Etikonomi
Volume 23(2), 2024: 539 - 554
P-ISSN: 1412-8969; E-ISSN: 2461-0771
https://doi.org/10.15408/etk.v23i2.37807

Factors Affecting Consumers' Comprehensive Vehicle Insurance Policy Purchasing Behavior

Muhammet Kutlu[1*], Serpil Sumer Adin[2], Hilal Mola[3], Şeyma Şahin Kutlu[4]
[1]Bandırma Onyedi Eylül University, Balıkesir, Türkiye
[2]Atatürk University, Erzurum, Türkiye
[3]Atatürk University, Erzurum, Türkiye
[4]Bandırma Onyedi Eylül University, Balıkesir, Türkiye
E-mail: [1]mkutlu@bandirma.edu.tr, [2]serpil.sumer@atauni.edu.tr,
[3]hilal.karatas@atauni.edu.tr, [4]ssahin@bandirma.edu.tr
[*)]**Corresponding Author**

JEL Classification:
D12
G22
C25

Received: 24 February 2024

Revised: 25 March 2024

Accepted: 20 April 2024

Available online: September 2024

Published regularly: September 2024

Abstract

Research Originality: With increasing vehicle values in Türkiye and high insurance costs, consumers' vehicle insurance purchasing preferences emerge as a dilemma. The study examines consumers' insurance purchasing behavior in this dilemma's context of risk and overconfidence tendencies.

Research Objectives: This study aims to reveal the effects of individual characteristics, attitude toward risk, and overconfidence tendencies on comprehensive vehicle insurance policy purchasing behavior.

Research Methods: A questionnaire was administered to 428 selected vehicle owners in Turkey, and the questionnaire results were analyzed using the binary logit model.

Empirical Results: The study found that gender, education level, income level, market value of the vehicle, attitude towards risk, and self-confidence level have statistically significant effects on comprehensive vehicle insurance policy purchase decisions.

Implications: The relationship between risk-taking behavior, overconfidence, and insurance purchasing behavior requires further discussion. Government policies that increase insurance awareness are recommended to weaken this relationship.

Keywords:

risk-taking behavior; comprehensive vehicle insurance policy; purchase behavior; binary logit model

How to Cite:

Kutlu, M., Sumer Adin, S., Mola, H., & Şahin Kutlu, S. (2024). Analysis of Factors Affecting Consumers' Comprehensive Vehicle Insurance Policy Purchasing Behavior. *Etikonomi, 3*(2), 539 – 554. https://doi.org/10.15408/etk.v23i2.37807.

INTRODUCTION

Individuals are exposed to unpredictable risks in everyday life, such as earthquakes, fires, floods, natural disasters, and accidents. These unforeseen risks cause financial and emotional losses (Akkurt & Okur, 2022: 99). In the event of exposure to an unforeseen risk, the individual experiences the anxiety and stress of compensating for the damage that may occur. Individuals and organizations want to secure themselves to eliminate their anxieties and worries about unforeseen risks (Karagöz et al., 2019). The desire of individuals and organizations to secure themselves for a specific fee has led to the emergence of the concept of insurance. When evaluated from the consumer's perspective, insurance aims to meet the needs of individuals to secure themselves and their assets. In this regard, meeting the household's insurance needs is part of meeting the needs related to household risk management (Kawiński & Szumlicz, 2023). Agbo & Agbaji (2019) define insurance as a protection against financial losses resulting from uncertainty and risk. The risk factor is essential for the formation of an insurance contract. For the risk to be insured, it must have an economic value (Gülbitti, 2007). Insurance is of economic importance on both micro and macro scales. On a micro-scale, compensating for the financial loss that individuals and businesses will face in case of exposure to a risk protects the living standard of individuals and prevents the disruption of the production processes of businesses (Özen & Yurdakul, 2020). On a macro scale, it ensures the stability of financial markets by managing the risks and eliminating the financial losses and damages caused by them (Yıldırım et al., 2020).

Although there are many types of insurance in the insurance industry, the industry is divided into life and non-life insurance. While life insurance protects individuals against financial losses due to premature death and illness, non-life insurance protects individuals and businesses against financial loss. Motor and non-motor vehicle insurance is a non-life insurance type. There are four types of motor and non-motor vehicle insurance in Turkey. Among them, traffic insurance (motor vehicle liability insurance for highways) is compulsory (Balkı & Göksu, 2022). As per traffic insurance, in the event of an accident, the at-fault party covers the resulting damage within a specific legal framework. The increasing number of vehicles in traffic and the existence of risks other than accident risk have led to the development of comprehensive vehicle insurance (casco insurance) within motor and non-motor vehicle insurance. Comprehensive vehicle insurance, which differs from traffic insurance in terms of content and scope, protects vehicles from financial damages against several risks such as flood, fire, accident, and theft (Yayar & Daşcı, 2019). The comprehensive vehicle insurance policy also covers damages caused by animals, falling objects, and intentional damages (Mihaela et al., 2013). As expected, insurance premiums also increase as the scope of insurance expands. In addition, the rise in vehicle prices, that is, the value of the insured asset, increases insurance premiums. These expectations and realities are the main reasons for conducting this study for Turkey.

