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ADOPTION LEVEL OF GREEN PRACTICES AND ITS EFFECT ON EMPLOYEE' PERFORMANCE

YEŞİL UYGULAMALARIN BENİMSEME DÜZEYİ VE ÇALIŞAN PERFORMANSINA ETKİSİ

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Abstract

The aim of this research is to determine the adoption level of green practices and its effect on employee' performance. The research population is people who authorized on road transport by General Directorate of Road Regulation in Ministry of Transport and Infrastructure in Turkey (N= 334,456). The sample of the study is 2,000 employees using simple random sampling method for in the company in 39 province. It was concluded that there was a statistically significant and weak positive relationship between the perception of adoption of green practices and task performance and between the perception of adoption of green practices and contextual performance. It was determined that the linear combination of values related to technological, organizational and environmental factors that constitute the perception of adoption of green practices significantly predicts the task and contextual performance of employees, and organizational factors is the variable of the employee's perception of adoption of green practices which is the most descriptive of the task and contextual performance, and environmental factors among the variables in the model do not have a statistically significant effect on task and contextual performance.

Keywords: Green Logistics, Green Practices, Task Performance, Contextual Performance

Öz

Bu araştırmanın amacı, yeşil uygulamaların benimsenme düzeyini ve yeşil uygulamaları benimsemenin çalışanların iş performansı üzerindeki etkisini incelemektir. Araştırmanın evrenini T.C. Ulaştırma ve Altyapı Bakanlığı Karayolu Düzenleme Genel Müdürlüğü'nce karayolu taşımacılığı ile ilgili yetkilendirilmiş kişiler oluşturmaktadır (N= 334.456). Araştırmanın örneklemini ise, basit tesadüfi örnekleme yöntemi kullanılarak 39 il kapsama alınacak şekilde seçilen 2.000 çalışan oluşturmaktadır. Katılımcıların yeşil uygulamaları benimseme algısı ile görev performansı ve bağlamsal performansı arasında istatistiksel bakımdan anlamlı ve zayıf düzeyde pozitif ilişki bulunmuştur. Yeşil uygulamaları benimseme algısını oluşturan teknolojik, örgütsel ve çevresel faktörlere ilişkin değerlerin doğrusal kombinasyonunun çalışanın görev ve bağlamsal performansını anlamlı düzeyde yordadığı, çalışanın görev ve bağlamsal performansını en açıklayıcı yeşil uygulamaları benimseme algısı değişkeninin örgütsel faktörler olduğu, modelde yer alan değişkenlerden çevresel faktörlerin çalışanın görev ve bağlamsal performansı üzerinde istatistiksel açıdan anlamlı etkisinin olmadığı tespit edilmiştir.

Anahtar Kelimeler: Yeşil Lojistik, Yeşil Uygulamalar, Görev Performansı, Bağlamsal Performans

GENİŞLETİLMİŞ ÖZET

Çalışmanın Amacı

Yeşil lojistik uygulamaları, lojistik sektörü ve çevreye etkisi açısından büyük önem taşımaktadır. Yeşil lojistik kavramı, işletmelerin yeşil uygulamalara verdikleri önemin artması sonucu ortaya çıkmıştır. Ancak yeşil lojistik ile ilgili akademik çalışmalar oldukça sınırlıdır. Bu sınırlama, kavramın ve lojistik sektöründeki uygulamalarının benimsenmesinin önünde ciddi bir engel olarak duruyor. İşletmelerde yeşil uygulamaların benimsenme düzeyi konuya farklı bir bakış açısına sahiptir. Dolayısıyla bu araştırmanın amacı, yeşil uygulamaların benimsenme düzeyini ve bunun çalışan performansı üzerindeki etkisini belirlemektir.

Araştırma Soruları

Bu araştırmada, çalışanların yeşil lojistik uygulamalarını ne ölçüde benimsediği ve yeşil uygulamaların benimsenmesinin çalışanların görev ve bağlamsal performansı üzerinde ne ölçüde bir etkisi olduğu sorusuna cevap aranmaktadır.

Literatür Araştırması

İlgili literatür incelendiğinde lojistik sektörünün dinamikleri ve uygulama süreçlerinin sonuçları bağlamında lojistik sektörünün çevresel, sosyal ve ekonomik etkilerinin değerlendirilmesi ön plana çıkmaktadır. Yeşil uygulamalara yönelik tutum, göreceli avantaj ve uygunluk yeşil uygulamaları, organizasyonel destek, insan kaynakları, paydaş ve düzenleyici baskı ve devlet desteği olumlu etkilere sahiptir ve çevre belirsizliği ve yeşil uygulamaların karmaşıklığı önemli olumsuz etkilere sahiptir. Literatürde bu etkileri inceleyen çalışmalar bulunmaktadır (Lin ve Ho, 2011; Lin ve Ho, 2012; Weng ve Lin, 2012; Gonzalez-Benito ve Gonzalez-Benito, 2006; Lin ve Ho, 2008; Stolka, 2014). Bununla birlikte, yeşil uygulamaların benimsenme düzeyinin çalışan performansı üzerindeki etkisi konusunda çok az çalışma vardır.

