



Research Article

The Impact of Attitudes towards Certified Forest Products on Purchase Intention: The Moderating Role of Subjective Product Knowledge

Hilal ÖZTAY ÇAĞAN * 

Kastamonu University, Araç Rafet Vergili Vocational School and Higher Education, Department of Medical Promotion and Marketing, 371800, Kastamonu/Turkey

* Correspondence: hoztay@kastamonu.edu.tr

Abstract: In this study, the impact of attitudes towards certified forest products on the certified forest products purchase intention, and the moderating role of subjective product knowledge in this relationship, were investigated in the context of sustainable consumption. The study was conducted specifically on Forest Stewardship Council (FSC) certified forest products. A quantitative research method was adopted, and data was collected from consumers through surveys. The data was analyzed using statistical methods. Hypotheses were developed and evaluated in accordance with the purpose of the study. Structural equation modeling was conducted to test the hypotheses, and path analysis was used to assess the moderating effect. The results of the study indicate that attitudes towards FSC certified forest products have a positive and significant impact on the FSC certified forest products purchase intention, and that subjective product knowledge has a moderating role in this relationship. It has been seen that if the subjective product knowledge is high, the attitude affects the purchase intention more.

Keywords: certified forest products, FSC, attitude, purchase intention, subjective product knowledge

Sertifikalı Orman Ürünlerine Yönelik Tutumun Satın Alma Niyetine Etkisi: Öznel Ürün Bilgisinin Düzenleyici Rolü

Citation: Öztay Çağan, H. The Impact of Attitudes towards Certified Forest Products on Purchase Intention: The Moderating Role of Subjective Product Knowledge. Journal of GreenTech 2023, 1(1): 25-33. <https://doi.org/10.5281/zenodo.8061636>.

Academic Editor: Emre Birinci

Received: 09.06.2023
Revised: 16.06.2023
Accepted: 20.06.2023
Published: 30.06.2023



Copyright: © 2023 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Özet: Bu çalışmada sürdürülebilir tüketim bağlamında sertifikalı orman ürünlerine yönelik tutumun sertifikalı orman ürünleri satın alma niyetine etkisi ve bu ilişkide öznel ürün bilgisinin düzenleyici rolü araştırılmıştır. Çalışma FSC (Forest Stewardship Council) sertifikalı orman ürünleri özelinde gerçekleştirilmiştir. Niceliksel araştırma yöntemi benimsenmiş ve tüketicilerden anketler yoluyla veri toplanmıştır. Veriler istatistikî yöntemlerle analiz edilmiştir. Çalışmanın amaçlarına uyumlu olarak hipotezler geliştirilmiştir ve değerlendirilmiştir. Hipotezlerin test edilmesi için yapısal eşitlik modellemesi ve düzenleyici etkinin değerlendirilmesi için de yol analizleri kullanılmıştır. FSC sertifikalı orman ürünlerine yönelik tutumun, FSC sertifikalı orman ürünleri satın alma niyetinde olumlu ve anlamlı etkisi olduğu, öznel ürün bilgisinin bu ilişkide düzenleyici rolü olduğu çalışma ile elde edilen sonuçlardır. Öznel ürün bilgisinin yüksek olması durumunda tutumun satın alma niyetini daha fazla etkilediği görülmektedir.

Anahtar Kelimeler: sertifikalı orman ürünleri, FSC, tutum, satın alma niyeti, öznel ürün bilgisi

1. Introduction

Many reasons such as the ease of access to information, emerging different motivation types for consumption, the diversification of lifestyles, different economic conditions and education levels are listed among the reasons for today's complex consumption structure. These cause the emergence of different consumer profiles. Considering different consumption patterns, one of the issues that has been frequently emphasized recently is the sustainability practices and the determination of the behaviors of consumers by the context of sustainability. It is a reality that natural resources are damaged as a result of excessive and careless use in parallel with the change in current consumption habits and the continuous increase in consumption. Consumers have responsibilities such as enabling a sustainable life, reducing negative effects of consumption and contributing to social welfare [1]. Environmental problems such as global warming, air and water pollution are important issues that are followed with concern by many segments.

