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E- LOGISTICS AND E- LOGISTICS APPLICATIONS IN THE PHARMACEUTICAL SECTOR

Abstract:

Logistics is a young sector in Turkey, and it has made progress in recent years. Local companies not only compete among themselves, but also compete with international companies. Nowadays businesses a competitive advantage in the global market and provide products andservices in order to maintain this condition , the speed , cost and must give importance to quality. For this advanced technology supply chain and logistics systems are obliged to make it available. This study e- logistics and e- logistics applications in the pharmaceutical sector was conducted to investigate. Working in the pharmaceutical sector in the province of Konya located in the pharmaceutical supply chain distribution warehouses and pharmacies and drug procurement and distribution system was carried out to investigate the e- logistics applications .

E- logistics and e- logistics applications in drug delivery, this study examined consists of three basic parts. In the first chapter of logistics, supply chain management, logistics management and marketing issues are discussed. In the second part of the study , e- logistics applications in the pharmaceutical industry and from various sources have been investigated theoreticall yexamined . In the third chapter of Konya e- logistics applications in the pharmaceutical industry practices were analyzed through the SPSS program. The study results were evaluated according to the survey findings related recommendations are presented.

Keywords:

Logistics, E-Logistics, Competition, Pharmaceutical Sector, Supply Chain

JEL Classification: M10

1.LOGISTICS, LOGISTICS MANAGEMENT AND SUPPLY CHAINMANAGEMENT

Nowadays, businesses in global markets must give importance to speed, cost and quality in products and services in order to ensure competitive advantage and sustain this situation. For this reason, they are required to make the supply chain and logistics systems suitable for advanced technology.

1.1.Concepts of Logistic

Logistics is an effective and efficient management of movement of all kinds of goods, services and information flow within the supply chain from the starting point of the resource to the point of consumption in order to meet some requirements of customers. Logistics management is the process of planning, implementing, transporting, storing, and controlling all operations related to logistics (1).

Reverse logistics consists of processes containing all logistisc activities from used goods not needed for customers to reusable goods in the market. Green logistics is a logistic system that considers needs and expectance of both firm, industry and natural environment and society during production and distribution activities.

1.2. LOGISTICS IN TURKEY

Logistics activities in Turkey have a history of ten years. Developments in the logistics sector have set in motion withdevelopments, firstly, in the exports and imports, and then, in the large-scale retail sector.Depending on this situation and the growth in Turkish economy, the logistics sector in Turkish has achieved an important growth recently.While the logistics sector worldwide is growing by 10%, Turkish logistics sector has achieved a growth of 20%.It has been estimated that volume of Turkish logistics sector has a share of 60 billion dollars.It is seen that turnovers of the companies operating in this sector approach 20 billion dollars.

2.E-LOGISTICS AND E-LOGISTICS INPHARMACEUTICAL INDUSTRY

E-logistics is designed logistics processes in order to meet the needs, requests and expectations of the customer by using information technologies. For this purpose, E-logistisc provides to be delivered to the final customer'saddress by supplying the products ordered by customer, doing value-added package services from the point of production and putting the right product in the right package.

2.1.E-Logistics Activities and Logistical Tools

Various activities are conducted in many processes found in E-logistics system. Purchasing, demand forecasting, inventory planning and forecasting, ordering process, storage, packing, loading, transportation, customer service and recycling are among the major E-logistics activities. E-logistics activities are carried out through information technology.

Business information technology and tools used in E-logistics include:

- ✓ Warehouse Management System provides effective and efficient use of warehouses.
- ✓ Vehicle Tracking Systems provides tracking a vehicle and inventories in distribution with GPRS, Geographical Information Systems.
- ✓ The internet allows business and customers to make all their relationships depending on e-logistics processes. It paves the way for designing all processes as network and functioning the processes (2).

- ✓ Transporting logistical activities into electronic media, internet use and fully development infrastructure are primarily required to be able to use effectively and efficiently all these tools in E-logistics operations,

2.2.PHARMACEUTICAL SECTORAND DRUG LOGISTICS

The pharmaceutical industry is a branch of industry that synthetic, herbal, animal, biological sources and chemical agents used as curative, preventive and nutritive in human and veterinary medicine transform into simple or compound pharmaceutical forms in specific doses according to scientific standards in accordance with pharmaceutical technology and introduce into treatment by serially producing them (3).

