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**SUGGESTED REGULATIONS TO GENERALIZE GREEN SUPPLY
CHAIN PRACTICES IN MEDICAL SUPPLY CHAIN**

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SUGGESTED REGULATIONS TO GENERALIZE GREEN SUPPLY CHAIN
PRACTICES IN MEDICAL SUPPLY CHAIN

TIBBİ TEDARİK ZİNCİRİ İÇERİSİNDE YEŞİL TEDARİK ZİNCİRİ
UYGULAMALARINI YAYGINLAŞTIRACAK DÜZENLEME ÖNERİLERİ

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PREFACE

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ABBREVIATIONS

DEMATEL: Decision Making Trial and Evaluation Laboratory

CSCMP: Council of Supply Chain Management Professionals

FEFO: First Expired First Out

GDP: Good Distribution Practices

7R: Seven Rights

3PL: Third-Party Logistics

UATF: Ulusal Atık Taşıma Formu - National Waste Transportation Form

CO₂: Carbon Dioxide

MoTAT: Mobil Tehlikeli Atık Taşıma - Mobile Waste Tracking System

UCLA: University of California, Los Angeles

UV: Ultraviolet

BREEAM: Building Research Establishment Environmental Assessment Method

LEED: Leadership in Energy and Environmental Design

USGBC: United States Green Building Council

DGNB: Deutsche Gesellschaft für Nachhaltiges Bauen E.V. - German Society for Sustainable Building Registered Association

PGEU: Pharmaceutical Group of European Union

EU: European Union

WHO: World Health Organisation

GBCA: Green Building Council of Australia

EAP: Environment Action Programme

SEVER: Sağlıkta Enerji Verimliliği - Energy Efficiency in Health

TTGV: Türkiye Teknoloji Geliştirme Vakfı - Technology Development Foundation of Turkey

IIE: Intelligent Energy Europe

PV: Photovoltaic

E-Result: Electronics Result

SPSS: Statistical Package for the Social Sciences

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ABSTRACT

While human beings make their life easier thanks to industrialization, they actually cause excessive harm to the environment. The only way to prevent these damages and reduce environmental problems is to promote the use of green practices in all sectors. Natural disasters, diseases caused by environmental pollution and depleting natural resources show that the need for green practices all over the world has reached a level that cannot be ignored. The medical supply chain, which tries to protect human health, is one of the weakest sectors in this regard. For this reason, the need for the sector to transition to green practices has become an urgent situation. The aim of this study is to provide government incentives and legislative proposals to promote green practices in the medical supply chain. In addition, in order to show the response of the suggestions in the sector, the attitudes of the sector employees were examined with the survey data method and the relationships between these attitudes was examined through the Spearman correlation analysis. As the results show, medical supply chain workers strongly support green practices. For this reason, if the recommendations are implemented, they are expected to be successful.

Keywords: Supply Chain, Medical Supply Chain, Green Supply Chain, Healthcare, Green Practices, Environment

ÖZET

İnsanođlu endüstrileşme sayesinde hayatını kolaylaştırırken aslında çevreye büyük ölçüde zarar vermektedir. Bu zararları önlemenin ve çevre sorunlarını azaltmanın tek yolu tüm sektörlerde yeşil uygulama kullanımını yaygınlaştırmaktır. Doğal afetler, çevre kirliliđi kaynaklı hastalıklar ve tükenmekte olan doğal kaynaklar gösteriyor ki tüm Dünya’da yeşil uygulamalara olan ihtiyaç artık göz ardı edilemeyecek bir seviyeye ulaşmıştır. İnsan sağlığını korumaya çalışan tıbbi tedarik zinciri bu konuda en zayıf olan sektörlerden biridir. Bu sebeple sektörün yeşil uygulamalara geçiş ihtiyacı acil bir durum haline gelmiştir. Bu çalışmanın amacı tıbbi tedarik zincirinde yeşil uygulamaları yaygınlaştıracak devlet teşviki ve kanun önerileri sunmaktır. Ayrıca önerilerin sektördeki karşılığını gösterebilmek için anket veri yöntemi ile sektör çalışanlarının tutumları incelenmiş ve Spearman korelasyon analizi aracılığıyla bu tutumlar arasındaki ilişkilere bakılmıştır. Sonuçların gösterdiği üzere tıbbi tedarik zinciri çalışanları yeşil uygulamaları büyük ölçüde desteklemektedirler. Bu sebeple öneriler hayata geçtiđi takdirde başarılı olmaları beklenmektedir.

Anahtar Sözcükler: Tedarik Zinciri, Tıbbi Tedarik Zinciri, Yeşil Tedarik Zinciri, Sağlık, Yeşil Uygulamalar, Çevre

INTRODUCTION

Nowadays, environmental problems in the world and natural disasters caused by these problems are increasing day by day. Increasing population and industrialization are seen as the most important reasons for the increase of these problems. Natural disasters caused by environmental problems threaten human and natural life to a great extent. All sectors must rapidly transition to green practices in order to ensure the continuity of human and natural life. This need, which was not noticed by users until recently, is becoming more noticeable day by day.

The medical supply chain is all of the supply chain processes covering the healthcare industry. The medical supply chain remains the slowest in transition to green practices due to its critical importance. However, considering the dangers posed by the sector, the need for green practices stands out. The dangers created by the high energy use in the sector, the amount of waste generated and the content of the wastes threaten the nature and human life to a great extent. High costs during the transition to green practices and high competition in the sector constantly delay the transition of institutions to green practices. To solve this problem, institutions should be directed to green practices through government incentives and laws. In this way, both environmental problems can be reduced and the costs of institutions can be reduced and environmental expenses on the state can be saved with the savings opportunities created by transition to green practices. In addition, many of the green practices promise great promises in terms of industry practices and human health. In this way, many improvements are expected in the sector.

The aim of this study is to provide suggestions to promote green practices in the medical supply chain. The needs in response to the suggestions and sample implementation methods are explained in the study. In order to measure the applicability of the recommendations, a survey consisting of questions about the use and support of green practices was applied to a sample of 106 people working actively in the medical supply chain. In addition, Spearman correlation test was applied to the result data via SPSS in order to measure the relationships between the results.

1.1. LITERATURE REVIEW

As a result of research it has been seen that there is no country that implement the suggested green practices. For this reason, other related studies are discussed in the literature review section.

The first study on the subject in the literature is about green design in health institutions. This study is “Code Green a New Design Imperative for Healthcare Facilities”. (J. F. Stichler, 2009)

The aim of the study is to make a new call for a green healthcare organization. Relevant green practices for this purpose and their benefits are described in detail in the study. As a result of this study, it was found that transition to green practices can improve hospital operations as well as the cost and environmental benefits. Also, according to the results of the study, nurses have the opportunity to provide leadership to create a green culture in their hospitals and to influence responsible decisions in green health design.

Another study (O. Ozkan, et al., 2016) examined on the related topic is about the green supply chain method in the health sector.

In this study, it is aimed to draw attention to the green supply chain, which is an environmentally friendly approach in the supply chain management of health institutions, and to increase awareness in the managers of health institutions. In this study, practices suggestions were made from examples of green hospitals abroad and the successes obtained as a result of these practices were presented.

Another study (H.C. Akdağ, et al., 2012) examined on the subject is about green supply chain management in green hospital operations.

In this study, it is aimed to design a green hospital operation model using green supply chain and reverse logistics by combining the concepts of green supply chain and green hospital. At the end of the study, suggestions such as using less and as much green material as possible, reducing waste and reducing the use of raw materials were made in accordance with this purpose.

Another study (B.C. Ervural, et al., 2017) carried out by using the analysis method on the relevant subject addresses the supplier selection problem in sustainable supply chain management.

In the study, the problem of supplier selection of an international health company in Istanbul was discussed. Various supplier selection criteria were determined for evaluation, and the DEMATEL (Decision Making Trial and Evaluation Laboratory) method was used to examine the effect of these criteria on supplier selection. Thanks to the DEMATEL method, it is aimed to measure the relationship and importance degree between measurement criteria. A matrix was established according to the importance given by the company to various criteria and the relationships were determined by the DEMATEL method. According to the results of this study, while the most important criterion for the company is delivery on time, pollution control has been determined as the least important criterion.

