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Factors Affecting Consumer Purchase Intention to Electric Cars in Turkey

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Abstract: ***This study focuses on electric ear customers and their buying behavior in Turkey. As consumer behavior has become more vital in marketing, this research attempts to look at how functional value, social value, emotional value, conditional value and epistemic value impact consumers' intention to buy an electric car. This research utilized an online survey and a questionnaire to collect primary data. Consumption values including functional, social, emotional, conditional and epistemic are the five variables of this study. Each variable was assessed using a 5 - point Likert scale. The data were analyzed by using Statistical Package for the Social Sciences (SPSS). The study's findings suggested that the most influence is exerted by emotional value on consumer's intention to purchase electric car, closely followed by functional value. Moreover, conditional and epistemic values showed comparatively significant effect on consumer purchase intention to electric car. In contrast, social values did not significantly correlate with consumers' intentions to buy electric cars. On the practical significance, the study identifies the importance of these variables which enable electric car manufacturers to find out expectations of customers and their products.***

Keywords: consumption value, consumer purchase intention, consumer buying behavior, electric cars

1. Introduction

Intention to purchase is a crucial component of marketing, since it allows you to forecast consumer behavior. The quality of life and the future of the world are more important concerns for modern consumers than previous generations, and they are more inclined to select products that are good for the environment. This change in consumer preferences is seen not only in wealthy nations, but also in developing nations such as Turkey. Furthermore, developing countries such as Turkey are beginning to appreciate the importance of environmentally friendly products, which can prevent environmental damage while also increasing the economy by creating new economic opportunities.

Electric cars are among the most environmentally friendly items in the car industry. One of the most significant industries in Turkey is the automobile sector. This is due to the fact that the automobile sector has the ability to boost the nation's economy through both direct and indirect taxes, technical advancement, the opening up of new business opportunities, and the development of the workforce through the provision of employment and training opportunities.

Aside from the low use of electric vehicles, a variety of variables influencing consumers' environmentally conscious purchasing intentions have emerged. Value elements, particularly consumption values, have received less attention in previous studies than environmental factors (such as knowledge about the environment, beliefs, and concern) and marketing factors (such as price, product quality, views, and demographic data). Value was discovered to be an essential indicator of consumers' inclination to buy (Bui, 2005). While intention can be a useful indicator of future behavior, it does not fully capture the state of mind of the consumer while making a purchase decision if values are not taken into consideration (Schiffman & Kanuk , 1983). In order to predict consumers' intention to buy electric cars in this study, consumption values were employed.

This study examines the major factors influencing customers' intentions, particularly with regard to buying electric cars, using the concept of consumption values established by (Sheth, Newman, &Gross, 1991). The theoretical foundation of the majority of the previous research on customers' intentions was the theory of planned behavior or the theory of reasoned action. Therefore, the purpose of this study's research questions is to investigate how consumers' intentions to buy electric cars are influenced by their consumption values - functional, symbolic, emotional, conditional, and epistemic values.

2. Theoretical Background

2.1 Value

Values are the ideas and precepts that direct behavior toward a particular ideal condition (Schwartz & Bilsky, 1987). They influence how we behave, how we think, and how we distinguish between different things, occasions, and circumstances (Long & Schiffman, 2000). To remain competitive in the market, companies must prioritize creating value for consumers, as it is a key factor in purchasing decisions.

2.2 Perceived Value

Based on perceptions of what is given and received, consumers assess a product's total value, which is known as perceived value (Zeithaml, 1988). Based on customer reviews, perceived value is the whole measurement of the value that a customer felt they received from a good or service (Bolton, & Drew, 1991).

2.3 Consumption Value

The theory is centered on consumption values and explains why customers decide to purchase a particular product over another, select a particular brand over another, and decide

not to purchase a particular product at all (Sheth, Newman, & Gross, 1991). The theory identifies five consumption values that impact consumer buying behavior. They consist of functional, social, emotional, conditional, and epistemic values (Sheth, Newman, & Gross, 1991).