Approximately 300 pharmaceutical companies operate in Turkey's Pharmaceutical Sector. According to data of Minister of Health, Turkey has 68 pharmaceutical production facilities (15 foreign capital), 64 producing companies (13 foreigners), 12 raw materials production facilities (6 foreigners) and 10 raw materials production companies (9 foreigners in 4).About 30000 people employ in the pharmaceutical industry and the educational level of more than 50% of employments is high. There are some 500 drugs and some 23.500 pharmacies in the market.

2.3.DRUG LOGISTICS AND REVERSE LOGISTICS IN PHARMACEUTICAL SECTOR

Logistical activities have an important placein production and marketing management of businesses in the pharmaceutical industry. Drug logistics consists of production in pharmaceutical factory and deliver of drug to storehouses by taking drug raw material from suppliers and of transporting, storing and handling the products to final customer taken up by vendors from drug warehouses.

Reverse logistics is a process containing all logistisc activities from used goods not needed for customers to reusable goods in the market. According to this definition, reverse logistics is physical transportation of used product from final user to producer in terms of distribution planning. The next step is the conversion of recycled product into reusable product by producer (4).

3. E-Logistics applications in Pharmaceutical Sector

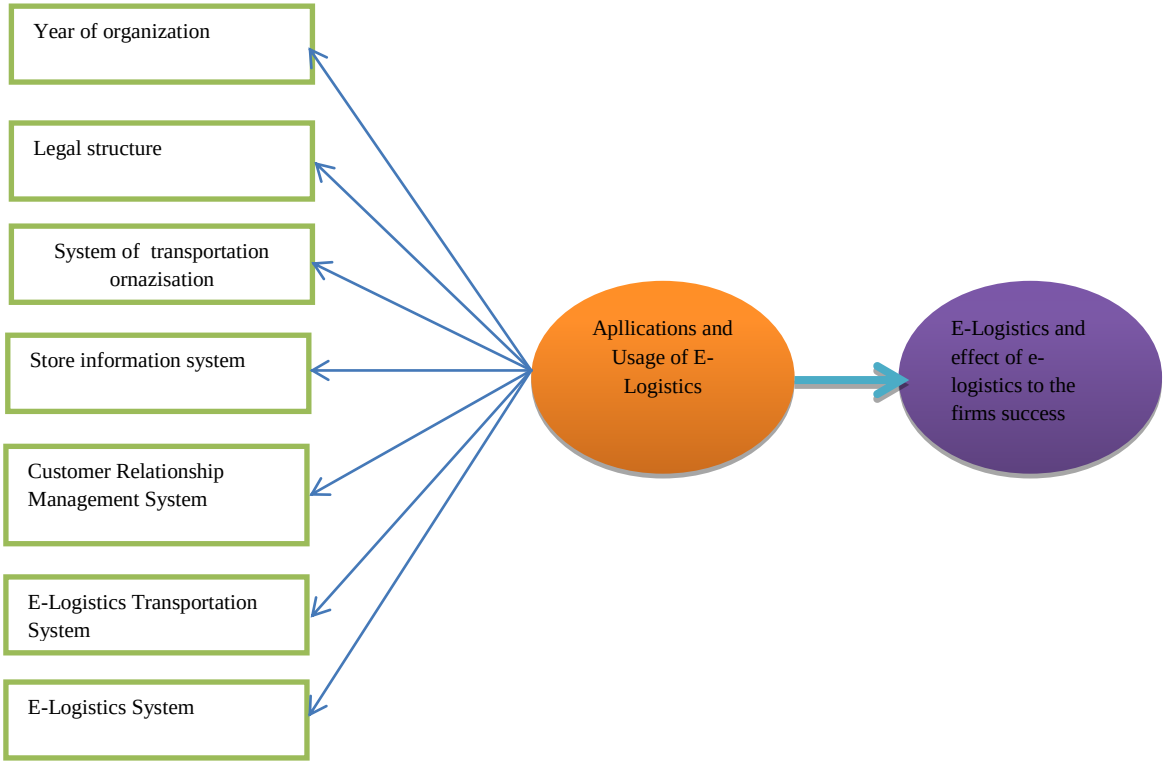
This section discusses e-logistics applications in Konya pharmaceutical sector. Applications were carried out in pharmacies located in Selcuk District of the province Konya. The methods survey and face to face interview were performed in this application. Findings obtained in the application were analysed by SPSS packaged software. As a result, dataobtained from study were evaluated and put forward suggestions regarding e-logistics in the pharmaceutical sector.