Yöntem

Araştırma evreni, Türkiye Ulaştırma ve Altyapı Bakanlığı Karayolu Düzenleme Genel Müdürlüğü tarafından karayolu taşımacılığı konusunda yetkilendirilmiş kişilerdir (N = 334,456). Araştırmanın örneklemi 39 ildeki şirkette basit tesadüfi örnekleme yöntemi kullanan 2.000 çalışandır. Lojistik sektöründe karayolu taşımacılığı yapan işletmelerdeki 2.000 çalışanla anket yapıldı. Elde edilen veriler SPSS (Statistical Packages for the Social Sciences) programı sürüm 21.0 ile analiz edildi ve araştırma hipotezleri değerlendirildi. Bu değerlendirmelerde merkezi eğilim ölçüleri, tanımlayıcı istatistikler, korelasyon analizi ve çoklu regresyon analizi kullanılmıştır. İstatistiksel analize ilişkin bulgular sunulurken, çalışmaya dahil edilen lojistik sektörü çalışanlarının yeşil uygulamaları benimseme düzeyleri ve yeşil uygulamaları benimsemelerinin rolleri ve bağlamsal performansları üzerindeki etkisi incelenmiştir. Araştırmanın hipotezleri değerlendirilirken bağımlı değişken olarak iş performansı, bağımsız değişken olarak yeşil uygulamaları çalışanlar tarafından benimseme düzeyi alınmıştır. Araştırmada veri toplama aracı olarak anket tekniği kullanılmıştır. Bu kapsamda 3

bölümden oluşan bir anket formu tasarlanmıştır. Anketin ilk bölümünde 9 madde ile çalışanların demografik özellikleri analiz edilmiştir. Anketin ikinci bölümünde Lin ve Ho'nun (2011) çalışmasından yararlanılarak çalışanlarda yeşil uygulamaların benimsenmesini etkileyen faktörler incelenmiştir. Bu bağlamda, yeşil uygulamaların benimsenmesini etkileyen faktörler teknolojik faktörler, organizasyonel faktörler ve çevresel faktörler olarak incelenir. 10 maddeden oluşan teknolojik faktörler (3 madde göreli avantaj, 3 madde uyumluluk ve 4 madde karmaşıklık), 8 maddeden oluşan örgütsel faktörler (4 madde örgütsel destek ve 4 madde kaliteli insan kaynağı) (işletme büyüklüğü için çalışan sayısı dikkate alınmıştır) ve 11 maddeden oluşan çevresel faktörler (2 madde paydaş baskısı, 2 madde mevzuat baskısı, 3 madde devlet desteği ve 4 madde çevresel belirsizlik) anketin ikinci bölümünde yer alan 29 maddeyi oluşturmaktadır. Bu ölçekte 5'li likert ölçeği (Kesinlikle katılıyorum-5, Kesinlikle katılmıyorum-1) kullanılmıştır. Anketin üçüncü ve son bölümünde çalışanların performans algılarına ilişkin 17 maddeden oluşan ölçek kullanılmıştır. Bu ölçekte yer alan maddelerden 9 tanesi Goodman ve Syvantek (1999: 261) tarafından oluşturulan ve görev performansını ölçmeye yönelik ifadelerden, 8 tanesi Jawahar ve Carr (2007: 337) tarafından oluşturulan ve bağlamsal performansı ölçmeye yönelik ifadelerden derlenmiştir.

Sonuç ve Değerlendirme

Yeşil uygulamaları benimseme algısını oluşturan teknolojik, organizasyonel ve çevresel faktörlere ilişkin değerlerin doğrusal kombinasyonunun, çalışanların bağlamsal performansını önemli ölçüde yordadığı bulunmuştur. Modelde yer alan değişkenler arasında yer alan çevresel faktörlerin bağlamsal performans üzerinde istatistiksel olarak anlamlı bir etkiye sahip olmadığı, bağlamsal performansı yordamada teknolojik faktörlerin ve örgütsel faktörlerin anlamlı olduğu belirlenmiştir. Örgütsel faktörler, bağlamsal performansı açıklayan en çevreci uygulamaları benimsemenin algı değişkeni olarak bulunmuştur.

Ayrıca yeşil uygulamaları benimseme algısını oluşturan teknolojik, örgütsel ve çevresel faktörlere ilişkin değerlerin doğrusal kombinasyonunun çalışanların bağlamsal performansını önemli ölçüde yordadığı bulunmuştur. Modelde yer alan değişkenler arasında yer alan çevresel faktörlerin bağlamsal performans üzerinde istatistiksel olarak anlamlı bir etkiye sahip olmadığı, bağlamsal performansı yordamada teknolojik faktörlerin ve örgütsel faktörlerin anlamlı olduğu belirlenmiştir. Örgütsel faktörler, bağlamsal performansı açıklayan en çevreci uygulamaları benimsemenin algı değişkeni olarak bulunmuştur.

