"Green Marketing Mix and Green Purchase Intention of Electric Vehicles in Butwal, Nepal"

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Abstract

The study aims to explore the relationship between green products, green price, green place, green promotion, and green purchase intention. It seeks to identify how different dimensions of the green marketing mix i.e. green product, green price, green place, and green promotion influence green purchase intention. A quantitative approach was adopted, gathering responses from 384 customers using electric vehicles in Butwal through a structured questionnaire and convenience sampling. Data was analyzed using PLS-SEM software, employing various tools such as assessment of measurement items, model fit, IPMA, and bootstrapping techniques for hypothesis testing. The results revealed that green price and green promotion are the key predictors of green purchase intention among the independent variables. It is evident that green price and green promotion are the major contributors to green purchase intention. Therefore, manufacturers of electric vehicles should focus on these aspects to enhance green purchase intention. By under-standing and reformulating policies based on these factors, there is a greater possibility of improving green purchase intention.

Keywords: *Green Purchase Intention, Electric Vehicles, Green Marketing Mix, Green Price, Green Promotion.*

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I. Introduction

The world today faces a serious problem of pollution, and the fast use of fossil fuels are harming our environment and health. In Nepal, where the number of gasoline and diesel vehicles on the road is rising, especially in places like Butwal, this problem is most noticeable. These vehicles put human health at risk, increase carbon emissions, and exacerbate air pollution. Because of these problems, many people and governments are looking for cleaner, more environmentally friendly forms of transportation. Because they may reduce pollution and protect the environment, electric vehicles (EVs) are among the finest options.

The Green Marketing Mix (GMM) and Green Purchase Intention (GPI) are two key concepts that are the subject of this study. Using the four primary components of marketing mix: product, price, place, and promotion in a way that benefits the environment is known as the "green marketing mix" (Polonsky, 1994). For instance, businesses produce environmentally friendly goods, set prices that consumers can pay, make these goods easily accessible, and advertise them by highlighting their advantages for the environment. Customers' readiness

and willingness to purchase environmental friendly products are known as their "green purchase intention." This is contingent upon their level of product knowledge, their perception of its quality, and their financial situation (Chen & Chang, 2012).

Green marketing is a relatively new concept that emerged in the early 1990s as people's awareness of environmental issues increased and they demanded that businesses take responsibility for preserving the environment (Polonsky, 1994). As a result, companies are now producing goods and employing more environmentally friendly marketing strategies. Although electric cars have been around for a while, new technology and the pressing need to cut pollution have made them popular once more in recent years. Electric three-wheelers known as Safa Tempos were the primary means of introducing electric cars to Nepal in the early 2000s. These cars were designed to offer more environmentally friendly urban transportation. However, issues like a lack of charging facilities and the expensive cost of EVs have slowed their growth (Shrestha & Rajbhandari, 2019).

Researchers are interested in why people purchase or do not purchase electric vehicles due to Nepal's increasing pollution issues and the worldwide need to protect the environment. Many people are still afraid to purchase EVs despite the Nepalese government's efforts encouraging their use. This is due to practical issues such as a scarcity of charging stations and market uncertainties, as well as a lack of knowledge about the advantages (Adhikari,2021).

Numerous research on the impact of green products on customer behavior has been conducted in industrialized nations in the subject of green marketing. However, research on how green marketing tactics influence people's decisions to purchase EVs is scarce in Nepal, particularly in Butwal. The majority of studies solely examine people's awareness of environmental issues; they do not examine how marketing influences consumers' decisions to purchase electric vehicles. Additionally, a lot of research ignores how availability and promotions influence decisions in favor of concentrating solely on price.

Butwal residents are not purchasing as many electric cars as anticipated for a number of reasons. First, a lot of people are unaware of the long-term financial and environmental benefits of electric vehicles. They are hesitant to abandon conventional cars because of this ignorance (Wanninayake & Randiwela, 2008). Second, many purchasers who are price conscious are deterred by the initial higher cost of electric vehicles compared to conventional gasoline or diesel automobiles (Shrestha & Rajbhandari, 2019). Third, using EVs is challenging and inconvenient due to a lack of charging stations. Lastly, many individuals are still ignorant of or skeptical of the benefits of EVs due to a lack of advertising and promotion.

The majority of past research conducted in Nepal examined people's awareness of electric vehicles or how pricing influences purchasing decisions. However, no research has examined how the four components of the Green Marketing Mix product, pricing, place, and promotion affect consumers' intentions to purchase EVs in Butwal. Additionally, there is a lack of research on the role of availability (location) and promotion in the Nepalese setting. By investigating how these marketing elements affect consumers' decisions to purchase electric cars in Butwal, our study will close this gap. The local market and customer behavior will be better understood as a result. Businesses and legislators can use this information to create more effective marketing plans and regulations that promote the use of electric vehicles.

