# Factors Influencing Consumer Buying Behaviour for Electric Two-Wheeler Vehicles in Kathmandu Valley

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## Abstract

*This study aims to investigate the factors influencing consumer buying behavior for electric two-wheelers in Kathmandu Valley through a quantitative research approach. Primary data were gathered using structured questionnaires, distributed to selected customers within the region. A non-probability convenience sampling method was employed, with 82 questionnaires distributed and 50 completed responses returned, yielding a response rate of 60.97%. The data collected were analyzed using descriptive statistics, utilizing SPSS software to generate frequency distributions, means, standard deviations, and visual representations such as graphs and pie charts. The demographic analysis of respondents revealed that 64% were female, with the majority aged between 21-25 years (42%). Most respondents had completed intermediate (+2) education (30%), with 36% being students. Income levels varied, with the majority earning between Rs 100,000 to 300,000 (30%). The study found that education and consumer behavior showed the highest uniformity, with education having a mean of 3.724 and a low standard deviation of 0.611. Consumer behavior exhibited the lowest variation among respondents, with a mean of 3.016 and a standard deviation of 0.537. The data suggests moderate consistency across most demographic variables, with notable uniformity in educational background and consumer behavior patterns.*

***Keywords:*** *Consumer buying behaviour, Electric two-wheeler vehicles, Income level, Education*

## 1. Introduction

Consumers play an important role in the marketplace. In general, consumers can be described as individuals who buy products and services. However, there is a slight difference between buyers and consumers. Buyers are those who buy for specific purposes, such as industrial or institutional use. Consumers, on the other hand, are defined as individuals who buy products for their own ultimate use, which is a narrower definition. Consumer behaviour is defined as "the study of the processes involved when individuals or groups select, purchase, use or dispose of products, services, ideas, or experiences to satisfy needs and desires."

Electric vehicles (EV) have come into greater focus in the mitigation of climate change (Byul et al., 2018). EVs, green cars, might be an alternative for fuel substitution with substantial societal and individual benefits; however, EV have not massively penetrated the global market. Electric vehicles (EV), when battery-charged with renewable or sustainable sources of electricity, can further contribute to addressing climate change issues. Consumers are skeptical of their travel needs for EV, but addressing the social issues regarding climate change, air pollution, and sustainable energy demands that many more consumers become EV users. Automobile makers are setting strategies for the development of Alternative Fuel Vehicles (AFV). Likewise, governments are framing different policies for infrastructure development, purchase price subsidies, research and development support, and awareness campaigns to increase the supply and demand of EV (Noel et al., 2019).

There is not a particularly long history of two-wheelers in the context of Nepal; however, the popularity of two-wheelers is growing day by day in the context of Nepal. This is due to the fact that bikes and scooters are able to easily overcome traffic jams, which enables people to arrive at their destination within the allotted amount of time (Neupane & Sawagvudcharee, 2019). Electric-two wheelers and electric cars have also been introduced in Nepal as private vehicles in the past few years. The Electric Vehicle Association of Nepal (EVAN) estimates that at present there are approximately 6,000 electric two-wheelers and 1,000 electric cars in Nepal (Shrestha, 2020). Therefore, it was crucial to investigate and understand the various perspectives held by Nepali consumers regarding the uptake of EVs in Nepal (Neupane & Sawagvudcharee, 2019).

## 2. Objective of the Study

The main objective of the study is to examine factors influencing consumer buying behavior for electric two-wheeler vehicles in Kathmandu Valley.

## 3. Literature Review

Hoarau et. al., (2023) used the method of force field analysis to analyze China's future technical, and market growth of electric two-wheelers (E2W). The authors concluded that the main factors driving the growth of the E2W market were: technological advances in electric 2-wheeler and battery technology, strong local regulatory support in the form of banning of gasoline-powered motorcycle, loose implementation of electric 2-wheeler standards, and worsening public transit bus services. Ji and Gan (2022) examined consumer happiness, suggestion, and electric two-wheeler acceptance. A hierarchical multiple regression research of 315 Taiwanese found that happiness, pleasant sensations, and riding experience predicted two-wheeler recommendations. The findings also show that riders bought E2W for external reasons. The study also revealed that hedonic and pragmatic two-wheeler experiences may increase user satisfaction and intrinsic motivation. Jayasingh et al. (2021) discovered that more recharge stations, models with varying carrying capacities, and government incentives can spur E2W sales. Customers choose e-bikes because of long-term part warranties. By considering commuting range, recharging, and affordability, the manufacturer may lower battery lease and ownership pricing. Wang et al. (2020) examined Shijiazhuang bike and e-bike riders to determine travel characteristics and attitudes. Since urbanization is growing, e-bikes allow people to travel great distances efficiently. Those without public transport benefited from e-bikes. While women were skeptical about e-bike speed, they felt safer crossing traffic signals/intersections on them than on normal cycles.