Due to the rapid increase in vehicle prices with the recent fluctuations in exchange rates, vehicle prices in Turkey have an important place in the consumer budget. Since the prices of vehicles classified as imported goods in Turkey adapt quickly to economic

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807

variables such as exchange rates and inflation, vehicles are seen as investment instruments like stocks and precious metals. Therefore, purchasing a vehicle emerges as an alternative for consumers who want to protect their assets against inflation. In this case, it becomes essential for the consumer to insure the purchased or existing vehicles with insurance. However, insurance premiums are also increasing due to increases in vehicle prices and possible damage coverage costs. This situation causes consumers to face a dilemma between covering the high cost of comprehensive vehicle insurance and accepting the possible risks to the asset. Considering the findings that individuals' attitudes towards risk in Turkey are around the world average (Falk et al., 2016) and the level of overconfidence is relatively high (Stankov & Lee, 2014), their behavior in the face of the dilemma consumers face emerges as a natural research problem. It has also been reported that Turkish drivers tend to take risks more than other countries (Şimşekoğlu et al., 2012; Şimşekoğlu et al., 2013). This study uses individual characteristics to explain consumers' purchasing behavior regarding comprehensive vehicle insurance policies, especially their attitude toward risk and overconfident tendencies. Individuals' insurance policy purchasing behavior in Turkey also makes sense from a macroeconomic perspective. Turkey is a developing country, and the supply of funds is important for economic growth and financial development in such countries.

Regarding fund supply, insurance is the second sector after financial markets. Therefore, transferring the funds to be gained through premiums generated by the sale of comprehensive vehicle insurance policies to financial markets will create a new fund supply and contribute to economic growth and financial development. Thus, this study may set an example for countries with characteristics similar to Turkey's. Given the importance of the insurance industry, which is constantly growing and developing, for the economy and the financial system, the results obtained from the study on the factors affecting policy purchasing can provide inferences for insurance companies and policymakers.

Regarding asset size, the insurance industry ranks second, after the banking industry, in the financial system in Turkey (Insurance Association of Türkiye, 2021). Considering that the insurance industry is a growing market, the desire of insurance companies to increase their preferability and gain a competitive advantage by getting a larger market share has led researchers to investigate consumers' purchase preferences. A consumer's choice to purchase a product or service is a process that involves various decision processes and is influenced by various factors (Panjaitan et al., 2019). Consumers who buy products or services need limited information and fewer decision-making processes. However, when they purchase an expensive or unusual product or service or something rarely, the decision-making process is prolonged because they need more comprehensive information about the price, brand, and image of the product or service in question (Techasurin et al., 2020). When purchasing comprehensive vehicle insurance, individuals make decisions by researching and evaluating the information they get. The purchase of comprehensive vehicle insurance is influenced by price, information, cost, consumer expertise, perceived risk, and socio-demographic characteristics, besides the transparency

of the contract (Filiz & Şengöz, 2010; Störmer, 2014; Demiray-Erol & Alma, 2016; Zakaria & Ayoub, 2023). In addition to these factors, the insurance company's brand and image affect consumers' comprehensive vehicle insurance policy purchase behaviors (Techasurin et al., 2020; Zheng et al., 2021).

While Sarman et al. (2020) explain traffic insurance purchasing behavior with personality characteristics, they emphasize the effect of neurotic character on insurance purchasing behavior. It can be stated that the individual's pessimistic expectations and perspective strengthen the precaution-taking behavior. Another study on the vehicle insurance example reported the effects of Huyssteen & Rudansky-Kloppers (2024) age, education level, and household income variables on insurance policy purchasing behavior. Studies on different types of insurance have also shown that variables such as education, income, gender, and age affect insurance purchasing behavior (Ulbinaite et al., 2013; Lim et al., 2023). Ulbinaite et al. (2013) also emphasized that insurance decisions depend on financial evaluations, such as the insurance premium, and that conditions are essential for male consumers. Alex and Aithal (2022) have not confirmed the effect of demographic variables such as gender and education level on comprehensive motor insurance policy purchasing behavior. However, income, occupation, marital status, family size, distance traveled by the vehicle, risk preference, the number of vehicles owned, and the price of the vehicle affect purchase behavior (Akan, 2012; Dragos & Dragos, 2017; Dansu et al., 2018).

Furthermore, the insurance company's quick response (Kwofie et al., 2018), proximity, reliability (Akan, 2012), convenience, and compatibility with technology also impact customer preference. Other factors that affect the behavior of insurance consumers are advertising of the insurance product, distribution channels, legal factors, characteristics of insurers, and demographic variables (Ioncică et al., 2012). The quality of the service offered by the insurance company is another factor affecting the customer's comprehensive vehicle insurance preference. If the customer has had a bad experience, they do not prefer the same company again and tell the people around them about their experience (England et al., 2022).

Individuals' risk-taking behavior is one of the most important factors affecting their comprehensive traffic insurance purchasing decisions. Some studies relating different types of insurance to individuals' risk perceptions reveal that risk perception impacts consumers' decisions to purchase insurance policies (Yang et al., 2020; Liu et al., 2016; Boyer et al., 2017; Baltacı, 2020). Lyu & Barré (2017) verify risk aversion's direct and indirect effects on insurance policy purchasing behavior for the agricultural insurance example. This finding was also confirmed by Masud et al. (2021), who examined the relationship between the decision to purchase life insurance and risk perception. Masud et al. (2021) also confirm this finding by examining the relationship between the decision to purchase life insurance and risk perception. It has also been reported that individuals' perspectives on insurance and risk differ depending on their personality types. Bregu (2022) reported that overconfident individuals are less likely to purchase a vehicle insurance policy when the probability of loss is unknown and the possible loss depends on their abilities. Thus,

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807

the impact of overconfidence tendency on comprehensive car insurance policy purchasing decisions becomes a matter of discussion. Additionally, it was revealed that individuals with less security knowledge were more likely to purchase insurance (Hsu et al., 2016). Thus, it is predicted that individuals with higher knowledge and overconfidence will tend to take more risks.