Numerous organizations can benefit from this research. In order to better satisfy consumer demands, automakers can learn how to sell electric automobiles. The findings can be used by policymakers to develop more effective strategies for promoting EVs, such as increasing the number of charging stations and providing incentives. This study can serve as a foundation for future research on additional factors influencing EV adoption in Nepal. More information and easier access to environmentally friendly transportation solutions would benefit consumers. By demonstrating how effective marketing may persuade individuals to purchase electric vehicles, this study can ultimately assist Nepal in moving toward greener transportation, lowering pollution, and improving public health. Additionally, by encouraging sustainable transportation, it will support international efforts to combat climate change.

The objectives of the study are as follows:

- To assess the differences among gender, age, marital status, types of electric vehicles and educational qualification regarding green product, green price, green place, green promotion and green purchase intention
- To determine the relationship between green products, green price, green place, green promotion and green purchase intention.
- To analyze the effect of green product, green price, green place, green promotion on green purchase intention.

II. Literature Review

This section deals with theoretical and empirical reviews of the study. The theoretical review examines related theories that support the link between the variables mentioned in the framework. Moreover, the empirical review incorporates the findings of previous research conducted on the same topic. The following theoretical and empirical reviews

support the conceptual framework of the study and form the basis for the development of hypotheses.

H_1: There is a significant effect of green product on green purchase intention.

The Theory of Planned Behaviour by Ajzen.(1991) suggests that a person's intention to buy is influenced by their attitude, personal norms, and perceived behavioral control. Likewise, The Value Belief Norm Theory by Stern.(2000) highlights the part of particular values and moral obligation, where individualities with strong pro-environmental values are more likely to buy green products. Also, the Consumer Decision-Making Process (CDMP) explains purchase intention through problem recognition, information hunt, evaluation of alternatives, purchase decision, and post-purchase decision. And Social Cognitive Theory (SCT) by Bandura. (1986) emphasizes the power of experimental literacy, where consumers are told by media, peers, and influencers in their purchasing opinions, particularly for sustainable products.

Paul et al. (2016) and Nguyen et al. (2019) found that eco-labeling, branding, attitude, and perceived behavioral control all positively influence eco-friendly purchasing decisions. Joshi and Rahman (2015) identified environmental concern and consumer effectiveness as important predictors. Green purchasing is, however, hampered by obstacles such high costs, ignorance, and skepticism (Gleim et al., 2013) as well as the value-action gap (Johnstone & Tan, 2015). Ghimire (2020) found that the desire of young people in Nepal to purchase green items is significantly influenced by their awareness of eco-friendly products and their attitude toward environmental conservation. Similarly, Bishowkarma and Lohala (2024) discovered that customers who have a positive opinion of purchasing sustainably are more likely to be associated with green brands and a willingness to pay a premium. These results highlight the importance of social influence, perceived value, and understanding in encouraging sustainable consumption.

H_2: There is a significant effect of green promotion on green purchase intention.

The ABC theory highlights the relationship between behavioral outcomes, cognitive assessments, and emotional reactions (Eagly & Chaiken, 1993). Positive emotional reactions to electric cars can be strengthened by effective promotion, which will ultimately affect attitudes and purchase intentions. Furthermore, according to Signaling Theory, businesses can lessen information asymmetry by using promotional tactics to

successfully convey their dedication to environmental sustainability (Connelly et al., 2011). Promotions that highlight technological advancements, environmental accomplishments, or certifications (such eco-labels) act as signals to customers, confirming the product's quality and green legitimacy.

Ahmed et al. (2022) discovered that successful green advertising greatly improves customer attitudes toward eco-friendly items, such as electric vehicles, in addition to raising awareness. According to their research, customers' intentions to make green purchases are significantly correlated with promotional actions that emphasize green features. In a similar vein, Shaw et al. (2021) found that consumers who were exposed to specific green promotional content were more likely to form positive opinions about buying electric cars.

H_3: There is a significant effect of green price on green purchase intention.

According to Gao et al. (2019) price perception theories, customers weigh the advantages of products against their expenses. Customers may be prepared to pay more for environment friendly products, such as electric cars, if they believe there will be long-term cost savings or major environmental advantages. As was already established, the Theory of Planned Behavior also relates to price strategies, where a product's affordability can be considered behavioral control. According to Ajzen (1991), buyers are more likely to develop a favorable intention toward buying an electric vehicle if they think they can afford it. According to the Value Based Adoption Model, consumers' adoption of new technologies, including green products, is influenced by their perceived value, which includes both functional and emotional benefits. As a result, pricing strategies that emphasize the environmental benefits and total cost of ownership can increase perceived value and, consequently, purchase intentions (Kim et al., 2014).