Sustainable development is defined in the "Our Common Future" report "meeting the needs of the present without endangering the ability of future generations to meet their needs" [2]. Issues such as ensuring the welfare of the society, the continuous protection of the environment, and the continuous an economic system that will meet human needs are within the scope of sustainability [1]. For a sustainable society, besides creating new technologies, cultural norms, infrastructures, policies and laws, consumption preferences are also important [3].

Organizations and consumers are two important elements of sustainable consumption. Organizations support the sustainable consumption by creating a sustainable vision, sustainable production, conducting life cycle analysis and environmental certification [4]. From this perspective, forest products are an important sector growing in Turkey, dynamic, and carries opportunities and risks within [5]. Forests have important ecological functions as well as being an important source of raw materials from which wood and non-wood forest products are produced. It is a necessity managing forests in a way that is suitable for both environmental conditions and social and economic benefits for the society. So certification systems have been established by international environmental non-governmental organizations for ensuring the world's forests are managed socially, environmentally and economically. Certified forest products inform the consumer that production is conducted with sustainability principles [6].

The issue of deforestation and the degradation of forest resources on a global scale has initiated a search for solutions and discussions have begun on environmental, developmental, and securing a sustainable future. It has been acknowledged that the development of international policies is necessary, and the sustainable management of forest resources at the local, national, regional, and global levels has been identified as a main solution [7]. Certification in forestry comprises the evaluation and inspection of the forest enterprise by an independent institution, according to the determined environmental, social, technical and economic criteria and indicators. Thus, sustainable management of forest resources is ensured [8]. The certification of forest products ensures the conservation of forest resources, supports sustainable forest management, promotes the use of forest raw materials as renewable and convertible resources, and serves as a communication tool for forest industry businesses. It enhances consumer confidence and improves brand image [9]. The Forest Stewardship Council (FSC) is an international organization with the most recognized forest management certification system. Forest enterprises are entitled to use the certificate after they meet the criteria and indicators related to forest management established by these international organizations [10].

Forest certification is a new tool developed to promote better management of forests by establishing a strong relationship between eco-friendly consumers and producers who want to present their products to market with a greater advantage. The purpose of certification is to ensure forestry activities to be conducted in accordance with the principles of sustainable development [8]. Today, many consumers question the production process of forest products they use by the context of sustainability and this becomes an important factor in their preferences [9].

Many different theories are used to conceptualize consumer behavior. One of these theories is the theory of reasoned action, which is often used to explain the antecedent variables of consumption behaviors [11]. This theory is a useful guide for understanding the relationships between attitudes, intentions and behaviors [12]. According to this theory, the purchasing behavior of the consumer is determined by the purchase intention, and the intention is determined by the attitude [13].

The consumers who believe in the necessity of living in an environmentally friendly is expected to choose products that don't damage the environment, to limit themselves when using products produced from decreasing naturel resources, and to think ecologically when choosing products [14]. Attitudes affect behavior and intentions. In this respect, marketers should understand the attitudes of consumers in various conditions and find ways to influence these attitudes so that consumers have positive attitudes towards the products offered [15]. Environmental friendly attitudes can be used to predict which environmental actions individuals intend. In addition, changing attitudes have a strong effect on behaviors related to environmental sustainability [16]. Several researchers have explored the role of attitude as the predecessor of willingness to purchase environmentally sustainable products [17], as an antecedent of environmental behavior [18], and as a perceived ecological value in the context of green consumption [19].

One of the factors that affect purchase intentions is subjective product knowledge. Subjective product knowledge is the consumer's own perception level on product knowledge [20]. Product knowledge of consumers have an important role in purchasing decisions of products [21]. Many studies have been carried out on marketing about this topic [22], [23].

Within this study, certified products, which are an important indicator of sustainable forest products consumption, will be evaluated through the FSC example. This evaluation will be guided by the theory of reasoned action, and the moderator role of subjective product knowledge between attitude and intention will also be explained.

2. Method

2.1. Hypotheses

H1. Attitude towards certified forest products positively affects purchase intention.

H2. Subjective product knowledge has a moderating role between attitude towards certified forest products and purchase intention.