1. INTRODUCTION

Nowadays, businesses have focused on environmental issues, especially in order to achieve competitive advantage. As a result of this orientation, businesses in different sectors have focused on producing sustainable goods and services and green practices have gained importance. In this context, they are some of the environmental practices implemented by businesses as environmentally friendly production, renewable and effective energy use, green building use, reducing air and noise pollution, reducing carbon emissions, using more environmentally friendly vehicle fleets, optimizing storage and storage areas, optimizing product movements and handling activities, waste management and green packaging (Emmet and Sood, 2010: 132; Sibihi and Eglese, 2009: 99). But it is seen that most of the studies on environmental issues focus on manufacturing sectors such as energy, chemistry, automotive, forestry/pulp and electronics industry, which consume important natural resources and pollute the environment more. A very small amount of work has focused on the service sector, which consumes less natural resources and pollutes the environment less than the manufacturing sector (Ramus and Montiel, 2005: 379). Operations in the logistics sector, one of the service sectors causes a negative impact on the natural environment such as air pollution, hazardous and solid waste disposal obligation and fuel consumption (Rondinelli and Berry, 2000: 401). The concept used to describe activities against environmental pollution in the logistics sector is the concept of green logistics.

According to Lee and Klassen (2008: 575), green logistics is the integration of environmental issues as an organizational event into supply chain management to change the environmental performance of suppliers and customers. According to Stolka (2014: 303), green logistics is to examine ways to achieve a more sustainable balance between environmental, economic and social goals.

Wu and Dunn (1995: 25) classified environmentally friendly logistics activities in the supply chain as 6 factors in their study. This model consists of purchasing, supply logistics, conversion, distribution logistics, marketing and after-sales services. Zhu and Sarkis (2006: 474) classified to green logistic practices into 6 main activities as green purchasing, green production and material management, green distribution and marketing, green storage, reverse logistics and green packaging.

Green logistics practices are of great importance in terms of the logistics industry and its impact on the environment. The concept of green logistics has emerged as a result of the increasing importance that businesses in the logistics sector place on green practices. However, academic studies on green logistics are very limited. This limitation stands as a serious obstacle to the adoption of the concept and its practices in the logistics industry. The aim of this paper is to determine the adoption level of green practices and its effect on employee' performance.

2. ADOPTION FACTORS OF GREEN LOGISTIC PRACTICES

Green logistics is a whole of activities related to eco-efficiency management in meeting the customer demand in the forward and back flows of the products and information from the production point to the consumption point (Mesjasz-Lech, 2011: 43; Stolka, 2014: 303). Lee and Klassen (2008: 575) define green logistics as integrating environmental issues into supplier chain management to change the environmental performance of suppliers and customers. Businesses have started to consider the environment as both a cost and concern factor. In this respect, some enterprises have started to consider environmental issues such as climate change, pollution and noise as the external costs of logistics. Green logistics is to examine ways to reduce these externalities and achieve a more sustainable balance between environmental, economic and social goals (Stolka, 2014: 303). Green logistics activities are also of great importance in terms of government strategies in order to ensure sustainable development in the sector.

According to Lin and Ho (2011: 69), technological (relative advantage, compatibility, complexity), organizational (organizational support, quality human resource, enterprise size) and environmental (stakeholder pressure, legislative pressure, government support, environmental uncertainty) factors are the main factors affecting the adoption of green practices.

Lin and Ho (2011) aimed to analyze the factors affecting the adoption of green practices in the Chinese logistics industry. In the study, 322 samples working in Chinese logistics companies were analyzed. As a result of the study, it has been determined that the relative advantage and compatibility of green practices, organizational support, human resources, regulatory pressure and government support have positive effects on Chinese logistics companies' adoption of green practices. In addition, it has been concluded that environmental uncertainty and complexity of green practices have a significant negative impact on the adoption of green practices, and customer pressure is not important for Chinese logistics companies in terms of adopting green practices.

Lin and Ho (2012) aimed to analyze the factors affecting the technological, organizational and environmental management practices of 173 Taiwanese logistics companies. As a result of the study, it has been revealed that complexity, compliance, relative advantage, human resources, regulatory pressure, organizational and government support have significant positive effects on the adoption of organizational and environmental management practices.

Weng and Lin (2012) aimed to analyze the technological, organizational and environmental factors that affect the adoption of green innovations in the sample of 267 small and medium enterprises in China. As a result of the study, it has been found that the technological and organizational features of green innovation, government support, customer pressure and regulation pressure have a significant impact on the adoption of green innovation for SMEs.

Gonzalez-Benito and Gonzalez-Benito (2006) aimed to identify the factors that determine the execution of these practices by examining the environmental pressure of stakeholders perceived by

values and beliefs on the managers of 186 businesses. As a result of the study, it was determined that the green logistics activities of the logistics companies, government and civil society support and environmental pressure significantly affect the management's values and perception.

Lin and Ho (2008) aimed to identify of technological, organizational and environmental factors that affect their intention to adopt green innovations in the sample of 162 Taiwanese logistics companies. As a result of the study, it was found that all factors had positive effects on the intention to adopt green practices. In addition, it has been determined that green practices have significant effects on intelligibility, organizational experience, human resources, environmental uncertainty and government support.