A study by Zhang et al. (2020) showed that competitive pricing enhanced consumers' perceptions of the value of electric vehicles in addition to increasing purchase intentions. According to their findings, consumers' purchase intentions are greatly influenced when automakers successfully convey the long-term cost savings of EVs together with competitive price. Similarly, competitive pricing tactics for electric vehicles greatly increase consumer interest and purchase behavior, according to a study by Kaur et al. (2022). They emphasize how incentives or discounts can raise perceptions of value and enhance the likelihood of making a purchase.

H_4: There is a significant effect of green place on green purchase intention.

According to Chaudhary et al. (2020)'s Distribution Service Theory, product accessibility has a significant impact on customer happiness. Effective distribution channels, such as the availability of charging stations and their location in automotive retail spaces, improve consumer trust and convenience of purchase when it comes to electric automobiles. Customers are far more inclined to buy EVs when they believe they can locate and obtain them with ease. Additionally, according to Environmental Signaling Theory, customers base their purchasing decisions on signals from outside sources. The availability of electric vehicles and the brand's dedication to sustainability are strongly indicated by their presence at prominent and easily accessible locations, such as showrooms for certain brands or large auto dealerships. This visibility can enhance consumer perception and intention to purchase green products (Connelly et al., 2011).

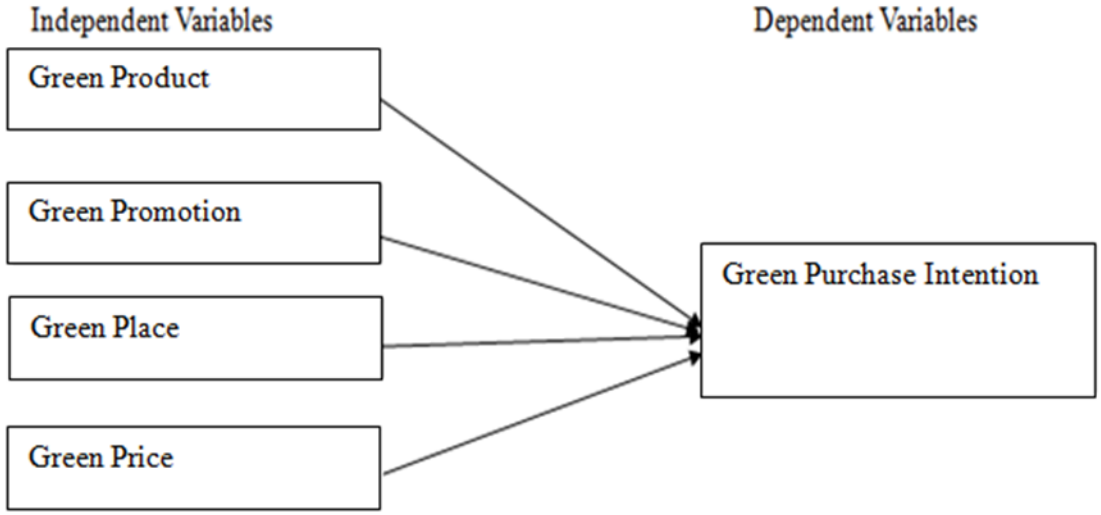
Empirical studies have consistently demonstrated a positive relationship between place and green purchase intention. For example, a study by Taufique et al. (2017) discovered that consumer purchase intentions are greatly influenced by more accessibility to electric vehicles through a wider distribution network. According to their research, buyers are more likely to buy EVs when they have easy access to information and actual vehicles, like at dealerships with EV-specific departments. In a similar vein, Wang et al.'s research from 2021 highlighted that the availability of charging infrastructure, a location-related factor, has a major impact on the intention to acquire electric vehicles. They discovered that consumers are more likely to think about buying EVs if there are a lot of charging stations nearby, suggesting that accessibility to charging stations is a key component influencing green purchase intentions. The actual presence of electric vehicles in retail settings, however, greatly increases consumer awareness and buy intention, according to an empirical study by Hambari et al. (2023). According to their research, people were much more likely to have favorable opinions about buying EVs when they saw them in familiar environments, such neighborhood dealerships.