The last study (M. Gorucu, 2019) examined is on the evaluation of green supply chain processes in healthcare enterprises.

The study, which aims to explore the awareness of the green supply chain and reveal the effects of green supply chain applications on hospitals. In the research, data was collected from a private hospital operating in the city of Denizli in order to examine the green supply chain processes and present the possible process effects. As a result of this study, the processes of the relevant hospital were examined and necessary recommendations were made.

When the studies in the literature are examined, it has been noticed that there are very few studies on green practices and green supply chain processes. This is because this change is still unfamiliar to the industry. In addition, studies in the literature have remained within the limits of review and suggestions. In this study, the point of view of medical supply chain employees on green practices was examined. It is thought that this study will contribute to the literature as it reveals the opinions of this group, who will be directly exposed to the changes to be made, on the subject. In the next section, it will be provided a brief overview of important concepts and concerns in general supply chain management.

1.2. SUPPLY CHAIN

The supply chain is the name given to the entire process that enables a product to reach the end consumer from the manufacturer. In this process, the product reaches from the manufacturer to the wholesaler, distributor, retailer and finally to the final consumer. According to the Council of Supply Chain Management Professionals (CSCMP); “Supply chain covers the planning and

management of all activities involved in sourcing and procurement, transformation and all logistics management activities. More importantly, it includes coordination and collaboration with channel partners such as suppliers, intermediaries, third-party service providers, and customers. Basically, supply chain management integrates supply and demand management within and between companies.” According to Hau L. Lee and Corey Billington (1992); “The supply chain is a network of producers and distributors that supply raw materials, convert them into intermediate goods and final products, and distribute final products to customers.” According to Kopczak (1997); “The supply chain is defined as a set of elements that includes suppliers, logistics service providers, manufacturers, distributors and retailers and has material, product and information flow among them.” (Lee, H., & Kopczak, L. (1997)). The supply chain has two different types of flows. These are called downstream and upstream. The downstream stream represents the customer side and the upstream the supplier side.

A supply chain can have multiple suppliers and types of customers. In such a situation, there are two important points. The first is to determine how many suppliers and types of customers to work with. Another important point is the regulation of the relations in the supply chain to be established.

Although the scope of the supply chain varies between enterprises, all businesses that continue to exist in the production and service sector have a supply chain. In addition to physical products, information, documents and money flow are also provided within the supply chains. During this comprehensive flow, every participant in the supply chain is affected by each other. For this reason, integrating the entire chain instead of restricting the integration within the organization is the first condition of a successful supply chain management.

The main components of the supply chain are:

1. **Actors:** Actors are the whole of people and institutions in the supply chain. Suppliers, manufacturers, customers, distribution channel members, transporters, warehouses, service providers.
2. **Resources:** Resources are a whole of intangible, concrete and human resources. Human resources, materials, financial resources, information.
3. **Activities:** Activities include conversion transactions, business transactions and operating cycles. Planning, sourcing, production, delivery, service.

Supply chain participants are:

1. **Manufacturers:** Participants who are manufacturers produce an output in the form of raw materials, semi-finished products or finished products.
2. **Suppliers:** Participants who are suppliers provide the necessary inputs at the production stages in the supply chain.
3. **Customers:** Participants who are customers are composed of individuals or institutions that demand any output from the completed stages in the supply chain. The most important type of customer is the final consumer at the last stage of the chain.
4. **Distributors:** Participants who are distributors are the organizations that distribute the products of the institutions in the supply chain.
5. **Retailers:** Participants who are retailers are intermediaries who deliver the product to the final consumer.
6. **Transporters:** Participants who are transporters are the institutions that provide the physical flow between all participants in the chain.
7. **Warehouses:** Participants which are warehouses are the institutions that can assist the physical product flow in the supply chain. Supply chain participants can have their own warehouses or benefit from institutions that provide warehousing services.
8. **Service Providers:** Participants which are service providers are third party organizations that provide complementary services within the scope of the supply chain.

It is of great importance to manage many processes in the supply chain in an integrated manner. The seven main processes of the supply chain can be listed as follows:

1. **Demand Management:** It is the in-house actions taken to provide the orders received from the customers as soon as possible and in the most appropriate way.
2. **Purchasing:** It is the provision of fast, high quality, low cost and safe purchasing of products and materials required for manufacturing.
3. **Planning:** It is the proper planning of the manufacturing process with cost estimates.
4. **Production:** It is the transformation of the supplied material into a product in the right way and at the right time.

5. **Inventory Management:** These are activities aimed at supplying and keeping the required materials at the most appropriate cost and at the appropriate time according to the determined production plans.
6. **Warehouse Management:** It is the planning and management of how and in what quantity the stocked inventory will be stored.
7. **Transportation:** It is the management of the process of delivering the finished products from the warehouse to the final consumer.

1.2.1. Supply Chain Management

According to Hugos; (2006) “Supply Chain Management is that is done to influence the behavior of the supply chain and get the desired results.” Mentzer (2001) defined supply chain management as follows. “Systematic and strategic coordination of traditional business functions and tactics in these functions within enterprises in a particular business and supply chain to improve the long-term performance of businesses and supply chains as a whole.”

1.2.2. Characteristics of a Successful Supply Chain Management

For successful supply chain management, the first step that a business should apply is customer analysis. In this step, the business should group the customers according to their needs and organize the supply chain to meet different customer demands. In addition, it should revise its logistics network according to the profitability rates of customer groups. In this way, it can increase the profit of the business. After the customer and customer needs are analyzed, preliminary preparation should be made for demand planning. Market movements should be predicted by ensuring operational estimates and optimum resource use, and a ranking should be made to plan the demand under these conditions. After this step, the product to be put into service should be introduced to the customer and the necessary improvements should be implemented rapidly throughout the process according to the feedback received from the customers. To minimize the costs of the supply chain, the sources of supply must be managed under the optimum benefit objective. Finally, performance indicators that can measure the success in reaching the end consumer effectively and efficiently should be determined. For a successful supply chain management, effective, fast and low-cost process management is required by paying attention to all these issues.

1.2.3. Benefits of Supply Chain Management

An effective and efficient supply chain management provides many benefits to grow a business and increase the profitability of the business. It increases customer satisfaction thanks to the correct customer analysis. If an effective forecasting process is managed, it increases the accuracy of demand forecasts and ensures that orders are met at the optimum level. Thanks to the effective use of supply resources, it shortens lead times and reduces logistics costs. It increases the rate of capacity that can be used effectively thanks to correct inventory management and warehouse management. If integrated and correct process management is provided, the production continuity of the enterprise is ensured, thus increasing productivity. In addition, businesses that successfully manage the process, can provide resistance to unexpected changes in the market and save on the total costs of the supply chain. In the following section it will be focused on supply chain management in health sector, that is the Medical Supply Chain.

1.3. MEDICAL SUPPLY CHAIN

The medical supply chain can be defined as the supply chain in the health sector. According to Usumus, E. (2012); “The primary purpose of the health sector is to protect and improve human health, which causes the sector to differ in some points. The variability of the demand, non acceding any fault nature of the service and the necessity to provide an urgent service are among the features that make this difference. The complex structure of the service, being based on excessive specialization, including experts from different sectors as well as health professionals, the high dependence of professionals from different specialties on each other and the need for advanced cooperation are other qualities that can be considered specific to health services.”

In order to examine the supply chain management in the health sector, it is necessary to first look at the unique characteristics of the health sector. Health institutions offer intangible services simultaneously with tangible products. Although the intangible service offered is health service, this service is provided with drugs, which are the tangible products. Another unique feature of supply chain management in the healthcare industry is the end product of the supply chain and the customer using the supplied materials. The final product of supply chain management in the health sector is the basic service. The end users of the supplied materials

are doctors, nurses and other health workers, who are the internal customers of the system. According to Akman, M. (2003); “The main purpose of supply chain management in the health sector is to supply the maximum quality material at the most affordable cost, to stock effectively within the framework of the risks in the sector, to keep the materials in the right place at the right time and to provide maintenance service for the materials when necessary.” According to Schneller and Smeltzer (2006); “Although effective supply and material management has become a necessity in terms of both quality service and financial performance in health institutions today, it is seen that health institutions are still not considered as units with the value chain.”