2.2. Data Collection

In this study, the data were collected by questionnaire, one of the quantitative data collection methods. The scales used were measured on a 5-point likert scale where 1 denoted strongly disagree and 5 denoted strongly agree. The questionnaire consisted of four parts. In the first part, demographic variables such as age, education level, current working year and total working year were included. The attitude towards environmentally sustainable products was measured using the scale with three items developed and used by Do-Valle et al. [24], this study used for scaling for environmentally sustainable products by Kumar et al. [25]. Purchase intention was measured using a four items scale developed by Baker and Churchill [26], adopted by Kumar et al. [25]. And fourth part includes subjective product knowledge scale developed by Wang et al. [27]. Data were collected between March 2023 and May 2023. In the study, 340 survey data were included in the analysis. When the demographic information of the participants is examined, it is seen that the majority of them are in the 36-45 age range (38%), female (56%), have completed postgraduate education (48%) and have an income between 15001-20000 TL (30%).

2.3. Data Analysis

The analyses were conducted using SPSS, AMOS, and EXCEL software programs. Hypothetical controls were performed on these datas at first. As a result, it was observed that there were no missing data, no outliers, and the dataset exhibited a normal distribution. Descriptive statistics regarding the assumptions were presented in Tables 1 and 2. The nor-

mality assumption and outliers were evaluated based on the criteria of skewness and kurtosis recommended by [28]. Subsequently, Exploratory Factor Analysis (EFA) was conducted to determine the structure of the measurement instruments. Confirmatory Factor Analysis (CFA) was then applied to assess the validity and reliability of the measurement model. The analysis resulted in a dataset that exhibited appropriate factor loadings and good fit indices. In addition, Average Variance Extracted (AVE) and Composite Reliability (CR) values were calculated for convergent validity. Hypotheses were tested using Structural Equation Modeling (SEM) and moderator analysis. To determine the moderating effect, slope analyses were performed using EXCEL macros suggested by Dawson [29].

3. Results and Discussion

3.1. EFA Results

In this stage, the suitability of the data for factorization was assessed by evaluating the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's test of sphericity. As the KMO value was greater than 0.60 and the Bartlett's test was significant [30], it can be concluded that the data was suitable for factorization. The Cronbach's Alpha values for the factors were greater than 0.70, and the factors accounted for 80 % of the total variance. The results of the analysis were presented in Table 1.

Table 1. CFA and descriptive statistics for dependent and independent variable.

KMO 0.874						
Bartlett χ^2 : 11117.276 df: 21 p: 0.000						
Dimensions (Cronbach's Alpha*/ Eigenvalues**/ variance explained***)	Fac. loading	Mean	SD	Skew	Kurta	
FSC AT (0.906*/ 4.657**/ % 66.52***)						
AT_1	0.807	4.02	0.864	-0.939	0.738	
AT_2	0.906	4.07	0.835	-1.07	1.28	
AT_3	0.860	4.01	0.867	-0.904	0.639	
FSC FI (0.888*/ 0.923**/ % 13.19***)						
FI_1	0.763	3.93	0.799	-0.838	1.23	
FI_2	0.859	3.82	0.900	-0.543	0.139	
FI_3	0.844	3.45	1.05	-0.274	-0.607	
FI_4	0.752	3.95	0.876	-0.973	1.487	
Total variance: % 79.71.						

The KMO values of the subjective product knowledge scale and the Bartlett test results were also appropriate for factorization. The Cronbach's Alpha coefficient was greater than 0.70, indicating reliability, and the explained variance was 81%. The results were presented in Table 2.

Table 2. CFA results and descriptive statistics for the SPK scale.

KMO 0.828						
Bartlett χ^2 : 743.526 df: 6 p: 0.000						
FSC SPK	Fac. loading	Mean	SD	Skew	Kurta	
SPK_1	0.798	2.54	1.43	0.452	-1.22	
SPK_2	0.951	2.37	1.21	0.448	-0.987	
SPK_3	0.922	2.27	1.21	0.629	-0.637	
SPK_4	0.916	2.45	1.25	0.339	-1.06	
Total variance: % 80.73; Eigenvalues: 3.22; Cronbach's Alpha: 0.914.						

As seen in Table 1 and Table 2, the kurtosis and skewness values are between +1.5 and -1.5 and it can be said that the data set exhibits a normal distribution [31]. Factor loads are also above the recommended value in the literature [30].