Khan and Rao (2018) studied "Motorcycle Consumer Behaviour, Customer Satisfaction." The main research examines how customer satisfaction affects consumer performance. Demographics that affect consumer satisfaction with this survey's independent variable. The survey passed a select brand and the knowledge collected a sampling of 600 customers using 600 vehicles in Hyderabad. The hypothesis test was age, gender, economic status, duration of use, and Demographic variable praising full ownership. There was no impact. Jacob and Jolly, (2012) studied the consumer's attitude towards the green lifecycle and discussed about the concept of green marketing and looks into various ways in which the different consumer's attributes are related to the concept of green marketing and concluded that the attitude of consumers towards eco products has been changed, consumers are taking interest in eco-friendly products. Saxena and Khandelwal, (2011) examined the demographics of customer like age, Gender, Income Spending Pattern, Attitude towards Green Products and concluded that there is huge market potential in India for the eco-friendly products. Weinert, Ma, and

Cherry (2007) examined that electric bikes provide cost effective, convenient, and relatively energy efficient mode of transportation in china and they are becoming one of the dominant transport mode among the Chinese people. This report studied the environmental performance of e-bikes relative to other competing modes, their market potential, and the viability of alternative battery technologies and concluded that in China the market is in growing stage, there is a lot of opportunity for the Electric Vehicles market in China in terms of domestic usage and exporting the Electric Vehicles to other nations also.

Gan, (2003) analyzed the transportation management and the state of automobile industry in China. The researcher focused on the response of automobile industry to challenges like dynamics and barriers resulting from technological change, economic development and environmental and concluded that Industry is welcoming the green products and there is huge potential for the electric vehicles in the devolving as well as developed countries. Ranjan et al. (2013) examined electric scooter buying behaviour and intentions. It was determined what influences client purchases. The study highlighted trend & fashion, features & brand equity, additional value, engine power, and advertisement. The demographic profile of consumers showed that comfort, mileage, design, style, optimum speed, maintenance cost, reliability, brand image, advertising, spare parts availability, after-sale service, and re-sale value affected E2W purchase behaviour. Younger people (15-25) were more suited to e-scooters. High-income and educated people wanted e-bikes more. Rahim et al. (2017) examined how age, gender, income, education, and employment affect Malaysian consumers' green product purchasing intention. The study found a statistically significant gender difference in green goods purchasing intention. ANOVA showed no significant variations in green product purchase intention by age, income, education, or employment.

Based on the literature review, it is evident that while there is extensive research on consumer buying behavior for electric two-wheelers globally, studies in the context of Nepal are limited. Only a few researchers have explored consumer buying behavior for electric two-wheelers in Nepal (Adhikari et al., 2020; Neupane & Sawagvudcharee, 2019; Mali et al., 2022; Shrestha & Nepal, 2016).

## 4. Research Methodology

This study employs a quantitative research approach to examine factors influencing consumer buying behavior for electric two-wheelers in Kathmandu Valley. Primary data was collected via structured questionnaires distributed to selected customers, forms the core of the analysis. A convenience sampling method was used to gather insights. A total of 82 questionnaires were distributed to potential

respondents. Out of these, 50 completed questionnaires were returned, resulting in a response rate of 60.97%. The sampling was purposive, aimed at gathering pertinent information for achieving the research objectives. The collected data were analyzed using descriptive statistics. SPSS software was employed to generate frequency distributions, means, standard deviations, graphs, pie charts, and tables. These tools facilitated the effective presentation and analysis of the results, allowing for a comprehensive examination of the factors influencing consumer purchasing decisions.