In summary, in the studies in the literature on insurance purchasing behavior, demographic characteristics such as the customer's income, occupation, marital status, family size, distance traveled by the vehicle, risk preference, number of vehicles owned, and price of the vehicle. In the literature (to the best of the authors' knowledge), one study investigates the effect of overconfidence, which affects purchasing behavior and can lead the customer to make wrong decisions about automobile insurance on comprehensive automobile insurance policy purchasing behavior. Consumers with a high tendency to overconfidence assume a high level of risk because they are more self-confident (Pikulina et al., 2017). This tendency causes cognitive laziness in the consumer and leads to wrong decisions (Tan et al., 2012). The possible effect of the overconfidence tendency, which affects the risk-taking level of consumers, on vehicle insurance policy purchasing behavior constituted the motivation of the study. This study attempts to determine the effect of overconfidence bias and individual risk-taking attitude, which is frequently handled in behavioral economics, on consumers' comprehensive vehicle insurance purchases (in addition to the variables previously discussed in the literature), thus seeking to answer the question, "Do overconfidence bias and risk-taking attitude affect comprehensive vehicle insurance purchases?". The study is anticipated to contribute to the literature in this respect.

METHODS

This study aims to reveal the factors affecting vehicle owners' purchase decisions regarding comprehensive vehicle insurance policies. The study population consists of vehicle owners in Turkey. A questionnaire designed to determine the participants ' socio-economic characteristics, risk perspectives, and self-confidence levels was administered face-to-face and online to 428 people selected from the population by convenience sampling. The number of samples (people who can be reached and agree to answer the questionnaire) is sufficient to represent the population. Yamane (1973) reveals that at least 400 samples are sufficient in cases where the population exceeds one hundred thousand and the confidence level is 95%. Consumers included in the research were selected using the convenience sampling method. This non-probability sampling method allows the researcher to include the easiest-to-access samples in the study. Despite its possible limitations, the convenience sampling method is valid in most study designs (Sedgwick, 2013). In this regard, a questionnaire was applied to vehicle owners who could be reached through non-probability selection. Since censored estimate models were not used, the samples were selected from among the vehicle owners.

In summary, the criteria for sample selection are as follows: it is a condition that the individual who can be reached online or face to face is willing to participate

in the research and has a vehicle. The vehicle owner was asked about his/her current comprehensive vehicle insurance policy ownership status. The questionnaire includes demographic variables, risk-taking attitudes, and other questions to infer overconfidence tendencies. The study's dependent variable is individuals ' comprehensive vehicle insurance policy purchase behavior. The dependent variable was tried to be explained via binary choice models using a series of independent variables, including questions to determine individuals' risk-taking attitudes and self-confidence levels.

Binary choice models are models in which decision units are faced with two choices. They attempt to explain the probability that a decision unit will choose alternatives like purchasing or preferring in the face of choices such as purchasing or not purchasing, preferring or not preferring. Among the binary choice models, the binary logit model was used in this study. The binary logit model has the same infrastructure as its alternative, the binary probit model, but differs in terms of the cumulative distribution function on which the model is based. The binary logit model is derived from the logistic cumulative distribution function. The model can be written as

$$P = \Lambda(x_i'\beta) = \frac{e^{(x_i'\beta)}}{1+e^{(x_i'\beta)}} \quad (1)$$

where P is the probability of occurrence and Λ is the logistic cumulative distribution function (Wooldridge, 2020: 561). The results obtained from the logit model were evaluated using coefficients and marginal effect values. In addition, interpretations were made considering the odds ratio, which is defined as the ratio of the probability that the decision unit will choose or assign the alternative 1 to the variable of interest to the probability that the decision unit will choose or assign the alternative 0 (the ratio of the probability of occurrence to the probability of non-occurrence) and formulated as $\frac{P}{(1-P)} = e^{(x_i'\beta)}$ (Wooldridge, 2020; Berry et al., 2010).

RESULTS AND DISCUSSION

A questionnaire was administered to 428 people to determine the factors affecting individuals' comprehensive vehicle insurance policy purchase behaviors in Turkey. The questionnaire form includes questions to represent some participants' personal characteristics, traffic frequencies, risk perspectives, and self-confidence levels. Table 1 summarizes the characteristics of the participants, the categories in which the relevant characteristics were examined, and the descriptive statistics of the answers obtained.