3.1.Research Subject and Model

This study was carried out in order to determine the levels of e-logistics applications of pharmacies operating in Konya Selçuklu District. In order to determine the levels of e-logistics application, a questionnaire form consisting of 3 main section and 41 sub-questions was used in this study. The first section consists of three multiple-choice questions in order to determine whether to use establishment year, legal structure and e-logistics in order to determine the general characteristics of firms that are involved in research. The second section consists of a likert scale with 24 decisions in order to determine the levels of e-logistics use of firms involved in

research (1:too little and 5:very).Third section consists of 14 multiple-choice questions in order to determine whether to use operationally e-logistics applications. In the light of these concepts and descriptions, research model and hypothesises are as follows.

Figure 1: Research Model



Fundamental hypothesises:

H1: Information and use levels of E-logistics applications influence positively the success level of a firm.

Sub-hypothesises:

H2: Use level of E-logistics and firm success show significant differences according to the establishment year of business.

H3: Use level of E-logistics and firm success show significant differences according to the legal structure of business.

H4: Use level of E-logistics and firm success show significant differences according to possession of business e-logistics sub-systems.

3.2.Methodology

Pharmacies operating in Konya Selçuklu district were selected within research. Online surveys were used as a method of data collection. 66 valid surveys were included in research. In order to determine the levels of e-logistics application, a questionnaire

form consisting of 3 main section and 41 sub-questions was used in this study.The first section consists of three multiple-choice questions in order to determine whether to use establishment year, legal structure and e-logistics in order to determine the general characteristics of firms that are involved in research.The second section consists of a likert scale with 24 decisions in order to determine the levels of e-logistics use of firms involved in research (1:too little and 5:very).Third section consists of 14 multiple-choice questions in order to determine whether to use operationally e-logistics applications. In the light of these concepts and descriptions, research model and hypothesises are as follows.

As a method of sampling, participants were selected according to convenience sampling method because of ease of data collection. Analysed data within research were collected in 30 days, which cover the dates January 2014 and February 2014.

Data were analysed with SPSS packaged software. As methods of analysis, frequency analysis was preferred for multiple-choice questions and factor analysis was preferred for likert scale questions. It was investigated with t and anova tests whether the dimensions of e-logistics useproblems according to business properties (establishment year, legal structure). show differences.

3.3.Frequency Analysis

Table1: Establishment Year

Establishment Year		
	Number	Percentage(%)
1984	1	1,54
1995	1	1,54
1996	1	1,54
1997	1	1,54
1998	3	4,62
1999	2	3,08
2000	4	6,15
2001	2	3,08
2002	1	1,54
2003	3	4,62
2004	4	6,15
2005	2	3,08
2006	5	7,69
2007	4	6,15
2008	4	6,15
2009	4	6,15
2010	5	7,69
2011	2	3,08
2013	2	3,08
2014	1	1,54
Ara Toplam	52	80

Kayıp Veri	13	20
Toplam	65	100

The table above shows the establishment years of businesses involved in research. In general, businesses established after 2000 have been included in the study.

Table2: Legal structure

Legal structure		
	Number	Percentage (%)
Limited	60	92,31
Incorporated	5	7,69
Total	65	100,00

The table above shows the legal structure of businesses involved in the research. 92% of these businesses is limited company and 7,6% is incorporated company.

Table3: Knowledge about E-logistics Applications

E-logistics		
	Number	Percentage (%)
Yes	51	78,46
No	14	21,54
Total	65	100,00

The question "Do you have knowledge about e-logistics applications?" asked for businesses involved in research was giving as "78% yes" answer, while giving approximately"22% no" answer.

