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A STUDY ON AWARENESS OF CONSUMER ABOUT THE ELECTRONIC SCOOTER AMONG WORKING WOMEN IN KRISHNAGIRI DISTRICT OF TAMIL NADU

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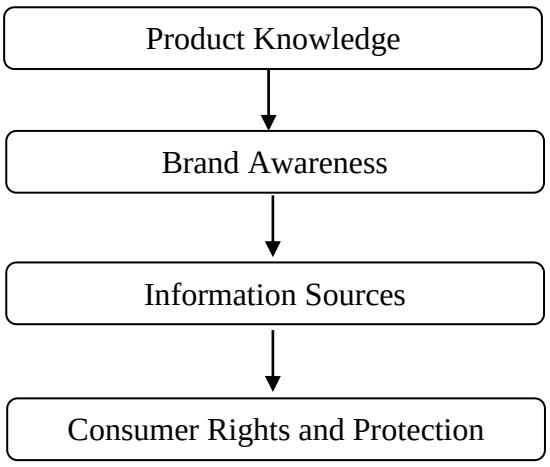
Abstract

The marketing school of thought holds that a business should put all of its energy into pleasing its customers while generating a profit. The marketing concept calls for a change in how businesses operate. Marketing is one of the key factors that determine the production and sales volume of a business's products since a marketing-oriented company would aim to manufacture what the consumers want rather than what the company has produced. Ultimate aim of marketing to satisfy the customer needs and demand but consumers are behaving in a different aspect with respect to situation and nature. Consumer awareness is an important aspect of the market landscape. It helps consumers make informed decisions, encourages competition among businesses, and contributes to the overall efficiency and fairness of the marketplace. With these aspects the present paper made an attempt to discuss about the consumer awareness towards electronic scooter among working women in Krishnagiri district of Tamil Nadu

Key Words: consumer awareness, electronic scooter, working women, Product Knowledge, Brand Awareness, Consumer Rights, Consumer Protection, Ethical Considerations, Environmental consciousness

Introduction

To accomplish their main objective, every company concern requires an efficient marketing plan. Development and effective distribution of products and services to a chosen consumer group is marketing. Customer satisfaction is the overarching organisational goal of marketing. Marketing efforts start with the analysis and development of new product concepts and designs to address certain unmet customer demands rather than merely with finished items ready for shipment. Consumer awareness refers to the extent to which consumers are knowledgeable, informed, and conscious about a particular product, service, or issue. It encompasses consumers' understanding of the features, benefits, risks, and alternatives associated with a product or service. Consumer awareness plays a crucial role in shaping consumer behavior, decision-making, and market dynamics. With these aspects the present paper made an attempt to discuss about the consumer awareness towards electronic scooter among working women in Krishnagiri district of Tamil Nadu



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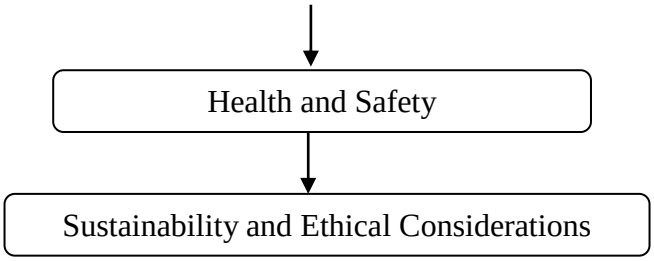


Review of Literature

Abhijeet Singh and Brijesh Kumar (2011) conducted research on the "Art of Motorcycle Maintenance". Hero Honda Motors Ltd. has launched a campaign named "Good Life Passport to Relationship Reward" with the aim of fostering new forms of communication between the company and its clients. Chia-Nan Wang,et.al., (2019) According to their "Service innovation model of the automobile service industry" article, service innovations will help the service sector's capacity to compete in the maintenance market and grow its clientele. It's crucial to gauge service innovation in light of the specifics of the car mobile sector. According to the findings, service innovation is favourably connected with consumer demand, competitiveness, and a knowledge-based network as facilitator variables. Pichaipat Chaichinarat, et. al., (2018) The automobile sector in Thailand is the 12th biggest in the world and is significant to the country's economy, according to a study titled "Thailand's Automotive Service Quality Customer Satisfaction: A SERVQUAL Model CFA of Suzuki Motor." One of the 10 key industries for future economic growth has been selected as the automobile sector under the government-mandated Thailand 4.0 agenda.

Dipayan Singha and Amit Majumder (2018) According to their study, "Goods and Services Tax (GST) and Two-Wheelers Market Segment in India: An Impact Study," the Goods and Services tax, which replaced multiple indirect tax structures that the Indian government had previously used, was one of the most significant tax reforms to occur in the indirect tax system since India's independence on July 1, 2017. Gopalakrishnan G. and Rengarajan R. (2018) in their investigation titled "A Study on Service Quality in Royal Enfield Showroom, Chennai" The service quality perceptions in the showroom are investigated in this study. It begins by analysing the theories behind the idea of service excellence. The showroom is then studied using a modified SERVQUAL instrument, with one of the firms serving as the subject. Readiness, Reliability, Trust, Comfort, Security, and Access are the five service aspects that have been established. Rifaya Meera M.and MuthupandiS. (2017) Since a satisfied customer is the primary concern of any organisation, customer satisfaction is stated in their study on "Customer satisfaction and expectation towards after sales service of TVS Motors Ltd in Sivakasi" as a strategic goal of any organisation. They pay close attention to the factors that influence customers' satisfaction. In the case of durable products, after-sales service is one of the most significant factors that affect customer happiness. Mangesh Jadhao D., Arun and Kedar P. (2016) According to their study on "Service quality challenges in an Indian automobile service industries," the market environment has changed rapidly over the past ten years as a result of market computation. According to client demand, technologies are changed and new products are introduced to the market. For many organisations, providing high-quality service is a challenging undertaking. Due to rising consumer expectations from branded companies, the automotive repair industry today is plagued by several issues.