Stolka (2014) aimed to reveal the determining factors that may affect the development of the green logistics concept of enterprises as an element of sustainable development. As a result of the research, it is emphasized that the determining factors that may affect the development of the green logistics concept of enterprises as an element of sustainable development consist of technological, organizational and environmental dimensions.

Being influenced by the findings of such studies in the literature, in this research, the following hypotheses have been developed to examine the effects of the adoption level of green practices on the task and contextual performance of employees, with support from the results of previous studies in the literature.

H1. The level of employee adoption of green practices affects task performance.

H2. The level of employee adoption of green practices affects contextual performance.

In the literature, adoption of green practices is seen as a technical innovation process (Lin and Ho, 2011: 68). According to Lin and Ho (2011: 69), logistics companies are affected by technological, organizational and environmental factors in this technical innovation process. In the literature, conceptual effects of various technological factors such as relative advantage, compatibility, complexity, testability, observability, ease of use, perceived usefulness, information density and uncertainty have been emphasized (Frambach and Schillewaert, 2002: 165; Jeyaraj et al., 2006: 4; Tornatzky and Klein, 1982: 28-29). According to the model developed by Lin and Ho (2011: 69), technological factors consist of relative advantage, compatibility and complexity of green applications. The following hypotheses have been created to examine the effects of employees' level of adopting technological factors on green practices on task performance and contextual performance.

H1a. The level of employees' adoption of technological factors related to green practices affects their task performance.

H2a. The level of employees' adoption of technological factors related to green practices affects contextual performance.

Organizational factors refer to processes and features that facilitate technical/technological innovation and environmental management. Many studies have focused on the effects of organizational factors, such as the quality of human resources, leadership skills of senior management,

organizational support, organizational culture, on various technical innovation and environmental strategies (Kimberly and Evanisko, 1981: 711; Hunt and Auster, 1990: 9; Berry and Rondinelli, 1998: 40; Etzion, 2007: 641; Gonzalez-Benito and Gonzalez-Benito, 2006: 1357). In general, adequate organizational resources and qualified organizational learning abilities are defined as organizational characteristics that enable the adoption of advanced technical innovation, environmental performance and green practices (Zhu et al., 2008: 578). In the study proposed by Lin and Ho (2011: 71), which is a reference to our research, the organizational factors affecting the employees' adoption of green practices consist of organizational support, quality human resources and business size. The following hypotheses have been created to examine the effects of employees' level of adopting organizational factors on green practices on their task and contextual performance.

H1b. The level of employees' adoption of organizational factors for green practices affects their performance.

H2b. The level of employee adoption of organizational factors for green practices affects contextual performance.

Another important factor affecting the innovative and green behavior of a business is the external environment in which it does business. Some environmental variables such as environmental uncertainty, environmental generosity, state support, industry type, competition and network relations are generally discussed in technical innovation (Davis et al., 1989: 990) and environmental management literature (Etzion, 2007: 653). Stakeholder pressure, outsourcing and environmental uncertainty are considered as environmental factors affecting the adoption of green practices (Rothenberg and Zyglidopoulos, 2007: 40). According to the model developed by Lin and Ho (2011: 69), environmental factors affecting employees' adoption of green practices are classified as stakeholder and legislation pressure, support of government and environmental uncertainty. The following hypotheses have been created to examine the effects of the level of adoption of environmental factors related to green practices on employees' perceptions of task and contextual performance.

H1c. The level of employees' adoption of environmental factors related to green practices affects their performance.

H2c. The level of employee adoption of environmental factors related to green practices affects contextual performance.

3. METHODOLOGY

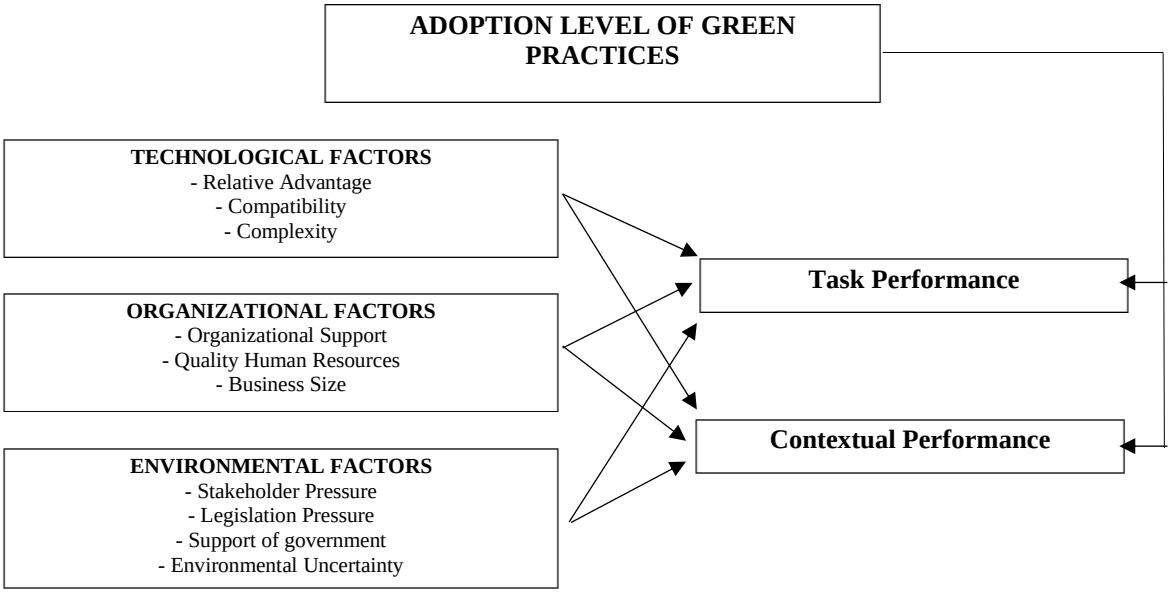
This research is a quantitative research. The research population constitute possess a valid certificate of authorization regarding authorized on road transport by General Directorate of Road Regulation in Ministry of Transport and Infrastructure in Turkey (N=334,456). The most important reason for the acquisition of logistics business operating in the road transport of goods in Turkey as a kind of universe is that green practices are extremely important in terms of their impact on the