The study's dependent variable is individuals' comprehensive vehicle insurance policy purchase behavior. Based on the findings, 59.11% of the participants purchased a comprehensive vehicle insurance policy for their vehicle, while 40.89% did not purchase any. 70.09% of the participants were women, and 29.91% were men. Given that the rate of women among those who have a driver's license in Turkey is 26.8% as of 2020 (TURKSTAT Gender Statistic, 2021), it can be stated that the sample of the study is good in terms of gender distribution. The average age of the sample was 38.89 years, and the average traffic experience was 15.02 years. The education of

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807

Table 1. Descriptive Statistics

Variables		Frequency	Percent
Comprehensive vehicle insurance policy	No	175	40.89
	Yes	253	59.11
Gender	Female	128	29.91
	Male	300	70.09
Education	Primary/middle school	19	4.44
	High school	59	13.79
	Bachelor's degree	178	41.59
	MA/PhD	172	40.19
Income level (Turkish liras)	0-12,500	93	21.73
	12,501-20,000	106	24.77
	20,001-30,000	147	34.35
	30,001 and above	82	19.16
The market value of the vehicle (Turkish liras)	0-300,000	70	16.36
	300,000-599,999	180	42.06
	600,000-899,999	108	25.23
	900,000-1,199,999	38	8.88
	1,200,000 and above	32	7.48
Material damage traffic accident	No	383	89.49
	Yes	45	10.51
Traffic accident with injuries	No	422	98.60
	Yes	6	1.40
Weekly traffic frequency	Rarely	31	7.24
	Several times	75	17.52
	Frequently	322	75.23
Average kilometers per year	0-5,000	66	15.42
	5,001-10,000	134	31.31
	10,001-15,000	130	30.37
	15,001 and above	98	22.90
A second person driving the vehicle	No	202	47.20
	Yes	226	52.80
Attitude towards risk	Risk taker	79	18.46
	Risk neutral	44	10.28
	Risk averse	305	71.26
Level of self-confidence about the traffic question	Not confident	34	7.94
	Slightly confident	82	19.16
	Fairly confident	195	45.56
	Completely confident	117	27.34
Variables		**Mean**	**Std. Deviation**
Age		38.894	9.811
Driving experience (in years)		15.023	9.922

the participants was examined in four categories: primary/middle school, high school, bachelor's degree, and MA/PhD. 81.5% of the participants had a bachelor's degree or higher. This data led to the belief that the findings regarding risk perception would be more accurate. Other characteristics considered likely to affect the decision unit's comprehensive vehicle insurance policy purchase behavior were income and the approximate market value of the vehicle subject to the insurance policy. The monthly income levels of the participants were analyzed in four categories, taking into account the current conditions of the labor market. The market value of the vehicle subject to the insurance policy was analyzed in five different categories. The participants were not provided with any measure of the vehicle's market value. Thus, it was anticipated to determine the effect of perceived market value on comprehensive vehicle insurance policy purchase behavior.

The variables of accident history and traffic frequency were included in the model to determine the effects of the participants' characteristics regarding traffic participation on their comprehensive vehicle insurance policy purchase behaviors. While 10.51% of the participants stated that they had had a material damage traffic accident in the last year, 1.40% had had a traffic accident with injuries. The weekly traffic frequency, measured in three categories, and the average kilometers per year, measured in four categories, were attempted to determine the participants' traffic frequency. Another question related to the participants' traffic frequency was whether the vehicle subject to the comprehensive insurance policy was being used by a second person or not.

Individuals' risk perspectives and self-confidence levels, considered to contribute to the study's originality and are likely to have significant effects on comprehensive vehicle insurance policy purchase behavior, were included in the model as independent variables. While 18.46% of the participants described themselves as risk takers, 71.26% described themselves as risk averse. 10.28% of the participants were risk-neutral, based on their responses. The individuals' self-confidence levels were determined using a traffic knowledge question. The participants were asked a traffic knowledge question that took much work to answer. Following the question, they were asked how confident they were in their answers. Regardless of the accuracy of their answers, their confidence levels were included in the model to represent their levels of self-confidence.

Table 2 presents the estimation results and marginal effect values of the binary logit model constructed to examine the factors affecting individuals' decisions to purchase a comprehensive vehicle insurance policy. It was found that the variables of gender, education level, income level, market value of the vehicle, attitude towards risk, and self-confidence level have statistically significant effects on comprehensive vehicle insurance policy purchase decisions. The male vehicle owners were seen to be 19% less likely to purchase a comprehensive vehicle insurance policy than the female owners, who are the reference group. Based on the evaluation of the odds ratio, the women were 2.45 times more likely to purchase a comprehensive vehicle insurance policy than the men. Based on the coefficients for the education level categories, the probability of purchasing a comprehensive vehicle insurance policy increases as the education level rises.