The variety of services offered requires creating cooperation networks to provide these different services. In addition, the performance of the collaborators affects the quality of the service provided.

A high amount of energy is used in the transportation part of the medical supply chain due to the properties of the products subject to transport. In addition, if the chain is not protected in the right way and the product subject to transport deteriorates, all this energy used during the process is wasted. It is possible to save high levels of energy by both protecting the chain and replacing the energy-consuming products used during transportation with the necessary environmentally friendly alternatives.

Other concepts that have great importance in terms of the medical supply chain are “Cold Chain Logistics” and “Storage and Transport of Medicines”.

Cold Chain Logistics: Cold preservation, cold transportation and similar processes that must be applied for the materials that need to be stored in the cold environment to maintain their characteristics at every stage from the production stage to consumption such as shipment, storage and display are called “Cold Chain Logistics”. In addition, cold chain logistics is critical for the processes of storage and transportation of medicines and food. The cold chain starts at the time of production for food and pharmaceutical products. Food or medicine is produced at the ideal temperature and immediately packaged and taken to cold storage. The highest risk in terms of temperature changes in cold chain logistics occurs during the transfer of products from cold storage to transport vehicles, and at the port or airport when they are transported from the cold storage to the ship or plane.

To reduce possible risks, new technological solutions, indicator label systems have begun to be used by manufacturers and transporters. Food and pharmaceutical products that are shipped

internationally are mostly transported by the sea and air. Airport or port transfers are made by refrigerated trucks to maintain the ideal temperature. The cooling capacity of trucks has been designed for this purpose. During the transfer, the outside temperature can vary between -5 celcius degree and 50 celcius degree. In addition, products may be exposed to direct sunlight during their transfer at the port or airport. Under the sun, the temperature can reach up to 80 celcius degree.

The solutions used to maintain the ideal temperature during the sea or air transfer ensure the continuity of the cold chain. If the latest technology cold chain security systems are used during the transfer from the destination to the warehouse, the product quaility is preserved. If the cold chain is broken during all these processes, the drugs become unusable and both waste and energy loss of critical time (thus of lives) can occur as well if we think about the corona vaccination for example.

Storage and Transport of Drugs: Drugs are products that have vital importance to be stored and transported under the right conditions. Ambient conditions during transportation directly affect the drug quality. For this reason, environments in certain temperature ranges should be provided in storage and transportation activities. (Arslan, 2007, p.11) An effective drug transport process must meet the conditions of speed, trust, flexibility and minimum cost. Pharmacological products such as vaccines and biological products are products that must be stored and transported under cold chain conditions. After pharmacological products are produced, they stay in the warehouse for a certain period of time. For this reason, areas defined as depots are of critical importance for drugs. The areas where pharmacological products are stored should be dry, free from dust and dirt, have the features that the protection temperature of the products to be stored can be provided, and at the same time in a segmented structure for storing different products. Products and other auxiliary substances should be prevented from coming into direct contact with the air and sun, and they should be stacked in protective boxes or packages. In storage, the principle of first expired first out (FEFO) should be applied. Products that have expired or become unusable should be quarantined and descriptive labels attached to them. Drugs with narcotic properties should be stored by international rules. In addition, the conditions inside the warehouse should be constantly monitored and regular records of the ambient temperature should be kept. Recorded data should be checked frequently at regular intervals. According to their specifications, pharmaceutical products must be transported by appropriate means. During the transportation of these products, transportation conditions suitable for the storage conditions should be established and breaking of the cold

chain should be prevented. Thermal requirements should be maintained by using one of the methods of dry ice, cryogenic cooling and cold ventilation according to the properties of the products. In addition, freezing and crystallization of products should be prevented, especially in extreme cold weather conditions.

Transport is one of the most important parts of the medical supply chain. Whether or not medical supply products are transported under appropriate conditions cannot be understood from the outside. For this reason, GDP (Good Distribution Practices) is applied in developed countries around the world. Medical supplies should be monitored at every point they pass through during the transportation process. In countries liable to GDP, many standards are applied in the field of transportation, such as storage, temperature control, labeling and etc. GDP refers to guidelines that regulate distribution activities to protect the integrity and quality of medical supply products from the manufacturer to the end user. Due to the complexity and fragmentation of the global supply chain, Good Distribution Practices are also of great importance for the safety and health of patients. According to the GDP, the points that should be considered during moving are as follows:

- Marks of recognition and inscriptions should not disappear.
- The delivered product should not be contaminated with others, and should not be in a position contaminated with other products or materials.
- Adequate precautions should be taken against spillage, breakage and theft.
- The safety of the shipped products must be ensured, and their exposure to unacceptable heat, cold, light, moisture or other unwanted effects or microorganisms or pests or damages must be prevented.

In addition, during transportation, the products must be in the conditions deemed appropriate by the manufacturer. Drugs and immunological products that need to be stored under controlled conditions should be shipped in appropriate cooling systems. During the transportation of products liable to cold chain, necessary precautions must be taken to ensure that these products are stored within the specified temperatures. Transport vehicles should have cold cabinets, cooling cabinets, special heat-insulated containers, and other systems and devices suitable for the purpose, depending on the transportation time and quantity. It must be ensured that systems and devices keep the products in the desired temperature range.

“Storage conditions must be written on the shipping packages clearly and indelibly. If the product is exported, the storage conditions must be written clearly and indelibly and in a language that can be understood in the country of shipment. For the full implementation of the cold chain, the points specified on the packaging of the product must be followed until it reaches the point where the product to be stored in cold is consumed. The maximum period that the product can be stored in the cold chain device to be used for medicines and immunological products (vaccines, etc.) that need to be stored in a controlled manner should be written on the device in such a way that it cannot be erased. Equipment or systems that can work with alternative energies against power cuts should be available as a backup.” (Regulation on Pharmaceutical Wholesalers and Products Stored in Pharmaceutical Warehouses, Official Gazette)

Supply Chain Structure of Healthcare Services

The supply chain structure of healthcare services is shown in Figure 1.1.

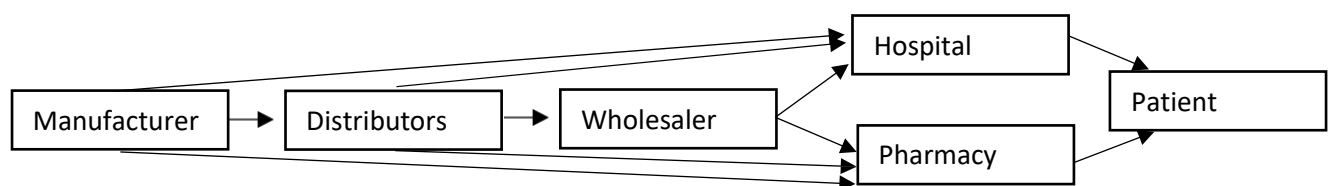


Figure 1.1. Supply Chain Structure in Healthcare (Chakraborty & Zanjurne, 2012)

The main objectives of the supply chain in the health sector are:

1. To provide medical products and materials at the right place, at the right time, in the right amount, in the right conditions, at the lowest cost.
2. Trying to reduce the time and cost of medical products or materials without sacrificing quality.
3. Maximizing the space usable for patient care while minimizing storage space.
4. To increase the quality of patient care.
5. To reduce inventory costs as much as possible.
6. To increase sustainable profitability and competitiveness.

Savings to be made through effective supply chain management will increase the quality of healthcare services by diverting resources to remaining areas. The supply chain in the health sector consists of 7 main processes. These are; demand management, purchasing and supplier relationship management, warehousing, inventory management, distribution, patient relationship management, reverse and green logistics. It is of great importance to manage these processes in an effective and coordinated manner. In all these processes, information, services/materials and cash act within the framework of an internal flow. Products and services are in a flow from manufacturers to health institutions. Health care is in a flow towards the individuals who demand it. Cash flows from individual to healthcare institutions. Information has a two-way flow. Main actors of supply chain management in the health sector; manufacturers, public and private health institutions, pharmacies, private doctor's offices, insurance companies and patients. Many factors affecting the supply chain processes in healthcare organizations. These factors are;

1. Level of knowledge of healthcare professionals about supply chain management.
2. The variety of drugs and materials used and the fact that these various materials have separate shelf lives.
3. Legal regulations.
4. Level of support of top management level to supply chain activities.
5. Coordination and harmony of business processes in the supply chain.

