.44	0.527	**0.809**							
GS	0.711	0.577	0.683	0.349	0.454	**0.781**						
PA	0.609	0.683	0.684	0.399	0.567	0.625	**0.899**					
PE	0.342	0.482	0.421	0.473	0.469	0.363	0.465	**0.842**				
PR	0.387	0.23	0.264	0.324	0.208	0.307	0.246	0.292	**0.767**			
SI	0.486	0.519	0.474	0.431	0.454	0.50	0.496	0.609	0.373	**0.859**		
ST	0.706	0.718	0.737	0.347	0.483	0.780	0.733	0.487	0.328	0.513	**0.792**	
TR	0.586	0.553	0.716	0.432	0.489	0.632	0.702	0.393	0.211	0.382	0.718	**0.901**

Source: Compilation based on Primary Data

Table 3.3 presents the results of discriminant validity using the Fornell-Larcker Criterion. This criterion is crucial as it ensures that each concept studied in the research is unique and captures specific aspects of the topic under investigation. In the table, diagonal values represent the square root of the Average Variance Extracted (AVE) for each construct, such as Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), anxiety-free Experience (AFE), Personal Attitude (PA), Trust (TR), Satisfaction (ST), perceived Risk (PR), Environmental Concern (EC), Government Support (GS), and Adoption Intention (AI). These diagonal values consistently exceed the off-diagonal values, indicating that the constructs are distinct from one another and measure unique aspects of how customers perceive using electric vehicles. This confirmation ensures that each construct captures specific elements of the phenomenon being studied, validating the research outcomes without repeating existing findings.

3.3.1.2 The Structural Model

Table 3.4 provides insights into the Path Coefficients, T-values, P-values, R^2, Q^2, F^2, and Effect Size of various research variables, indicating their correlations and significance levels. Each variable, including Performance Expectancy (PE), Efforts Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), anxiety-free Experience (AFE), Personal Attitude (PA), Trust (TR), Satisfaction (ST), perceived Risk (PR), Environmental Concern (EC), Government Support (GS), and Adoption Intention (AI), reflects distinct aspects of customers' perceptions regarding electric vehicle usage.

In structural equation modeling, Path Coefficients (Beta values) reveal the direction and strength of relationships between independent and dependent variables. A positive β value suggests that as the independent variable increases, the dependent variable also increases. A negative β value implies that an increase in the independent variable leads to a decrease in the dependent variable.

P-values determine the significance of these relationships, guiding the acceptance or rejection of hypotheses. Notably, significant associations are found between Personal Attitude (PA) and Adoption Intention (AI) as well as Satisfaction (ST) and Adoption Intention (AI), supported by P-values below 0.05. Conversely, several relationships, such as anxiety-free Experience (AEF) -> Adoption Intention (AI), Effort Expectancy (EE) -> Adoption Intention (AI), and others, lack statistical significance.

R^2 quantifies the proportion of variation in the dependent variable explained by independent variables, while Q^2 assesses predictive power. In this study, R^2 for Adoption Intention (AI) is 0.628, indicating substantial explanatory ability, while Q^2 is 0.409, signifying good predictive performance. Additionally, F^2 values suggest small-sized effects for 10 variables 1 variable with medium-sized effect.

This analysis offers valuable insights into factors influencing electric vehicle adoption, aiding in the formulation of effective promotion strategies.

Table 3.4 Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AFE -> AI	0.197	1.478	0.14	Not Supported			0.039	M
EC -> AI	0.102	0.727	0.468	Not Supported			0.009	S
EE -> AI	0.009	0.069	0.945	Not Supported			0.000	S
FC -> AI	-0.043	0.366	0.714	Not Supported			0.002	S
GS -> AI	-0.102	0.685	0.493	Not Supported			0.009	S
PA -> AI	0.294	2.253	0.024*	**Supported**			0.078	S
PE -> AI	0.082	0.637	0.524	Not Supported			0.009	S
PR -> AI	-0.105	1.186	0.236	Not Supported			0.022	S
SI -> AI	0.101	0.901	0.368	Not Supported			0.013	S
ST -> AI	0.371	2.074	0.038*	**Supported**			0.084	S
TR -> AI	-0.075	0.584	0.559	Not Supported	0.628	0.409	0.005	S

**Significance at 0.05* *Source: Compilation based on Primary Data*

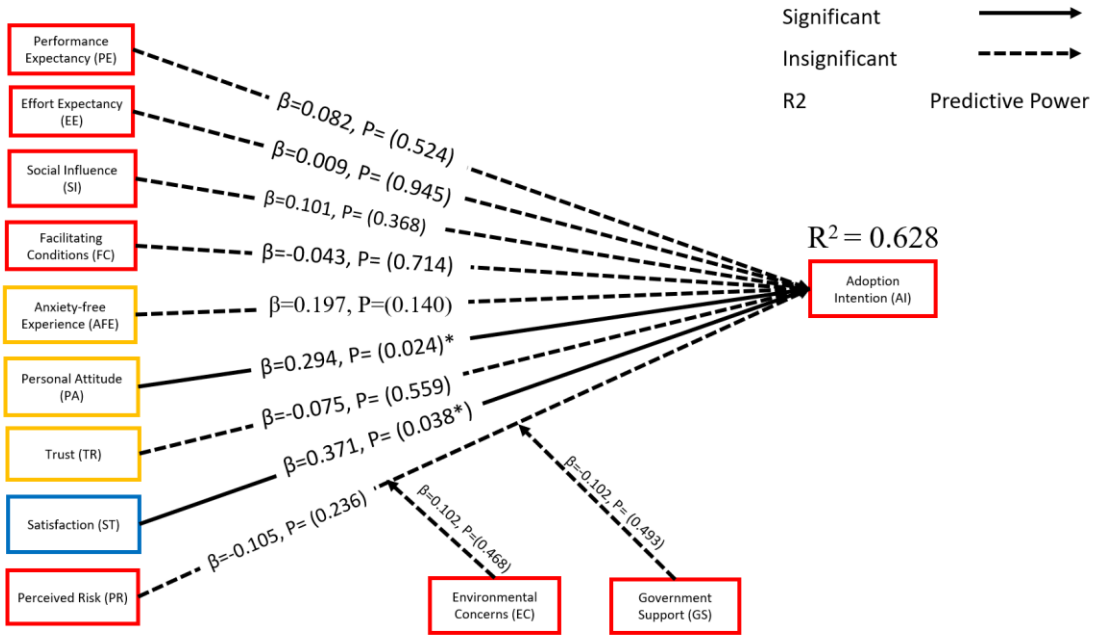

Figure 3.1 The Result of the Tested Model

3.4 HOW THEY REACT

RQ3: "How did the respondents react based on their experience?

1. *Personal Integrative (PI) has an insignificant influence on consumer's willingness to create content (WC)* ***[H3a]***.
2. *Altruism (AL) has an insignificant influence on consumer's willingness to create content (WC)* ***[H3b]***.
3. *Social benefits (SB) have an insignificant influence on consumer's willingness to create content (WC)* ***[H3c]***.
4. *Economic Benefits (EB) have an insignificant influence on consumer's willingness to create content (WC)* ***[H3d]***.
5. *Hedonic Benefit (HB) has an insignificant influence on consumer's willingness to create content (WC)* ***[H3e]***.
6. *Attitude (AT) has a significant influence on consumer's willingness to create content (WC)* ***[H3f]***.
7. *Habit (HB) has a significant influence on consumer's willingness to create content (WC)* ***[H3g]***.

3.4.1 Result and Interpretation

Table 3.5 showcases the outcomes of an extensive examination of several constructs associated with individuals' choices when considering electric vehicle adoption. The independent variables scrutinized encompass Altruism (AL), Attitude (AT), Economic Benefits (EB), Habit (HAB), Hedonic Benefits (HB), Personal Integrative (PI), and Social Benefits (SB). These variables play a pivotal role in comprehending the determinants influencing individuals' choices when considering electric vehicle adoption.