3.2. CFA Results

Confirmatory factor analysis was conducted to assess the items of the dependent and independent variables listed in Table 1. It was observed that all items have appropriate factor loadings, and the model's fit indices acceptable and good. The convergent validity of the measurement model was also evaluated. Average Variance Extracted (AVE) and Composite Reliability (CR) values were computed as criteria for convergent validity. The CR values of the factors are greater than 0.60, the AVE values are greater than 0.50, and the CR values

are greater than the AVE values. Based on these values, the measurement model has convergent validity [32]. Factor loadings of the observed variables and the results of the convergent validity were shown in Table 3.

Table 3. Factor loadings and convergent validity results of observed variables

Observed var.	Fac. loading	AVE	CR
AT_1	,838	0.77	0.90
AT_2	,918	0.77	0.90
AT_3	,875	0.77	0.90
PI_1	,784	0.67	0.89
PI_2	,852	0.67	0.89
PI_3	,792	0.67	0.89
PI_4	,854	0.67	0.89

* $\chi^2/DF=3.601$; $RMR=0.029$; $SRMR=0.038$; $GF=0.942$; $AGF=0.874$; $CFI=0.970$; $IFI=0.970$; $TLI(NFI)=0.951$; $NFI=0.959$.

3.3. SEM Results

In this study, the impact of attitude towards FSC certified forest products on FSC certified forest products purchase intention was investigated. For this, a structural equation modeling was conducted to evaluate Hypothesis 1. According to the analysis results, it was observed that the attitude towards certified forest products positively and significantly affected the purchase intention of certified forest products ($\beta=0.73$, $p \leq 0.001$), and it explained for 54 % of the variation in purchase intention. Based on these findings, Hypothesis 1 was supported.

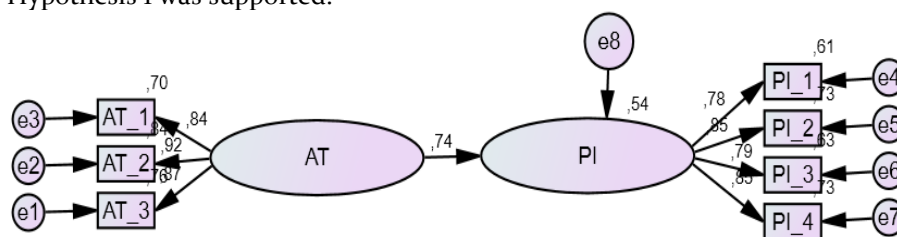


Figure 1. SEM Results

3.4. Moderator Analysis Results

Path analysis were conducted to test the H2 hypothesis. Since the moderator variable, subjective product knowledge, was a continuous variable, analysis was conducted by calculating the interaction coefficient. Initially, the means of a 3-item attitude scale, a 4-item purchase intention scale, and a 4-item subjective product knowledge scale were calculated and transformed into a single variable. Then the independent variable, attitude, and the moderator variable, subjective product knowledge, were standardized for avoiding multicollonarity problems [32]. Subsequently, these standardized variables were multiplied using the "compute variable" feature in SPSS for calculating the interaction coefficient (AT*SPK). Then, moderator effect analysis was conducted by using the AMOS program.

According to the analysis results, it was revealed that subjective product knowledge ($\beta = .17$; $p \leq .001$) has a significant positive effect on purchase intention. Additionally, consistent with the findings of the YEM analysis, H1, attitude ($\beta = .64^{***}$) was found to have a significant positive effect on purchase intention. For H2 hypothesis, the significance of the interaction effect was evaluated, and it was found that the interaction effect of subjective product knowledge and attitude on purchase intention was significant ($\beta = .10$, $p \leq .05$). According to the results H2 hypothesis was supported. The current study was revealed the moderating role of subjective product knowledge in the relationship between attitude towards certified forest products and purchase intention of certified forest products.

3.5. Slope Analysis Results

Slope analysis, developed by Jeremy Dawson [29], were conducted to determine the significance and direction of the effect of attitude on purchase intention for low and high levels of the moderator variable, subjective product knowledge.

The graphic of the slope analysis conducted for subjective product knowledge was presented in Figure 2. According to the results of the slope analysis, it was observed that attitude had a positive and significant effect on purchase intention when both low ($\beta = .42$; $p \leq .001$) and high ($\beta = .59$; $p \leq .001$) levels of subjective product knowledge. According to these results, both for consumers with low subjective product knowledge and those with high subjective product knowledge, purchase intention increases as attitude level increases. As shown in Figure 2 and supported by the coefficients, the effect is stronger when subjective product knowledge is high.