Catherine Rexy D., Rita S. and Vignesh Kumar J. (2016). The authors of the paper "An Empirical Approach to Measure Customer Satisfaction of Two Wheeler Users Using Six Sigma" said that the advent of several automakers has led to fierce rivalry in the Indian automotive market. Customer satisfaction has become a top priority for businesses in all sectors due to its importance to corporate success. Kunal Gaurav (2015) According to a research titled "Auto Serv: Development of a Scale for Measuring Automobile Service Quality," life in a globalised society is characterised by intense rivalry in all industries, with the automotive sector being no exception. Today's organisations face a challenge that isn't getting to the top, but staying there for a long time. Al-Shammari and Samer Kanina (2014) In their study on "Perceived customer service quality in a Saudi automotive

company," researchers looked at service quality in a Saudi automotive company and came to the conclusion that reliability and assurance, tangibility, and responsiveness were the most crucial quality dimensions from the perspective of the customer, while empathy was the least crucial. Duggani Yuvaraju,et.al.,(2014) 100 Honda bike customer samples were analysed in their study on "Customer Satisfaction towards Honda Two Wheelers: A Case Study in Tirupati" using easy sampling at Tirupati. Chi-square analysis of the data using percentages revealed a statistically significant difference between the preferred characteristics, such as mileage, pickup, pricing, and design. Increased spending on TV advertisements, lower bike prices, incentives for dealers, establishment of dealer-level service centres, home service, correct service, etc. Kokila (2014) The customer happiness for Scotty pep+ is highlighted in a study report titled "A Study on Satisfaction Levels of Working Women Towards Two Wheelers in Coimbatore, Tamil Nadu" that was investigated. Indian men and women prefer gearless two-wheelers because they are simple to use and are easy to handle. Teenagers also like them a lot. Umamaheswari J.L (2014) The author of the paper "Exploring Internal Service Quality in a Manufacturing Organisation: A Study in Lucus TVS, Chennai" explored how, in recent years, interpersonal relationships inside manufacturing organisations have undergone a paradigm change. When TQM procedures are followed, the service function plays a critical role in improving the services it provides to the production function and the corporate firm as a whole. Humera Banu, et. al., (2013). The primary goal of the study, "Two-Wheeler Riding Patterns, Perceptions and Aggressive Riding Behaviour among College Youth," was to examine college students' levels of awareness. A representative sample of respondents among college students was used to gather data. Chi-square tests are used in the investigations. The majority of the sample (60%) claimed to ride at least a couple days each week.

Pallawi et. al., (2011) According to their study, "Service quality of Maruti Suzuki and Hyundai dealer in Nagpur: A comparative study," when service quality of Maruti Suzuki and Hyundai Showrooms in Nagpur is compared, service quality is most important among dealers in motor vehicles. He also discovered that servicing the automobiles results in higher profit margins. Farah Sahul Hamid(2011) in a study on “Measuring service quality in the Takaful Industry” has studied the customers behavior is determined by their perceptions towards the quality of service. Asadollahi, A., et. al., (2011) In their study titled "A comparative study to determine customers' satisfaction from after-sales service in the automotive industries," they discovered that service quality and customer satisfaction in automobile after-sales services were provided by two Indian companies and one foreign company, General Motor Group. Saraswathi S. (2008) assessed the Post-Sales Service customer satisfaction on 100 samples of different two-wheeler purchasers in Hyderabad and Secunderabad for his study on "Customer satisfaction on post-sales service with reference to Two-Wheeler Automobile Industry". Part-I of the study focused on consumers' perceptions of post-sale services, while Part-II focused on respondents' ratings and a satisfaction index for ost-sale services in the two-wheeler vehicle sector. Schiffman and Kanuk (2004) Inferred from a study on "Consumer Behaviour" is that customers perceive or have an opinion on the product in connection to the experience and their experience; this is referred to as customer satisfaction. Weerasiri (2015). Analysed the causes of the rise in popularity of Indian two-wheeler companies and the influences on consumer choice. Using a questionnaire, information was gathered from four districts that reflect the population of Sri Lanka. Price, Technology and Design, Product Awareness, Spare Parts Availability, After Sales Services, and Economic Conditions were the six factors used by the researcher. Ameer (2014). looked at Royal Enfield Bullet customer satisfaction. It was discovered that the majority of respondents are familiar with the Royal Enfield Bullet models Thunderbird, Bullet Electra, Bullet 500, and Bullet 350. The majority of respondents cite television as their primary information source, followed by newspapers, magazines, friends and family, and other sources. The majority of responders advise purchasing a Royal Enfield Bullet. Malar Mathi (2013). conducted a study on Erode's HERO MOTO CORP purchasing patterns. According to the study, 27% of respondents said they would rather purchase a Splendour Plus motorbike than a CBZ Extreme, 18% would rather purchase a HUN, 11% would rather purchase a Passion Plus, and the remaining 18% would rather purchase another Hero model. Sathish (2011). conducted a study on