Within the table, metrics such as Cronbach's alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE) are reported. These parameters serve as crucial benchmarks for assessing the reliability and validity of the constructs under investigation. Factor loading gauges the strength of the relationship between observed variables and latent constructs, with values surpassing 0.7 deemed significant. Cronbach's alpha values above 0.7 denote commendable internal consistency and reliability, ensuring that items within each construct consistently measure the same underlying concept. Similarly, Composite Reliability values exceeding 0.7 bolster the reliability of the constructs. AVE values above 0.5 suggest commendable convergent validity, indicating that constructs explicate a notable amount of variance relative to measurement error.

The findings within the table signify that all constructs meet the requisite thresholds for factor loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted. This implies their reliability and validity in appraising customers' intentions to embrace electric vehicles. Overall, these results furnish robust affirmation for the validity and reliability of the study's constructs in discerning customers' proclivities towards adopting electric vehicles.

3.4.1.1 Measurement Model

Table 3.5 Factor Loadings, CA, CR, and AVE

Variable	Item	Factor Loading	CA	CR	AVE
Personal Integrative	**PI**				
I post a review of my experience if public/social recognition is attached to it	PI1	0.837	0.606	0.835	0.717
I post to impress and show off my activities to friends	PI2	0.857			
Altruism	**AL**				
I want to help others with my own experiences	AL1	0.848	0.794	0.877	0.705
I want to enable others to make a good decision	AL2	0.883			
I want to help the company to improve their services	AL3	0.785			
Social Benefits	**SB**				
I meet new people when I post my reviews	SB1	0.878	0.769	0.895	0.81
To enhance the strength of my affiliation with the consumer community	SB2	0.922			
Economic Benefits	**EB**				
I receive a reward for posting my experience on social media	EB1	0.93	0.783	0.901	0.82
I want to make money by posting my positive experience	EB2	0.88			
Hedonic Benefits	**HB**				
Sharing personal experiences is really enjoyable and fun	HB1	0.889	0.759	0.892	0.805
Posting reviews is a fun way to kill time	HB2	0.906			
Attitude	**AT**				
Posting reviews is thrilling and gives a nice experience	AT1	0.92	0.823	0.919	0.85
I feel positive about posting reviews	AT2	0.924			
Habit	**HAB**				
It has become a habit for me to share my experiences after using electric vehicles	HAB1	0.943	0.877	0.942	0.891
I find myself repeatedly creating content about my experiences with electric vehicles	HAB2	0.945			
Willingness to create content	**WC**				
I consistently provide my reviews and feedback about my electric vehicle experiences	WC1	0.888	0.847	0.907	0.766
I have the intention to continue sharing my experiences and reviews about electric vehicles	WC2	0.897			
I believe my content is useful for both companies and potential electric vehicle buyers	WC3	0.839			

Source: Compilation based on Primary Data

Table 3.6 Discriminant Validity

	AL	AT	EB	HAB	HB	PI	SB	WC
AL	**0.84**							
AT	0.554	**0.922**						
EB	0.216	0.51	**0.905**					
HAB	0.452	0.746	0.56	**0.944**				
HB	0.514	0.663	0.61	0.653	**0.897**			
PI	0.328	0.537	0.737	0.594	0.543	**0.847**		
SB	0.521	0.743	0.58	0.712	0.664	0.595	**0.90**	
WC	0.507	0.81	0.52	0.771	0.591	0.57	0.683	**0.875**

Source: Compilation based on Primary Data

Table 3.6 presents the results of discriminant validity using the Fornell-Larcker Criterion. This criterion is crucial as it ensures that each concept studied in the research is unique and captures specific aspects of the topic under investigation. In the table, diagonal values represent the square root of the Average Variance Extracted (AVE) for each construct, such as Altruism (AL), Attitude (AT), Economic Benefits (EB), Habit (HAB), Hedonic Benefits (HB), Personal Integrative (PI), Social Benefits (SB), and Willingness to Create Content (WC). These diagonal values consistently exceed the off-diagonal values, indicating that the constructs are distinct from one another and measure unique aspects of how customers perceive using electric vehicles. This confirmation ensures that each construct captures specific elements of the phenomenon being studied, validating the research outcomes without repeating existing findings.

3.4.1.2 The Structural Model

Table 3.7 provides insights into the Path Coefficients, T-values, P-values, R^2, Q^2, F^2, and Effect Size of various research variables, indicating their correlations and significance levels. Each variable, including Altruism (AL), Attitude (AT), Economic Benefits (EB), Habit (HAB), Hedonic Benefits (HB), Personal Integrative (PI), Social Benefits (SB), and Willingness to Create Content (WC), reflects distinct aspects of customers' perceptions regarding electric vehicle usage.

In structural equation modeling, Path Coefficients (Beta values) reveal the direction and strength of relationships between independent and dependent variables. A positive β value suggests that as the independent variable increases, the dependent variable also increases. A negative β value implies that an increase in the independent variable leads to a decrease in the dependent variable.

P-values determine the significance of these relationships, guiding the acceptance or rejection of hypotheses. Notably, significant associations are found between Attitude (AT) and Willingness to Create Content (WC), as well as Habit (HAB) and Willingness to Create Content (WC), supported by P-values below 0.05. Conversely, several relationships, such as Hedonic Benefits (HB) -> Willingness to Create Content (WC), Personal Integrative (PI) -> Willingness to Create Content (WC), and others, lack statistical significance.

R^2 quantifies the proportion of variation in the dependent variable explained by independent variables, while Q^2 assesses predictive power. In this study, R^2 for Willingness to Create Content (WC) is 0.73, indicating substantial explanatory ability, while Q^2 is 0.666, signifying good predictive performance. Additionally, F^2 values suggest small-sized effects for 6 variables and 1 variable with medium-sized effects.

This analysis offers valuable insights into factors influencing individuals' choices when considering electric vehicle adoption.

Table 3.7 Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AL -> WC	0.078	0.974	0.33	Not Supported			0.013	S
AT -> WC	0.486	4.455	0.00*	**Supported**			0.279	M
EB -> WC	0.04	0.423	0.673	Not Supported			0.002	S
HAB -> WC	0.336	3.33	0.001*	**Supported**			0.146	S
HB -> WC	-0.071	0.681	0.496	Not Supported			0.007	S
PI -> WC	0.083	0.795	0.427	Not Supported			0.01	S
SB -> WC	0.017	0.147	0.883	Not Supported	0.73	0.666	0.00	S