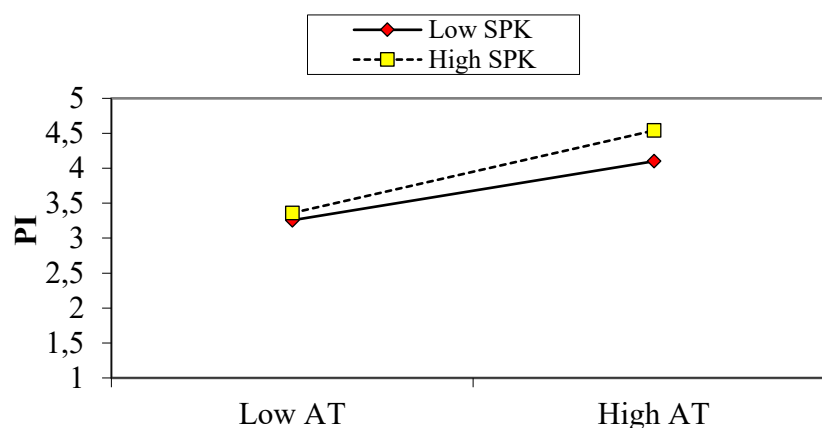


Figure 2. Slope analysis results

3.6. Discussion

Consumers believe that production process should be more environmentally friendly in order to address environmental concerns [33]. With the increasing visibility of environmental pollution it has been seen that consumers with higher levels of education and income preference for certified products [34]. Consumers intend to purchase sustainable products are consider one of the most important elements of successful forest certification practices [35]. Forest certification is a system that contributes to sustainable development by balancing communication between environmentally conscious consumers and producers [10]. Sustainable consumption is based on a decision-making process in which consumers care their needs, desires, and social responsibility [36].

Many researches have explored the role of attitude as the predecessor of environmentally sustainable products purchase intention [37], [17], and environmental behavior [17]. Many researches reveal out that positive attitudes towards environmentally friendly and sustainable products increase purchase intention and demand for sustainable products [38], [39]. According to Kong et al. [40], eco-labeled products positively affect the intention for green purchasing. Results of a study conducted in Canada indicated that environmentally concerned consumers have positive attitudes towards certification processes and are willing to shift their purchasing behavior accordingly [41]. Similarly, Mancha and Yoder [16] found that attitudes towards environmental protection predict individuals' intentions to engage in environmental actions and that attitude shift can have a strong impact on behaviors related to environmental sustainability. In line with previous research, this study also demonstrates that attitudes towards sustainability practices positively influence purchase intention. According to the study findings, consumers with high subjective product knowledge have a higher intention to purchase certified forest products when they have positive attitude. Brucks [20] suggests that consumers with high subjective knowledge are more confident in themselves and can easily eliminate alternatives. Atılgan [21] indicates that consumers with high subjective knowledge have positive attitudes towards purchase in order to validate their perceived knowledge. The current study's findings are consistent with previous research results.

4. Conclusions

As a result of efforts to preserve global forests, the certification of sustainably production processes has been embraced [42]. By marketing perspective, certification develops

consumer trust, serves as a communication tool in the market, and enhances brand image [9]. This study aims to reveal the reflection of certification practices resulting from forest enterprises adopting environmental, social, and economic sustainability principles on consumers. The study revealed that the attitude towards certified forest products has a positive and significant impact on purchase intention. When there is a positive change in attitude towards certified products, there is an increase in the purchase intention to these products. Additionally, subjective product knowledge has a moderator role in this relationship, and its effect is stronger when subjective product knowledge is high. It is observed that attitude has a greater influence on purchase intention when subjective product knowledge is high.

The image of businesses on sustainability is not only a strategy they use as a social responsibility requirement but also as a competitive advantage. Measuring consumer responses is crucial for the development of these strategies.

With this research, consumer behaviors, an important topic in marketing, have been evaluated in terms of sustainability, specifically focusing on certified forest products and determined the factors influencing the purchase intention of certified forest products. The study was conducted by the guidance of reasoned action theory. Attitude towards certified forest products, purchase intention, and subjective product knowledge were examined in relation to FSC-certified products. There is no study in the literature that explains the effect of attitude on purchase intention regarding certified forest products with subjective product knowledge. According to the results, attitude towards certified forest products significantly and positively affects the certified forest products purchase intention, and subjective product knowledge have a moderating role in this relationship.