## 5. Results and Discussion

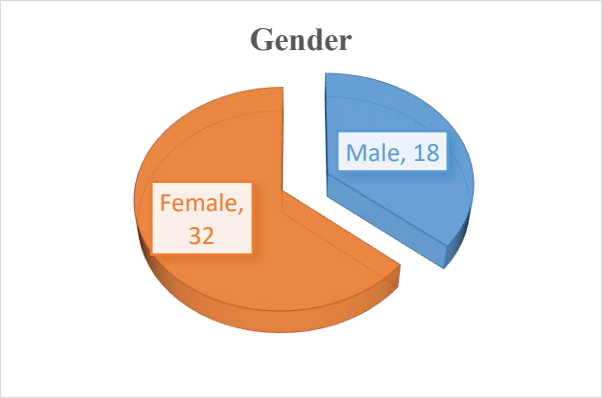
5.1 Demography Information of the Respondents

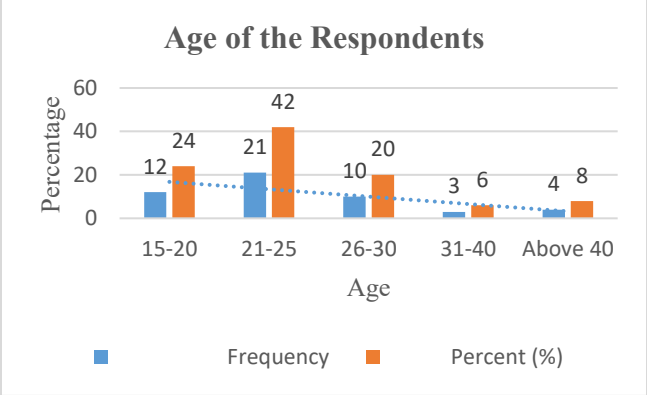
Table 1: Demography Information of the Respondents

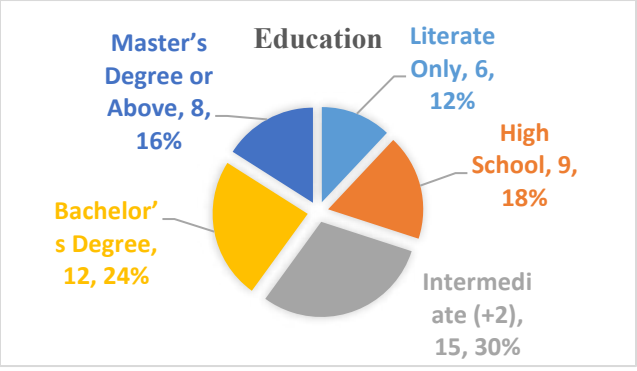
| | Respondents | Frequency | Percent (%) |
|---|---|---|---|
| Gender | Male | 18 | 36 |
| | Female | 32 | 64 |
| Age | 15-20 | 12 | 24 |
| | 21-25 | 21 | 42 |
| | 26-30 | 10 | 20 |
| | 31-40 | 3 | 6 |
| | 40 above | 4 | 8 |
| Education | Literate Only | 6 | 12 |
| | High School | 9 | 18 |
| | Intermediate (+2) | 15 | 30 |
| | Bachelor's Degree | 12 | 24 |
| | Master's Degree or Above | 8 | 16 |
| Occupation | Student | 18 | 36 |
| | Government Service | 5 | 10 |
| | Private Job | 14 | 28 |
| | Business | 10 | 20 |
| | Other | 3 | 6 |
| Income Level | Below Rs 100,000 | 12 | 24 |
| | Between Rs 100,000 lakh to 300,000 | 15 | 30 |
| | Between Rs 300,000 to 500,000 | 14 | 28 |
| | Above Rs 500,000 | 9 | 18 |
| Marital status | Married | 19 | 38 |
| | Unmarried | 28 | 56 |
| | Married but Separated | 3 | 6 |