logistics industry and the environment. In addition, the various modes of transport perception of differentiation could be in perspective to green practices of employees in the respective business with instead of doing research on all modes of transport motion practice which constitutes approximately 90% of the logistics enterprises in Turkey, road transport has been to exclude coverage of employees of the company. The sample of the study consists of 2,000 employees in enterprises selected to cover 39 provinces by using simple random sampling method among those in the universe. The questionnaires were examined at the data analysis stage, 177 questionnaires which were found to be filled randomly and which were placed on cross questions were removed and evaluations were made on 1,823 questionnaires.

The survey technique was used as a data collection tool in the research. In this context, a questionnaire form consisting of 3 sections was designed. In the first part of the survey, demographic characteristics of the employees were examined with 9 items. In the second part of the survey, the scale developed by Lin and Ho (2011) was used to examine the factors affecting the adoption of green practices in employees. In this research, the factors affecting the adoption of green practices were examined as technological factors, organizational factors and environmental factors. In this scale, a 5-point Likert scale (I strongly agree-5, I strongly disagree-1) was used. In the third and last part of the questionnaire, a scale consisting of 17 items related to employees' perceptions of performance was used. 9 of the items in this scale were compiled from the statements created by Goodman and Syvantek (1999) to measure task performance, and 8 of the statements created by Jawahar and Carr (2007) to measure contextual performance. The translation of the scale was made by making use of the original studies and it was confirmed from the expressions used by Bağcı (2014) who used it by translating it into Turkish before. In this scale, a 5-point Likert scale (I strongly agree-5, I strongly disagree-1) was used.

The data obtained were analyzed through SPSS program version 21.0 and research hypotheses were evaluated. In these evaluations, central tendency measures, descriptive statistics, correlation analysis and multiple regression analysis were used. While revealing the findings related to statistical analyzes, the level of adoption of green practices and the effect of adopting green practices on the task and contextual performances of the logistics sector employees included in the study were examined. While evaluating the hypotheses of the research, the job performance as the dependent variable and the level of adoption of the green practices of the employees as the independent variable were taken. By testing the developed hypotheses, the results of the research model is given in Figure 1.

Figure 1. The Model Of The Research



4. RESULTS AND DISCUSSION

When the demographic findings of the research participants are examined, it is observed that 78.5% are male, 59.2% are married, 55.2% are in the 30-65 age range, 35.9% are in the 15-29 age range, 34.6% are graduate to high school, 67.6% of them have between the minimum wage and 3990 TL, 23.9% has an income of or below the minimum wage, 30% is working in the operation unit and 18.1% is working in warehouse. In addition, it is observed that the participants are working in 39 different provinces, 24.3% in Konya, 16.1% in Istanbul and 11.5% in Ankara.

In order to test the validity of the scales used in the research, explanatory factor analysis was applied and the findings obtained are presented in Table 1. Accordingly, KMO and Bartlett values are suitable.

Table 1. KMO And Bartlett Results Of The Scales

		Green Practices Adoption Scale	**Task Performance Scale**	**Contextual Performance Scale**
Kaiser Meyer Olkin Sample Sufficiency Test		0.876	0.891	0.843
Bartlett	Chi-square (χ^2)	18178.038	7167.443	4376.545
Sphericity	(df)	406	36	28
Test	P	0.000	0.000	0.000

As a result of factor analysis, 29 questions in the green practices adoption scale were distributed over 9 factors. The distribution of the questions between dimensions was the same as in the original scale. The total variance explanation rate for the 9-factor scale is 64.236%. The findings of factor analysis of green practices adoption scale is presented in Table 2.