**Significance at 0.05* *Source: Compilation based on Primary Data*

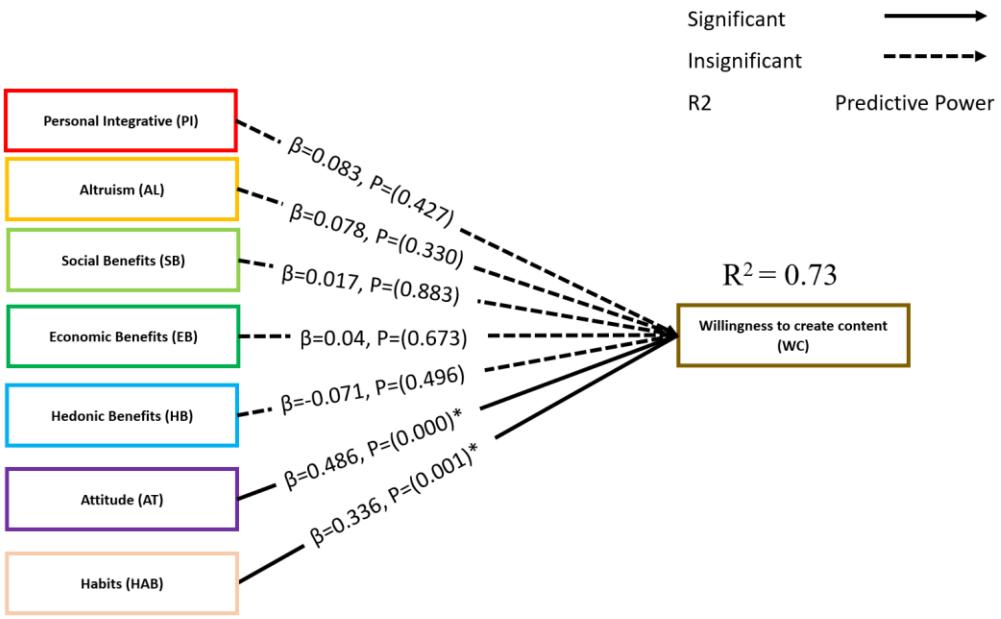

Figure 3.2 The Result of the Tested Model

3.5 COMPOSITE MODEL

The third research question addresses the composite model derived from integrating the recommended models of objectives 1 and 2. It specifically focuses on the variables influencing customer satisfaction, which subsequently impacts their inclination to generate content for social media platforms. Following a meticulous examination of the data and tests outlined in the preceding sections, Proposed Model 2 emerged as the most suitable framework for the study's objectives. To ascertain its efficacy in portraying consumer behavior accurately – encompassing both the factors driving EV purchases and subsequent reactions – a composite model combining the two proposed models is employed.

With compatibility, validity, convergent, and discriminant validity already established, the focus shifts to testing the hypothesis. Criteria including Effect Size, R^2, Q^2, F^2, P-values, T-values, and Path Coefficients are utilized to evaluate the composite model's performance. This comprehensive

model provides an intricate examination of customer behavior in the EV context, aiming to elucidate the impact of attitudes and perceptions on purchase decisions, as well as post-purchase content creation on social media and other platforms.

The preceding sections of Chapter 2 delve into detailed explanations of the elements considered in Objectives 1 and 2, obviating the need for redundancy in this section. By synthesizing these components into a cohesive framework, the composite model endeavors to offer a nuanced understanding of consumer behavior surrounding EV adoption and engagement, providing valuable insights for stakeholders in the electric vehicle industry and beyond.

Table 3.8 provides insights into the Path Coefficients, T-values, P-values, R^2, Q^2, F^2, and Effect Size of various research variables, indicating their correlations and significance levels. Each variable, including Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), anxiety-free Experience (AFE), Personal Attitude (PA), Trust (TR), Satisfaction (ST), perceived Risk (PR), Environmental Concern (EC), Government Support (GS), Adoption Intention (AI), Altruism (AL), Attitude (AT), Economic Benefits (EB), Habit (HAB), Hedonic Benefits (HB), Personal Integrative (PI), Social Benefits (SB), and Willingness to Create Content (WC), reflects distinct aspects of customers' perceptions regarding electric vehicle usage. In structural equation modeling, Path Coefficients (Beta values) reveal the direction and strength of relationships between independent and dependent variables. A positive β value suggests that as the independent variable increases, the dependent variable also increases. A negative β value implies that an increase in the independent variable leads to a decrease in the dependent variable. P-values determine the significance of these relationships, guiding the acceptance or rejection of hypotheses. Notably, significant associations are found between Personal Attitude (PA) and

Adoption Intention (AI), Satisfaction (ST) and Adoption Intention (AI), Attitude (AT) and Willingness to Create Content (WC), as well as Habit (HAB) and Willingness to Create Content (WC), supported by P-values below 0.05. Conversely, several relationships, such as Anxiety-Free Experience (AFE) -> Adoption Intention (AI), Effort Expectancy (EE) -> Adoption Intention (AI), Hedonic Benefits (HB) -> Willingness to Create Content (WC), Personal Integrative (PI) -> Willingness to Create Content (WC), and others, lack statistical significance.

R^2 quantifies the proportion of variation in the dependent variable explained by independent variables, while Q^2 assesses predictive power. In this study, R^2 for Adoption Intention (AI) and Willingness to Create Content (WC) are 0.628 and 0.74 respectively, indicating substantial explanatory ability, while Q^2 are 0.41 and 0.665, signifying good predictive performance. Additionally, F^2 values suggest small-sized effects for 18 variables and medium-sized for 1 variable.

This analysis offers valuable insights into factors influencing individuals' choices when considering electric vehicle adoption.

Table 3.8 Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect size
AFE -> AI	0.193	1.45	0.147	Not Supported			0.038	S
AI -> WC	0.109	1.784	0.075	Not Supported			0.039	S
AL -> WC	0.047	0.552	0.581	Not Supported			0.005	S
AT -> WC	0.486	4.593	0.00*	**Supported**			0.289	M
EB -> WC	0.019	0.195	0.845	Not Supported			0.00	S
EC -> AI	0.101	0.725	0.468	Not Supported			0.009	S
EE -> AI	0.009	0.07	0.944	Not Supported			0.00	S
FC -> AI	-0.044	0.377	0.706	Not Supported			0.003	S
GS -> AI	-0.103	0.689	0.491	Not Supported			0.009	S
HAB -> WC	0.305	2.967	0.003*	**Supported**			0.122	S
HB -> WC	-0.06	0.556	0.578	Not Supported			0.005	S
PA -> AI	0.30	2.309	0.021*	**Supported**			0.081	S
PE -> AI	0.083	0.645	0.519	Not Supported			0.009	S
PI -> WC	0.108	1.015	0.31	Not Supported	0.74	0.665	0.017	S
PR -> AI	-0.106	1.19	0.234	Not Supported			0.022	S
SB -> WC	0.022	0.203	0.839	Not Supported			0.001	S
SI -> AI	0.098	0.874	0.382	Not Supported			0.013	S
ST -> AI	0.373	2.085	0.037*	**Supported**			0.085	S
TR -> AI	-0.076	0.591	0.555	Not Supported	0.628	0.41	0.005	S