Monitoring changes in consumer demands and market dynamics is important to enhance the acceptability of certified products by consumers [43]. According to the study, an increase in consumers' attitudes towards certified products will lead to increase in their purchase intentions. Communication strategies that increase awareness, knowledge, and positive attitudes towards certified products can encourage the purchase behavior of certified forest products of consumers. This, in turn, will support an environmentally, socially, and economically sustainable business approach with an increase in demand for their products. Indirectly, this will contribute to sustainable development and meeting the needs of future generations. The research findings are important for understanding consumers' behaviors towards eco-friendly products and developing marketing strategies focused on sustainability. Today, it is recommended to use online information sources with traditional sources and to consider this in integrated marketing communication plans to reach target markets [44], [45], [46]. As the impact of attitude on purchase intention increases with an increase in subjective product knowledge, the sources of information consumers use should be carefully considered.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

References

- [1]. B. Onaran, "Sürdürülebilir Pazarlama" Ankara: Detay Yayıncılık, 2014.
- [2]. R. Engelman, "Sürdürülebilirlik sakızının ötesi" in *Dünyanın durumu 2013 Sürdürülebilirlik Hala Mümkün Mü?*, L. Starke Eds. İstanbul: İş Bankası Kültür Yayınları, 2014.
- [3]. A. Leonard, Bireysel değişimden toplumsal değişime" in *Dünyanın Durumu 2013 Sürdürülebilirlik Hala Mümkün Mü?*, L. Starke Eds. İstanbul: İş Bankası Kültür Yayınları, 2014.
- [4]. R. Karalar and H. Kiracı, "Çevresel sorunlara karşı bir çözüm önerisi olarak sürdürülebilir tüketim düşüncesi" *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, No. 30, pp. 63-76, 2011.
- [5]. *TR42 Doğu Marmara Bölge Planı*. Doğu Marmara Kalkınma Ajansı., (2010).
- [6]. T. Türkoğlu, and A. Tolunay, "Türkiye'deki orman ürünleri ithalatçısı işletmelerin sertifikalı orman ürünlerine ilişkin görüşleri" *SDÜ Orman Fakültesi Dergisi*, vol. 14, pp. 95-101, 2013.
- [7]. F. N. Şener, "Sürdürülebilir orman yönetiminde sertifikasyon ve akreditasyon kavramları," *II. Ormanlıkta Sosyoekonomik Sorunlar Kongresi*, Isparta, 2009.
- [8]. İ. Durusoy, "Sertifikalandırma ve Türkiye ormancılığında gerekliliği, olabilirliği, uygulanması sürecinde karşılaşılması muhtemel darboğazların ve fırsatların irdelenmesi" Master dissertation, KTÜ Fen Bilimleri Enstitüsü, Trabzon, 2002.
- [9]. Ü. Karagöz, A. Kaymakçı, B. Ç. Bayram, M. H. Akyıldız, S. Ateş, and F. Karagöz, "Odun ve odun ürünlerinin sertifikasyonu" *Ulusal Akdeniz Orman ve Çevre Sempozyumu*, 2011, pp. 709-719.
- [10]. T. Türkoğlu, and A. Tolunay, "FSC orman yönetim sertifikasının . II. Ulusal Akdeniz Orman ve Çevre Sempozyumu" Isparta, 2014, pp. 506-517.
- [11]. K. A. Atılğan, "Gerekçeli eylem teorisi" in *Pazarlama Teorileri*, M. İ. Yağcı, and S. Çabuk Eds, İstanbul: MediaCat, 2014, pp. 297-310.