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807

Table 2. Binary Logit Model Estimation Results and Marginal Effects

Variables	β	Std. Error	95%CI		dydx	Std. Error
			Low.	Upp.		
Gender (reference: female)						
Male	-0.896**	0.331	-1.545	-0.247	-0.198	0.068
Age	0.035	0.024	-0.012	0.082	0.008	0.006
Education (reference: Primary/middle school)						
High school	1.176	0.758	-0.310	2.662	0.255	0.140
Bachelor's degree	1.877**	0.744	0.418	3.336	0.427	0.130
MA/PhD	2.099***	0.771	0.589	3.609	0.476	0.134
Income level (reference: 0-12,500 Turkish liras)						
12,501-20,000	0.671*	0.364	-0.043	1.385	0.164	0.088
20,001-30,000	0.971**	0.394	0.198	1.743	0.229	0.092
30,001 and above	0.347	0.517	-0.665	1.360	0.086	0.128
The market value of the vehicle (reference: under 300,000 Turkish liras)						
300,000-599,999	1.531***	0.374	0.798	2.263	0.341	0.070
600,000-899,999	2.404***	0.439	1.544	3.264	0.536	0.077
900,000-1,199,999	3.027***	0.612	1.828	4.227	0.636	0.088
1,200,000 and above	3.951***	0.741	2.498	5.403	0.722	0.071
Material damage traffic accident (reference: No)						
Yes	0.390	0.415	-0.422	1.203	0.088	0.088
Traffic accident with injuries (reference: No)						
Yes	-0.690	1.108	-2.863	1.483	-0.170	0.274
Driving experience (in years)	0.012	0.024	-0.036	0.060	0.003	0.006
Weekly traffic frequency (reference: Rarely)						
Several times	0.273	0.572	-0.849	1.394	0.055	0.120
Frequently	-0.455	0.539	-1.511	0.601	-0.105	0.117
Average kilometers per year (reference: 0-5,000 km)						
5,001-10,000 km	-0.259	0.416	-1.074	0.556	-0.060	0.094
10,001-15,000 km	-0.007	0.438	-0.866	0.852	-0.002	0.097
15,001 km and above	-0.542	0.491	-1.504	0.421	-0.129	0.114
A second person driving the vehicle (reference: No)						
Yes	0.217	0.247	-0.267	0.701	0.051	0.058
Attitude towards risk (reference: Risk taker)						
Risk neutral	-0.189	0.464	-1.099	0.720	-0.047	0.114
Risk averse	0.903***	0.331	0.255	1.552	0.217	0.080
Level of self-confidence about the traffic question (reference: not confident)						
Slightly confident	0.497	0.540	-0.562	1.555	0.096	0.109
Fairly confident	-0.249	0.483	-1.195	0.697	-0.056	0.105
Completely confident	-0.975*	0.511	-1.977	0.026	-0.235	0.114
Constant	-4.578***	1.363	-7.249	-1.906		

The individuals with bachelor's and MA/PhD degrees were seen to be approximately 47% and 42% more likely to purchase comprehensive vehicle insurance than the reference group, respectively.

Those with income levels TL 12,501-20,000 and TL 20,001-30,000 were approximately 8.8% and 9.2% more likely to purchase a comprehensive vehicle insurance policy than the reference group, respectively. A consistent finding is the effect of vehicle market value on purchasing a comprehensive vehicle insurance policy. Individuals with a vehicle with a market value of TL 1,200,000 and above were approximately 52 times more likely to purchase a comprehensive vehicle insurance policy than the reference group. The high probability of purchasing a comprehensive vehicle insurance policy compared to the reference group also applies to other vehicle value categories.

The study obtained significant findings on the effect of risk-taking behavior and self-confidence on comprehensive vehicle insurance policy purchase behavior. The risk-averse individuals were determined to be 8% more likely to purchase a comprehensive vehicle insurance policy than the risk-takers. The evaluation based on the odds ratio indicated that the risk-averse individuals were 2.46 times more likely to purchase a comprehensive vehicle insurance policy than the risk-takers. As the individuals' self-confidence levels increased, the coefficients related to their comprehensive vehicle insurance purchase behaviors decreased. The individuals who were "completely confident" in their answer to the question in the questionnaire form were 11% more likely to purchase comprehensive vehicle insurance than those who were "not confident." The evaluation based on the odds ratio showed that individuals who were not confident were 2.65 times more likely to purchase a comprehensive vehicle insurance policy than the completely confident ones.

The confidence intervals for the parameters in Table 2 show that the effect of some independent variables on comprehensive traffic insurance purchasing behavior was found to be statistically insignificant. The relationship between the variables of the person's age, traffic accident history, and the second person driving the vehicle and insurance purchasing behavior was not statistically confirmed. Weekly traffic frequency and average kilometers per year variables, representing the frequency of vehicle use, are among the variables whose effects on insurance purchase decisions are insignificant.

The study took comprehensive vehicle insurance policy purchase behavior as a dependent variable. In addition to demographic characteristics, many independent variables, such as whether the individual has a history of accidents, average weekly traffic frequency, risk-taking behavior, and overconfidence bias were included in the model. The study found gender, education level, income level, vehicle market value, attitude towards risk, and self-confidence level to have statistically significant effects on individuals' comprehensive vehicle insurance policy purchase behavior. These findings are similar to the study findings of Demiray-Erol and Alma (2016), Huyssteen and Rudansky-Kloppers (2024), Ulbinaite et al. (2013), and Lim et al. (2023). The study findings differ from those of Alex and Aithal (2022), who cannot confirm the effect of demographic variables

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807

on insurance purchasing decisions. The statistically significant effects of education level and income level are consistent with the results of Demiray Erol & Alma (2016) and Eygü & Soğukpınar (2012), while the significant effect of gender is inconsistent with the results of Demiray Erol & Alma (2016).