**Significance at 0.05* *Source: Compilation based on Primary Data*

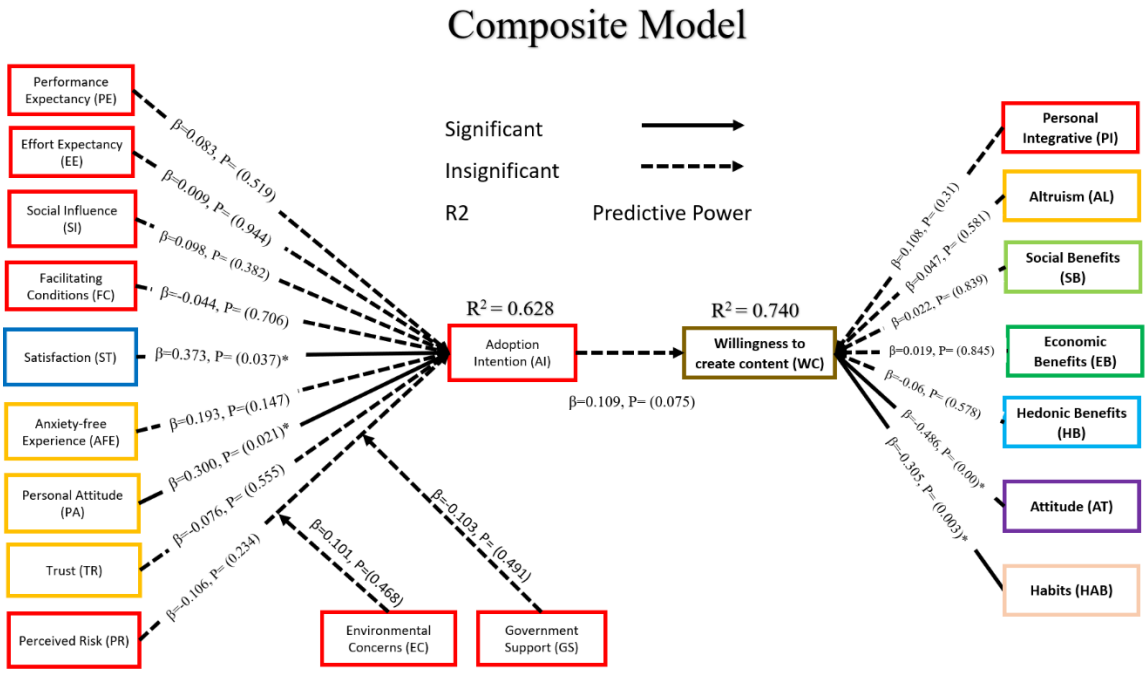

Figure 3.3 The Result of the Tested Model

3.6 SUMMARY

This chapter presents the outcomes of the analyses conducted in the study. In the data analysis chapter, a thorough investigation is conducted to address the research questions regarding customer demographics, factors influencing buying behavior, and consumer reactions concerning electric vehicle adoption. The demographic profile reveals insights into the geographical distribution, gender, age, marital status, education, occupation, and income of respondents from North and South Goa. Subsequent analyses delve into the factors influencing consumer decisions, demonstrating significant associations between constructs such as Personal Attitude, Satisfaction, and Adoption Intention. Furthermore, the exploration of consumer reactions uncovers significant associations between constructs like Attitude, Habit, and Willingness to Create Content, providing valuable insights into customer engagement with electric vehicles. The synthesis of these findings culminates in a composite model aimed at providing a comprehensive understanding of customer behavior in the context of electric vehicle adoption and engagement, offering nuanced insights into factors influencing satisfaction and subsequent content creation on social media platforms.

CHAPTER 4: SUMMARY, FINDING, AND CONCLUSION

4.1 INTRODUCTION

This study investigates consumer attitudes and preferences towards electric vehicles (EVs) in the Goan market, aiming to understand the factors influencing EV adoption and purchasing behavior comprehensively. Through demographic profiling, an examination of buying behavior factors, and an analysis of post-purchase experiences, the research uncovers the multifaceted motivations guiding consumers' decisions to adopt EVs. By developing a composite model that integrates various variables affecting consumer happiness and adoption intention, the study provides nuanced insights into the drivers behind EV adoption in Goa. While the findings carry significant managerial implications for stakeholders, including manufacturers, policymakers, and marketers, it's crucial to acknowledge limitations such as sample size constraints and potential response bias. Nonetheless, the study emphasizes the importance of a holistic approach that considers psychological, environmental, and policy-related factors to promote EV adoption and foster sustainable transportation practices effectively in Goa.

4.2 SUMMARY

4.2.1 Who they are

Understanding Respondents' Characteristics. The demographic profiling section of the research aims to gather information about the respondents' characteristics, such as age, income, gender, and more. This section provides valuable insights into the demographic composition of the sample population, allowing researchers to analyze any potential differences or trends based on demographic factors. By understanding the demographic profile of respondents, researchers can better interpret the findings and identify any patterns or associations that may exist within the data.

4.2.2 What factors influence

The section on factors influencing buying behavior delves into the multifaceted elements that shape consumers' decision-making processes. By examining constructs such as anxiety-free experience, adoption intention, environmental concern, and more, researchers aim to uncover the intricate motivations guiding consumers' purchasing behavior. These constructs, derived from prior research, are measured using Likert-type scales to capture nuanced nuances in consumer attitudes and preferences. Understanding these factors provides invaluable insights for businesses, enabling them to tailor their marketing strategies and optimize the shopping experience to better meet the needs and desires of their target audience.

4.2.3 How they react

The post-purchase experiences and responses section delves into consumers' experiences and reactions following their online purchases. In this section, respondents' reactions to social media are assessed, covering constructs such as Personal Integrative (PI), Altruism (AL), Social Benefits (SB), Economic Benefits (EB), Hedonic Benefits (HB), Attitude (AT), Habits (HB), and Willingness to Create Content (WC). Additionally, researchers may explore consumers' likelihood of recommending the product or retailer to others, as well as their intentions to make future purchases. By comprehensively examining post-purchase experiences and responses, researchers can pinpoint areas for improvement and identify opportunities to enhance customer satisfaction and loyalty, thereby fostering long-term relationships with consumers.

4.2.4 Composite Model

The third research question and Objective 3 of the study converge on the examination of a composite model, synthesizing the recommended models from Objectives 1 and 2. This composite model delves into the variables influencing customer satisfaction, subsequently impacting their propensity to engage in content creation for social media and their online purchasing habits. Through meticulous data analysis and tests conducted in earlier sections, Proposed Model 2 emerged as the most suitable framework. To ascertain its efficacy in portraying consumer behavior realistically – encompassing both the factors driving EV purchases and subsequent reactions – the composite model was employed, with compatibility, validity, convergent, and discriminant validity already established. Hypothesis testing of the composite model for Objective 3 employed various criteria, including Effect Size, R^2, Q^2, F^2, P-values, T-values, and Path Coefficients. This comprehensive approach allows for a thorough evaluation of the composite model's performance, offering valuable insights into the complex dynamics of consumer behavior in EV adoption and engagement, with implications for stakeholders in the industry.

4.3 FINDINGS

- Personal Attitude (PA) and Satisfaction (ST) significantly impact Adoption Intention (AI) among consumers, highlighting the importance of fostering positive attitudes towards electric vehicles (EVs) to drive adoption rates.
- Factors such as Environmental Concern (EC), Facilitating Conditions (FC), and Anxiety-Free Experience (AFE) do not exert a significant influence on Adoption Intention (AI), suggesting that addressing these factors may not directly contribute to increasing EV adoption rates.

- Attitude (AT) and Habit (HAB) are key drivers of consumers' Willingness to Create Content (WC) about their EV experiences, underscoring the role of positive attitudes and habitual behaviors in promoting consumer engagement.
- Conversely, factors like Altruism (AL), Economic Benefits (EB), Hedonic Benefits (HB), Personal Integrative (PI), and Social Benefits (SB) do not significantly influence Willingness to Create Content (WC), indicating that intrinsic motivations may not be strong determinants of content creation regarding EVs.
- Constructs such as Personal Integrative (PI), Altruism (AL), Social Benefits (SB), and Attitude (AT) demonstrate high reliability and validity, meeting the necessary benchmarks for assessing construct robustness.
- The Fornell-Larcker Criterion confirms discriminant validity, ensuring that each construct captures unique aspects of customer perceptions regarding EV usage, enhancing the credibility of the study's findings.
- The composite model integrates insights from Objectives 1 and 2, providing a comprehensive framework for understanding consumer behavior related to EV adoption and engagement and content creation on social media platforms.

These findings offer valuable insights into the factors influencing EV adoption and consumer engagement, providing a basis for formulating effective strategies to promote EV usage and encourage content creation among consumers.

4.4 CONCLUSION

In conclusion, the findings of this study shed light on the intricate dynamics surrounding electric vehicle (EV) adoption and consumer engagement. It is evident that personal attitudes and levels of satisfaction significantly influence consumers' intentions to adopt EVs, highlighting the importance of addressing individual perceptions and experiences in promoting sustainable transportation alternatives. However, factors such as environmental concerns and facilitating conditions seem to have less impact on adoption intention, suggesting a need for targeted interventions to address barriers and enhance the overall consumer experience with EVs.