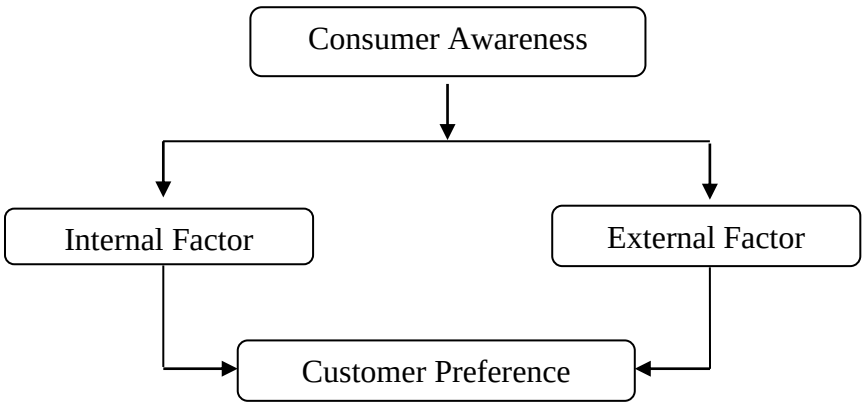
Tirunelveli City's customer behaviour with regard to automobile products, with a focus on two-wheelers. The study's goal is to learn more about how consumers in the two-wheeler market behave when it comes to purchasing decisions and motivations for vehicle items. Warittha (2016). It was emphasised that immediate product makers should embrace marketing concepts and create marketing-focused strategies. Implementing marketing tactics at the functional level, such as product, promotion, distribution, and price, is recommended. The producers should innovate instant functional coffee in terms of advantages for various consumers, scent, varied flavours, and product information on the container, in order to draw in more customers. Cerjak (2015). noted that fair trade and organic items have had significant market growth and are becoming more and more significant to customers. According to findings from earlier studies, consumer understanding and awareness of trade and ethical purchasing concerns have increased. However, empirical data indicates that ethical consumption is more lauded than really practiced.

Geetha Bai (2012). said that a number of elements influence a person's choice to buy a product. One of the most important parameters among them is brand image, which is put forth at 35%. Durability of the product was the second-strongest factor (20%), and prior experience with sadness or other adversity is another significant factor that is taken into account by 17 percent of respondents. Arutselvi (2011). consumer feedback on TVS motorcycles was studied. The observation, which is based on the study, comprises of a market survey in Kanchipuram Town with 130 respondents. The necessary data for this study was gathered using a structured questionnaire that included both open-ended and closed-ended questions.

Statement of Problem

Two wheelers are the part and partial of every working people in the country which help to mobility and convenient to transport. Therefore, two wheelers are very popular transport vehicle in the country which occupy as essential consumer durable in the modern days, changing working environment and life style, women also involve in economic activities particularly in industrial and service sector. It leads to increase the importance of convenient transport. With this view, two wheelers were specially designed for women. Now a days there two wheelers are quit common to men also particularly to aged person first generation two wheelers drivers. Therefore, there is a need of understanding their perception and satisfaction towards two wheelers among the women also are working in different organization.

Research Design



Objective of the Study

The overall objective of the study is to examine working women's consumer knowledge of electric scooters in the Krishnagiri District.

Methodological Design

Research methodology is one of the ways to carry out the research in an effective manner, Descriptive research method by using both primary and secondary data.

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Primary Data

The Primary Data have been collected from the customers in Krishnagiri district using pretested interview schedule.

Secondary Data

The secondary data were collected from the books, journals, newspapers and websites.

Sample Design

60 samples each from eight taluks of the Krishnagiri district, of which 15 sample were incomplete. Hence the total sample size in 468 women two wheelers users as respondents.

Table 1

Demographic characteristic of the respondents

Demographic Characteristics	Category	Frequency	Percentage
Age (in years)	Less than 30 years	88	18.9
	31 to 40 years	205	44.1
	41 to 50 years	85	18.3
	More than 50 years	87	18.7
	Total	**465**	**100.0**
Education qualification	School level	148	31.8
	Graduate	245	52.7
	Post Graduate	34	7.3
	Others	38	8.2
	Total	**465**	**100.0**
Experience	Less than 10 years	167	35.9
	11 – 20 years	274	58.9
	More than 20 years	24	5.2
	Total	**465**	**100.0**
Marital status	Married	338	72.7
	Unmarried	127	27.3
	Total	**465**	**100.0**
Family members	Less than 3	180	38.7
	4-6 Members	251	54.0
	More than 6	34	7.3
	Total	**465**	**100.0**

Source: Survey Data

The table 1 summarizes the demographic characteristics such as age group, education qualification, experience, marital status and family members of the respondents. Regarding the distribution of respondent's age group, 18.9% respondent's less than 30 years of age group, 44.1% of respondents between 31 to 40 years of age group, 18.3% respondent's between 41 to 50 years of age group and 18.7% of respondents are more 50 and years of age group. Regarding the educational qualification of the respondents is 31.8% respondents are school level, 52.7% of the respondents are graduate level, 7.3% of the respondents are post graduate level and 8.2% of the respondents are other level of educational status. Regarding the experience of the respondents is 35.9% respondents are less than 10 years, 58.9% of the respondents are 11 to 20 years, and 5.2% of the respondents are more than 20 years of experience level. Regarding the distribution of respondent's marital status is 72.7% are married and 27.3% are unmarried. Also the table reveals the family members of the respondents is 38.7% are less than 3 members 54.0% of the respondents are 4 to 6 members and 7.3% of the respondents are more than 6 members in the family.