Research Framework

The research framework is the structure that illustrates the relationship among various variables. In this context, four variables are employed. Green Marketing Mix is measured by four indicators Green Price, Green Place, Green Product, and Green

Promotion as independent variables and Green Purchase Intention is used as the dependent variable. The research framework of the study is outlined below:

Figure 1 - *Research Framework*



Note: Adapted from Ahmed et al (2022)

III. Research Methodology

This section deals with the research methods adopted by the researcher in conducting the research. It looks at the various methods and procedures of the research study adopted in conducting the study in order to address and answer the research problems and questions stipulated by the researcher. In this regard, it deals with different components of research design which guides researchers to decide the population and sample from the desired research area, techniques of approaching the sampled respondent, sources of data collection, research instrument used for data collection and different types of tools used to analyze the collected data. Thus, this section is organized in the following structure: research design, population, sample size, sampling technique, sources of data collection, data collection methods, tools used for data analysis.

Research design

A research design is a structured plan that guides data collection and analysis, shaping the study (Cooper & Schindler, 2003). This study adopts Descriptive Research Design and Explanatory Research Design to achieve its objectives.

Descriptive Research Design systematically presents characteristics, behaviors, or phenomena without altering variables. It identifies trends, patterns, and relationships within a population (Creswell, 2014). Explanatory Research Design investigates cause-and-effect relationships by examining how changes in independent variables lead to

variations in dependent variables through structured and hypothesis-driven methods (Creswell & Creswell, 2018). Likewise, Saunders, Lewis, and Thornhill (2019) emphasize that explanatory studies focus on identifying causal links between variables to understand the underlying reasons for a particular phenomenon. Common statistical methods include the Spearman Rank Order Coefficient, Phi Correlation Coefficient, Regression, t-test, Chi-square, and Analysis of Variance (Isaac, 1978; Pant, 2012, p. 118).

By combining descriptive and explanatory designs, this study effectively examines variable relationships and their impact (Kerlinger, 1986), ensuring a structured and systematic approach.

Population and sample size

The research area for this study is Butwal Sub-Metropolitan City. The population consists of customers who are using Electric vehicles in Butwal. However, the total number of customers using Electric vehicles cannot be precisely determined, making the population unknown. To address this, the sample size for an unknown population is calculated using Cochran's formula (Cochran, 1977).

$$n = Z^2 p (1 - p) / e^2$$

Where, Z = Given Z value based on confidence level (z = 2.576 for 99% level of confidence, 1.96 for 95% level of confidence 1.645 for 90% level of confidence.

- p = Proportion of event of interest for the study (0.5)
- e= margin of error (it depends upon confidence level)

Thus, the calculated sample size of the study n = 384

Sampling method

The sampling method is used to select respondents from the overall population for data collection. In this study, the convenience sampling method is applied to reach sample respondents. Since the research focuses on customers using electric vehicles in Butwal, this method is considered suitable as it allows for easy access to EV users. It enables quick and efficient data collection without the need for a complex selection process.

Nature and Sources of Data Collection

This study primarily relies on quantitative data**,** which were collected from primary sources**.** A structured questionnaire was designed to gather first-hand information directly from respondents.

Survey Instrument

A self-structured questionnaire was used as the survey instrument for data collection. It was developed based on operational definitions from previous literature. The questionnaire employs a seven-point Likert scale (7 = Strongly Agree, 6= Agree, 5= Somewhat Agree, 4 = Neutral, 3= Somewhat Disagree, 2 = Disagree, and 1= Strongly Disagree) to gather responses from participants.

A set of questions was designed to measure each independent and dependent variable, totaling 25 items**.** To ensure clarity and accuracy, a pilot test was conducted by distributing the questionnaire to a sample of 30 respondents. Out of 384 distributed questionnaires,285were fully completed, yielding a response rate of 80 %**.**

Statistical Tools

The study utilized various statistical tools based on the nature of the data. Descriptive statistics, including mean and standard deviation (SD), were computed to analyze and interpret customer responses. Additionally, a reliability test was conducted to assess the consistency of the research instrument.

Furthermore, correlation analysis was used to measure the relationship between variables, while regression analysis examined the effect of independent variables on the dependent variable.