3.4.Factor analysis

Factor analysis was performed to determine how many different sub-dimensions the scale related to the levels of e-logistics use by pharmacies perceived by answerers who participate in research. Kaiser-Meyer-Olkin (KMO) sampling adequacy test and Bartlett sphericity test were applied in order to test the suitability of datasets for factor analysis. As a result of analysis, it was determined that KMO value is above 0.911 to 0.50 and Bartlett's test tail probability has also 0.05 significance degree, and thus dataset is suitable for factor analysis.

Table4: Factor analysis

Factor	Item No	Item	Factor loadings		Cronbach Alpha
			1	2	
Savings and Company Success	**S18**	Succeeded in firm with the least-cost drug distribution.	0,80		**0,95**
	S8	Increased customer satisfaction with the pharmaceutical sector's e-logistics.	0,78		
	S4	Eliminated loss of time.	0,78		
	S21	E-logistics in drug sector enabled on-time delivery.	0,77		
	S5	Unnecessary operations (non-direct impact on customer request) prevented.	0,74		
	S19	Provided delivery safety in drug distribution.	0,73		
	S9	Drug sector's e-logistics boosted firm's image.	0,70		
	S13	Succeeded in firm with the right amount of drug distribution.	0,66		
	S17	Succeeded in firm with drug distribution by right person	0,66		
	S11	The pharmaceutical industry e-logistics standards facilitated occupations.	0,65		
	S7	Enhanced our success to manage the value flow with drug sector e-logistics.	0,63		
	S16	Succeeded in firm with drug distribution by the right tool.	0,53		
Accurate Resource Usage	S12	Succeeded in firm with the right drug distribution.		0,83	
	S14	Succeeded in firm with drug distribution at the right time.		0,76	
	S2	Eliminated waitings (material, information, approval, human).		0,74	
	S10	Drug sector e-logistics provided continuous drug, money and information flow.		0,74	
	S23	Drug sector e-logistics provided the emergence of drug value.		0,69	
	S15	Succeeded in firm with drug distribution in the right place.		0,69	
	S6	Improved the quality of services to implement drug sector e-logistics implementation.		0,68	
	S1	Eliminated elements that lead a waste of resources.		0,61	
	S24	Pharmaceutical Business Information Systems		0,60	
	S22	Drug sector e-logistics enabled on-time supply.		0,60	
	S20	Provided flexibility in drug distribution.		0,59	
	S3	Prevented unnecessary transportations (transportation not create value between processes)		0,51	
		Eigenvalue	**14,09**	**1,37**	
		Explained Variances(%)	**33,76**	**30,70**	
Total Variances (%)			**64,46**		

Notes: Principal Component Analysis with Varimax Rotation (ii) KMO = 0.911, Bartlett's test = 1332.064; p <.001

Answers relating to scale of essence entrepreneurship ability were analysed by using principal components method and varimax rotation. As a result of factor analysis, it was determined that the scale of level of e-logistics usage consisting of 24 questions perceive at 2 sub-dimensions by answerers who are involved in surveys.It was found total explained variances to 64,46%.Factors were called “Savings and Firm Success (12 items)” and “Accurate Resource Usage (12 items)”, respectively. The contributions of these factors to explain the essence entrepreneurial ability were 33.76% and 30.70%, respectively.
It was found Cronbach Alpha values as to e-logistics usage dimensions to be 95% and 94%. It has been concluded that each factor is reliable at good level since these values are above 70%.

Table5: Significance levels

Significance levels for the use of e-logistics		
Items	Mean	Standard deviation
S20	3,46	0,83
S21	3,40	0,95
S16	3,38	0,84
S17	3,37	0,80
S19	3,37	0,86
S11	3,34	0,89
S18	3,34	0,96
S8	3,31	0,95
S14	3,29	0,90
S15	3,29	0,95
S22	3,29	0,96
S13	3,28	0,93
S10	3,26	0,92
S12	3,26	0,87
S24	3,26	0,80
S3	3,25	0,88
S4	3,25	0,90
S7	3,25	0,94
S5	3,23	0,96
S9	3,23	0,88
S23	3,22	0,82
S6	3,12	0,88
S2	3,06	0,81
S1	3,03	0,87

When analysed the table above, the most important judgment relating to e-logistics for pharmacy staff involved in research was "Succeeded in firm with drug distribution by right person". The judgment also given low importance was "Eliminated elements that lead a waste of resources".And so, participants have emphasized that e-logistics applications do not prevent elements that lead to a waste of resources.