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Table No - 2

Demographic characteristic of the respondents

Demographic Characteristics	Category	Frequency	Percentage
Annual Income	Less than Rs.1 Lakhs	154	33.1
	Rs.1 to Rs.2 Lakhs	264	56.8
	More than Rs.2 Lakhs	47	10.1
	Total	**465**	**100.0**
Nature of Job	Government employment	132	28.4
	Private employment	256	55.1
	Self-employment	77	16.6
	Total	**465**	**100.0**
Purpose of using vehicle	Job	257	55.3
	Own business	160	34.4
	Domestic	48	10.3
	Total	**465**	**100.0**
Usage per day	Less than 20 km	199	42.8
	21-30 km	188	40.4
	31-50 km	34	7.3
	More than 50 km	44	9.5
	Total	**465**	**100.0**
Number of years using e scooter	Less than 2 years	248	53.3
	3-5 years	160	34.4
	More than 5 years	57	12.3
	Total	**465**	**100.0**

Source: Survey Data

The table 2 summarizes the demographic characteristics such as annual incomenature of job, purpose of using vehicle, usage per day and number of years using e scooter of the respondent's. Regarding the distribution of respondent's annual income is, 33.1% of the respondent's income in less than Rs. 1 lakhs, 56.8% of the respondents income Rs. 1 lakhs to 2 lakhs and 10.1% of the respondents income is more than 2 lakhs per annual. Regarding the nature of the job of the respondents is 28.4% are government job, 55.1% of the respondents are private job and 16.6% of the respondents are self employment. Regarding the purpose of using vehicle of the respondents is 55.3% of the respondents are job, 34.4% of the respondents are own business and 10.3% of the respondents are domestic usage of the vehicle. Regarding the usage per day of the respondents are 42.8% less than 20 km, 40.4% of the respondents are 21km to 30 km, 7.3% of the respondents are 31 km to 50 km and 9.5% of the respondents are more than 50 km using per day. Also the table reveals the number of years using electronic scooter of the respondents is 53.3% are less than 2 years, 34.4% of the respondents are 3 to 5 years and 12.3% of the respondents are more than 5 years of using electronic scooter.

Null Hypothesis: There is no significant mean difference towards factors of awareness about electronic scooter across marital status

Alternative Hypothesis: There is a significant mean difference towards factors of awareness about electronic scooter across marital status

Table No - 3

Problems	Marital status				t-value	p-value
	Married (n=338)		Unmarried (n=127)			
	Mean	SD	Mean	SD		
Awareness external factor	2.074	0.795	2.016	0.713	**0.723**	**0.047***

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Awareness internal factor	2.032	0.787	2.205	0.728	**2.145**	**0.032***

(*p<0.05 significant at 5 percent level)

Table 3 on t-test reveals that, the two tail significance for the marital status indicates that p<0.05 and, therefore, is significant. It shows that there exists a significant mean difference towards external factors of awareness across two groups of marital status (married and unmarried), external factor of awareness (t =0.723, p<0.05) and awareness of internal factors (t =2.145, p<0.05).

Table No - 4

Chi-square test for association between Perceptual Factors and levels of opinion on external and internal factors of awareness on electronic scooter

Null Hypothesis: There is no positive association between Perceptual Factors and levels of opinion on external factors and internal factors of awareness on electronic scooter

Alternative Hypothesis: There is a positive association between Perceptual Factors and levels of opinion on external factors and internal factors of awareness on electronic scooter

Sl.NO	Variables	Factors	X^2	P	Result
1	Experience	External	2.797		Rejected
		Internal	2.518		Rejected
2	Family Members	External	6.029		Rejected
		Internal	6.814		Rejected
3	Nature of Job	External	0.743		Rejected
		Internal	9.689		Rejected
4	Purpose of Using Vehicle	External	4.275		Rejected
		Internal	19.407		Rejected

Table No. 4 demonstrates that the null hypothesis is rejected at the 5% level of significance since the p-value is less than 0.05. The link between experience and degrees of opinion on outside elements of awareness on electric scooters is therefore concluded to exist (χ^2 = 2.797, p<0.05).

At a level of significance of 5%, the null hypothesis is rejected since the p-value is less than 0.05. As a result, it can be said that experience and internal awareness variables are related to using an electric scooter (χ^2 = 2.518, p<0.05).At a level of significance of 5%, the null hypothesis is rejected since the p-value is less than 0.05. Therefore, it can be said that there is a relationship between family members and outside awareness elements for electric scooters , (χ^2 = 6.029, p<0.05). At a level of significance of 5%, the null hypothesis is rejected since the p-value is less than 0.05. Therefore, it can be said that there is a relationship between family members and internal awareness elements in electronic scooters (χ^2 = 6.814, p<0.05). At a level of significance of 5%, the null hypothesis is rejected since the p-value is less than 0.05. Therefore, it can be said that there is a relationship between the type of a work and outside elements that affect awareness of an electronic scooter (χ^2 = 0.743, p<0.05).