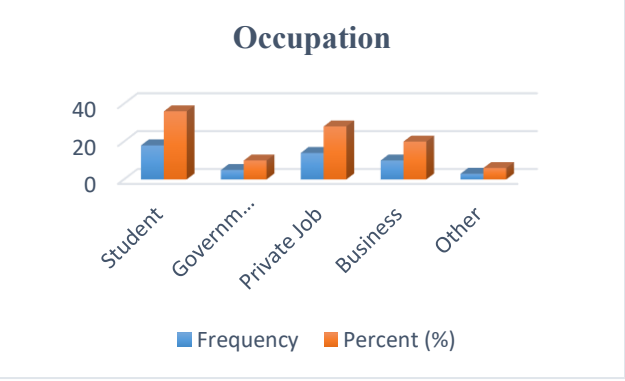
*(Source: Field Survey-2024)*

Table 1 provides a demographic breakdown of the respondents, such as gender, age, education, occupation, income level, and marital status. Gender distribution shows that the majority of respondents are female (64%), compared to male (36%).In terms of age, the largest group falls within the 21-25 age range (42%), followed by those aged 15-20 (24%), 26-30 (20%), 31-40 (6%) and 40 above (8%). Education levels vary, with the highest percentage of respondents having completed Intermediate (+2) education (30%), followed by Bachelor's Degree holders (24%). A smaller portion of the respondents have achieved a Master's Degree or above (16%).Regarding occupation, students constitute the largest group (36%), with private job holders (28%) and those in business (20%) following. Only 10% are in government service, and 6% fall under other categories. The income level of respondents is spread across different ranges, with the majority earning between Rs 100,000 to 300,000 (30%), closely followed by those earning Rs 300,000 to 500,000 (28%).Finally, the marital status data shows that the majority are unmarried (56%), with married individuals accounting for 38% of the respondents. A small portion is married but separated (6%).



*5.2 Effect of gender on consumer buying behaviour*

Table 2: Effect of Gender on Consumer's Buying Behavior

| Description | Mean | SD |
|---|---|---|
| Electric two wheelers are more suitable to female as compared to male. | 3.304 | 0.916 |
| Scoters are superior bikes regarding electric two wheelers. | 3.024 | 1.539 |
| It is difficult to operate electric two wheelers to female as compared to petrol scooters | 3.104 | 1.589 |
| I feel less secured to ride electric bike in my long drive. | 2.496 | 1.574 |
| Female prefer electric scoters due to their spacious dickey to store cosmetic and other necessary items. | 2.936 | 1.463 |

*(Source: Field Survey-2024)*

Table 2 shows the mean and SD of respondents' electric two-wheeler opinions. "Electric two-wheelers are more suitable for females compared to males" gets the highest mean score of 3.304 with a reasonably low SD of 0.916, indicating that respondents agree. The statement "Scooters are superior to bikes regarding electric two-wheelers" has a mean of 3.024 and a higher SD of 1.539, indicating more diverse viewpoints. The statement "It is difficult for females to operate electric two-wheelers compared to petrol scooters," the mean score is 3.104 with an SD of 1.589, showing some agreement but also a broad variety of replies responses to "I feel less secure riding an electric bike on a long drive" had a lower mean of 2.496 and an SD of 1.574, although opinions vary. Finally, "Females prefer electric scooters due to their spacious dickey to store cosmetics and other necessary items" has a mean of 2.936 and an SD of 1.463, indicating moderate agreement with minor variability. As for electric two-wheelers' applicability, simplicity of operation, and preferences, respondents were most in accord about their suitability for women.

*5.3 Effect of Age on Consumer Buying Behaviour*

Table 3: Effect of Age on Consumers' Buying Behavior

| Description | Mean | SD |
|---|---|---|
| It is safe to drive electric two wheelers for senior citizens. | 2.520 | 1.529 |
| I don't prefer electric bike for youth due to speed limit. | 2.364 | 1.599 |
| I feel electric two wheelers are very economic for students and youths. | 3.108 | 1.388 |
| I feel first time user of two wheelers select electric one especially for old age. | 3.200 | 1.362 |
| Different models of electric two wheelers are available for different age of buyers. | 2.608 | 1.520 |

*(Source: Field Survey, 2024)*

Table 3 shows respondents' perspectives on electric two-wheelers, with the mean and SD. "It is safe to drive electric two-wheelers for senior citizens" has a mean of 2.520 and an SD of 1.529, showing that respondents had varied perspectives. Speed limits make electric bikes less preferable for youth, but the statement "I don't prefer electric bikes for youth due to speed limit" has a lower mean of 2.364 and a higher SD of 1.599, suggesting that many respondents are uncertain or disagree with this view. When asked if "I feel electric two-wheelers are very economic for students and youths," the mean is 3.108 with an SD of 1.388, indicating moderate agreement. According to the remark "I feel first-time users of two-wheelers select electric ones, especially for old age," first-time users, especially older ones, may choose electric two-wheelers. Finally, "Different models of electric two-wheelers are available for different ages of buyers" has a mean of 2.608 and an SD of 1.520, indicating that respondents view age-specific models as somewhat available, though opinions vary. In general, electric two-wheelers are seen differently by different age groups, with the most consensus on their economic benefits for students and youngsters.