2.4 Consumer Purchase Intention

Consumers make extremely complicated purchasing decisions. In general, a customer's behavior, perception, and attitude influence their intention to purchase. Consumers' purchase behavior is a crucial factor to consider when assessing a certain product (Keller, 2008). Purchasing intention can be further described as the choice to take action or a physiological response indicating how someone acts in relation to goods or services (Wang, 2008). Purchasing intention is regarded as a necessary condition for motivating and compelling customers to make actual purchases of goods and services (Zhuang, Luo, & Riaz, 2021). Purchase intention, or the personal propensity of consumers toward a certain product, has been shown to be a significant predictor of the purchasing behavior of customers (Fishbein & Ajzen, 1975).

2.5 Consumer Buying Behavior

The way that people purchase a new automobile, an iPhone, financial services, and a tube of toothpaste varies significantly. Typically, more buyers participate in and deliberate over more difficult purchases. (Kotler & Armstrong, 2012). There are two main aspects that affect consumer buying behavior. These elements are both personal and environmental. Individual characteristics that impact consumer behavior fall into several key areas, including demographics, consumer knowledge, perception, learning, motivation, personality, beliefs, attitudes, and life styles. Environmental factors make up the second group of factors. The things outside of the individual that influence a consumer's decision - making process are referred to as environmental influences. Culture, social status, peer group, family, and home are some of these variables. The factors mentioned above are the primary aspects that influence consumers' decisions to choose a particular good or service (Blackwell, Miniard, & Engel, 2006).

3. Hypothesis Development

3.1 Functional Value

The perceived benefit derived from an alternative's ability to perform in a functional, practical, or physical capacity is known as its functional value. When an option has distinctive functional, utilitarian, or physical characteristics, it gains functional value. Functional value is evaluated using a choice attribute profile (Sheth, Newman, & Gross, 1991). Thus, the hypothesis is developed as below:

H1: Functional value positively affects intention to purchase electric car.

3.2 Social Value

The perceived benefit derived from an alternative's identification with one or more particular social groups is known as the social value. Through association with favorable or unfavorable stereotyped demographic, socioeconomic, and cultural - ethnic groups, an alternative gains social value. Social value is evaluated using a selection imagery profile (Sheth, Newman, & Gross, 1991). As a result, the following theory is formed:

H2: Social value positively affects intention to purchase electric car.

3.3 Emotional Value

The perceived benefit derived from an alternative's ability to elicit emotions or affective states is known as its emotional value. When an alternative is connected to particular emotions, or when those emotions are triggered or sustained, it takes on emotional significance. The alternative's emotional value is determined using a profile of those feelings (Sheth, Newman, & Gross, 1991). So, the hypothesis is formed as follows:

H3: Emotional value positively affects intention to purchase electric car.

3.4 Conditional Value

The conditional value of an option is defined as the perceived utility gained by an alternative as a result of the specific situation or combination of circumstances presented to the decision maker. An alternative gains conditional value when antecedent physical or social conditions improve its functional or social value. Conditional value is assessed using a profile of decision contingencies (Sheth, Newman, & Gross, 1991). As a result, the following hypothesis is developed:

H4: Conditional value positively affects intention to purchase electric car.

3.5 Epistemic Value

The epistemic value of an option is described as its perceived value derived from its ability to generate interest, give novelty, or satisfy a demand for knowledge. Questionnaire elements pertaining to curiosity, novelty, and knowledge provide an alternative with epistemic worth (Sheth, Newman, & Gross, 1991). Thus, the hypothesis is developed as below:

H5: Epistemic value positively affects intention to purchase electric car.

4. Research Model

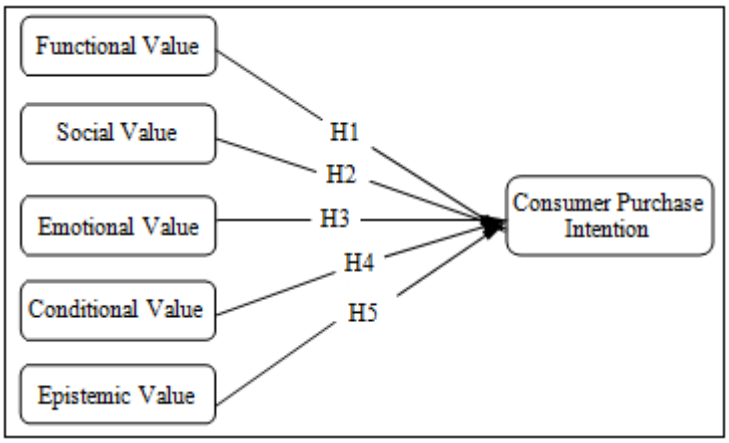

Figure 1: Research model (Teoh & Nor , 2015)

5. Research Methodology

This study was conducted using a quantitative methodology. A questionnaire was utilized to obtain data on the consumer's intention to purchase electric carin Turkey. This study's construct measures are derived from earlier studies to ensure content validity. All the constructs and items were adapted from (Teoh & Nor , 2015) to assess consumer intention to buy electric car. All of the items were evaluated on a five - point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Indifferent, 4=Agree, 5=Strongly Agree).