At a level of significance of 5%, the null hypothesis is rejected since the p-value is less than 0.05. Therefore, it can be said that there is a relationship between the nature of the work and internal awareness variables for the electronic scooter (χ^2 = 9.689, p<0.05).At a level of significance of 5%, the null hypothesis is rejected since the p-value is less than 0.05. Therefore, it can be said that there is a relationship between the purpose of driving a vehicle and outside aspects of awareness when riding an electric scooter (χ^2 = 4.275, p<0.05).

At a level of significance of 5%, the null hypothesis is rejected since the p-value is less than 0.05. Thus, it can be said that internal variables of awareness and the goal of driving a vehicle are related in an electronic scooter (χ^2 = 19.407, p<0.05).

One-way ANOVA test

Null Hypothesis*:* There is no significant mean difference towards factors of awareness about electronic scooter across age

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Alternative Hypothesis: There is a significant mean difference towards factors of awareness about electronic scooter across age

Table No - 5

Factors		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Awareness external factors	Between Groups	51.847	3	17.282	2.974	0.031*
	Within Groups	2679.112	461	5.812		
	Total	**2730.959**	**464**			
Awareness internal factors	Between Groups	9.651	3	3.217	0.489	0.690
	Within Groups	3033.295	461	6.580		
	Total	**3042.946**	**464**			

(*p<0.05 significant at 5 percent level)

One – way ANOVA was applied to find the significant mean difference between the four categories of age in years (less than 30 years, 31 to 40 years, 41 to 50 years and more than 50 years) towards factors of awareness about electronic scooter of respondents**,** following factors and the result showed (Table 5) that there is a significant mean difference in the age (in years) towards external factors (F-value = 2.974, p<0.05). The table also reveals that, there exist no significant mean difference awareness about electronic scooter of respondents internal factors (F-value = 0.489, p>0.05).

One-way ANOVA test

Null Hypothesis: There is no significant mean difference towards factors of awareness about electronic scooter across educational qualification

Alternative Hypothesis: There is a significant mean difference towards factors of awareness about electronic scooter across educational qualification

Table No - 6

Factors		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Awareness external factors	Between Groups	24.698	3	8.233	1.402	0.041*
	Within Groups	2706.261	461	5.870		
	Total	**2730.959**	**464**			
Awareness internal factors	Between Groups	6.298	3	2.099	0.319	0.812
	Within Groups	3036.648	461	6.587		
	Total	**3042.946**	**464**			

(*p<0.05 significant at 5 percent level)

One – way ANOVA was applied to find the significant mean difference between the four categories of education qualification (school level, graduate, post graduate and others) towards factors of awareness about electronic scooter across educational qualification of respondents**,** following factors and the result showed (Table 6) that there is a significant mean difference awareness external factors (F-value = 1.402, p<0.05). The table also reveals that, there exist no significant mean difference factors of awareness about electronic scooter across educational qualification education qualification of respondents, awareness internal factors (F-value = 0.319, p>0.05).

One-way ANOVA test

Null Hypothesis: There is no significant mean difference towards factors of awareness about electronic scooter across income

Alternative Hypothesis: There is a significant mean difference towards factors of awareness about electronic scooter across income

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Table No - 7

Factors		Sum of Squares	df	Mean Square	F	Sig.
Awareness external factors	Between Groups	4.079	2	2.039	0.346	0.708
	Within Groups	2726.880	462	5.902		
	Total	**2730.959**	**464**			
Awareness internal factors	Between Groups	2.660	2	1.330	0.202	0.817
	Within Groups	3040.286	462	6.581		
	Total	**3042.946**	**464**			

(*p<0.05 significant at 5 percent level)

One – way ANOVA was applied to find the significant mean difference between the three categories of income (less than Rs.1 lakh, Rs.1 lakh to Rs.2 lakhs and more than Rs.2 lakhs) towards factors of awareness about electronic scooter across income of respondents**,** following factors and the result showed (Table 7) that there is no significant mean difference in the income towards, awareness external factors (F-value =0.346, p>0.05) and awareness internal factors (F-value =0.202, p>0.05).

Discriminant analysis of opinion of external factors on consumer awareness about electronic scooters among working women in Krishnagiri district

The factors loaded on external factors are analyzed with the help of stepwise discriminant analysis and the results are given for each item separately and analyzed. Discriminant analysis is used to discriminate the level of opinion on external factors on consumer awareness about electronic scooters among working women in Krishnagiri district

Table No - 8

Mean score on the level of opinion on external factors on consumer awareness about electronic scooters among working women in Krishnagiri district

External factors	Low (n=126)		Moderate (n=186)		High (n=153)	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Awareness towards brands	1.61	**5**	1.88	**5**	2.14	**5**
Awareness towards style	2.56	**4**	2.62	**4**	3.37	**3**
Awareness towards capacity	2.76	**1**	2.90	**3**	4.11	**1**
Awareness towards price	2.57	**3**	3.08	**1**	4.10	**2**
Awareness towards agency	2.73	**2**	3.04	**2**	3.15	**4**

Source: Computed values

Wilks' Lambda = 0.341

Chi-square value = 194.412. d.f. = 4

p-value =0.000** (p<0.01)

The factor such as, casual, all the factors of awareness towards capacity have greater mean score and these are excelled in the low level group. Also, the factors such as, casual, all the factors of awareness towards price have greater mean score and these are excelled in moderate level group. Awareness towards capacity have greater mean score and these are excelled in high level group.