Moreover, understanding consumer reactions and motivations for content creation in the context of EV usage reveals the significance of attitudes and habits in driving engagement. While altruism and economic benefits may not directly influence consumers' willingness to create content, factors such as attitude and habit play pivotal roles in shaping their behaviors. By acknowledging these findings and leveraging insights from the composite model proposed in this study, stakeholders in the EV industry can develop more effective strategies to encourage adoption and foster active engagement among consumers, ultimately contributing to the broader goal of promoting sustainable mobility solutions.

4.5 MANAGERIAL IMPLICATIONS

The managerial implications drawn from this research offer actionable insights for stakeholders in the electric vehicle (EV) industry and related sectors. Firstly, the findings underscore the importance of fostering positive attitudes and perceptions towards EVs through targeted marketing and education campaigns. By highlighting the environmental concerns, economic advantages, and technological advancements associated with EV adoption, manufacturers and policymakers can cultivate a favorable consumer mindset and alleviate concerns regarding range anxiety.

Secondly, the study emphasizes the pivotal role of social influence and facilitating conditions in shaping consumer behavior toward EV adoption. Managers and policymakers can leverage social networks and community engagement initiatives to harness the power of peer influence and promote EV adoption as a socially desirable and normative behavior. Additionally, investments in infrastructure development, such as expanding charging networks and offering incentives for EV ownership, can enhance the accessibility and convenience of EVs, further incentivizing adoption among prospective consumers.

Furthermore, the research highlights the importance of addressing perceived risks and uncertainties surrounding EV ownership, particularly in terms of reliability, affordability, and resale value. By providing transparent information, offering warranties and service guarantees, and implementing financial incentives such as tax rebates and subsidies, stakeholders can mitigate perceived risks and enhance consumer confidence in EV technology. Overall, the managerial implications derived from this research provide actionable strategies for fostering widespread EV adoption and accelerating the transition toward sustainable mobility solutions.

4.6 THEORETICAL CONTRIBUTIONS

The study makes significant theoretical contributions in several key areas. Firstly, it delves into the attitudes of respondents towards electric vehicle (EV) adoption, providing valuable insights into the psychological and behavioral factors influencing consumer decision-making processes in this domain. This focus enhances our understanding of individual perceptions and preferences, laying the groundwork for tailored interventions to promote EV uptake.

Secondly, the study's framework represents a notable advancement by integrating elements from two distinct strands of literature: the Unified Theory of Acceptance and Use of Technology

(UTAUT) model and prior research on EV adoption. This integration allows for a more comprehensive examination of the factors shaping adoption intentions, encompassing technological, environmental, and socio-psychological determinants. Through the incorporation of additional variables, the study enriches existing models and offers a nuanced understanding of the multifaceted dynamics driving EV adoption.

Lastly, the exploration of consumer reactions post-EV usage introduces a novel dimension to the research. By investigating how respondents engage with EV experiences through online content creation or word-of-mouth communication, the study sheds light on post-purchase behavior in the EV domain. This aspect not only deepens our understanding of consumer experiences but also provides insights into the role of social influence and digital platforms in shaping perceptions and behaviors related to EV adoption. Overall, these theoretical contributions advance scholarly discourse and inform practical interventions aimed at promoting sustainable mobility solutions.

4.7 LIMITATIONS SND SUGGESTIONS FOR FURTHER RESEARCH

While this study unveils crucial insights into consumer attitudes and preferences regarding electric vehicles (EVs) in Goa, several limitations deserve attention and suggestions for further research. Initially, the sample size of 200 respondents, though adequate for preliminary insights, might not fully encapsulate the diverse spectrum of EV consumers in the region. Expanding the sample size to encompass a more extensive and varied demographic could enhance the generalizability of the findings and provide a deeper understanding of consumer behaviors toward EVs. Furthermore, employing probability sampling techniques instead of purposive and snowball sampling methods would mitigate selection biases, ensuring greater representativeness in future studies.

Additionally, the skewed distribution of respondents across certain demographic characteristics, such as age and education levels, could potentially limit the applicability of the findings to the broader population. To address this limitation, future research should strive for a more balanced representation across demographic variables, thereby bolstering the robustness of the results. Moreover, while the proposed model in this study offers valuable insights into factors influencing EV adoption intentions, its predictive accuracy could be enhanced by refining existing variables or incorporating additional factors. Comparative research across different cultural contexts and EV models may also yield valuable insights, enriching our understanding of EV adoption dynamics in diverse settings and informing more targeted strategies for promoting EV adoption.

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Appendix I

Questionnaire

As part of my Dissertation work in the M. Com Course, I am conducting a survey on **"Exploring consumer attitudes and preferences regarding electric vehicles in Goa."** Please do co-operate with me in this survey by giving your responses. I promise that your response will be kept confidential and will be used only for academic purposes. The Google form is divided into 3 sections.

INFORMED CONSENT

I understand that the proposed study is for obtaining responses for the purpose of assessing the perceptions and opinions of people from different geographical locations about "Exploring consumer attitudes and preferences regarding electric vehicles in Goa".

I also understand that the data so collected will ONLY be used for academic and research purposes and strict confidentiality will be followed in keeping the data so collected.

I agree to participate in the survey and provide my perceptions and opinions for completing the proposed study.

- Yes
- No

Who they are?

Part I: Demographic Profile (Please Tick)

Gender	Male		Female		
Age	Up to 30 Years		Above 30 Years		
Education	Up to 10^{th}	Up to 12th	Graduation	Post Graduation	
Marital Status	Married		Unmarried		
Income	Below Rs. 50,000	Rs. 50,000-Rs.1,00,000		More than Rs. 1,00,000	
Occupation	Student	Employed (Govt.)	Employed (Private)	Unemployed	House Wife
Location	North Goa		South Goa		

1. Daily Driving Distance
    - Less than 50 km
    - Between 51 and km-100 km
    - Between 101 and km-300 km
    - More than 300 km

2. How frequently do you use or drive an electric vehicle?
    - Rarely or Never
    - Occasionally (a few times a month)
    - Regularly (about once a week)
    - Frequently (several times a week)
    - Daily

3. On average, how much do you spend per month on charging or maintaining your electric vehicle?
    - Less than ₹500
    - ₹500 - ₹1,000
    - ₹1,001 - ₹2,000
    - ₹2,001 - ₹3,000
    - ₹3,001 - ₹5,000

4. What types of charging stations do you primarily use (home charging, public charging, and workplace charging)?
    - Home Charging
    - Public Charging Stations
    - Workplace Charging
    - All three: Home, Public, and Workplace Charging
5. How aware are you of government incentives or policies supporting electric vehicle adoption?
    - lightly aware
    - Moderately aware
    - Very aware
    - Extremely aware
6. How aware are you of government incentives or policies supporting electric vehicle adoption?
    - lightly aware
    - Moderately aware
    - Very aware
    - Extremely aware

RQ1: What factors influence your decision to choose an electric vehicle?

O1: To identify the key factors influencing consumers' choices when considering electric vehicle adoption in Goa and whether are they happy.

Sr. No.	Questionnaire	Scale				
	Performance expectancy	1	2	3	4	5
1	I would find EV useful in my daily life Using	(Jain et al., 2022)				
2	EV would help me travel quickly Using					
3	EV would increase my productivity					
	Effort expectancy	1	2	3	4	5
1	Learning how to drive an EV would be easy for me	(Jain et al., 2022)				
2	I would find EV easy to use					
3	It would be easy for me to become skillful at using EV					
	Facilitation	1	2	3	4	5
1	I have the resources necessary to use EV	(Jain et al., 2022)				
2	I have the knowledge necessary to use EV					
3	EVs are compatible with other technologies I use (e.g., Bluetooth connectivity on smartphones)					
	Social influence	1	2	3	4	5
1	People who are important to me would think that I should use EV	(Jain et al., 2022)				
2	People who influence my behavior would think that I should use EV					
3	People whose opinions I value would prefer that I use EV					
4	Driving an EV would make a good impression about me on other people					
	Satisfaction	1	2	3	4	5
1	I am convinced that EVs serve my needs.	(Bhattacherjee, 2001) (Cruz-Jesus et al. 2023)				
2	I am convinced that I will be satisfied with EV efficiency.					