IV. Results and Analysis

Measurement Items Assessment

Table 1 - *Assessment of measurement scale items*

Variables	Items	Outer Loading	VIF	Mean	Standard Deviation
	GGP1	0.829	2.589	5.295	1.586
	GGP2	0.86	2.709	5.33	1.435
Green Price	**GGP3**	0.874	2.776	5.432	1.414
	GGP4	0.851	2.378	5.361	1.439
	GGP5	0.722	1.853	5.537	1.488
Green Product	**GP1**	0.88	3.477	5.533	1.619

	GP2	0.88	3.512	5.572	1.376
	GP3	0.819	2.038	5.428	1.419
	GP4	0.838	2.407	5.642	1.292
	GP5	0.759	1.903	5.653	1.349
	GPI1	0.876	3.139	5.425	1.654
Green Purchase Intention	**GPI2**	0.88	3.1	5.474	1.383
	GPI3	0.886	3.108	5.572	1.311
	GPI4	0.856	2.449	5.47	1.37
	GPI5	0.767	2.053	5.589	1.323
	GPP1	0.835	2.698	5.379	1.544
	GPP2	0.884	3.435	5.411	1.43
Green Promotion	**GPP3**	0.893	3.167	5.491	1.378
	GPP4	0.837	2.46	5.533	1.405
	GPP5	0.783	2.003	5.691	1.349
	GPPP1	0.849	2.925	5.347	1.612
	GPPP2	0.904	4.095	5.435	1.402
Green Place	**GPPP3**	0.848	2.698	5.47	1.331
	GPPP4	0.838	2.349	5.481	1.291
	GPPP5	0.762	2.087	5.618	1.381

Table 1 presents the standardized Outer loading and Variance Inflation Factor (VIF) of the scale items employed to measure the variables pertinent to this investigation. In accordance with Sarstedt et al. (2017), the outer loading of an item must exceed 0.708 to signify a substantial contribution of that item in assessing the associated variable. Therefore, all 25 scale items are preserved for subsequent analysis. Furthermore, the VIF values for each item are less than 5, thereby indicating no multicollinearity within the scale items (Sarstedt et al., 2014). Likewise, the mean values are more than 4 which indicates that all the items are in higher side which reflect that most of the respondents are towards the side of agreeable list. The standard deviation values are small which indicates less deviation in response that shows the data is suitable for further analysis.

Quality Criteria Assessment

Table 2 - *Construct Reliability and Validity*

Variables	**Alpha**	**CR (rho_a)**	**CR (rho_c)**	**AVE**
Green Place	0.896	0.903	0.924	0.708

Green Price	0.885	0.889	0.916	0.687
Green Product	0.892	0.901	0.921	0.7
Green Promotion	0.901	0.904	0.927	0.718
Green Purchase Intention	0.907	0.912	0.931	0.729

Table 2 contains the values of Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) to evaluate the convergent validity of the variables employed in this study. The Cronbach's Alpha coefficients for all items exceed the threshold of 0.705, signifying the adequate contribution of each scale item in the assessment of related constructs (Bland & Altman, 1997). Furthermore, the CR values for rho_A and rho_C surpass the minimum criterion of 0.70, denoting a robust measure of internal consistency (Saari et al., 2021; Hair et al., 2022). The AVE values also exceed the pivotal threshold of 0.50, suggesting that each variable accounts for more than 50 percent of the explained variance. This finding confirms the establishment of convergent validity (Hair et al., 2022). Subsequently, the outcomes depicted in the table as mentioned above satisfy all requisite of quality criteria measures.

Discriminant Validity

Table 3 - *Heterotrait – Monotrait Ratio of Correlation*

	Green Place	**Green Price**	**Green Product**	**Green Promotion**	**Green Purchase Intention**
Green Place					
Green Price	0.864				
Green Product	0.823	0.799			
Green Promotion	0.655	0.824	0.786		
Green Purchase Intention	0.805	0.743	0.775	0.801	

Table 3 contains the HTMT ratio of the correlation matrix, which evaluates the discriminant validity of the latent variables. The values of the HTMT ratio vary from 0.655 to 0.864. The HTMT ratio values need to remain below the critical threshold of 0.85; nevertheless, a range extending up to 0.90 is deemed acceptable, as posited by Henseler et al. (2015). Consequently, the presence of discriminant validity is confirmed among the reflective constructs (Hair& Alamer, 2022).

Table 4 - *Fornell – Larcker Criterion*

	Green Place	Green Price	Green Product	Green Promotion	Green Purchase Intention
Green Place	**0.841**				
Green Price	0.773	**0.829**			
Green Product	0.812	0.716	**0.836**		
Green Promotion	0.812	0.738	0.81	**0.847**	
Green Purchase Intention	0.73	0.82	0.704	0.726	**0.854**

Table 4 displays the Fornell-Larcker Criterion, an important discriminant validity assessment in a structural equation model (SEM) (Fornell & Larcker, 1981). This criterion is satisfied when the average variance extracted (AVE) for every construct is higher than the squared correlation between that construct and any other construct in the model. The diagonal entries, the square root of AVE of every construct, are to be higher than the off-diagonal values for their corresponding columns and rows. As evident in Table 4, diagonal values (in bold) of Green Product (0.836), Green Promotion (0.847), Green Place (0.841), Green Price (0.829), and Green Purchase Intention (0.854) are all higher than their inter-construct correlations. This means the measurement model's discriminant validity is assured, implying that each construct is unique and taps into a distinct segment of variance (Hair et al., 2010). This ensures that the constructs do not overlap and that the measures are measuring what they should measure.