If all these factors are taken into consideration and necessary precautions are taken, business processes in the supply chain are carried out healthily and harmoniously.

Some situations that threaten supply chain management in the healthcare sector are:

1. Shortening of product life due to constantly developing technology,
2. Doctors prefer expensive products,
3. Difficulties in estimating disease types, frequency and duration of treatment,
4. Difficulties in estimating the materials needed for treatment,
5. The products do not have standard codes,
6. Lack of capital required to build the IT infrastructure to support supply chain management activities,

7. Hospital staff don't have enough supply chain management training and knowledge,
8. Insufficient level of senior management support

In the next section, it will be provided a brief overview of important concepts and concerns in logistics.

1.4. LOGISTICS

The word logistics comes from the Greek word "Logistikos". The word Logistikos means "the science of making accounting". According to another common view, logistics is formed by the combination of the words "Logic" and "Statistics" and means "logical account". According to the most common definition, logistics refers to all the processes of a product from the first manufacturer to the final manufacturer, such as transportation, storage, customs clearance, packaging, distribution. According to the Council of Supply Chain Management Professionals (CSCMP), logistics means that "the bidirectional flow of products, services or information in the supply chain between the point of origin and the point of consumption is planned, implemented and controlled in the most effective way to respond to customer needs; it is defined as a part of the supply chain." (TSeng et al., 2005). According to Christopher M. (2011); logistics is "the strategic management of activities such as flow and stocking of raw materials, intermediate products and final products within the supply chain by prioritizing low cost and high profit criteria."

Logistics is included in the literature, as 7R; to provide the right product, at the right place, at the right time, in the right quantity, in the right way, at the right quality and at the right cost.

The concept of logistics has developed rapidly throughout history. Today, the concept of logistics is of great importance for all countries. Many factors have caused the development of the concept of logistics. These factors are as follows:

1. **Globalization:** Along with the gains of globalization, the understanding of trade and competition has also changed. While businesses operate in different countries, they have also started to supply raw materials and materials from different countries and to sell their ready-to-sell final products in various markets. With all these changes, the concept of logistics has gained importance and has a strategic role in the competition.

2. **New Economy Approach:** With the widespread use of the internet today, important changes have occurred in the functioning of the current economic system. Communication has spread rapidly in the new economy thanks to the internet. Thanks to this fast communication, cheap raw materials and materials can be purchased and production can be made in places with a low labor force. In addition, it has become possible to sell final products in international markets. Logistics activities were also affected by the changes brought about by the new economic understanding. This has reduced costs and improved customer service.
3. **Differentiation of Competition:** To survive in the current market, businesses have to offer higher quality products and services than their competitors, make cheaper production, be innovative, anticipate the possible demands of their customers and meet these demands quickly. In this tough competition process, logistics has gained great importance.
4. **Technological Developments:** The fact that the internet can be used for different purposes around the world has enabled both customers and businesses to use the internet for commercial purposes. These changes in technology have affected the logistics industry more than other sectors. Information technology applications are used frequently in all logistics processes. In this way, costs in the operation process are reduced and customer satisfaction increases.
5. **Other Factors:** Other factors contributing to the development of the concept of logistics are as follows: Differentiation in the demand structure, market conditions, existence of developed countries in the field of logistics and differentiating workforce need.

1.4.1. The Importance of Logistics

Nowadays, logistics has turned into a different meaning from military meaning. It is defined as the delivery of goods or services offered by businesses to customers after storage, planning and inspection, at the desired place, at the desired time, in the right manner, in the desired amount and at the right price. Logistics used to act as the delivery of customer orders from the point of view of businesses and was perceived as a reason for the extra cost. As it is understood today, logistics includes many sciences and is a critical and basic function that needs to be prepared and strategies that are critical for its realization. Logistics has reached a critical position thanks to its ability to include activities such as; project management, material management, financial management, decision making, planning, coordinating, information systems, stock

management, order management, stocking, facility location selection and management, handling, demand forecasting, transportation, packaging, etc. In addition, as a service sector, logistics activities have a direct or indirect relationship with other sectors and activities.

Logistics activities add value to the process of generating competitive advantage by “adding benefit”. Logistics provides the advantage of shape thanks to the choice of logistics transport mode, the benefit of space thanks to the movement of products from where it is waste to another place where it can be useful, the benefit of ownership thanks to marketing and sales activity, and time benefit thanks to the storage and delivery of the products at the desired time, amount and place by the customer.

In the next section, it will be provided a brief overview of important concepts and concerns in green logistics.

1.5. GREEN LOGISTICS

Due to industrialization and globalization; there has been a serious increase in environmental problems as a result of many actions such as the spread of toxic gases into the atmosphere, poisoning of soil and water with chemical wastes.

Environmental protection has become an important issue when the damage caused by humans to the environment and the negative consequences of these damages are noticed. Nowadays, businesses have adopted the mission of protecting the environment in addition to industrial activities. Green practices have emerged in the direction of this mission. Recycling and waste recycling, use of environmentally friendly by-products and widespread use of unleaded gasoline can be cited as examples of green practices.

Logistics activities should also be checked to control environmental problems. For this reason, the logistics sector has also moved to nature conscious practices. Green logistics means nature conscious logistics practiced to minimize the negative effects of logistics activities on nature. According to Akbulut, green logistics expresses that “all logistics activities such as storage, packaging, distribution, reverse logistics, especially in transportation activities, in an economically and effectively; being sensitive to the economy, society, environment and nature, harmonious and sustainable”.

Thanks to green logistics, intermodal transportation has become widespread. While the importance of rail and maritime transport has increased, distance limitation and freight consolidation have been imposed on road transport. In addition, environmentally friendly products have started to be preferred in vehicle and fuel selection. Another concept that is of great importance in terms of green logistics is “Reverse Logistics”.

- **Reverse Logistics:** It is the activity of planning, implementing and controlling the effective flow of raw materials, semi-finished products, final products and related information from the consumption point to the manufacturing plant or warehouses to gain value or to destroy them properly. According to Sipahioğlu, reverse logistics is “a broad term that includes the management of activities such as returns, taking the reusable containers to the supplier, removing hazardous or non-hazardous wastes arising from packaging and products, or returning to the market for products that are no longer needed by the user.” (2012). On the other hand, the Council of Supply Chain Management Professionals defines reverse logistics as “planning, implementation, control, cost impact of raw materials, inventory processes, final products and related information flow process with the aim of reclaiming value from the point of consumption to the starting point and disposing of them properly” (CSCMP, 2010). To integrate reverse logistics into green applications, packaging products must be recyclable.

Figure 1.2. shows the stages of green logistics and the operation of the process. After the producer processes the raw materials and materials purchased from the green packer and supplier, they send them to other stakeholders through green transportation and the product is stored through green storage. The product, which is ready for sale, is offered to the final customer through completely green practices.