The Wilk's lambda of 0.342 is closed to zero and it confirms that the discrimination among the various factors of external factors on awareness about electronic scooter in these three groups are better. Also the result of chi-square test reveals that the mean score of external factors significantly differs between the low, moderate and high level group, since the p- value is less than 0.01 for the degrees of freedom 4.

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Further analysis is carried out to estimate the external factors on awareness about electronic scooter responsible for discriminating the factor into low, moderate and high in future among the customers with the help of Fisher's linear discriminant function equation making use of the independent variables as, awareness towards brands (X_1), awareness towards style (X_2), awareness towards capacity (X_3), awareness towards price (X_4) and awareness towards agency (X_5).

Table No - 9

Canonical and Fisher's Linear Discriminant functional coefficients on the level of opinion on external factors on consumer awareness about electronic scooters

External factors	Level of opinion on external factors on consumer awareness about electronic scooters			
	Canonical Discriminant function coefficients (n=465)	Fisher's Linear Discriminant function coefficients		
		Low (n=126)	Moderate (n=186)	High (n=153)
Awareness towards brands	0.848	7.499	8.551	10.422
Awareness towards style	0.689	6.406	6.882	8.648
Awareness towards capacity	0.658	5.224	5.707	7.375
Awareness towards price	0.818	5.796	6.676	8.571
Awareness towards agency	0.407	4.849	5.333	6.244
Constant	-9.620	-36.581	-44.909	-69.464

Canonical Correlation = 0.807 (98% of original cases were correctly classified).

The above table reveals, the Fisher's linear discriminant function coefficient. The canonical correlation is 0.807 which is closure to unity, which infers that there is high degree of positive relationship between the discriminant scores and the external factors. The equations of Fisher's Linear Discriminant coefficient for the three different levels low, moderate and high are,

$Y_L = 7.499X_1 + 6.406X_2 + 5.224X_3 + 5.796X_4 + 4.849X_5$

$Y_M = 8.551X1 + 6.882X_2 + 5.707X_3 + 6.676X_4 + 5.333X_5$

$Y_H = 10.422X_1 + 8.648X_2 + 7.375X_3 + 8.571X_4 + 6.244X_5$

Discriminant analysis of opinion of internal factors on consumer awareness about electronic scooters among working women in Krishnagiri district

The factors loaded on internal factors are analysed with the help of stepwise discriminant analysis and the results are given for each item separately and analysed. Discriminant analysis is used to discriminate the level of opinion on internal factors on consumer awareness about electronic scooters among working women in Krishnagiri district

Table No - 10

Mean score on the level of opinion on internal factors on consumer awareness about electronic scooters among working women in Krishnagiri district

Internal factors	Low (n=122)		Moderate (n=184)		High (n=159)	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Awareness towards battery backup	2.18	**2**	2.58	**3**	2.91	**5**
Awareness towards government incentives	2.00	**5**	2.65	**1**	3.00	**2**
Awareness towards battery recharge facility	2.29	**1**	2.46	**5**	3.08	**1**
Awareness towards resale value	2.12	**4**	2.62	**2**	2.96	**3**
Awareness towards	2.14	**3**	2.54	**4**	2.92	**4**

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maintenance cost						

Source: Computed values

Wilks' Lambda = 0.395

Chi-square value = 239.113. d.f. = 4

p-value =0.000** (p<0.01)

The factor such as, casual, all the factors of awareness towards battery recharge facility have greater mean score and these are excelled in the low level group. Also, the factors such as, casual, all the factors of awareness towards government incentives have greater mean score and these are excelled in moderate level group. Awareness towards battery recharge facility have greater mean score and these are excelled in high level group.

The Wilk's lambda of 0.395 is closed to zero and it confirms that the discrimination among the various factors of internal factors on awareness about electronic scooter in these three groups are better. Also the result of chi-square test reveals that the mean score of internal factors significantly differs between the low, moderate and high level group, since the p- value is less than 0.01 for the degrees of freedom 4.

Further analysis is carried out to estimate the internal factors on awareness about electronic scooter responsible for discriminating the factor into low, moderate and high in future among the customers with the help of Fisher's linear discriminant function equation making use of the independent variables as, awareness towards battery backup (X_1), awareness towards government incentives (X_2), awareness towards battery recharge facility (X_3), awareness towards resale value (X_4) and awareness towards maintenance cost (X_5).

Table No - 11

Canonical and Fisher's Linear Discriminant functional coefficients on the level of opinion on internal factors on consumer awareness about electronic scooters

Internal factors	**Level of opinion on internal factors on consumer awareness about electronic scooters**			
	Canonical Discriminant function coefficients (n=465)	**Fisher's Linear Discriminant function coefficients**		
		Low (n=122)	**Moderate (n=184)**	**High (n=159)**
Awareness towards battery backup	.561	3.334	3.926	4.504
Awareness towards government incentives	.565	2.598	3.354	3.785
Awareness towards battery recharge facility	.402	2.449	2.683	3.276
Awareness towards resale value	.497	2.592	3.218	3.634
Awareness towards maintenance cost	.495	2.773	3.302	3.808
Constant	-6.552	-15.894	-22.357	-29.357

Canonical Correlation = 0.629 (97% of original cases were correctly classified).