3	I am convinced that I will be satisfied with EV's effectiveness.					
4	I am convinced that, overall, I will be satisfied with EV.					
	Perceived risk	1	2	3	4	5
1	I am afraid of suffering financial losses when using EVs	(Jain et al., 2022)				
2	I would not feel totally safe when I drive an EV on the road					
3	Considering the disadvantages of EVs (e.g., limited driving range and long recharging) I think using EVs could involve important time losses					
4	I worry about whether EVs will really perform as well as traditional gasoline vehicles					
	Environmental concerns	1	2	3	4	5
1	I think environmental problems are becoming more and more serious in recent years	(Jain et al., 2022)				
2	I think human beings should live in harmony with nature in order to achieve sustainable development					
3	I think we are not doing enough to save scarce natural resources from being used up					
	Government support	1	2	3	4	5
1	The government direct subsidy policy is attractive to me to adopt an EV	(Jain et al., 2022)				
2	Exemption from road tolling is valuable to me to adopting an EV					
3	Exemption from purchase tax is helpful to me in adopting an EV					
	Adoption intention	1	2	3	4	5
1	I am willing to adopt an EV when adopting a vehicle in the near future	(Jain et al., 2022)				
2	I would like to recommend others to adopt electric vehicles when they planned to adopt a vehicle					
	Anxiety-free experience	1	2	3	4	5
1	I expect the process of buying and canceling reservations for electric vehicles in Goa to be easy and without additional costs.	(Curtale et al., 2021)				
2	I expect it to be convenient to find charging facilities for the purchased electric vehicle in Goa.					

3	I expect that the electric vehicle seller will prioritize customer interests in case of any conflicts or issues.					
	Trust	1	2	3	4	5
1	I expect the purchased electric vehicle to be in optimal condition without hidden damages.	(Curtale et al., 2021)				
2	I expect the electric vehicle seller to provide comprehensive insurance coverage to address uncertainties related to the vehicle.					
	Personal attitude	1	2	3	4	5
1	I prefer purchasing environmentally friendly means of transportation, including electric vehicles.	(Curtale et al., 2021)				
2	I believe buying electric vehicles in Goa will help improve air quality.					

RQ 2: How do they react?

O2: To identify various factors influencing respondents' social media reactions.

Factors Influencing Consumer willingness to create content

1. Are you aware of various platforms available for sharing your experiences or providing feedback regarding electric vehicles, such as reviews, opinions, posts, ratings, etc.?
    - Yes
    - No
2. On which platform do you prefer to share your experience with electric vehicles, including reviews, opinions, posts, ratings, etc.?
    - On the Company's website/ Application
    - On Travel / Hotel Booking Website/Applications
    - On social media
    - Other Platform (Please specify):

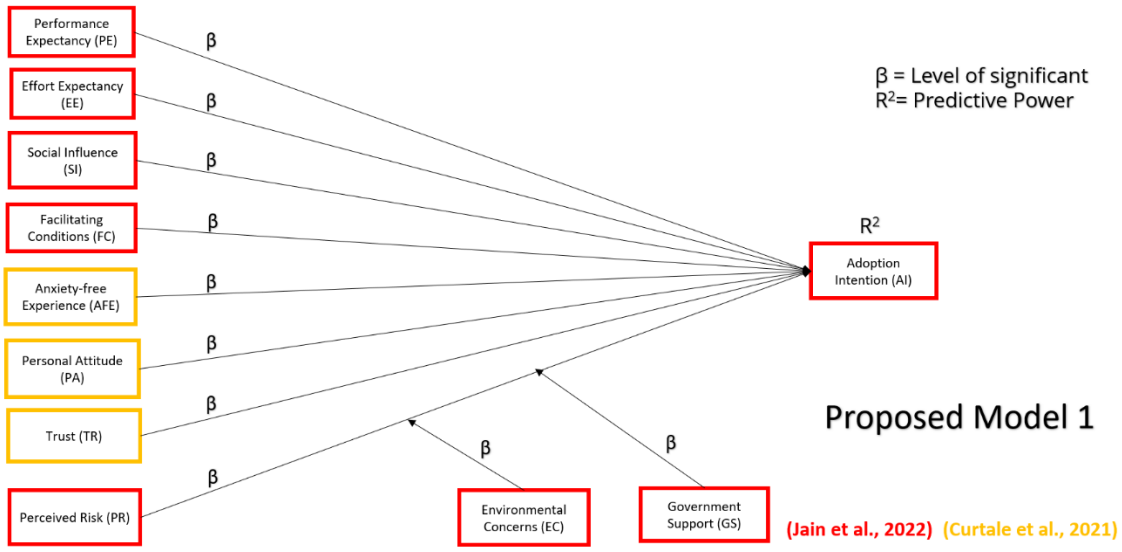
Sr. No	Statements	1	2	3	4	5
	Personal Integrative	Nambisan & Baron, (2007); Constantinides et al., (2015)				
1	I post a review of my experience if public/social recognition is attached to it					
2	I post to impress and show off my activities to friends					
	Altruism	Bronner & Hoog, (2011)				
3	I want to help others with my own experiences					
4	I want to enable others to make a good decision					
5	I want to help the company to improve their services					
	Social Benefits	Nambisan & Baron, (2009); Hoyer, et al., (2010)				
6	I meet new people when I post my reviews					
7	To enhance the strength of my affiliation with the consumer community					
	Economic Benefits	Hennig-Thurau et al., (2014)				
8	I receive a reward for posting my experience on social media					
9	I want to make money by posting my positive experience					
	Hedonic Benefits	Nambisan & Baron, (2007)				
10	Sharing personal experiences is really enjoyable and fun					
11	Posting reviews is a fun way to kill time					
	Attitude	Fishbein & Ajzen, (1975)				
12	Posting reviews is thrilling and gives a nice experience					
13	I feel positive about posting reviews					
	Habits	Kim et al., (2005)				
14	It has become a habit for me to share my experiences after using electric vehicles					
15	I find myself repeatedly creating content about my experiences with electric vehicles					
	Willingness to create content	Opata et al., (2019)				
16	I consistently provide my reviews and feedback about my electric vehicle experiences					
17	I have the intention to continue sharing my experiences and reviews about electric vehicles					
18	I believe my content is useful for both companies and potential electric vehicle buyers					

Appendix II

Proposed Models Results

RQ1: "What factors influence your decision to choose an electric vehicle"