*5.4 Effect of Occupation on Consumer Buying Behaviour*

Table 4: Effect of Occupation on Consumers' Behavior

| Description | Mean | SD |
|---|---|---|
| I prefer electric two wheelers as it save money and suitable for my occupation | 2.796 | 1.438 |
| Sporty and stylish looks of electric two wheelers will match the occupation of young people | 3.184 | 1.315 |
| Sufficient space and large size are attractive feature of electric two wheelers for professionals | 2.956 | 1.398 |
| My office promotes the use of electric two wheelers to save cost and protect environment | 2.952 | 1.424 |
| Electric two wheelers are useful for every occupation in Nepal. | 3.040 | 1.326 |

*(Source: Field Survey-2024)*

Table 4 shows respondents' perspectives on electric two-wheelers, including their appropriateness and attraction based on employment. The mean and SD show the amount of agreement and diversity in replies. "I prefer electric two-wheelers as it saves money and is suitable for my occupation" had a mean of 2.796 and an SD of 1.438, showing moderate agreement. Thus, while some respondents find electric two-wheelers cost-effective and suitable for their work, attitudes differ widely. The statement "Sporty and stylish looks of electric two-wheelers will match the occupation of young people" has a

higher mean of 3.184 with an SD of 1.315, indicating that respondents generally agree that young professionals like electric two-wheelers' aesthetics. For "Sufficient space and large size are attractive features of electric two-wheelers for professionals," the mean is 2.956 and the SD is 1.398. This suggests that experts like these characteristics, but opinions vary. "My office promotes the use of electric two-wheelers to save costs and protect the environment" has a mean of 2.952 and an SD of 1.424, indicating that workplace promotion is reasonably common although experiences vary greatly. Finally, "Electric two-wheelers are useful for every occupation in Nepal" has a mean of 3.040 and an SD of 1.326, indicating that respondents agree that electric two-wheelers are versatile and suitable for many occupations, though their opinions vary. The data shows considerable agreement on the feasibility and attractiveness of electric two-wheelers across vocations, with the most consensus on their trendy appeal to young people and perceived utility throughout Kathmandu Valley jobs.

5.5 Effect of Education on Consumers' Buying Behaviour

Table 5: Effect of Education on Consumers' Buying Behavior

| Description | Mean | SD |
|---|---|---|
| The digital system in electric two wheelers is helpful for every users. | 3.156 | 0.999 |
| Protection of environment is possible using electric two wheelers. | 3.212 | 1.147 |
| I prefer electric two wheelers to save operating expenses and help in my higher education. | 2.248 | 1.492 |
| Educated people must use EVs to save cost, time and resources. | 3.216 | 1.226 |
| I feel, government should reduce tax in electric two wheelers as these are basic needs of present time. | 3.160 | 1.273 |

*(Source: Field Survey, 2024)*

Table 5 shows respondents' opinions on electric two-wheelers' usefulness, environmental advantages, and cost-effectiveness, with the mean and SD showing the consensus and variability. The statement "The digital system in electric two-wheelers is helpful for every user" has a mean of 3.156 and an SD of 0.999, indicating that most respondents agree. For the statement "Protection of the environment is possible using electric two-wheelers," the mean is 3.212 with an SD of 1.147, indicating that respondents generally support electric two-wheelers' environmental advantages. The statement "I prefer electric two-wheelers to save operating expenses and help in my higher education" had a lower mean of 2.248 and a greater SD of 1.492, showing low agreement with significant variance. This implies that while some respondents perceive electric two-wheelers as cost-effective and educational,

this is not commonly held. On "Educated people must use EVs to save cost, time, and resources," the mean is 3.216 with an SD of 1.226, indicating high agreement that educated people should use electric cars for their efficiency advantages, while opinions vary. Finally, "I feel the government should reduce taxes on electric two-wheelers as these are basic needs of the present time" has a mean of 3.160 and an SD of 1.273, indicating a strong belief that tax reductions are needed, though opinions vary. Overall, respondents think that electric two-wheelers are practical and environmentally friendly, with digital systems and tax savings being particularly popular. However, opinions on educational economic advantages vary.