Contrary to expectations, the fact that the customer has had a traffic accident with injuries or material damage does not impact the decision to purchase a comprehensive insurance policy. The findings in this respect differ from those obtained in the Lim et al. (2023) study. Lim et al. reported the impact of disease history on the decision to purchase health insurance. However, in this study, accident history could not be associated with the decision to purchase insurance. This situation can be interpreted as previous accident experiences cannot suppress the attitude towards risk and the tendency towards overconfidence. The effect of overconfidence tendency and risk-taking attitude variables on vehicle insurance policy purchasing behavior was significant. Since the risk in traffic insurance depends on the driver's abilities, overconfident individuals are less likely to purchase insurance. This finding confirms Bregu (2022). In addition, it is revealed that the risk perception created by traffic insurance in individuals differs from that of other insurance types, such as health insurance.

The findings of the present study are consistent with Akan (2012), Dragos & Dragos (2017), Dansu (2018), Lyu & Barré (2017), and Masud (2021) in terms of the relationship between individuals' risk perceptions and income levels and comprehensive vehicle insurance policy purchase behavior. Additionally, it is important that the effect of the gender variable on comprehensive vehicle insurance policy purchase behavior was found to be significant. Findings show that men purchase fewer comprehensive vehicle insurance policies than women. This situation is compatible with the fact that women in Turkey are still at a disadvantage in traffic and feel the need to insure themselves and their vehicles.

CONCLUSION

This study aims to explain individuals' comprehensive vehicle insurance policy purchasing behavior with individual characteristics. In addition to other characteristic features, the effect of the consumer's self-overconfidence tendency and attitude toward risk on insurance purchasing preference has been aimed at being revealed. Therefore, the null hypotheses that several individual characteristics, overconfidence, and attitude towards risk do not affect comprehensive vehicle insurance policy purchasing behavior were tested. In line with the purpose of the study, a questionnaire was applied to 428 vehicle owners in Turkey, and the data obtained was analyzed using a binary logit model. Although the number of samples is sufficient to represent the population, this number constitutes a research limitation because only vehicle owners who could be reached and agreed to answer the questionnaire were included in the sample.

The research findings reveal that the null hypothesis can be rejected for the variables of gender, education level, income level, vehicle market value, attitude towards risk, and

self-confidence level. Higher education level, female vehicle owner, higher income level, higher vehicle value, the individual's risk avoidance, and lack of overconfidence tend to increase the likelihood of individuals purchasing a comprehensive traffic insurance policy. A high level of education will increase the knowledge about possible risks and provide a higher awareness of risks. The effect of income level and vehicle market value on the decision to purchase insurance is consistent with expectations for Türkiye. The fact that vehicle prices have a high share of consumer budgets in Türkiye turns vehicles into investment and savings tools. Therefore, it can be inferred that decisions to purchase vehicle insurance policies in Turkey are made to protect investments and savings rather than the risks that may occur due to an accident. This inference is also supported by the statistically insignificant effect of previous accident experiences on purchasing decisions. The effects of attitude towards risk on insurance purchasing behavior are consistent with expectations. However, risk needs to be discussed more in insurance behaviors to protect existing assets. Overconfidence tendency affects individuals' belief that they will not make mistakes. Therefore, individuals who are overconfident avoid comprehensive vehicle insurance policies, protecting them against traffic mistakes. It can be stated that these individuals are aware of the risk, but they are mistaken in believing that they will not be exposed to risk because they are overconfident. More studies are needed considering the literature gap on overconfidence and risk-taking behavior.

Considering that individuals' insurance policy purchasing behavior provides liquidity to the financial system and the place of insurance in the financial system in Turkey, insurance activities support the financial system. By raising risk and insurance awareness, policymakers can strengthen the financial sector and protect individuals against possible losses. In addition, insurance agencies and public regulators should help individuals make rational decisions by helping them overcome their tendency to be overconfident. In Turkey specifically, the fact that women tend to purchase more traffic insurance is related to the fact that women feel more risk in traffic. Active policies are recommended against this perception.

REFERENCES

Agbo, I. U., & Agbaji, B. C. (2019). Effect of Motor Insurance Claims Settlement on Insurance Penetration in Nigeria. *International Journal of Research in Management Fields*, *3*(4), 1-11. https://doi.org/10.26808/rs.rmf.v3i4.01.

Akan, M. (2012). Determinants of Company Choice of Motor Insurance Customers in Turkey. *Sigorta Araştırmaları Dergisi*, *9*, 25-46.

Akkurt, E., & Okur, A. (2022). Kasko Sigortası Üretimi Yapan Şirketlerin 2017–2021 Yılları Arası VZA ve TOPSIS Yöntemleriyle Etkinlik Analizi. *Bankacılık ve Finansal Araştırmalar Dergisi*, *9*(2), 98-113. https://doi.org/10.55026/jobaf.1132067.

Alex, S., & Aithal, P. S. (2022). Factors Influencing the Buying Behavior of Motor Insurance Policyholders - A Study of Kottarakara Municipality. *International Journal of Early Childhood Special Education, 14*(3), 469-472.

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807

Balkı, A., & Göksu, S. (2022). Otomobil Sigorta Sektöründeki Regülasyonların Sektöre Etkisi. *Turkuaz Uluslararası Sosyo-Ekonomik Stratejik Araştırmalar Dergisi*, *4*(1), 25-38.

Baltacı, A. (2020). Doğum Teminatı Sigortası Tercihinde Hamilelikte Risk Algısının Etkisi: Kadın Tüketiciler Üzerine Bir Araştırma. *Bankacılık ve Sigortacılık Araştırmaları Dergisi, 14*, 26-43.