Model Fit Assessment

The SRMR evaluates the model's explanatory efficacy. The model's SRMR value is 0.078, below the acceptable threshold of 0.080 (Bollen & Stine, 1992). Consequently, this finding suggests that the model exhibits adequate explanatory capability.

Moreover, the effect sizes of Green Product, Green Promotion, Green Place, and Green Price on Green Purchase Intention are quantified as 0.11, 0.023, 0.045, and 0.405, respectively. This reveals that Green Product, Green Promotion and Green Place weakly influence Green Purchase Intention, whereas Green Price wields a substantial impact on Green Purchase Intention (Cohen, 1988).

Finally, the r-square values corresponding to Green Purchase Intention is 0.708 respectively which shows that Green Purchase Intention demonstrates moderate predictive ability (Hair et al., 2013).

Figure 2: Path Relationship Diagram

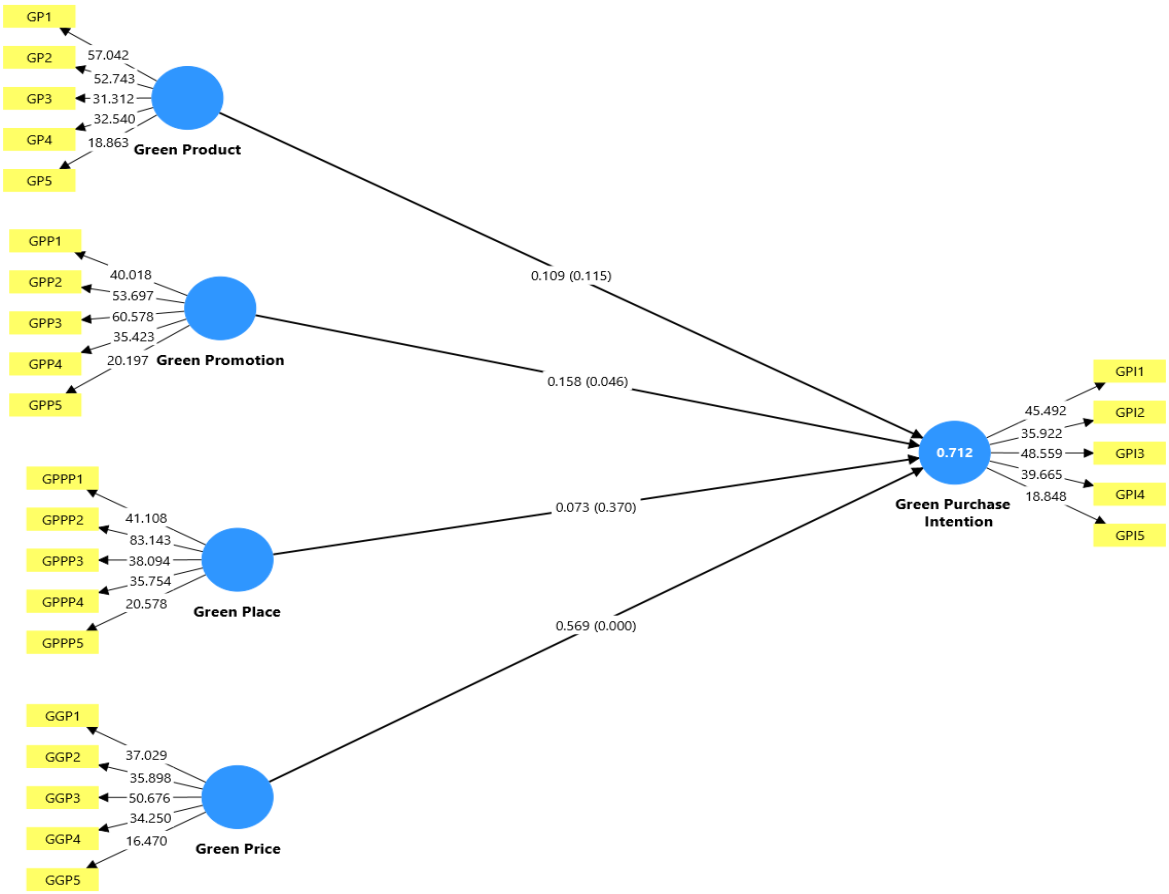


Table 5 - *Hypotheses Testing Using Bootstrapping*

Hypotheses	β	Mean	STDEV	Confidence Interval		T statistics	P values	Decision
				2.50%	97.50%			
H1: Green Product -> Green Purchase Intention	0.109	0.111	0.069	-0.03	0.244	1.578	0.115	Rejected
H2: Green Promotion -> Green Purchase Intention	0.158	0.159	0.079	0.002	0.316	1.995	0.046	Accepted
H3: Green Price -> Green Purchase Intention	0.569	0.567	0.066	0.43	0.685	8.659	0	Accepted
H4: Green Place -> Green Purchase Intention	0.073	0.073	0.082	-0.083	0.236	0.897	0.37	Rejected