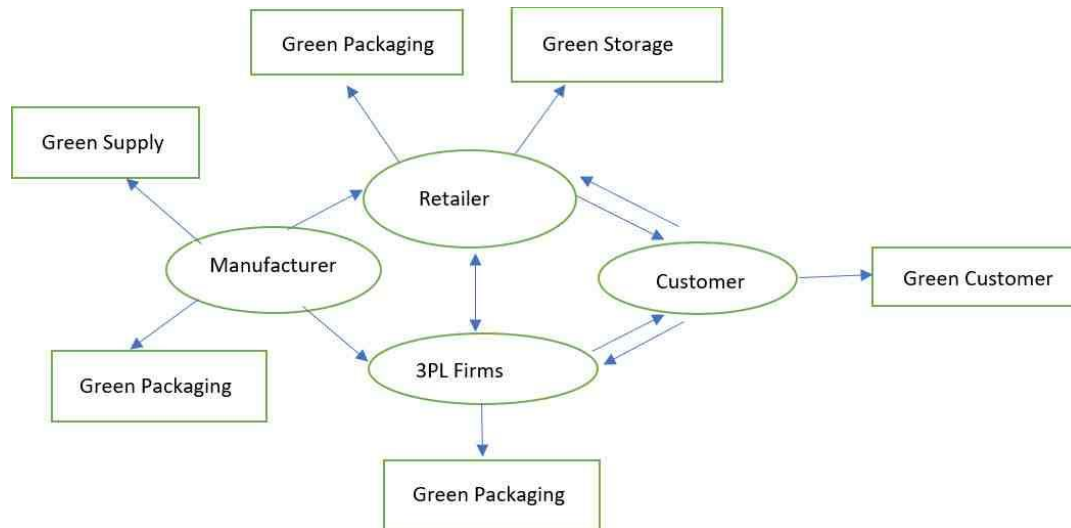


Figure 1.2. Green Supply Chain (Xuezhang et al., 2011)

The things to consider when implementing green logistics applications are as follows:

1. **Green Production:** Green production is a form of production that is carried out without harming nature and in a natural resource friendly manner. It saves energy, reduces waste and decreases production costs due to the possibility of reproduction.
2. **Green Supply:** Green supply is the choice of recyclable, reusable or recycled materials at the time of material purchase. Supplied in this form of procurement must comply with the green logistics procedure.
3. **Green Packaging:** Manufacturers should design environmentally friendly packaging. Retailers should encourage and control the manufacturers in this regard by using their purchasing power. 3PL companies should use recyclable packaging during transportation.
4. **Green Transportation:** Green transportation requires that all transportation activities carried out during the logistics process be sensitive to the environment.
5. **Green Storage:** General needs should be taken into consideration during the storage process and should be treated realistically. While determining the amount of stock, reasonable treatment should be used and unnecessary stocking should be avoided. In addition, it must be guaranteed that the products are safe during the storage process. In this way, waste and the high costs it creates are prevented.

6. **Green Reverse Logistics:** Packaging products must be recyclable in product distribution and delivery processes. The recycling of used equipment and packaging should be provided by the retailer or 3PL companies and made ready for reuse by the manufacturer.
7. **Green Marketing:** By introducing green logistics practices to the customers, the company becomes the preferred company by the customer. Today, consumer awareness continues to increase rapidly in the areas of sustainability and social responsibility. In this way, companies using green logistics come to a position that can be easily noticed by customers.

Businesses should increase their awareness about green logistics. Protecting nature is a social responsibility. For this reason, businesses should turn to this issue for the development of green logistics.

In the next section, it will be provided a brief overview of important concepts and risks in medical waste logistics.

1.6. MEDICAL WASTE LOGISTICS

Medical waste is medical and pathological wastes from related units during health-related diagnosis and treatment activities, wastes from pharmaceutical production and infected or cutting piercing wastes. Wastes generated in medical enterprises are divided into three categories. These can be listed as; domestic waste, medical waste and hazardous waste. Medical waste and hospital waste are two concepts that are often confused. While hospital waste includes all waste originating from medical institutions, medical waste constitutes only a part of this.

Domestic Wastes: About 75%-90% of medical wastes consist of domestic wastes. Wastes in this group can be viewed as non-risky general wastes. The waste in this section usually comes from the administrative departments of the medical institutions. Domestic wastes are divided into two groups. These; general waste and packaging waste. General wastes include non-hazardous wastes from parts such as areas where people are not sick, kitchen, cleaning works. Packaging wastes are plastic, glass, metal and paper packaging wastes that are not contaminated, suitable for reuse, and suitable for recycling. For example; plastic bottles, beverage cans, etc.

Medical Wastes: These are wastes originating from medicine, healthcare equipment, operation or treatment used in health centers. Medical wastes are divided into three groups. These; infectious wastes, pathological wastes, and cutting-piercing wastes. Infectious wastes include laboratory wastes, blood, blood-products, used surgical clothes, dialysis wastes, quarantine wastes, bacteria or virus-containing air filters, infected test animal parts and everything that comes into contact with them. Pathological wastes include anatomical wastes consisting of tissues, organs, body parts and guinea pig carcasses. Cutting-piercing wastes contain cutting or piercing wastes that cause injury. For example; needles, blades, scalpel, broken glass, etc.

Hazardous Wastes: These are wastes that need special processes due to their physical or chemical properties or legal reasons. For example; hazardous chemicals (formaldehyde, organic chemicals, inorganic chemicals, etc.), cytotoxic and cytostatic drugs, amalgam wastes, pharmaceutical wastes, wastes containing heavy metals and pressure vessels.

If medical waste management is not done well, it can pose serious risks in terms of human health and the environment. For this reason, hospital waste should be separated and collected at the very beginning of the process. Later, these wastes must be properly transported and stored by classifying them according to their types until disposal. Finally, it must be disposed of properly. All this process should be carried out by following per under the “Medical Waste Control Regulation” published in the Official Gazette.

Waste disposal is among the most important environmental problems recently. Although medical waste does not have a very important position in terms of volume, it is of great importance for human life due to its structure. Medical waste constitutes an important part of infectious diseases. It also poses a potential threat due to its pathological features. Successful medical waste management is needed to minimize these hazards.

The most important place where medical waste is generated in hospitals. There is more medical waste than necessary due to the lack of education of the hospital staff about medical waste and the insensitivity of the people about medical waste. Mostly, wastes are stored without any process. Failure to pay the necessary attention to medical waste management is most threatening to human life. Considering these dangers, controlling medical wastes is of critical importance for human health and the environment.

In the next section, it will be provided a brief on the importance of green logistics in the medical supply chain.

2. THE IMPORTANCE OF GREEN LOGISTICS IN THE MEDICAL SUPPLY CHAIN

User expectations and competition have increased with the innovations provided by globalization. Therewithal, economic pressures and legal obligations have directed all institutions to use green logistics practices. Green logistics is to work by meeting both customer needs and legal obligations within the supply chain. For this reason, national and international legal obligations ensure that businesses are sensitive to the environment in their fields of activity. In addition, thanks to internal and external environmental pressures, the environmental awareness of enterprises has increased significantly.

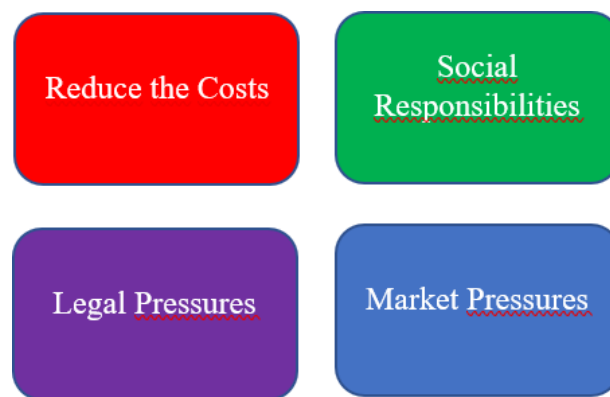


Figure 2.1. Pressures of Green Practices on Businesses (G. Yayginlar & K. Sari, 2017)

As seen in Figure 2.1.; cost reduction, social responsibility, legal pressures and market pressures are factors driving businesses to green logistics. With the effect of these factors, most sectors are turning to green practices. Green practices have gained critical importance, especially in the medical supply chain. For healthcare enterprises to achieve success in supply chain management, they must be aware of their responsibilities towards the environment and fulfill these responsibilities. Therefore, green supply chain management has become critical for healthcare enterprises.

The rate of energy and water consumption is high in health institutions. There is a large amount of chemical and non-chemical waste. For this reason, the potentially hazardous material output is high. In addition, the variety and number of goods purchased are very high. The limited resources of health institutions and the inadequacy of waste storage and disposal areas create a serious risk for the sector. In addition, the education level of the relevant personnel on hazardous

material use-waste management and incentives for the use of renewable energy is insufficient. Due to all these problems, the concept of green logistics has come to the fore in the health sector.