5.1 Data Collection Procedure

The sampling method utilized in this study was online convenience sampling. This type of sampling strategy frequently allows a potential responder to self - select into the sample, giving researchers the freedom to pick who, where, and when to gather data (Bryman & Bell, 2003).

This survey was conducted by sending Google Form link via WhatsApp to a targeted population who were university students.

The target sample size was 300 for this research; however it reached 281 responses, accounted for approximately 93%.

The demographic profile of respondents in this study includes 164 male respondents out of 281 respondents, which accounted for 58.4% of total respondents, and 117 female respondents with the percentage of 41.6%. Based on survey, 83.9% of the people are under 34 years old. The majority falls between ages 18 - 25, which accounted 52.3% of the total respondents. In terms of education level, 84.6% of the respondents have the university degree or post graduate degree or above.

6. Analysis and Results

This study used Statistical Package for the Social Sciences (SPSS) to analyze primary data.

6.1. Reliability

Cronbach's Alpha was used to analyze the internal consistency of the variables used in this study. Table 1 indicates that in reliability analysis, the Cronbach's Alpha values had the range between 0.927 and 0.964. Alpha values more than 0.9 are accounted as strong and excellent for reliability (DeVellis, 2016). The most Cronbach's Alpha value is related to Emotional Value with (Alpha=0.964), which is followed by Functional Value (Alpha=0.951). On the other hand, Conditional Value has the lowest Cronbach's Alpha, accounted for 0.937.

Table 1: Reliability analysis

Reliability Analysis				
Variables	Cronbach's Alpha	Items	Mean	Std. Deviation
Intention to Purchase Electric Car	0.927	6	3.357	1.01
Functional Value	0.951	8	3.727	1.00
Social Value	0.948	12	2.357	0.92
Emotional Value	0.964	8	3.770	1.06
Conditional Value	0.932	5	2.633	1.08
Epistemic Value	0.937	6	3.337	0.96

6.2. Descriptive Analysis

In table 2, it is shown that the skewness values range from - 1.116 to 0.654. The absolute value of skewness is the highest in Emotional Value and the lowest in Epistemic Value. The kurtosis values range between - 0.680 and 0.341, which in Emotional Value has the highest value with 0.341 and Conditional Value has the lowest which is accounted for - .680. For meeting all the requirements of univariate normality, both skewness and kurtosis should have the range within ± 3.5 (Hair , Black, Babin, & Anderson, 2019).

Table 2: Descriptive analysis

Descriptive Analysis					
Variables	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Intention to Purchase Electric Car	3.35	1.01	1.04	- 0.76	- 0.14
Functional Value	3.72	1.00	1.01	- 0.99	0.26
Social Value	2.35	0.92	0.86	0.65	- 0.12
Emotional Value	3.77	1.06	1.12	- 1.11	0.34
Conditional Value	2.63	1.08	1.17	0.42	- 0.68
Epistemic Value	3.33	0.96	0.93	0.37	- 0.26

6.3. Discriminant Validity

In this study discriminant validity has been conducted to analyze the variables' originality and distinctiveness. Table 3indicates that the diagonal values (square root of variance explained) are higher than the remaining values (square of each pair of correlation). This implies that all the variables are distinct and unique (Hair , Black, Babin, & Anderson, 2019).