Berry, W.D., DeMeritt, J.H.R. and Esarey, J. (2010), Testing for Interaction in Binary Logit and Probit Models: Is a Product Term Essential? *American Journal of Political Science*, 54, 248-266. https://doi.org/10.1111/j.1540-5907.2009.00429.x.

Boyer, M. M., De Donder, P., Fluet, C., Leroux, M.-L., & Michaud, P.-C. (2017). Long-Term Care Insurance: Knowledge Barriers, Risk Perception and Adverse Selection. *NBER Working Paper 23918.*

Bregu, K. (2022). The Effect of Overconfidence on Insurance Demand. *The Geneva Risk and Insurance Review*, *47*(2), 298–326. https://doi.org/10.1057/s10713-021-00064-5.

Dansu, S. F., Abass, O. A., & Oyetayo, Y. A. P. (2018). Factors Influencing the Choıce of Third Party Liability Motor Insurance Among Academic Staff in Lagos State Nigeria. *LASU Journal of Employment Relations & Human Resource Management*, *1*(1), 210-220.

Demiray Erol, E., & Alma, D. (2016). Kasko Sigorta Tercihini Etkileyen Faktörlerin Belirlenmesi: Celal Bayar Üniversitesi Personeline Uygulama. *Sosyal Ekonomik Araştırmalar Dergisi, 16*(32), 148-167.

Dragos, C. M., & Dragos, S. L. (2017). Estimating Consumers' Behaviour in Motor Insurance Using Discrete Choice Models. *Economics and Management*, *20*(4), 88-102.

England, R., Owadally, I., & Wright, D. (2022). An Agent-Based Model of Motor Insurance Customer Behaviour in the UK with Word of Mouth. *Journal of Artificial Societies and Social Simulation*, *25*(2), 1-28. https://doi.org/10.18564/jasss.4768.

Eygü, H., & Soğukpınar, F. (2012). Araç Sahiplerinin Kasko Sigorta Poliçesi Edinmesinde Etkili Olan Faktörlerin Araştırılması. *İşletme Araştırmaları Dergisi*, *4*(3), 148–163.

Falk, A., Becker, A., Dohmen, T. J., Huffman, D., & Sunde, U. (2016). The Preference Survey Module: A Validated Instrument for Measuring Risk, Time, and Social Preferences. *IZA Discussion Paper No. 9674*.

Filiz, Z., & Şengöz, M. (2010). Kasko Sigortası Tercihinin Konjoint Analizi ile İncelenmesi. *ISGUC The Journal of Industrial Relations and Human Resources*, *12*(1), 107-121.

Gülbitti, L. (2007). Kasko Sigortasının İncelenmesi ve Türkiye'de Kasko Sigortası Hasar Uygulamalarının Değerlendirilmesi. (*Unpublished Dissertation*). Marmara University.

Hsu, Y.-C., Chou, P.-L., & Shiu, Y.-M. (2016). An Examination of the Relationship Between Vehicle Insurance Purchase and the Frequency of Accidents. *Asia Pacific Management Review*, *21*(4), 231–238. https://doi.org/10.1016/j.apmrv.2016.08.001.

Huyssteen, N., & Rudansky-Kloppers, S. (2024). Factors Influencing Consumers' Purchase Decisions Regarding Personal Motor Vehicle Insurance in South Africa. *Cogent Business & Management*, *11*(1), 2293488. https://doi.org/10.1080/23311975.2023.2293488.

Ioncică, M., Petrescu, E.-C., Ioncică, D., & Constantinescu, M. (2012). The Role of Education on Consumer Behavior on the Insurance Market. Procedia-*Social and Behavioral Sciences*, *46*, 4154–4158. https://doi.org/10.1016/j.sbspro.2012.06.217.

Karagöz, Y., Demir, M., & Günel, Y. (2019). Araç Kasko Sigortası Yaptırırken Şirket Seçimini Etkileyen Faktörlerin Tespitine Yönelik Ölçek Geliştirilmesi. *Balıkesir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *22*(42), 227-254.

Kawiński M. and Szumlicz T. (2023). Insurance Under and Over Performance: The Case of Comprehensive Car Insurance in Poland. *Contemporary Economics. 17*(4), 443-455.

Kwofie, C., Yormekpe, D. D., Mensah, S. O., & Botchway, P. (2018). Choosing between Alternative Motor Insurance Policies: A Discrete Choice Experiment. *International Journal of Mathematics and Mathematical Sciences*, 2018, 1-7.

Lim, S., Oh, T., & Ngayo, G. (2023). Analyzing Factors Affecting Risk Aversion: Case of Life Insurance Data in Korea. *Heliyon*, *9*(10), e20697.

Liu, F., Corcoran, C. P., Tao, J., & Cheng, J. (2016). Risk Perception, Insurance Recognition and Agricultural Insurance Behavior–An Empirical Based on Dynamic Panel Data in 31 Provinces of China. *International Journal of Disaster Risk Reduction*, *20*, 19–25.

Lyu, K., & Barré, T. J. (2017). Risk Aversion in Crop Insurance Program Purchase Decisions: Evidence from Maize Production Areas in China. *China Agricultural Economic Review*, *9*(1), 62–80. https://doi.org/10.1108/CAER-04-2015-0036.