3.5.Difference tests

Before carrying out difference tests, it is useful in making the preliminary tests as to whether datadistribute normally. Because it is decided whether to perform parametric or non-parametric tests with respect to whether datadistribute normally. The normality assumption is the first assumption that parametric analysis can be performed.

Briefly, normality:

- It is bell-shaped and has only a mode. Mode is the value that appears most often in a set of data.
- The area under normal distribution curve equals to 1 and covers all observations.

Therefore, Kolmogrov-Smirnov and Shapiro-Wilk are normality tests that are commonly used among normality tests applied with the aid of packaged software. It is necessary to test the following hypothesises to be examined whether variables in this study distribute normally.

H0: Datasets are normally distributed.

H1: Datasets are not normally distributed.

Table6: Normality Test

Normality Test						
	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistics	df	p	İstatistik	df	p
S1	0,21	65	0	0,88	65	0
S2	0,25	65	0	0,87	65	0
S3	0,24	65	0	0,89	65	0
S4	0,25	65	0	0,86	65	0
S5	0,21	65	0	0,91	65	0
S6	0,24	65	0	0,88	65	0
S7	0,22	65	0	0,89	65	0
S8	0,23	65	0	0,89	65	0
S9	0,23	65	0	0,86	65	0
S10	0,21	65	0	0,90	65	0
S11	0,25	65	0	0,88	65	0
S12	0,22	65	0	0,89	65	0
S13	0,26	65	0	0,87	65	0
S14	0,25	65	0	0,87	65	0
S15	0,25	65	0	0,88	65	0

S16	0,26	65	0	0,85	65	0
S17	0,28	65	0	0,84	65	0
S18	0,20	65	0	0,90	65	0
S19	0,25	65	0	0,88	65	0
S20	0,31	65	0	0,83	65	0
S21	0,24	65	0	0,89	65	0
S22	0,22	65	0	0,89	65	0
S23	0,25	65	0	0,88	65	0
S24	0,29	65	0	0,86	65	0

When analyzed the above table, it will be determined that H0 will be rejected and variables are not distributed normally since p values of both Kolmogorov-Smirnov and Shapiro-Wilk tests are less than 0.5.According to these results, it will be used non-parametric Mann-Whitney U test instead of Independent Samples T-Test being an alternative to parametric test in difference tests. It will be also used Kruskal-Wallis One-Way Analysis of Variance instead of One-Way Analysis of Variance.

Mann-Whitney U test is a non-parametric alternative to One-Way Analysis of Variance. Mann-Whitney U test is performed when compared more than two groups and assumptions of ANOVA test are invalid. In this test, means of ranking values were compared after ranking variables not means. In this study, Mann-Whitnet U test and Kruskal-Wallis One Way of Variance were used in this study.

- **Analysis of Levels of Utilizing E-logistics by Legal Structure**

H0: Medians of the variable "levels of utilizing e-logistics of pharmacies" are equal according to the legal structure.

H1: Medians of the variable "levels of utilizing e-logistics of pharmacies" are not equal according to the legal structure.

Table7:Analysis of Levels of Utilizing E-logistics by Legal Structure

	Savings and Firm Success	Accurate Resource Usage
Chi-Square	10,96	11,97
p	0,012	0,007
a:Mann- Whitney U		
b:Group variable: The vehicle recognition system		

When analysed the above table, chi-square and p significance values are seen. H0 hypothesis is rejected since values in p (significance) row of test statistics table are less than 0.05 for the variables savings and firm success and accurate aesource usage. In a sense, it has been concluded that values of dimensions of levels of e-logistics usage show difference from the variable legal structure.