Table 2. Factor Dimensions Of Green Practices Adoption Scale

	Component								
GREEN PRACTICES ADOPTION SCALE	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1- Technological Factors									
Relative Advantage									
Green practices provide better green performance	.831								
Green practices provide higher economic benefits	.789								
Green practices increase the company's reputation	.657								
Compatibility									
Green practices are compatible with our current logistics activities		.627							
Green practices are consistent with our company's values		.724							
It is easy to combine green practices with our company's existing system		.712							
Complexity									
Green practices are difficult to understand			.840						
Green practices are difficult to learn			.842						
Sharing information on green practices is difficult			.876						
Using green apps requires a lot of experience			.717						
2- Organizational Factors									
Organizational Support									
Senior managers encourage employees to learn green practices				.711					
Our company rewards the green behavior of our employees				.772					
Our company provides resources for employees to learn green knowledge				.800					
Senior managers help employees deal with environmental problems				.704					
Quality of Human Resources									
Employees can easily learn new technologies					.587				
Employees have the ability to share information with each other					.775				
Employees can use new technologies to solve problems with ease					.764				
Employees have the ability to generate new ideas for our company					.668				
3- Environmental Factors									
Stakeholder Pressure									
Our customers demand that we improve environmental performance						.673			
Caring for the environment is an important factor for our customers						.802			
Legislation Pressure									
Government introduces green regulations for logistics activities							.693		
Non-Governmental Organizations/Industry organizations demand that we comply with environmental regulations.							.616		
Government Support									
Government provides financial support for the acquisition of green apps								.862	
Government provides technical assistance for obtaining green apps								.871	
Government assists educational manpower with green logistics skills								.791	
Environmental Uncertainty									
It is difficult to predict customers' preferences.									.678
It is difficult to predict competitors' behavior.									.710
The development of new logistics services is very rapid.									.644
Customer preferences change frequently.									.631

Task performance and contextual performance were subjected to factor analysis. As a result of the factor analysis, 9 questions in the task performance scale were distributed to a single factor and 8 questions in the contextual performance scale were distributed to a single factor. The distribution of the questions between dimensions was the same as in the original scale on both scales. The total variance explanation rate for the task performance scale is 63.18% and for the contextual performance scale is 58.838%.

Table 3. Factor Dimensions Of Task And Contextual Performance

	Component
	1
TASK PERFORMANCE SCALE	
Achieves the objectives of the job	.737
Meets criteria for performance	.759
Demonstrates expertise in all job-related tasks	.755
Fulfills all the requirements of the job	.786
Could manage more responsibility than typically assigned	.620
Appears suitable for a higher level role	.673
Is competent in all areas of the job, handles tasks with proficiency	.697
Performs well in the overall job by carrying out tasks as expected	.743
Plans and organizes to achieve objectives of the job and meet deadlines	.647
CONTEXTUAL PERFORMANCE SCALE	
I rarely disrupt my work when I have a valid excuse.	.610
I run my job with the least possible error.	.621
I perform my duties with extra care.	.654
I always complete my work on time or ahead of time.	.672
When other employees criticize, I defend my organization.	.717
I defend my organization when people outside the organization criticize it.	.754
I am proud to represent my organization in the community.	.775
I actively promote our business's products to potential users.	.704

In order to test the reliability of the scales, Cronbach Alpha values were examined and the findings obtained are presented in Table 4. The internal consistency coefficient of the items in the perception scale of adoption of green practices consisting of three dimensions and 29 items is 0.872. When the cronbach alpha coefficients in three sub-dimensions are analyzed, the technological factors consisting of 10 items that affect the perception of adopting green practices are determined as 0.687, the organizational factors consisting of 8 items, 0.798 and the environmental factors consisting of 11 items are 0.809. The cronbach alpha coefficient for the task performance scale consisting of 9 items was 0.874 and the value of the contextual performance scale consisting of 8 items was determined as 0.794. These values show that all three scales and the sub-dimensions of the perception scale of adopting green practices are sufficiently reliable.

Table 4. Cronbach Alpha Values

	Items	**Cronbach Alpha**
1- GREEN PRACTICES ADOPTION	**29**	**.872**
2-Technological Factors	*10*	*.687*
3- Relative Advantage	3	.541
4- Compatibility	3	.669
5- Complexity	4	.859
6- Organizational Factors	*8*	*.798*
7- Organizational Support	4	.836
8- Quality Human Resources	4	.655
9- Environmental Factors	*11*	*.809*
10- Stakeholder Pressure	2	.748
11- Legislative Pressure	2	.684
12- Government Support	3	.891
13- Environmental Uncertainty	4	.629
14- TASK PERFORMANCE	**9**	**.874**
15- CONTEXT PERFORMANCE	**8**	**.794**

Correlation values of all dimensions in the scale were examined and the findings obtained are presented in Table 5. According to the findings, an acceptable level of correlation was observed between the dimensions in the scales. Accordingly, it is seen that there is a statistically significant and

weakly positive relationship between the perception of the participants to adopt green practices and their task performance (r=0.226; p=0.000) and contextual performance (r=0.311; p=0.000).