Processes that implement green logistics practices; constitute a business area that ensures the recycling process, reuses materials and materials, reduces waste output and creates a cleaner air space for the environment thanks to various filtering methods. Green logistics management in health institutions is a continuous improvement process. Production processes that can recycle or preserve natural resources should be carried out in health institutions. In addition, environmentally friendly technologies, reduce energy consumption and minimize the generation of harmful waste to the environment should be preferred. Today, many healthcare organizations do not use renewable resources (solar panels, wind panels) to save energy. In addition, choosing energy-efficient products while purchasing medical devices and other electronic items will save energy and costs throughout the product life cycle. “Studies show that; healthcare enterprises that work effectively for energy efficiency provide energy savings between 25% and 45%. For example, smart room heating and cooling systems provide an average of 25% energy savings in healthcare enterprises.” (Technical Assistance for Increasing Energy Efficiency in Buildings, 2016) In addition, these systems not only save energy but also reduce gas emissions sustainably and increase patient comfort and operational value.

Many materials used in health institutions harm the environment. For example, many healthcare organizations use nitrile gloves instead of latex gloves, as they cause allergies in staff. However, if natural rubber latex gloves are used instead, both the allergy problem will be eliminated and the natural rubber latex glove can be recycled because it is an environmentally friendly product. Another example is the mixing of toxic gases found in healthcare waste into the air. The disposal of mercury-containing products used in healthcare facilities is a very dangerous process. Mercury, which is released from the incineration of waste, mixes with air, soil and water and threatens human and environmental health. Along with all these, plastic waste poses a high threat to environmental health. High amounts of plastic products are used in healthcare enterprises. Hospital managers, of course, know that the waste from these products is harmful to human and environmental health. However, the only reason for using these plastic products instead of environmentally friendly products is to reduce costs. Costs are increasing because environmentally friendly products used instead of plastics are often disposable. Healthcare enterprises continue to use plastic, even if it is harmful, as it is approached on a cost basis while purchasing. Today, many health institutions implement only the laws and regulations of the

Ministry of Health regarding waste management and green practices. They do not implement any green practices other than legal obligations. The most important environmental problem of health institutions is medical waste management. The most effective way to reduce medical waste is to prevent waste generation. Many healthcare institutions do not have any mechanism to avoid medical waste generation. Especially due to the excess supply made to avoid the possible risks of the health sector, many products are deteriorated due to time. (vaccines, medicines, etc.) For this reason, both the medical waste output increases and the products that are spoiled before being used create an unnecessary cost to the institution.

Reuse of surgical scrubs and reusable materials and equipment after proper sterilization reduces both the amount of waste and hospital costs.

Many healthcare institutions provide food and beverage, accommodation, etc. in addition to medical services. It also provides additional services. For this reason, the recycling of not only medical products but also all suitable products is of great importance in terms of environmental health. However, staff and patients do not show the necessary care for recycling. In hospitals with recycling bins, it is observed that these bins are used contrary to their functions and the classification of wastes is unsuccessful. In addition, medical business managements prefer to store scrapped fixtures instead of recycling them.

Thanks to green supply chain practices such as green purchasing and reverse logistics activities within the green supply chain, the damage caused by waste from health institutions to nature are minimized. In addition, monitoring the green supply chain process instills awareness of social responsibility in medical enterprises. In addition to all these positive effects, the supply costs of medical enterprises are reduced thanks to reverse logistics activities. In this way, they gain competitive power in the market by making a profit. Considering all these reasons, medical enterprises should carry out all processes such as purchasing, storage, product management by the green supply chain functions and carefully implement reverse logistics activities. In this way, they can have a management that is sensitive to nature and has a lower cost without harming the environment.

In the next section, it will be provided brief information on the green practices in the medical supply chain.

2.1. GREEN PRACTICES IN THE MEDICAL SUPPLY CHAIN

Today, the health sector constantly renews itself to adapt to the developing world. As a result, environmentally friendly service delivery has become an important factor in addition to all the quality elements of healthcare enterprises that have become competitive.

Considering the green practices existing in the medical supply chain, it is seen that there are only studies on the transition of hospitals and the pharmaceutical sector to green practices, which are a partial part of the chain.

In this sense, the concept of “green hospital” has emerged as a practice of great importance in terms of environmental health. Thanks to the green hospital system, healthcare enterprises can use environmentally friendly resources and make the use of energy, water and materials more efficient. In addition to all these, thanks to the green hospital system, an environmentally friendly building design is made and an environmentally friendly area of use is provided throughout the service period.

In addition to the green hospital concept, “Medicine Tracking System” continues its existence as an important green practice. Although the Pharmaceutical Track and Trace System is mainly due to legal reasons, it is seen to be a useful green practice as it provides many benefits in drug production and waste.

The riskiest link in the medical supply chain is waste. The use of UATF (National Waste Transportation Form) is of great importance to minimize these risks and prevent the damage of wastes to nature. Waste management can become safer thanks to this practice, which provides safe and environmentally friendly transportation when used in accordance with the procedure.

In addition, covering the roofs of pharmaceutical stores with “Ultra White Paint”, although it has little usage area, provides a great deal of energy savings. Ultra white paint, which can be applied to roofs and buildings in general, is a promising practice, especially in cold storages, as it provides great energy savings.

2.1.1. Green Hospital

Green hospital is the general name of hospitals that produce alternatives for resource use; use energy, water and materials more efficiently; reduce waste in health institutions or design environmentally friendly buildings and remain environmentally friendly during their service. Green hospitals are placed around an environmentally friendly facility. These facilities recycle,

reuse products and materials, reduce waste and provide cleaner air space for the environment by reducing gas emissions. Apart from the benefits of green hospitals to the environment, there are also psychological benefits for inpatients. These patients feel better emotionally, use less medication and are discharged in a shorter time.



Figure 2.2. Benefits of Green Hospitals (Environment Science Center, 2003; Carpenter and Hoppszallern, 2010; GE Healthcare, 2008)

As seen in Figure 2.2., the concept of green hospital makes many contributions to healthcare enterprises in different areas. These contributions are as stated below.

Green Building Design: Green buildings are the common name of buildings that use their resources with maximum efficiency within the framework of community and environmental awareness throughout their lifecycle. Thanks to green buildings, the use of solar energy increases, plants and trees are used in the construction of green roofs, water savings are achieved thanks to rain gardens and waste water recovery pumps. Highly recycled materials are used in the construction of green buildings. The benefits of green buildings are: effective technologies, easy and low-cost maintenance, high air quality, energy efficiency and tax incentives.

Energy Management: Healthcare enterprises consume more energy than offices or residences. To ensure energy management in health institutions, first of all, the department and equipment consuming the most energy within the institution are determined. Then, an energy saving plan

is created for these regions and the equipments that will save energy are purchased. Finally, a procedure is created in accordance with this plan and equipment, and the necessary inspections are increased and effective energy management is carried out. Suggestions for energy saving are as follows: solar panels installed to produce solar energy, lighting systems suitable for energy saving, heated windows used to reduce heating costs, natural ventilation systems to be installed instead of mechanical ventilation systems and thermal insulation of the business building.

Water Management: Water, which has a critical importance for environmental health, is used in many different areas in health institutions. Health institutions should ensure water management, take care to use water resources efficiently, ensure the recycling of waste water and control the water cycle. To realize this management, first of all, the regions where water is used and the amount of water use in the health facility should be determined. Later, necessary methods should be arranged to minimize unnecessary water usage. Examples of these methods are: to set up an automatic water volume control mechanism to determine water consumption, to reduce water consumption with smart showers and to make appropriate system setups to accumulate rainwater.

Prevention of Air Pollution: Healthcare enterprises create a high amount of air pollution due to the high rate of chemical use and toxic gases generated during the disposal of medical wastes. For this reason, health institutions should use an effective system to increase air quality. In addition, other measures that can be taken by healthcare enterprises to prevent air pollution are: to plan the necessary heat and energy consumption to minimize CO₂ emissions, to minimize the use of oxide gas, to use anesthesia without a mask, to carry out regular leakage control for the equipment used and the connection points of this equipment, to build the waste disposal facilities in accordance with the relevant regulations and to destroy the ashes of the waste disposed of by incineration using appropriate methods.