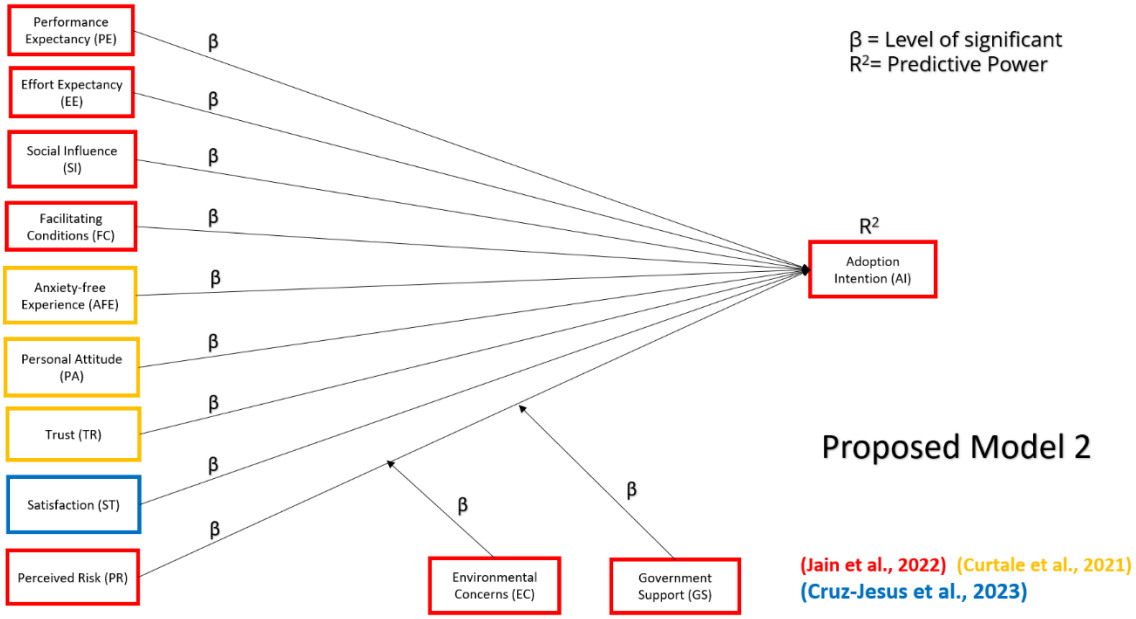
Proposed Model 1



Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AFE -> AI	0.268	2.129	0.033*	**Supported**			0.071	M
EC -> AI	0.133	1.199	0.23	Not Supported			0.019	S
EE -> AI	-0.035	0.259	0.796	Not Supported			0.002	S
FC -> AI	-0.028	0.237	0.813	Not Supported			0.001	S
GS -> AI	0.03	0.193	0.847	Not Supported			0.001	S
PA -> AI	0.35	2.921	0.004*	**Supported**			0.11	M
PE -> AI	0.126	0.916	0.36	Not Supported			0.021	M
PR -> AI	-0.09	0.966	0.334	Not Supported			0.015	S
SI -> AI	0.094	0.841	0.40	Not Supported			0.011	S
TR -> AI	0.007	0.051	0.959	Not Supported	0.601	0.378	0.00	S

Proposed Model 2

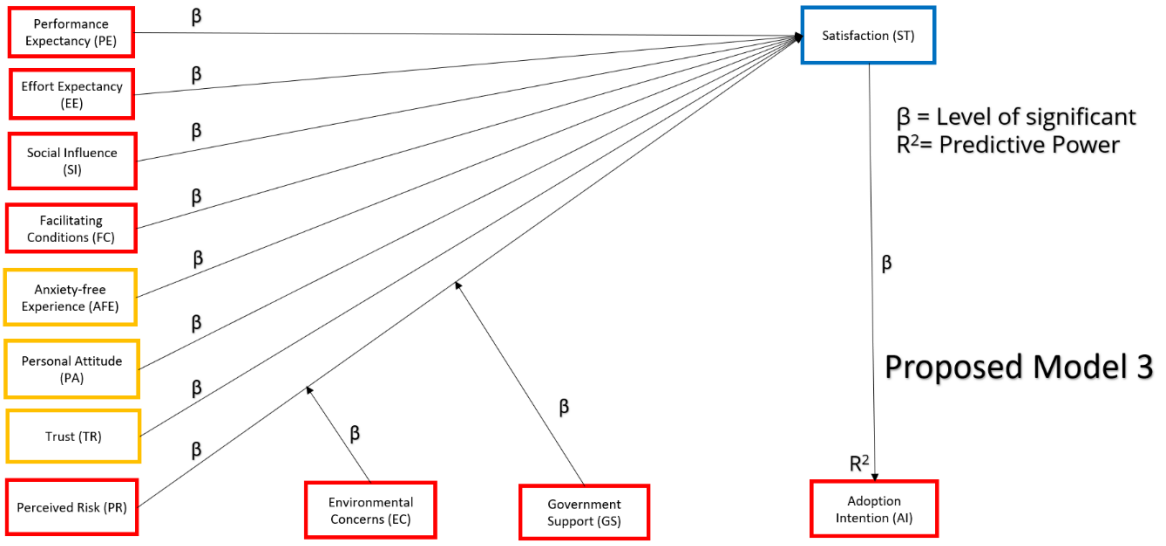


Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AFE -> AI	0.197	1.478	0.14	Not Supported			0.039	M
EC -> AI	0.102	0.727	0.468	Not Supported			0.009	S
EE -> AI	0.009	0.069	0.945	Not Supported			0.000	S
FC -> AI	-0.043	0.366	0.714	Not Supported			0.002	S
GS -> AI	-0.102	0.685	0.493	Not Supported			0.009	S
PA -> AI	0.294	2.253	0.024*	**Supported**			0.078	M
PE -> AI	0.082	0.637	0.524	Not Supported			0.009	S
PR -> AI	-0.105	1.186	0.236	Not Supported			0.022	M
SI -> AI	0.101	0.901	0.368	Not Supported			0.013	S
ST -> AI	0.371	2.074	0.038*	**Supported**			0.084	M
TR -> AI	-0.075	0.584	0.559	Not Supported	0.628	0.409	0.005	S

In the pursuit of Objective 1, three distinct models were examined and evaluated, with the outcomes meticulously scrutinized. Among these models, it emerged that the proposed Model 2 exhibited superior performance, boasting a notably higher R^2 value. Consequently, in the interest of coherence and efficacy, proposed Model 2 was deemed most suitable for addressing the current objective within the study, which is provided in **Chapter 3, section 3.3 (Table 3.4).**

Proposed Model 3



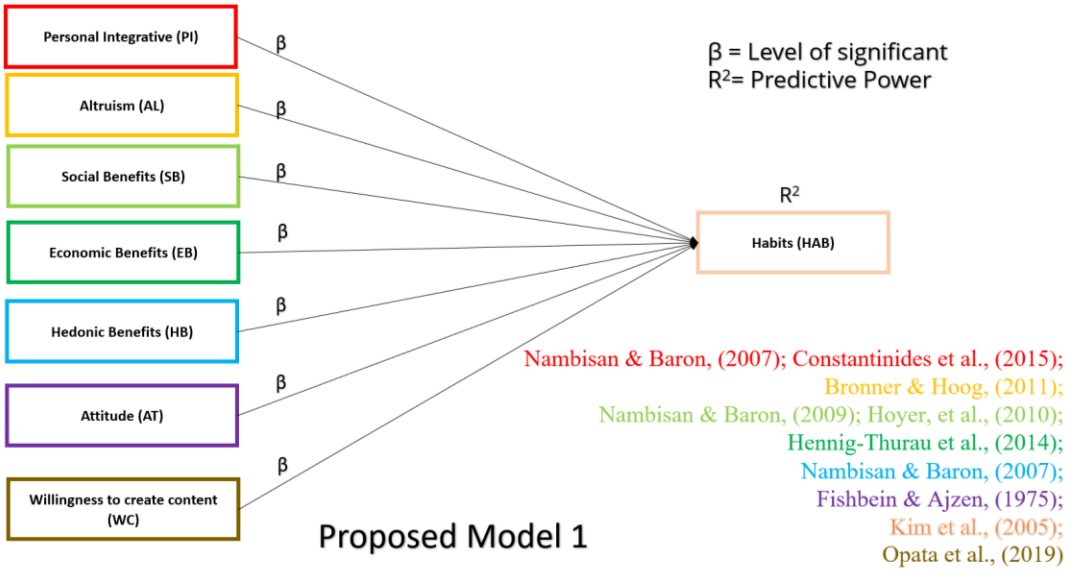
(Jain et al., 2022) (Curtale et al., 2021) (Cruz-Jesus et al., 2023)

Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AFE -> ST	0.127	1.359	0.174	Not Supported			0.031	M
EC -> ST	0.228	2.444	0.015*	**Supported**			0.112	M
EE -> ST	-0.113	1.38	0.168	Not Supported			0.036	M
FC -> ST	0.016	0.207	0.836	Not Supported			0.001	S
GS -> ST	0.317	2.986	0.003*	**Supported**			0.17	L
PA -> ST	0.176	2.04	0.041*	**Supported**			0.055	M
PE -> ST	0.149	1.403	0.161	Not Supported			0.058	M
PR -> ST	0.059	0.955	0.34	Not Supported			0.013	S
SI -> ST	-0.036	0.511	0.61	Not Supported			0.003	S
ST -> AI	0.709	11.964	0.00*	**Supported**	0.502	0.421	1.008	L
TR -> ST	0.171	1.568	0.117	Not Supported	0.798	0.676	0.056	M

RQ2: "How do the customers react based on their experience"

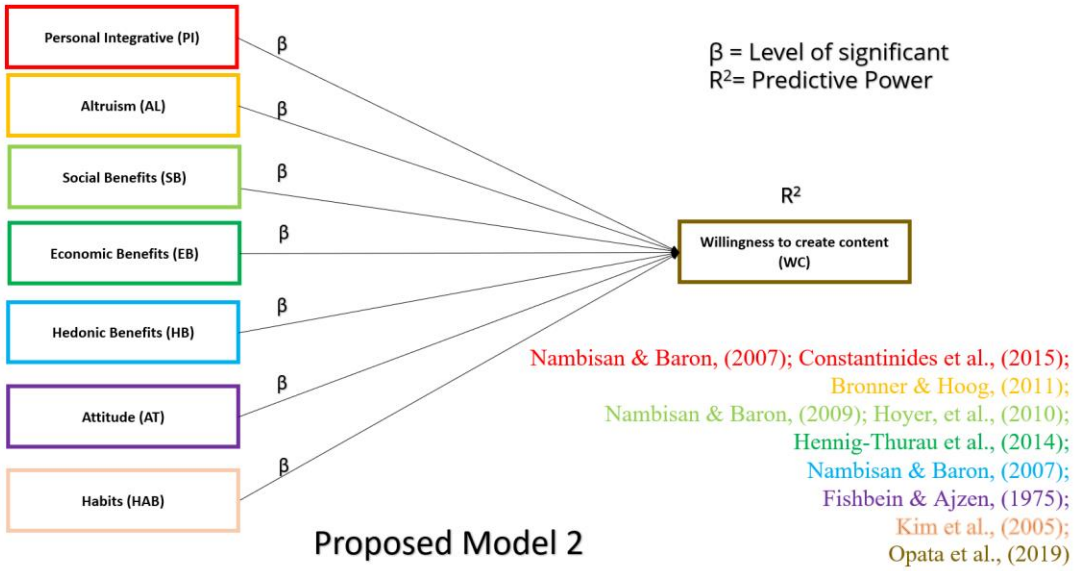
Proposed Model 1



Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AL -> HAB	-0.026	0.312	0.755	Not Supported			0.001	S
AT -> HAB	0.151	1.175	0.24	Not Supported			0.019	S
EB -> HAB	0.022	0.193	0.847	Not Supported			0.001	S
HB -> HAB	0.156	1.509	0.131	Not Supported			0.032	M
PI -> HAB	0.092	0.879	0.38	Not Supported			0.011	S
SB -> HAB	0.177	1.518	0.129	Not Supported			0.036	M
WC -> HAB	0.388	3.034	0.002*	**Supported**	0.697	0.618	0.154	L

Proposed Model 2

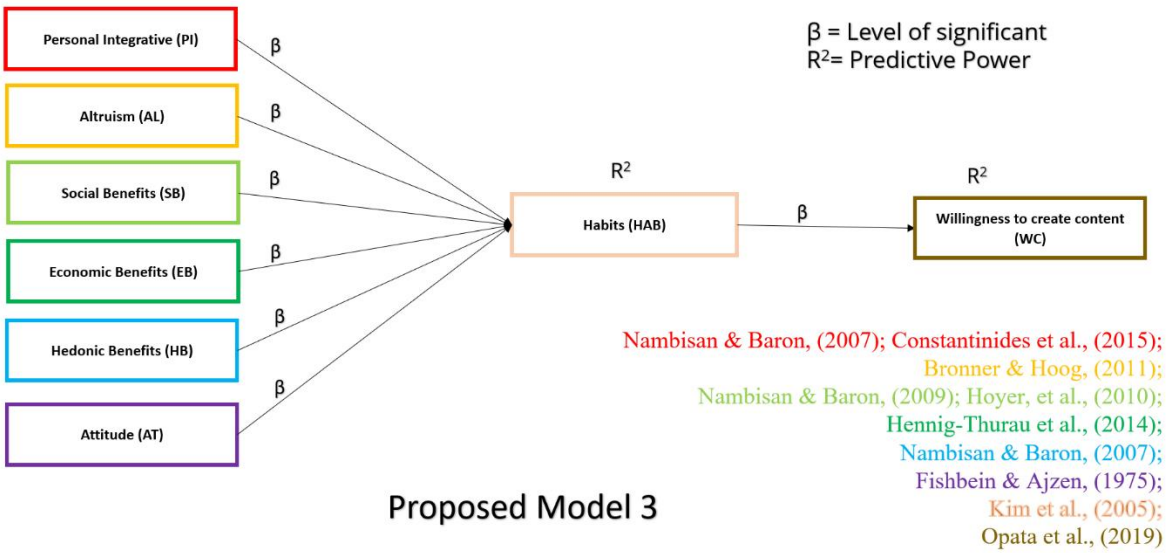


Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AL -> WC	0.078	0.974	0.33	Not Supported			0.013	S
AT -> WC	0.486	4.455	0.00*	**Supported**			0.279	L
EB -> WC	0.04	0.423	0.673	Not Supported			0.002	S
HAB -> WC	0.336	3.33	0.001*	**Supported**			0.146	M
HB -> WC	-0.071	0.681	0.496	Not Supported			0.007	S
PI -> WC	0.083	0.795	0.427	Not Supported			0.01	S
SB -> WC	0.017	0.147	0.883	Not Supported	0.73	0.666	0.00	S

Objective 2 delved into the examination and analysis of three distinct models, the findings of which have been meticulously outlined. Notably, among the trio of proposed models (Proposed Models 1, 2, and 3), it was discerned that proposed Model 2 exhibited the most promising performance. With an impressive R^2 value of 0.73 and a Q^2 value of 0.666, proposed model 2 surpassed its counterparts, demonstrating superior predictive power. Hence, in the context of the present study, the proposed model 2 emerges as the optimal choice for further investigation and scrutiny, owing to its robust performance metrics and potential for comprehensive analysis, which is provided in the **Chapter 3 section. 3.4 (Table 3.7).**

Proposed Model 3



Proposed Model 3

Path Coefficients, T-values, P values, R^2, Q^2, F^2 & Effect Size

Variables	β	T	P	Hypothesis	R^2	Q^2	F^2	Effect Size
AL -> HAB	-0.004	0.049	0.961	Not Supported			0.00	S
AT -> HAB	0.393	2.82	0.005*	**Supported**			0.164	L
EB -> HAB	0.043	0.367	0.714	Not Supported			0.002	S
HAB -> WC	0.775	17.559	0.00*	**Supported**	0.65	0.596	1.504	L
HB -> HAB	0.15	1.357	0.175	Not Supported	0.601	0.581	0.026	M
PI -> HAB	0.148	1.293	0.196	Not Supported			0.025	M
SB -> HAB	0.208	1.583	0.114	Not Supported			0.043	M