The above table reveals, the Fisher's linear discriminant function coefficient. The canonical correlation is 0.629 which is closure to unity, which infers that there is high degree of positive relationship between the discriminant scores and the internal factors. The equations of Fisher's Linear Discriminant coefficient for the three different levels low, moderate and high are,

$Y_L = 3.334X_1 + 2.598X_2 + 2.449X_3 + 2.592X_4 + 2.773X_5$

$Y_M = 3.926X1 + 3.354X_2 + 2.683X_3 + 3.218X_4 + 3.302X_5$

$Y_H = 4.504X_1 + 3.785X_2 + 3.276X_3 + 3.634X_4 + 3.808X_5$

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Findings

Maximum respondents (44.1%) are belongs to the age group of 31-40 years and majority of the respondents (52.7%) were completed graduation as qualification.

Majority of the respondents (72.7%) are married and 54 percent of the respondents with 4-6 members in their family.

Majority of the respondents (56.8%) annual income belongs to one to two lakhs and 55.1 percent of respondents working in private concern.

55.3 percent of the respondents were used vehicle for their job and 42.8 percent of the respondents were used vehicle for less than 20 km per day.

Majority of the respondents (53.3%) are using electric motor cycle for less than two years.

There is a significant difference between marital status age, income, educational qualification external and internal factors towards awareness on electric scooter in the study area.

Awareness towards brands have high (10.422) co-efficient in external factors and awareness towards battery backup have (4.504) co-efficient in internal factor on electric scooter in the study area.

Suggestions

Consumer awareness involves understanding the characteristics, functionality, and value proposition of a product or service. It includes knowledge about its features, specifications, usage instructions, and potential benefits.

Brand awareness refers to consumers' familiarity and recognition of a specific brand. It involves being aware of the brand's existence, reputation, values, and associations. Higher brand awareness often leads to increased consumer trust and preference.

Consumer awareness can be influenced by various sources of information, such as advertising, word-of-mouth, online reviews, social media, product labeling, and educational campaigns. Consumers rely on these sources to gather information and form perceptions about products or services.

Awareness of consumer rights and protection is essential for consumers to make informed decisions and safeguard their interests. Knowledge of legal frameworks, warranties, refund policies, and consumer protection agencies empowers consumers to assert their rights and make complaints when necessary.

Consumer awareness can also include knowledge about health and safety considerations related to products or services. Consumers should be aware of potential risks, warnings, and proper usage guidelines to ensure their well-being.

With growing concerns about sustainability and ethical practices, consumer awareness extends to understanding the environmental impact, social responsibility, and ethical standards of the products and companies they support. This awareness drives consumer choices towards more sustainable and ethical options.

The adoption and awareness of electric scooters have been growing rapidly in recent years. Here are a few points that highlight the awareness of consumers about electric scooters:

Environmental consciousness:

Many consumers, including working women, are becoming more aware of the environmental impact of traditional transportation methods. Electric scooters are seen as a greener alternative to gasoline-powered vehicles, as they produce zero emissions during operation.

The popularity of electric scooter sharing services, such as Lime and Bird, has contributed to increased consumer awareness. These services provide convenient and accessible options for short-distance travel, particularly in urban areas. As a result, more people, including working women, are exposed to and become aware of electric scooters.

In some regions, governments are implementing initiatives and providing incentives to promote the adoption of electric vehicles, including electric scooters. Such programs often raise awareness among consumers, encouraging them to consider electric scooters as a viable mode of transportation.

Media coverage, including news articles, online reviews, and social media, has played a significant role in spreading awareness about electric scooters. Additionally, manufacturers and retailers often employ marketing strategies to promote the features and benefits of electric scooters, targeting various consumer segments.

The availability of a wide range of electric scooter models and brands in the market has made consumers, including working women, more aware of their options. This availability allows potential buyers to compare features, prices, and user reviews, leading to increased awareness and understanding of electric scooters.

Conclusion

The production and use of electric scooter around the world continues to grow as cyclists, old and new, incorporate electric scooter into their lives. With the help of electric motors, cycling is now considered more suitable for cyclists of all ages and walks of life. Therefore, there is a need of create more awareness about the impact and importance of electric scooter among the public help to protect the environment and sustainable development. Consumer awareness towards electric scooter is very important to promote the products in the market. Consumer should know the features and specialty of the product to realize and enjoy. With this aspect, working women were not awarded about the electric scooter with respect to battery backup, government incentives, recharge facilities, resale value and maintained cost. Whereas they moderately aware on E-Scooter. Many other contemporary electric scooters are made for commuting to work and riding around cities. Many bikers have switched to using electric scooters for their everyday urban journeys because of the advantages, comfort, and efficiency of these vehicles, as well as the components and infrastructure intended to move people from point A to point B. Working women are well-informed about scooter brand, capacity, cost, and agency. Therefore, there is a need for greater awareness of electric scooters among working women in the research region.

Reference:

Abhijeet Singh and Brijesh Kumar (2011), "Art of motorcycle maintenance", New York: Bantam Books.

Al-Shammari,M. and Samer Kanina, (2014)"Perceived Customer Service Qualityina Saudi Automotive Company", International Journal of Managerial Studies and Research (IJMSR),Vol.2,No.10, pp.173-182, 2014.

Ameer Asra Ahmed, M.S. Ramachandra, Siva Nagi Reddy (2014)."A study on customer satisfaction level of Royal Enfield Bullet", International Journal of Business and Administration Research Review, Vol.1,Issue.7,P. 218.