Waste Management: The issue of waste management has become more controversial and costly than ever before in the world. The reason for this situation is the lack of space in the waste storage and disposal departments and the awareness of end consumers about environmentally friendly practices. For all these reasons, waste management has become an inevitable necessity. The points to be considered for efficient waste management are as follows: waste management officer should be determined, wastes should be identified, wastes should be classified, necessary preliminary processes should be carried out, recyclable wastes should be forwarded to the recycling unit, non-recyclable wastes should be forwarded to the disposal unit,

relevant regulations should be recorded and all this process should be supported by appropriate trainings. To implement all these activities, healthcare enterprises with 20 beds or more in Turkey have to form a unit named “environmental management unit”. (Regulation on Environmental Officer, Environmental Management Unit and Environmental Consultancy Firms, 2013) These units are responsible for the preparation and supervision of the waste management plan required by the health institutions.

Nowadays, increasing diseases, ecological degradation, climate change and the use of non-renewable resources threaten the future of the world and the human race. Health institutions aiming to treat human health cause great damage to environmental health while doing this. Health institutions have very high energy consumption and waste output rate compared to other businesses. Green hospital practices are a new hope for the health sector, both to protect environmental health and to reduce costs. Thanks to green hospital practices, energy costs can be reduced, waste can be prevented, and environmental and human health can be maximized by using renewable resources effectively.

2.1.2. Pharmaceutical Track and Trace System

“Pharmaceutical Track and Trace System is the integrated version of the Tracking and Tracking system that dominates many sectors worldwide. Turkey became the first country to develop and implement the drug tracking and tracking system software. The Ministry of Health has launched a project to track and trace drug dispensing due to price speculation, the total amount of money spent on pharmaceutical companies predominantly by government agencies, or the need to control drug use, especially over the counter.” (Dinc, K. 2017) Thanks to the barcodes on the medicine boxes, the information and movements of the drugs can be monitored instantly. Although the Pharmaceutical Track and Trace System is basically created to combat improper trade, reimbursement fraud, illegal drug use, etc., it has many benefits in terms of green practices. Thanks to the opportunity to monitor the expiry date information, it has been ensured that the drugs that are about to expire are primarily used. In addition, since the Pharmaceutical Track and Trace System is a practice that supports smart drug use, it prevents wasteful resource consumption such as unnecessary drug use and unnecessary injections. Again, thanks to this system, drug wastage can be prevented since the access times of the users can be determined.

2.1.3. National Waste Transport Form (UATF)

UATF is a form used in the transportation and disposal processes of hazardous wastes. Due to the content of medical wastes, the use of this form is of critical importance in the medical supply

chain. During the filling in the form, all information about the waste, transportation conditions and the points to be considered are recorded. In this way, waste management is done as it should be and the process is easily followed by the relevant people. This form, which has been used in print for many years, has been transferred to digital media as a code via the Waste Management Application MoTAT software as of 2018. Thanks to this system, the relevant persons will have an automatic transport code via the MoTAT software. Thanks to UATF, the risks that may arise from wastes are minimized, and thanks to MoTAT, paper waste caused by printed forms is prevented.

2.1.4. Ultra White Paint

It has been known for many years that the use of white paint is an effective way to cool buildings. According to a study conducted at UCLA, ultra white paint has the capacity to reflect 98% of the sun-induced heat. When ultra white paint is used on large surfaces of roofs and buildings, it can greatly reduce the energy used for cooling and the costs resulting from this use.

In addition to the high cost of cooling systems, they cause high carbon dioxide emissions. The most suitable way for a sustainable cooling system is to use passive radiative cooling. Passive radiative cooling; by painting the building and roof surface white, it reflects and radiates the heat away. Thanks to the sunlight reflecting feature of the white color, cooling is provided.

The solar radiation reflectance rate of the white paints used was determined to be 85% at maximum. However, research shows that using components such as barite and polytetrafluoroethylene (Teflon) instead of titanium oxide used in the paint content provides better UV light reflection and better cooling. The paints produced in this way have the capacity to reflect 98% sunlight.

The paint and coating industry can quickly replace components with white paints. The widespread use of this application, especially in buildings that use high energy for cooling, such as pharmaceutical warehouses, will provide significant energy and cost savings.

As can be seen, green practices in the medical supply chain are still at a very insufficient level. The aim of this study is to ensure the widespread use of green practices in the medical supply chain by providing appropriate incentives and legal recommendations that will direct institutions to green practices. To leave a livable world to future generations, the medical supply chain, like all sectors, must integrate green practices into the chain.

In the next section, it will be provided a brief on the current incentives and laws for green practices in the medical supply chain.

2.2. CURRENT INCENTIVES AND LAWS

Incentives and laws have an undeniable power to promote green practices. Procedures such as establishing a new energy system, integrating the waste system into green practices and providing necessary training to employees can create a serious cost for businesses at the initial stage. Of course, as these systems are used, they can meet the costs incurred by reducing the costs. However, nowadays many businesses need government support for such a major change as they are cash shortage. With the changing world order, green practices are supported by incentives and laws in many sectors.

It is very important that the activities in the medical supply chain are supported by incentives and laws. In this way, the health sector can make great contributions to environmental health as well as human health.

2.2.1. Incentives and Laws in the World

There are various certification systems and various regulations to promote green practices around the world. Certification systems are often associated with the concept of the green hospital. As the main certification systems; BREEAM, LEED, DGNB and Australian Green Star. Companies with these certificates are more preferred by conscious consumers. In addition, various government projects are required to be certified for participation. In addition to these, some countries have required these system evaluations for newly built structures. Regulations related to the medical supply chain; PGEU Attitude Document, EU Waste Prevention and Management Policy and World Health Organization Medical Waste Principles.

2.2.1.1. BREEAM Certificate System

The BREEAM system is the first green building certification system created in England in 1990. The BREEAM system forms the basis of many green building certification systems that exist today. While the BREEAM system was used by 77 countries in 1990 when it was created, the only country that uses this system today is England.

“The BREEAM system evaluates structures in different categories as site pollution and ecology, management, energy, health and comfort, transportation, water, materials, waste, pollution, risk and innovation. As a result of this evaluation, the BREEAM grade of the building is determined and the certification process begins according to these grades. A structure is evaluated over 110 points according to the BREEAM system. Based on this assessment, there are six different degrees and certificates. Buildings with a level of 30-44% are “Passing”, 45-54% are “Good”, 55-69% are “Very Good”, 70-84% are “Excellent” and buildings with a level of 85-110 are entitled to be in the “Extraordinary” class.” (European Journal of Science and Technology, 2019) The BREEAM certification system is not actually an incentive specific to the medical supply chain. However, it is a good example of incentives in terms of medical supply chain as it covers hospital buildings like all buildings. In addition, since the BREEAM system can be revised according to the country in which it is located, it can be more successful in dealing with the problems of that country. Thanks to the BREEAM system, organizations increase the brand value in the eyes of the customers, provide their employees with a more efficient and healthy work environment, indicate that they are aware of their social responsibilities, and reduce their costs thanks to the savings that are the return of green buildings.

2.2.1.2. LEED Certificate System

The LEED certification system was created in 1998 by the USGBC in America. The LEED certification system is used in more than 150 countries today. The purpose of this process is to create a sustainable system in energy and environmental issues.

“The LEED system evaluates buildings in different categories as innovation and local priority, sustainable land, water efficiency, energy and atmosphere, materials and resources, and indoor environment quality. According to this evaluation result, the LEED grade of the building is determined and the certification process starts according to this grade. A structure is evaluated over 110 points according to the LEED system. There are four different degrees and certificates based on this assessment. Buildings at the level of 40-49% are classified as “Certified”, 50-59% as “Silver”, 60-79% as “Gold”, and 80-110% as “Platinum”.” (European Journal of Science and Technology, 2019)

The LEED certification system is not actually an incentive specific to the medical supply chain. However, it is a good example of incentives in terms of medical supply chain as it covers hospital buildings like all buildings. Thanks to the LEED system, organizations increase the

brand value in the eyes of the customers, provide a more efficient and healthy work environment to their employees, indicate that they are aware of their social responsibilities and reduce their costs thanks to the savings that are the return of green buildings.