If this difference will be examined;

Table8: Rank Priority Values

Ranks			
	Legal Structure	N	Average Rank
Savings and Firm Success	**Limited**	**60**	**32,38**
	Anonym	5	40,40
Accurate Resource Usage	**Limited**	**60**	**33,60**
	Anonym	5	25,80

The table above shows rank values of the variables of legal structure. When examined these values;

- It is seen that pharmacies having limited legal structure with 40.40 make the most contribution to variables related to savings and firm success.
- It is seen that pharmacies having anonymous legal structure with 33,60 make the most contribution to variables related to accurate resource usage.

- **Analysis of Levels of Utilizing E-logistics by Transport Organization System.**

H0: Medians of the variable "levels of utilizing e-logistics of pharmacies" are equal according to the situation of being used transport organization system.

H1: Medians of the variable "levels of utilizing e-logistics of pharmacies" are not equal according to the situation of being usedtransport organization system.

Table9: Analysis of Levels of Utilizing E-logistics by the situation of being used by Transport Organization System

	Savings and Firm Success	Accurate Resource Usage
Chi-Square	164,500	223,500
p	0,00	0,00
a:Mann- Whitney U		

b:Group Variable: Vehicle organization system

When analysed the above table, chi-square and p significance values are seen. H0 hypothesis is rejected since values in p (significance) row of test statistics table are less than 0.05 for the variables savings and firmsuccess and accurate resource usage. In other words, it has been concluded that values of dimensions of levels of e-logistics usage show difference from the variable "whether to use vehicle organization system".

If this difference will be examined;

Table10: Rank priority values

Ranks			
	Situation of Using Vehicle Organization System	N	Average Rank
Savings and Firm Success	**Yes**	**36**	**42,93**
	No	29	20,67
Accurate Resource Usage	**Yes**	**36**	**41,29**
	No	29	22,71

The table above shows rank values of the variables of vehicle organization system. When examined these values;

- It is seen that pharmacies using vehicle organization system with 40.40 make the most contribution to variables related to savings and company's success.
- It is seen that pharmacies using vehicle organization systemwith 41.29make the most contribution to variables related to accurate resource usage.

- ***Analysis of Levels of Utilizing E-logistics by Warehouse Information System***

H0: Medians of the variable "levels of utilizing e-logistics of pharmacies" are equal according to the situation of being used warehouse information system.

H1: Medians of the variable "levels of utilizing e-logistics of pharmacies" are not equal according to the situation of being used warehouse information system.

Table11: Analysis of Levels of Utilizing E-logistics by Warehouse Information System Use Situation

	Savings and Company's Succces	Accurate Resource Usage
Chi-square	157,500	179,500
p	0,00	0,00
a:Mann- Whitney U		
b:Group variable: Warehouse information system		

When analysed the above table, chi-square and p significance values are seen. H0 hypothesis is rejected since values in p (significance) row of test statistics table are less than 0.05 for the variables savings and firmsuccess and accurate resource usage. In other words, it has been concluded that values of dimensions of levels of e-logistics usage show difference from the variable "whether to use warehouse information system".

If this difference will be examined;

Table12: Rank Priority Values

Ranks			
	Warehouse Information System Use Situation	N	Average Rank
Savings and Firm Success	**Yes**	**47**	**38,65**
	No	18	18,25
Accurate Resource Usage	**Yes**	**47**	**38,18**
	No	18	19,47

The table above shows rank values of the variables of warehouse information system. When examined these values;

- It is seen that pharmacies using warehouse information system with 38,65make the most contribution to variables related to savings and firm success.
- It is seen that pharmacies using warehouse information systemwith 38.18make the most contribution to variables related to accurate resource usage.

- ***Analysis of Levels of Utilizing E-logistics by Customer Relationship Management System***

- H0: Medians of the variable "levels of utilizing e-logistics of pharmacies" are equal according to the situation of being used Customer Relationship Management System.

- H1: Medians of the variable "levels of utilizing e-logistics of pharmacies" are not equal according to the situation of being used Customer Relationship Management System.