*5.6 Effect of Income Level on Consumers' Buying Behaviour*

Table 6: Effect of Income Level on Consumers' Buying Behavior

| Description | Mean | SD |
|---|---|---|
| Electric two wheelers are appropriate for low and high income group equally. | 3.175 | 1.106 |
| Different models of electric two wheelers are available for different income group | 3.102 | 1.218 |
| Saving in operating cost of electric two wheelers is major attraction for low income group. | 2.865 | 1.469 |
| High investment at the time of purchase of electric two wheelers is not supportive for low income group | 3.238 | 0.973 |
| EVs helps to minimize the gap between low and high income group. | 3.092 | 1.099 |

*(Source: Field Survey-2024)*

Table 6 compares respondents' attitudes about electric two-wheelers by income category, with mean values indicating agreement and SD showing variability. The statement "Electric two-wheelers are appropriate for low and high-income groups equally" has a mean of 3.175 and an SD of 1.106, indicating reasonable agreement. "Different models of electric two-wheelers are available for different income groups" has a mean of 3.102 and an SD of 1.218, showing mixed opinions. The statement "Saving in operating cost of electric two-wheelers is a major attraction for the low-income group" had a lower mean of 2.865 and a larger SD of 1.469, indicating mixed emotions. “High investment at the time of purchase of electric two-wheelers is not supportive for the low-income group" had a mean of 3.238 and an SD of 0.973, indicating substantial agreement that the initial cost is a barrier for lower-income purchasers. Lastly, "EVs help to minimize the gap between low and high-income groups" has a mean of 3.092 and an SD of 1.099, showing that respondents generally think electric cars may reduce income inequality, however opinions differ The chart illustrates that

while electric two-wheelers are available to different income levels, lower-income purchasers face early fees.

*5.7 Effect of Marital Status on Consumers' Buying Behaviour*

Table 7: Effect of Marital Status on Consumers' Buying Behavior

| Description | Mean | SD |
|---|---|---|
| I feel, electric two wheelers are appropriate for both married and unmarried consumers | 3.119 | 1.253 |
| Married customers prefer electric two wheelers due to more safe to drive. | 3.315 | 1.027 |
| I think, unmarried customers are attracted towards petrol bikes and scooters than electric two wheelers. | 2.795 | 1.371 |
| Saving is possible after using EVs so married customers being attracted. | 3.018 | 1.054 |
| Long drive is risky due to battery back-up, so family travelling becomes problematic sometime. | 3.182 | 1.113 |

*(Source: Field Survey, 2024)*

Table7 shows respondents' opinions on electric two-wheelers for married and unmarried consumers. The mean values indicate agreement, whereas the SD indicates viewpoint heterogeneity. "I feel electric two-wheelers are appropriate for both married and unmarried consumers" has a mean of 3.119 and an SD of 1.253, indicating moderate agreement, however opinions vary. “Married customers choose electric two-wheelers owing to their safety" had a higher mean of 3.315 and a lower SD of 1.027, indicating a strong agreement that safety is a major consideration. However, "I think unmarried customers are attracted to petrol bikes and scooters rather than electric two-wheelers" has a lower mean of 2.795 and a higher SD of 1.371, indicating that some disagree. The statement "Saving is possible after using EVs, so married customers are being attracted" has a mean of 3.018 and an SD of 1.054, demonstrating mostly consistent perceptions that cost savings attract married consumers. Finally, "Long drives are risky due to battery backup, so family travelling becomes problematic sometimes" had a mean of 3.182 and an SD of 1.113, indicating moderate agreement and considerable heterogeneity in responses. The table shows that while electric two-wheelers are suited for both married and unmarried consumers, married customer’s priorities safety and cost savings, while unmarried customers may still choose fuel cars. Respondents also worry about battery life on lengthy rides.