Masud, M. M., Ahsan, M. R., Ismail, N. A., & Rana, M. S. (2021). The Underlying Drivers of Household Purchase Behaviour of Life Insurance. *Society and Business Review*, *16*(3), 442–458. https://doi.org/10.1108/SBR-08-2020-0103.

Mihaela C., Iulian M. and Ioana M.D. (2013). On Some Determinants of Demand or Renunciation for Renewal of CASCO (Motor Hull) Insurance Policies for Individual. *Ovidius University Annals, Economic Sciences Series, 13*(1), 1176-1179.

Özen, E., & Yurdakul, H. (2020). Trafik ve Kasko Sigortalarında Hasar Süreçlerine İlişkin Müşteri Algılarını Etkileyen Faktörler (Uşak İli Örneği), *Balıkesir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *1*(1), 94-117.

Panjaitan, E., Sinulingga, S., & Wibowo, R. P. (2019). The Effect of Marketing Mix on Consumer Purchase Decision On Bright Gas Product in Medan (Study In PT Pertamina (Persero) Marketing Operation Region I). *International Journal of Research and Review*, *6*(10), 205-212.

Pikulina, E., Renneboog, L., & Tobler, P. N. (2017). Overconfidence and Investment: An Experimental Approach. *Journal of Corporate Finance*, *43*, 175-192.

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807

Sarman, I., Curtale, R., & Hajibaba, H. (2020). Drivers of Travel Insurance Purchase. *Journal of Travel Research*, *59*(3), 545–558. https://doi.org/10.1177/0047287519843187.

Sedgwick, P. (2013). Convenience Sampling. *BMJ*, *347*, f6304. https://doi.org/10.1136/bmj.f6304.

Şimşekoğlu, Ö., Nordfjærn, T., & Rundmo, T. (2012). Traffic Risk Perception, Road Safety Attitudes, and Behaviors Among Road Users: A Comparison of Turkey and Norway. *Journal of Risk Research*, *15*(7), 787–800.

Şimşekoğlu, Ö., Nordfjærn, T., Zavareh, M. F., Hezaveh, A. M., Mamdoohi, A. R., & Rundmo, T. (2013). Risk Perceptions, Fatalism and Driver Behaviors in Turkey and Iran. *Safety Science*, 59, 187–192. https://doi.org/10.1016/j.ssci.2013.05.014.

Stankov, L., & Lee, J. (2014). Overconfidence Across World Regions. *Journal of Cross-Cultural Psychology*, *45*(5), 821-837. https://doi/10.1177/0022022114527345.

Störmer, T. (2014). Do Customers Value Cost-Based Price Transparency in Motor Insurance? Effects on Consumers' Purchase Intentions, Loyalty and Willingness to Pay. *Working paper, Risk Management and Insurance No. 144*, University of St. Gallen.

Tan, W. K., Tan, C. H., & Teo, H. H. (2012). Consumer-based Decision Aid that Explains Which to Buy: Decision Confirmation or Overconfidence Bias?. *Decision Support Systems, 53*(1), 127-141. https://doi.org/10.1016/j.dss.2011.12.010.

Techasurin, W., Nuangjamnong, C., & Dowpiset, K. (2020). Factors Influencing Consumer Purchasing Decision of Used Car Insurance in Bangkok. *Retrieved from: SSRN 3787492*. http://doi.org/10.2139/ssrn.3787492

Ulbinaite, A., Kucinskiene, M., & Le Moullec, Y. (2013). Determinants of Insurance Purchase Decision Making in Lithuania. *Inzinerine Ekonomika-Engineering Economics*, *24*(2), 144–159. https://doi.org/10.5755/j01.ee.2.24.2.3439.

Wooldridge, J. M. (2020). *Introductory Econometrics: A Modern Approach.* Boston: Cengage.

Yamane, T. (1973*). Statistics and Introductory Analysis*. New York: Harper & Row.

Yang, F., Tan, J., & Peng, L. (2020). The Effect of Risk Perception on the Willingness to Purchase Hazard Insurance—A Case Study in the Three Gorges Reservoir Region, China. *International Journal of Disaster Risk Reduction, 45*, 101379. https://doi.org/10.1016/j.ijdrr.2019.101379.

Yayar, R., & Daşcı, A. (2019). Kasko Sigortası Tercihini Etkileyen Faktörler: Kars İli Örneği. *Bankacılık ve Sigortacılık Araştırmaları Dergisi*, *13*, 8-21.

Yıldırım, A., Eryılmaz, C., & Büyükarıkan, U. (2020). Sigorta Sözleşmeleri Standardına Göre Sigorta Muhasebesi. *Karadeniz Sosyal Bilimler Dergisi*, *12*(23), 534-548.

Zakaria, R., & Ayoub, A. (2023). Prediction of The Act of Termınatıon of Car Insurance Contracts at the End of Their Term. *Journal of Theoretical and Applied Information Technology*, *101*(4), 1229-1247.

Zheng, W., Yao, Y., Shi, P., Deng, Y., & Zheng, H. (2021). Deregulation, Competition, and Consumer Choice of Insurer: Evidence from Liberalization Reform in China's Automobile Insurance Market. *The Geneva Risk and Insurance Review*, *47*, 158-200.

https://journal.uinjkt.ac.id/index.php/etikonomi
DOI: https://doi.org/10.15408/etk.v23i2.37807