- [12]. M. Fishbein, "Attitude and the prediction of behaviour" in *Readings in attitude theory and measurement*, M. Fishbein, New York: Wiley, 1967.
- [13]. Y. Malhotra, and D. F. Galletta, D. "Extending the technology acceptance model to account for social influence: Theoretical bases and empirical validation", *Proceedings of the 32nd Annual Hawaii International Conference on Systems Sciences*, 1999, pp. 1-14.
- [14]. C. Tanrıku, "Çevresel kaygı, algılanan tüketici etkinliği ve kolektivizmin, tüketicilerin yeşil satın alma davranışlarındaki rolü üzerine bir inceleme" *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, vol. 29, no. 1, pp. 121-136, 2015.
- [15]. R. Kapoor, and N. O. Madichie, "Consumer behavior". New Delhi: Tata McGraw Hill Education Private Limited, 2012.
- [16]. R. M. Mancha, and C. Y. Yoder, "Cultural antecedents of green behavioral intent: An environmental theory of planned behavior" *Journal of Environmental Psychology*, vol. 43, pp. 145-154, 2015, doi: 10.1016/j.jenvp.2015.06.005.
- [17]. N. Barber, C. Taylor, and S. Stri, "Wine consumers' environmental knowledge and attitudes: Influence on willingness to purchase" *International Journal of Wine Research*, vol. 1, no. 1, pp. 59-72, 2009.
- [18]. F. G. Kaiser, S. Wolfing, and U. Fuhrer, "Environmental attitude and ecological behaviour" *Journal of Environmental Psychology*, vol. 19, no. 1, pp. 1-19, 1999, doi: 10.1006/jevp.1998.0107.
- [19]. M. Koller, A. Floh, and A. Zauner, "Further insights into perceived value and consumer loyalty: A "green" perspective" *Psychology & Marketing*, vol. 28, no. 12, pp. 1154-1176, 2011, doi: 10.1002/mar.20432.
- [20]. M. Brucks, "The effects of product class knowledge on information search behavior" *Journal of Consumer Research*, vol. 12, no. 1, pp. 1-15, 1985, doi: 10.1086/209031.
- [21]. K. Ö. Atılğan, "Nesnel ve öznel bilginin tüketicilerin satın alma davranışlarına etkisine yönelik bir araştırma" *Journal of Management & Economics*, vol. 21, no. 2, 2014.
- [22]. J. Aertsens, K. Mondelaers, W. Verbeke, J. Buysse, and G. V. Huylenbroeck, "The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food" *British Food Journal*, vol. 113, no. 11, pp. 353-1378, 2011, doi:10.1108/0007070111179988.
- [23]. A. Gámbaro, A. C. Ellis, and V. Prieto, "Influence of subjective knowledge, Objective Knowledge and health consciousness on olive oil consumption: A case study" *Food and Nutrition Sciences*, vol. 4, no. 4, pp. 445-453, 2013, doi: 10.4236/fns.2013.44057.
- [24]. P. O. Do valle, E. Rebelo, E. Reis, and J. Menezes, "Combining behavioral theories to predict recycling involvement" *Environment and behavior*, vol. 37, no. 3, pp. 364-396, 2005.
- [25]. B. Kumar, A. K. Manrai, and L. A. Manrai, "Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study" *Journal of Retailing and Consumer Services*, vol. 34, pp. 1-9, 2017, doi: 10.1016/j.jretconser.2016.09.004.
- [26]. M. J. Baker, and G. Churchill, "The impact of physically attractive models on advertising evaluations" *Journal of Marketing Research*, vol. 14, no. 4, pp. 538-555, 1997, doi: 10.1177/002224377701400411.
- [27]. Y. Wang, V. Wiegerinck, H. Krikke, and H. Zhang, "Understanding the purchase intention towards remanufactured product in closed-loop supply chains: An empirical study in China" *International Journal of Physical Distribution & Logistics Management*, vol. 43, no. 10, pp. 866-888, 2013, doi: 10.1108/IJPDLM-01-2013-0011.
- [28]. S. Gürbüz, "Amos ile yapısal eşitlik modellemesi" Ankara: Seçkin, 2019.
- [29]. J. F. Dawson, "Moderation in management research: What, why, when, and how." *Journal of Business and Psychology*, vol. 29, no. 1, pp. 1-19, 2014, doi: 10.1007/s10869-013-9308-7.