Table 5. Inter-Variable Correlation Matrix

	2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
1- GREEN PRACTICES ADOPTION	.722**	.395**	.581**	.449**	.809**	.753**	.600**	.816**	.497**	.649**	.651**	.466**	.262**	.311**
2-Technological Factors	1	.604**	.693**	.662**	.382**	.395**	.236**	.376**	.158**	.296**	.317**	.305**	.190**	.209**
3- Relative Advantage		1	.382**	-.027	.236**	.209**	.189**	.130**	.079**	.140**	.085**	.058*	.195**	.168**
4- Compatibility			1	.108**	.411**	.403**	.280**	.298**	.169**	.259**	.249**	.150**	.246**	.222**
5- Complexity				1	.142**	.188**	.038	.291**	.073**	.183**	.265**	.335**	-.015	.054*
6- Organizational Factors					1	.872**	.811**	.502**	.306**	.426**	.418**	.236**	.287**	.315**
7- Organizational Support						1	.422**	.489**	.285**	.431**	.418**	.219**	.209**	.250**
8- Quality Human Resources							1	.346**	.227**	.274**	.275**	.176**	.284**	.285**
9- Environmental Factors								1	.670**	.773**	.765**	.542**	.141**	.207**
10- Stakeholder Pressure									1	.301**	.220**	.113**	.106**	.152**
11- Legislative Pressure										1	.651**	.246**	.144**	.170**
12- Government Support											1	.293**	.061**	.132**
13- Environmental Uncertainty												1	.077**	.113**
14- TASK PERFORMANCE													1	.648**
15- CONTEXT PERFORMANCE														1

** Correlation is significant at the 0.01 level.

Descriptive statistics of the variables used in our study are shown in Table 6. Accordingly, it is seen that the average of the participants' perception level of adopting green practices is 3.8001. This shows that in general, logistics employees adopt green practices at a high level. When these values are analyzed in terms of dimensions, it is seen that the average for technological factors is 3.7704, the average of organizational factors is 3.8894 and the average for environmental factors is 3.7406. In addition, it was observed that the participant logistics employees had a high level of task performance with an average of 4.3592 and a high level of contextual performance with an average of 4.2547.

Table 6. Descriptive Statistics Of Variables

Variables (n= 1823)	**Means**	**Standard Deviation**	**Min. Value**	**Max. Value**
1- ADOPTION LEVEL OF GREEN PRACTICES	**3.8001**	**.50153**	**1**	**5**
2-Technological Factors	*3.7704*	*.58031*	*1*	*5*
3- Relative Advantage	4.3893	.77875	1	5
4- Compatibility	2.9298	1.0880	1	5
5- Complexity	3.9903	.79027	1	5
6- Organizational Factors	*3.8894*	*.65361*	*1*	*5*
7- Organizational Support	3.7207	.84297	1	5
8- Quality Human Resources	4.0580	.70493	1	5
9- Environmental Factors	*3.7406*	*.68178*	*1*	*5*
10- Stakeholder Pressure	3.9575	1.2503	1	5
11- Legislative Pressure	3.7578	.87965	1	5
12- Government Support	3.4821	.99505	1	5
13- Environmental Uncertainty	3.7646	.82763	1	5
14- TASK PERFORMANCE	**4.3592**	**.49676**	**1**	**5**
15- CONTEXT PERFORMANCE	**4.2547**	**.51091**	**1**	**5**

After the descriptive statistics about the variables were examined, the stage of evaluating the hypotheses created within the scope of the research was started. First of all, multiple regression analysis was conducted to examine whether employees' adoption of green practices has an impact on task performance and the findings are shown in Table 7.

Table 7. Regression Analysis Regarding The Impact Of Green Practices Adoption Level On Task Performance

Dependent Variable	R^2	Independent Variable	B	S. D.	t	p	F
Task Performance	0.089*	Technological Factors	.086	.021	4.019	.000	60.313
		Organizational Factors	.201	.020	9.899	.000	
		Environmental Factors	-.021	.019	-1.109	.268	

* p= 0.000

When Table 7 is analyzed, it is seen that the linear combination of the values related to the technological, organizational and environmental factors that constitute the perception of adopting green practices significantly and weakly predicts the task performance of the employees (R^2=0.089, p<0.05). According to the results obtained, it is understood that the task performance of the employees is shaped by 8.9% depending on the perception of adopting green practices ($F_{(3,1814)}$=60.313; p<0.01). From the point of view of the values entered in the regression equation, it was determined that two of the variables in the model contributed to the model and the environmental factors that constituted the perception of adoption of green practices did not have a statistically significant effect on task performance (p>0.05).

Technological factors (p<0.05) and organizational factors (p<0.05) were found to be significant in predicting task performance. Based on these findings, it has been concluded that environmental factors, including the perception of adopting green practices, have no significant effect on employee performance, and technological factors and environmental factors have significant effects on employee performance. When explanatory values are analyzed, it is seen that the perception variable of adopting the most explanatory green practices in task performance is organizational factors. In other words, we can say that the most powerful predictor of task performance among organizational factors is the organizational factors.

In addition, when evaluating the sub-factors that constitute the technological, organizational and environmental factors that are the components of the level of adopting green practices, it is concluded that the perception of the employees regarding the complexity of green practices does not affect the task performance (p=0.087) and other sub-factors affect the task performance. Multiple regression analysis was conducted to examine whether employees' adoption of green practices has an impact on their contextual performance, and the findings are shown in Table 8.