Figure 2 and Table 5 report the results of a bootstrapping analysis performed with 10,000 sub samples, which examine decisions regarding the proposed hypotheses. Hypotheses H2, and H3 have achieved acceptance at a significance threshold 0.05. However, H1 and H4 are rejected as their p-value is above 0.05. There is a positive and significant impact of Green Promotion and Green Price on Green Purchase Intention. However, there is a positive and insignificant impact of Green Product and Green Place on Green Purchase Intention.

Table 6 - *Necessary Condition Analysis (NCA) - Bottelneck Values*

	LV scores - Green Purchase Intention	LV scores -Green Place	LV scores -Green Price	LV scores - Green Product	LV scores - Green Promotion
0.00%	26%	NN	NN	NN	NN
10.00%	34%	NN	23%	NN	NN
20.00%	41%	NN	32%	NN	NN
30.00%	48%	NN	34%	NN	NN
40.00%	56%	29%	36%	37%	38%
50.00%	63%	29%	36%	37%	40%
60.00%	70%	48%	43%	48%	45%
70.00%	78%	50%	43%	48%	49%
80.00%	85%	52%	43%	48%	49%
90.00%	93%	66%	61%	71%	51%
100.00%	100%	71%	80%	80%	80%

Table 6 represents the bottleneck values of latent variables using necessary condition analysis (NCA). To achieve 26% of green purchase intention no factors are necessary. Similarly, to achieve 34% - 48% of green purchase intention, 23% - 34% of green price must be achieved. Alike, to achieve 56% of green purchase intention then 29% of green place, 36% of green price, 37% of green product and 38% of green promotion are required. Likewise, to achieve 100% of green purchase intention then 71% of green place, 80% of green price,80% of green product and 80% of green promotion are required.

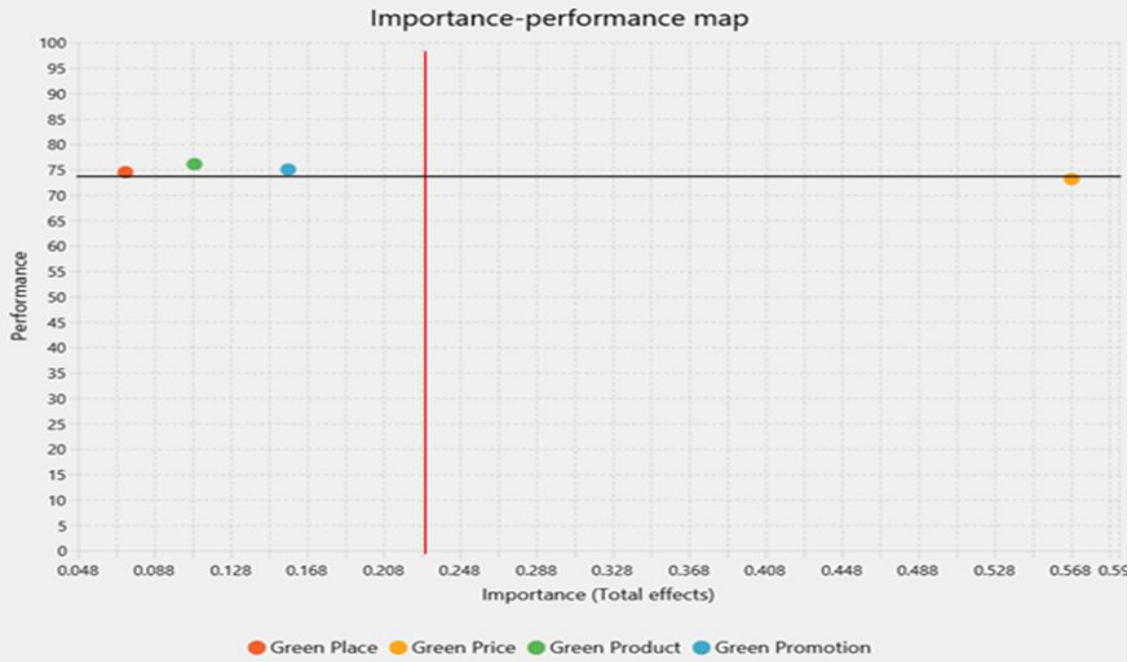
Table 7 - *Importance Performance Map Analysis*