*5.8 Details for Dependent Variable: Consumers' Buying Behaviour*

Table 8: Effect on Consumers' Buying Behavior

| Description | Mean | SD |
|---|---|---|
| My buying decision is directly affected by advertisement. | 3.216 | 1.216 |
| I can obtain sufficient information's from online social media regarding the products and services. | 3.276 | 1.144 |
| There is chance of misinformation from online social media to the real consumers | 2.872 | 1.264 |
| I am able to save in time and cost through the use of social media advertisements | 3.160 | 1.273 |
| Consumers behavior is the function of demographic factors. | 3.100 | 1.278 |

*(Source: Field Survey-2024)*

Table 8 shows how social media and advertising affect consumer buying behaviour. Standard deviations (SD) demonstrate response variety, whereas mean scores show statement agreement. "My buying decision is directly affected by advertisement" had a mean of 3.216 and an SD of 1.216, indicating considerable agreement that commercials considerably influence purchasing decisions. "I can obtain sufficient information from online social media regarding products and services" has a slightly higher mean of 3.276 and an SD of 1.144, indicating that respondents generally believe social media provides adequate information, though their beliefs vary. However, "There is a chance of misinformation from online social media to real consumers" had a lower mean of 2.872 and a larger SD of 1.264, indicating conflicting perspectives on social media information dependability and doubt regarding misinformation. "I am able to save time and cost through the use of social media advertisements" has a mean of 3.160 and an SD of 1.273, suggesting respondents agree, but opinions vary. Finally, "Consumer behaviour is the function of demographic factors" has a mean of 3.100 and an SD of 1.278, showing that demographic factors impact consumer behaviour, but opinions vary on its strength. The chart illustrates that marketing and social media influence purchase decisions, with respondents admitting both the advantages and risks of disinformation. Though perspectives vary, demographics are thought to impact consumer behaviour.

*5.9 Descriptive Statistics*

Table 9: Descriptive statistics regarding various outputs of variables (N =50)

| Variables | Mean | SD |
|---|---|---|
| Gender | 2.732 | 0.915 |
| Age | 2.792 | 0.782 |
| Occupation | 2.832 | 0.706 |
| Education | 3.724 | 0.611 |
| Income Level | 2.928 | 0.649 |
| Marital Status | 2.944 | 0.693 |
| Consumer Behavior | 3.016 | 0.537 |

Table 9 provides an overview of the means and standard deviations (SD) for various demographic variables and consumer behavior. The mean values for gender (2.732), age (2.792), and occupation (2.832) indicate a moderate central tendency with a fair amount of variability, as reflected in their standard deviations (0.915, 0.782, and 0.706, respectively). Education stands out with the highest mean of 3.724 and a relatively low standard deviation of 0.611, suggesting that respondents generally have higher educational levels with less variation. Income level and marital status show similar mean values of 2.928 and 2.944, respectively, with moderate variability (SDs of 0.649 and 0.693). Finally, consumer behavior has a mean of 3.016 and the lowest standard deviation of 0.537, indicating a consistent pattern in consumer behavior across the respondents with minimal variation. Overall, the data suggests that while most variables exhibit moderate consistency, education and consumer behavior are particularly uniform among the respondents.

## 6. Conclusion

In conclusion, the study provides valuable insights into the factors influencing consumer buying behavior for electric two-wheelers in Kathmandu Valley. Through a methodologically sound approach, employing structured questionnaires and descriptive statistical analysis, the research captures a broad range of consumer perspectives across demographic, occupational, and income variables. The data reveals that gender, age, education, and income significantly shape consumer preferences for electric two-wheelers. For instance, the study found a higher preference for electric two-wheelers among females and younger age groups, highlighting their perceived suitability in terms of safety and ease of use. Additionally, students and private job holders showed a marked

interest in these vehicles, emphasizing their cost-effectiveness and environmental benefits. The respondents' opinions on various aspects of electric two-wheelers, including their practicality, environmental advantages, and cost savings, were varied yet provided important trends. There was a general consensus on the suitability of electric two-wheelers for female riders and younger professionals, as well as a recognition of the vehicles' benefits in terms of environmental protection and cost efficiency. However, the study also highlights concerns about the initial cost barrier for lower-income groups and the limitations posed by battery life for long drives, which could hinder broader adoption. The impact of social media and advertising on consumer behavior was another critical finding, with respondents acknowledging the significant influence of these factors on their purchasing decisions. However, the potential for misinformation through online platforms also emerged as a concern, indicating the need for reliable and accurate information dissemination.

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