Table 8. Regression Analysis On The Effect Of The Level Of Adoption Of Green Practices On Contextual Performance

Dependent Variable	R^2	Independent Variable	B	Std. Error	t	p	F
Context Performance	0.108*	Technological Factors	.084	.022	3.853	.000	74.439
		Organizational Factors	.201	.021	9.759	.000	

	Environmental Factors	.031	.020	1.595	.111

* p= 0.000

When Table 8 is analyzed, it was seen that the linear combination of the values related to technological, organizational and environmental factors that constitute the perception of adopting green practices significantly predicted the contextual performance of the employees (R^2=0.108, p<0.05). According to the results obtained, it is understood that the contextual performance of the employees is shaped by 10.8% depending on the perception of adopting green practices ($F_{(3,1814)}$=74.439; p<0.01). From the point of view of the values entered in the regression equation, it was determined that two of the variables in the model contributed to the model, and the environmental factors that constituted the perception of adoption of green practices did not have a statistically significant effect on contextual performance (B=0.031, p>0.05).

Technological factors (B=0.084, p<0.05) and organizational factors (B=0.201, p<0.05) were found to be significant in predicting contextual performance. Based on these findings, it was concluded that environmental factors, including the perception of adopting green practices, have no significant effect on the contextual performance of the employee. When the explanatory values are examined, it is seen that the perception variable of adopting green practices that are the most explanatory for contextual performance is organizational factors. In other words, the perception of adopting green practices was determined as the organizational factors of the component that predicted the contextual performance of the employees most strongly.

As a result, when evaluating the sub-factors that constitute the technological, organizational and environmental factors that are the components of the level of adopting green practices, the perception of employees regarding the complexity of green practices (p=0.720), perception of legislative pressure (p=0.105), perception of state support (p=0.150) and perception of environmental uncertainty (p=0.143) did not affect the contextual performance of employees, other sub-factors affected contextual performance.

5. CONCLUSION

When the findings obtained are evaluated in general, it was determined that the linear combination of the values related to the technological, organizational and environmental factors that constitute the perception of adopting green practices significantly predicts the task performance of the employees. In addition it was determined that the environmental factors, which are among the variables in the model, have no statistically significant effect on the task performance. The technological factors and organizational factors have statistically significant effect on task performance. In this relationship, the most explanatory variable is organizational factors. In this context, the main hypothesis developed in the study "*H1. The level of employee adoption of green practices affects task performance.*" and sub-hypotheses "*H1a. The level of employees' adoption of technological factors related to green practices affects their task performance.*" and "*H1b. The level of*

employees' adoption of organizational factors for green practices affects their performance." are accepted. According to the findings obtained that the sub-hypothesis "*H1c. The level of employees' adoption of environmental factors related to green practices affects their performance.*" is rejected. When evaluating the sub-factors that constitute the technological, organizational and environmental factors that are the components of the level of adopting green practices, it is concluded that the perception of employees regarding the complexity of green practices does not affect the task performance and other factors affect the task performance.

When the hypotheses formed based on contextual performance were evaluated, it was found that the linear combination of the values related to the technological, organizational and environmental factors that constitute the perception of adopting green practices significantly predicted the contextual performance of the employees. It was determined that environmental factors, which are among the variables in the model, do not have a statistically significant effect on contextual performance, and technological factors and organizational factors are significant in predicting contextual performance. Organizational factors were found to be the perception variable of adopting the greenest practices that explain the contextual performance. In this context, the main hypothesis developed in the study "*H2. The level of employee adoption of green practices affects contextual performance.*" and sub-hypotheses "*H2a. The level of employees' adoption of technological factors related to green practices affects contextual performance.*" and "*H2b. The level of employee adoption of organizational factors for green practices affects contextual performance.*" are accepted. According to the findings obtained that the sub-hypothesis "*H2c. The level of employee adoption of environmental factors related to green practices affects contextual performance.*" is rejected. When evaluating the sub-factors that constitute the technological, organizational and environmental factors that are the components of the level of adopting green practices, it is concluded that the perception of employees regarding the complexity of green practices does not affect their contextual performance, perception of legislation pressure, state support perception and environmental uncertainty does not affect the contextual performance of employees.

It is seen that some independent variables used in the research do not fully explain the dependent variables and have low values. In conclusion, it can be said that there are different independent variables that explain dependent variables in predictions between variables. The findings partially support the findings obtained by Lin and Ho (2011), Lin and Ho (2012: 223), Weng and Lin (2012), Benito and Benito (2006), Lin and Ho (2008), Stolka (2014).

There are few studies in the literature that question the factors that affect employees' adoption of green practices. Along with the level of adoption of green practices in businesses and an analysis of the factors affecting this adoption, examining the impact of these elements on employees' job performance offers a new and different perspective. In addition, the findings obtained are also guiding about the reasons why businesses in the sector should focus on green practices.

After this research, it may be possible to make comparisons by applying surveys to the type of transportation companies (airline, railway, seaway) that are not included in the research method. In addition, the method followed within the scope of the research can be applied for businesses in different sectors, allowing for cross-sector comparison. The findings obtained from the research are expected to provide important information to the management levels of the companies operating in the logistics sector and academicians working in this field and to contribute to the literature.

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