Table13: Analysis of Levels of Utilizing E-logistics by Customer Relationship Management System Use Situation

	Savings and Firm Success	Accurate Resource Usage
Chi-square	286,00	307,500
p	0,00	0,00
a:Mann- Whitney U		
b:Group variable: Customer Relatioship Management System		

When analysed the above table, chi-square and p significance values are seen. H0 hypothesis is rejected since values in p (significance) row of test statistics table are less than 0.05 for the variables savings and firmsuccess and accurate resource usage. In other words, it has been concluded that values of dimensions of levels of e-logistics usage show difference from the variable "whether to use customer relationship management system".

If this difference will be examined;

Table14: Rank Priority Values

Ranks			
	Customer Relationship Management System Use Case	N	Average rank
Savings and firm success	**Yes**	**36**	**39,56**
	No	29	24,86
Accurate resource usage	**Yes**	**36**	**38,96**
	No	29	25,60

The table above shows rank values of the variables of customer relationship management system. When examined these values;

- It is seen that pharmacies using customer relationship management system with 39,56make the most contribution to variables related to savings and firm success.
- It is seen that pharmacies using customer relationship management systemwith 38.96make the most contribution to variables related to accurate resource usage.

- ***Analysis of Levels of Utilizing E-logistics by Transportation Infrastructure.***

- H0: Medians of the variable "levels of utilizing e-logistics of pharmacies" are equal according to the situation of being used transportation infrastructure
- H1: Medians of the variable "levels of utilizing e-logistics of pharmacies" are not equal according to the situation of being used transportation infrastructure

Table15: Analysis of Levels of Utilizing E-logistics by Transportation Infrastructure Use Situation

	Savings and Firm Success	Accurate Resource Usage
Chi-square	326,00	301,500
p	0,008	0,003
a:Mann- Whitney U		
b:Group Variable: Transportation Infrastructure System		

When analysed the above table, chi-square and p significance values are seen. H0 hypothesis is rejected since values in p (significance) row of test statistics table are less than 0.05 for the variables savings and firmsuccess and accurate resource usage. In other words, it has been concluded that values of dimensions of levels of e-logistics usage show difference from the variable "whether to use transportation Infrastructure System ".

If this difference will be examined;

Table16: Rank Priority Values

Ranks			
	E-logistics Transportation System Use Condition	N	Average Rank
Savings and Firm Success	**Yes**	**33**	**39,12**
	No	32	26,69
Accurate Resource Usage	**Yes**	**33**	**39,86**
	No	32	25,92

The table above shows rank values of the variables of transportation Infrastructure System Use. When examined these values;

- It is seen that pharmacies using transportation Infrastructure System with 39,12make the most contribution to variables related to savings and firm success.

- It is seen that pharmacies using transportation Infrastructure Systemwith 38.86make the most contribution to variables related to accurate resource usage.

- ***Analysis of Levels of Utilizing E-logistics by E-Logistics System Use Situation***

- H0: Medians of the variable "levels of e-logistics usage of pharmacies" are equal according to the situation of being used E-logistics system.
- H1: Medians of the variable "levels of utilizing e-logistics of pharmacies" are not equal according to the situation of being used E-logistics system.

Table17: Analysis of Levels of Utilizing E-logistics by E-Logistics System Use Situation

	Savings and Firm Success	Accurate Resource Usage
Chi-square	204,00	245,00
p	0,00	0,001
a:Mann- Whitney U		
b:Group variable: E-logistics system		

When analysed the above table, chi-square and p significance values are seen. H0 hypothesis is rejected since values in p (significance) row of test statistics table are less than 0.05 for the variables savings and firmsuccess and accurate resource usage. In other words, it has been concluded that values of dimensions of levels of e-logistics usage show difference from the variable "whether to use E-logistics System ". If this difference will be examined;

Table18: Rank Priority Values

Ranks			
	E-logistics Transportation System Use condition	N	Average Rank
Savings and Firm Success	**Yes**	**42**	**39,64**
	No	23	20,87
Accurate resource usage	**Yes**	**42**	**38,67**
	No	23	22,65

The table above shows rank values of the variables of E-logistics System Use. When examined these values

- It is seen that pharmacies using E-logistics System with 39,64make the most contribution to variables related to savings and firm success.

- It is seen that pharmacies using E-logistics System with 38.67make the most contribution to variables related to accurate resource usage.

NOTES

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