	LV performance	**Importance**
Green Place	74.477	0.073
Green Price	73.126	0.569
Green Product	76.056	0.109
Green Promotion	74.995	0.158
Mean	**74.6635**	**0.22725**

Table 7 shows the total effects of green place, green price, green product, and green promotion on green purchase intention for the unstandardized effects. These effects are the same as the unstandardized weights of ordinary least square regression modelling (Hair et al. 2010). Furthermore, the performance of green purchase intention was calculated as 75.103.

Notably, we derived the four quadrants successfully based on the mean values of the constructs' importance and performance value. As per Fig. 3, if we increase 1 unit in green place performance from 74.477 to 75.477, green purchase intention increases from 75.103 to 75.176. Similarly, if we increased 1 unit in performance of green price from 73.126 to 74.126, then green purchase intention increases from 75.103 to 75.672. Therefore, out of the four determinants of green purchase intention, the most critical factor was noted to be green price.

Figure 3: Importance Performance Map Analysis



V. Discussion

The results of this study show that consumers' Green Purchase Intention (GPI) towards electric vehicles (EVs) in Butwal, Nepal, is significantly positively impacted by green prices. This outcome is in line with earlier research highlighting the significance of economic value when making green purchases. Similar findings were made by Lin and Huang (2012) and Biswas and Roy (2015), who discovered that consumers' willingness to adopt eco-friendly products is increased by perceived affordability and long-term cost savings. According to Price Perception Theory, consumers assess EV prices not just on

initial cost but also on perceived financial and environmental benefits. Furthermore, according to the Theory of Planned Behaviour (TPB), positive price perceptions enhance perceived behavioural control, which raises purchase intention. These results emphasize how crucial pricing policies, subsidies, and clear explanations of the long-term financial and environmental advantages are to encouraging the adoption of EVs. The study also shows that there is a substantial positive correlation between Green Promotion and consumers' GPI. This result is consistent with earlier studies showing that promotional activities increase purchase intention, trust, and environmental awareness (Chen & Chang, 2013; Rahman & Noor, 2016). Promotion, especially through digital media and community-based campaigns, is essential for informational and educational purposes in emerging markets. According to TPB, green promotion strengthens consumers' purchase intentions by influencing attitudes and subjective norms while lowering uncertainty surrounding EV adoption.

Green Place and Green Product, on the other hand, have favorable but statistically negligible effects on GPI. The Attitude Behavior Context (ABC) Theory explains this result, which is in line with earlier research (Joshi & Rahman, 2017; Nguyen et al., 2020). Even though consumers are aware of the environmental advantages of EVs, contextual obstacles like accessibility, service availability, and a lack of charging infrastructure diminish perceived behavioural control and weaken purchase intention. These results imply that for Green Product and Green Place strategies to have a greater impact on GPI in emerging markets, infrastructure and distribution system improvements are required.

VI. Conclusion and Implications

This study advances our knowledge of how different elements of the green marketing mix influence consumers' intentions to purchase electric vehicles in Butwal, Nepal. The findings demonstrate the importance of eco-friendly pricing strategies and successfully communicated sustainability messages in influencing eco-friendly consumer behaviour by showing that consumers' intentions to make green purchases are significantly and favorably impacted by Green Price and Green Promotion. Despite providing useful information, the study's cross-sectional design and convenience sampling restrict its ability to draw conclusions about causality and extrapolate the results to a wider population. Nonetheless, the study offers a strong foundation for further research on green marketing strategies in developing nations.

These findings highlight the significance of value-driven pricing and persuasive green marketing campaigns for marketers, manufacturers, and legislators in influencing consumer attitudes and encouraging sustainable purchasing decisions. Clear messaging that highlights the economic and environmental benefits of electric vehicles can increase their appeal and encourage their adoption, particularly in developing nations. Businesses should also back programmes that increase consumers' awareness of the advantages of going green and match behavioural psychology with marketing tactics. Future studies should employ probability sampling for wider applicability and longitudinal research to monitor changing consumer intentions. Additionally, examining moderate factors like income, regional context, and environmental awareness will facilitate the development of more successful green marketing strategies for a variety of market segments.

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