Table 3: Correlation matrix

Correlation Matrix						
	Intention to Purchase Electric Car	Functional Value	Social Value	Emotional Value	Conditional Value	Epistemic Value
Intention to Purchase Electric Car	0.718					
Functional Value	0.576**	0.792				
Social Value	0.338**	- 0.049	0.831			
Emotional Value	0.627**	0.791**	0.059	0.693		
Conditional Value	0.437**	0.038	0.763**	0.152**	0.643	
Epistemic Value	0.617**	0.436**	0.498**	0.577**	0.618**	0.690

6.4. Regression

Multiple regression is employed to explore the relationship between a single continuous dependent variable and several independent variables or predictors. in this study multiple regression analysis was performed to measure the impact of consumption values (functional value, social value, emotional value, conditional value and epistemic value) on the dependent variable consumer purchase intention to electric car. R - Squared (also known as the coefficient of determination) is a statistical metric in regression models that determines how much of the variance in the dependent variable can be explained by the independent variable. In other words, r - squared measures how well the data fits the regression model (Taylor, 2024). R square more than 0.5 is considered relatively strong. R square in this analysis is 0.559 which means that 55.9% of the variance in the dependent variable.

From the table 4, it can be seen that functional and emotional values have the significant impacts on intention to purchase electric car, as their P - value are <0.01 which is lower than 0.05. On the contrary, Social value has insignificant impact, since its P - value is more than 0.05. A P - value of 0.05 or lower is generally considered statistically significant (Beers, 2023).

Table 4: Multiple regression

Multiple Regression					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	β		
(Constant)	- 0.045	0.194		- 0.231	0.817
Functional Value	0.298	0.067	0.295	4.431	<0.001
Social Value	0.103	0.069	0.094	1.485	0.139
Emotional Value	0.257	0.070	0.268	3.683	<0.001
Conditional Value	0.208	0.065	0.221	3.186	0.002
Epistemic Value	0.159	0.069	0.151	2.297	0.022

7. Findings and Managerial Implications

The study's results show that functional value has the greatest impact, more than emotional, conditional, and epistemic values among the significant values. The hypothesis that the intention to purchase an electric car is significantly influenced by functional, emotional, conditional, and epistemic values. The functional features of electric cars, such as their price, quality, and maintenance costs, as well as the ability to satisfy consumers' emotional demands, could influence their decision to buy electric cars. Additionally, the significance of conditional value is notable as it influences customers' intention to purchase electric cars through manufacturer discounts, promotions, and government subsidies.

Regarding the intention to buy an electric car, epistemic value has also been shown to be significant. The more respondents learn about the benefits of electric cars, even if the majority of them are well educated and have limited experience with such environmentally friendly products, the more interested or eager they get to buy them.

On the other hand, the results indicate that social value has no substantial impact on consumers purchase intention in electric car market. The reason behind this result is that they do not feel that acquiring electric cars will boost their social praise, image, or impression.

7.1. Managerial Implication

The research findings have provided marketers with insight into how to draw in consumers by employing the proper values, as consumption values have been recognized as critical factors in influencing consumers' purchasing intentions. Marketers should be aware that functional and emotional value influence consumers' intention to purchase an electric car.

According to the results, marketers should not rely too heavily on social impact as an approach for drawing Turkish customers to buy electric cars because social value does not show a substantial association with affecting consumers' inclinations to buy electric vehicles.

Furthermore, government subsidies and manufacturer promotions or discounts may encourage buyers to choose electric cars. As a result, the Turkish government could think about enacting another scheme, such as a tax break, to stimulate electric car sales.

8. Limitations and Suggestions for Future Research

This study cannot provide a more in - depth insight of customers' intentions because it is based on cross - sectional data that was obtained once at a specific period. This is duo to the fact that customers' intentions might change over the course of time, and there is a time frame for consumers to respond. Future study should incorporate longitudinal studies to better understand consumers' purchasing behavior and the primary factors influencing consumers' long - term intentions.

Furthermore, the data for this research was obtained from Istanbul customers, which is insufficient to reflect the entire Turkish population, particularly the difference between the European and Asian parts of Istanbul. As a result, future research suggests doing a cross - cultural study to compare the European and Asian sides of Istanbul. This is because customers in Europe and Asia have different lifestyles, cultures, economies, and levels of development. Cross - cultural research enables marketers to apply suitable marketing methods to either side.

Finally, this study relies on the theory of consumption values rather than well - known theories like the theory of planned behavior or the theory of reasoned action. Yet, in this study, the theory of consumption values can explain 58.6 percent of behavioral intention, whereas the theory of planned behavior or theory of reasoned action can only explain 40 percent. As a result, future research should take into account consumption value theory.

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