Arutselvi, (2011)."A study on customers satisfaction towards TVS Bikes", International Journal of Management Research and review, Volume-1/Issue-5. PP. 1-40.

Asadollahi, A., Jahanshahi, A.A. and Nawaser, K., (2011) "A Comparative Study to Determine Customers" Satisfaction from After Sales Service in the Automotive Industries", Asian Journal of Business Management Studies, Vol. 2, No. 3, pp.124-134, 2011.

Catherine Rexy, S.Rita and Vignesh Kumar (2016). "An Empirical Approach to Measure Customer Satisfaction of Two Wheeler Users Using Six Sigma", International Journal of Pure and Applied Mathematical Sciences, Vol.9, No 2, PP.231-245.

Cerjak, Marija, Naglic, Tatjana, Mesic, Zeljka, Tomic, Marina (2015). "Croatian consumers' knowledge and attitudes towards Fair Trade", EAAE-AAEA Joint Seminar, March 25-27,Italy.

Chia-Nan Wang, Jen-Der Day and Muhammad Farid (2019) "Service innovation model of theautomobileserviceindustry",Appl.Sci.2019,9,2403;doi:10.3390/app9122403,www.mdpi.com/journal/applsci.

Dipayan Singha and Amit Majumder (2018) "Goods & Services Tax (GST) and Two-Wheelers Market Segment in India: An Impact Study", NSOU Open Journal, Vol.1 No.1 (January 2018), A multidisciplinary Online Journal of Netaji Subhas Open University, INDIA.

Duggani Yuvaraju, et. al., (2014) "Customer Satisfaction towards Honda Two Wheelers:

Acase study in Tirupati", OSR Journal of Business and Management, Vol. 16(5). Ver. I (May),PP65-74.

Farah Sahul Hamid, (2011) "Measuring Service Quality in the Takaful Industry", SEGi Review, Vol. 4, No. 1, July 2011, pp. 118- 124, ISSN 1985-5672.

GeethaBai(2012)."Role of family and purchase decision of two wheeler",

Gopalakrishnan G. and Rengarajan R. (2018) "A study on service quality in royal enfield showroom, chennai" international journal of current engineering and scientific research (ijcesr), issn (print): 2393-8374, (online): 2394-0697, volume-5, issue-4, 2018.

Humera Banu, et. al., (2013) "Two-Wheeler Riding Patterns, Perceptions and Aggressive Riding Behavior among College Youth", International Journal of Innovative Research in Science, Engineering and Technology,Vol.2, Issue 9, September2013.

Kokila(2014)"A Study on Satisfaction Levels of Working Women towards Two Wheelers in Coimbatore, Tamil Nadu", Volume 44,Issue 5, May 2014.

Kunal Gaurav (2015) "AUTOSERV: Development of a scale for measuring automobile service quality", Available at SSRN: https://ssrn.com/abstract=2900773.

Malar Mathi , K., Krishna Kumar, and C. Saraswathi (2013). "A Study on consumer buying behavior towards Hero Moto Corp in Erode, Global Journal of Artsand Management, No.3 (1), PP.23-28.

Mangesh Jadhao D., Arun and Kedar P. (2016) "Service quality challenges in an Indian automobile service industries", Int. Journal of Engineering Research and Application, ISSN: 2248-9622, Vol. 6, Issue 12, (Part -4) December 2016, pp.39-43.

PallawiB.Sangode,(2011)"Service Quality of Maruti Suzuki and Hyundai Dealer in Nagpur: A Comparative Study", International Journal of Research in Finance Marketing, Volume 1, Issue1, May 2011, pp.41-45.

Paramasivan. C (2011), Customer Satisfaction through Information Technology in commercial banks, Journal of Commerce and Management Thought, Vol.2, Issue 4, October, pp 509-522.

Rifaya Meera M. and Muthupandi S. (2017) "Customer satisfaction and expectation towards after sales service of TVS Motors Ltd in Sivakasi", International Journal of Humanities & Social Science Studies (IJHSSS), A Peer-Reviewed Bi-monthly Bi-lingual Research Journal, Volume-III, Issue-IV, January 2017, Page No. 118-144.

Saraswathi S. (2008) "Customer satisfaction on post-sales service with reference to Two-Wheeler Automobile Industry". The ICFAI Journal of Consumer Behaviour, III (2). June 2008, Hyderabad: The ICFAI University Press. India. pp 32-48.

Sathish(2011). "A Study on consumer Behaviour of Automobile Products with Special Reference to Two- Wheeler in Tirunelveli City Tamil Nadu", Indian Journal of Applied Research, Vol.1 ,Issue3, December.

Schiffman, L.G., Kanuk, L.L., (2004), "Consumer behavior", Pearson Education, New Delhi, PHI Pvt. Ltd.

UmamaheswariJ.L(2014) "Exploring internal service quality in a manufacturing organization -A study in Lucus TVS, Chennai", Symbiosis Institute of Management Studies Annual Research Conference (SIMSARC13), Procedia Economics and Finance 11 (2014)710—725.

Waritha Limdechaphan (2016). "A study on consumer attitudes to instant functional coffee", Thesis for Master of Science Program in Marketing, Thammas at University, Thailand, PP.1-36.

Weerasiri, R.A.S and A. S. M. G. Mendis (2015). "Factors Affecting Purchase Decision for Indian Two Wheelers in Sri Lankan Market", "Kelaniya Journal of Management, Vol. 4, No.2, July-December, PP.42.