- [30]. Ş. Büyüköztürk, "Sosyal bilimler için veri analizi el kitabı" (21. b.). Ankara: Pegem Akademi, 2015.
- [31]. B. G. Tabachnick and L. S. Fidell, *Using multivariate statistics*, Boston: Ally And Bacon., 2001.
- [32]. J. J. Hair, W. C. Black , B. J. Babin, and E. E. Anderson, "Multivariate Data Analysis" (6. b.). New Jersey: Pearson, 2005.
- [33]. T. Mainieri, E. G. Barnett, T. T. Valdero, J. B. Unipan, and S. Oskamp, "Green buying: The influence of environmental concern on consumer behavior" *The Journal of Social Psychology*, vol. 137, No. 2, pp. 189-204, 1997, doi: 10.1080/00224549709595430.
- [34]. O. Komut, and A. Öztürk, "The perception analysis of forest products certification in the wood and wood products sector in Turkey." *Eurasian Journal of Agricultural Research*, vol. 1, no. 2, pp. 120-128, 2017.
- [35]. K. Krebs, and V. Greiner-Mann, *Forest certification. A brief introduction for stakeholders, inter-institutional development of training capacity in forest certification*, 2001.
- [36]. I. Vermeir, and W. Verbeke, "Sustainable food consumption: exploring the consumer attitude-behaviour intention gap" *Journal of Agricultural and Environmental Ethics* volume, pp. 169-194, 2006, doi: 10.1007/s10806-005-5485-3.
- [37]. C. Gan, H. Y. Wee, L. Ozanne, and T. H. Kao, "Consumers' purchasing behavior towards green products in New Zealand" *Innovative Marketing*, vol. 4, no. 1, pp. 93-102, 2008.
- [38]. D. Arslan Açar, and N. Ekici Özcan, "Depozitolu ürün satın alma niyeti ve davranışının incelenmesi: Planlı davranış teorisi bağlamında bir araştırma" *Tüketici ve Tüketim Araştırmaları Dergisi*, vol. 14, No. 2, pp. 597-636. 2022, doi: 10.15659/ttad.14.2.161.
- [39]. S. Çabuk, and M. B. Nakıboğlu, "Çevreci pazarlama ve tüketicilerin çevreci tutumlarının satın alma davranışlarına etkileri ile ilgili bir uygulama" *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, vol. 12, no. 12, pp. 39-54, 2003.
- [40]. W. Kong, A. Harun, R. S. Sulong, and J. Lily, "The influence of consumers perception of green products on green purchase intention" *International Journal of Asian Social Science*, vol. 4, no. 8, pp. 924-939, 2014.
- [41]. H. Archer, R. Kozak, and D. Balsillie, "The impact of forest certification labelling and advertising: An exploratory assessment of consumer purchase intent in Canada" *The Forestry Chronicle*, vol. 81, no. 2, pp. 229-244, 2005, doi: 10.5558/tfc81229.
- [42]. E. Yılmaz, S. Alkan, A. Kayacan, Y. Bayır, and Z. Mavi, "Batı Akdeniz Bölgesindeki orman ürünleri sanayinin sertifikasyona yönelik kararı ve bu kararın etkileri" *Ormanlık Araştırma Dergisi*, vol. 7, no. 2, pp. 147-161, 2020, doi: 10.17568/ogmoad.697015.
- [43]. O. Komut, "Sürdürülebilirlik çerçevesinde türkiye'deki orman ve orman ürünleri sertifikasyonu" *Gümüşhane Üniversitesi Sosyal Bilimler Enstitüsü Elektronik Dergisi*, vol. 11 no. additional, pp. 257-265, 2020.
- [44]. G. Ulubaşoğlu, and N. Uray, "Teknolojik gelişmelerin tüketici bilgi arama davranışı üzerine etkisi: Bir model önerisi" *İTÜDERGİSİ/d*, vol. 8, no. 4, pp. 13-22, 2009.
- [45]. L. R. Klein, and G. T. Ford, "Consumer search for information in the digital age: An empirical study of pre-purchase search for automobiles" *Journal of Interactive Marketing*, vol. 17, no. 3, pp. 29-49, 2003, doi: 10.1002/dir.10058.

- [46]. L. T. Bei, E. Y. Chen, and R. Widdows, "Consumers' online information search behavior and the phenomenon of search vs. experience products" *Journal of Family and Economic Issues*, vol. 25, pp. 449-467, 2004, doi: 10.1007/s10834-004-5490-0.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of *Journal of Green Technology and Environment*, and/or the editor(s). *Journal of Green Technology and Environment*, and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.