2.2.1.3. DGNB Certificate System

The DGNB certification system was created by the Sustainable Building Council in Germany in 2008. Although conformity assessment and certification processes are carried out in Germany, the DGNB certificate is valid in all countries. What distinguishes the DGNB system from other certification systems is that it pays attention to environmental and sociocultural quality standards.

“DGNB system evaluates structures in different categories as land, process, technology, socio-cultural and functional group, economy and ecology. According to this evaluation result, the DGNB grade of the building is determined and the certification process starts according to this grade. A structure is evaluated over 110 points according to the DGNB system. There are four different degrees and certificates based on this assessment. Buildings with a min level of 35% are entitled to be in the “Certified” class, buildings with a min level of 50% as “Bronze”, a min 65% level in “Silver”, and the buildings with a min level of 80% in the “Gold” class.” (European Journal of Science and Technology, 2019)

The DGNB certification system is not actually an incentive for the medical supply chain. However, it is a good example of incentives in terms of medical supply chain as it covers hospital buildings like all buildings. Thanks to the DGNB system, organizations increase the brand value in the eyes of the customers, provide a more efficient and healthy work environment to their employees, indicate that they are aware of their social responsibilities and reduce their costs thanks to the savings that are the return of green buildings.

2.2.1.4. Australian Green Star Certificate System

The Australian Green Star certification system was created by GBCA in Australia in 2003. Conformity assessment and certification are handled by GBCA, but Australian Green Star certification is valid in all countries.

“The Australian Green Star system categorizes buildings as ecology, emissions and innovation, management, process, indoor quality, energy efficiency, transport, water efficiency, material use and space use. According to this

evaluation result, the Australian Green Star grade of the building is determined and the certification process starts according to this grade. A structure is rated over 100 points according to the Australian Green Star system. There are six different degrees based on this assessment. Min 10% level structures get 1 star and are defined “Lowest Application”, Min 20% level structures get 2 stars and defined “Average Practice”, Min 30% level structures get 3 stars and are defined as “Good Practice”, Min 45% level buildings get 4 stars and are defined “Best Practice”, Min 60% level structures get 5 stars and are defined “Excellent Practice for Australia”, Min 75% level structures get 6 stars and are defined “Leading Application In The World”. According to this rating system, structures with 1-3 stars cannot receive a certificate. Structures between 4-6 stars are certified according to star levels.” (e-Journal of New World Sciences Academy, 2012)

The Australian Green Star certification system is not actually an incentive specific to the medical supply chain. However, it is a good example of incentives in terms of medical supply chain as it covers hospital buildings like all buildings. Thanks to the Australian Green Star system, organizations increase brand value in the eyes of customers, provide employees with a more efficient and healthy work environment, are aware of their social responsibilities and reduce costs thanks to the savings that are the return of green buildings.

In addition to these certification systems, there are green building certification systems established in other countries and the number of these systems is increasing day by day. Also, in some countries such as Dubai, it is mandatory to use a green building assessment system for newly built buildings.

2.2.1.5. European Union Pharmacy Group (PGEU) Attitude Certificate

PGEU is a community representing freelance pharmacists in many different countries. Today, the purpose of PGEU is to follow the practices of the European Union in the fields of health and pharmaceuticals and to ensure that these practices are put into practice.

After the troubles caused by the COVID-19 pandemic, PGEU has decided to take more innovative actions and set some targets. Among its goals are to reduce the negative impact of drugs on the environment. To achieve this goal;

- Ensure adequate funding for pharmacy-managed disposal and collection systems for medicines at national/regional level, if applicable, as an easily accessible channel for the public to properly dispose of residual or expired medicines.
- Reducing pharmaceutical waste from drug residues by ensuring that systems are in place to encourage the delivery of certain risky drugs as closely as possible to the duration of treatment.
- Fund further research to fill gaps in knowledge about the potential adverse effects of drugs on the environment and the links between the presence of antimicrobial agents in the environment and the development and spread of antibiotic resistance.
- Developing and complying with environmental quality standards for pharmaceuticals as a measure to encourage greener production.

It was stated that such actions should be taken. Although these actions have not been implemented yet, the targets set are promising for the green medical supply chain.

2.2.1.6. EU Waste Prevention and Management Policy

With the changing world order, consumption habits have changed rapidly since the 1990s and there has been an incredibly rapid increase in the amount of waste worldwide. This increase in the amount of garbage has increased air, water and soil pollution. For this reason, a successful waste management policy was needed.

In line with this need, the EU has added waste management to its Sixth Environmental Action Plan priorities and focused on measures aimed at preventing waste at its source. Apart from the prevention of waste, recycling incentives, use of waste as a resource, resource efficiency and sustainable growth objectives are the main elements of the EU waste management policy. For these purposes, the 6th EAP recommended the following measures across the EU for waste management:

- “• Hazardous materials should be identified, the wastes should be collected, processed and recycled by the manufacturer.
- Consumers should be encouraged to choose products and services that generate less waste or more environmentally friendly.
- A strategy should be developed to compare progress on waste recycling across the European Union, including the establishment of a monitoring system and related targets.

- Markets should be developed for the widespread use of recycled materials.
- Certain actions should be supported under the Integrated Product Policy to promote green products and processes.

This approach offers new methods to struggle the waste problem in addition to the mentioned suggestions. These methods are as follows;

- Relevant legislation should be implemented.
- Environment issues should be placed at the center of policy making.
- It should be worked with the market.
- People should be helped to make environmentally friendly choices.
- Lands should be used more efficiently.

Legal regulations made in the last 10 years across the EU are shaped by this approach.” (Environment 2010: Our Future, Our Choice; Sixth Environment Program (6th EAP); 2010)

Although these regulations are not specific to the medical supply chain, considering the great importance of wastes in the medical supply chain, it can be seen that these regulations will be of great benefit.

2.2.1.7. World Health Organization (WHO) Medical Waste Principles

The World Health Organization has a very important position in terms of issues and practices related to the health sector. For this reason, WHO has various principles regarding medical waste management. These principles can be listed as follows:

- Preventing risks caused by exposure to medical waste for healthcare professionals and society by developing environmentally friendly management policies for waste.
- To support global studies on reducing toxic gases emitted into the atmosphere
- Supporting the agreements on organic, hazardous and other wastes in the world
- Reducing toxic waste emission during the incineration process

Due to the position of WHO worldwide, these principles have an important place in medical waste regulation.

2.2.2. Incentives and Laws in Turkey

When looking at Turkey, it is seen that the only program specific to the medical supply chain is the SEVER project. In addition, there are environment and energy incentive programs supported by TTGV and EU funds. These programs; Environmental Technologies Support, Energy Efficiency Support, Renewable Energy Support and Smart Energy European Program (IIE). Although these programs are not specific to the medical supply chain, they are promising programs that can be adapted to the medical supply chain in terms of content.

2.2.2.1. Energy Efficiency in Health (SEVER) Project

“Energy Efficiency in Health Project was created in cooperation with the Ministry of Health, the Ministry of Environment and Urbanization, and the Ministry of Energy and Natural Resources to save energy in public hospitals. With this project, it is aimed to save both electricity and water. The main objectives of the SEVER Project are; minimizing energy losses, managing and monitoring energy consumption. Thanks to this project, it is aimed to make insulation in hospitals, to use heat and light efficient glasses and to replace lighting fixtures with economical ones. In addition to saving electricity, in order to save water; it is planned to replace the water armatures and coils in use with energy-efficient and photocell armatures. Apart from these targets, it is planned to install necessary fuel saving devices on boiler systems and to carry out related monitoring for fuel saving.

“Energy Efficiency in Health and Resource Development Workshop” was held in June 2012 within the scope of SEVER Project. Within the scope of the workshop, alternative energy (electricity-natural gas) supply methods, fuel/ heating systems, cooling/air conditioning ventilation systems, heat insulation systems, electricity and lighting systems, the energy efficiency of medical devices, green building applications, use of renewable energy sources (solar, wind, etc.), oxygen production and medical waste issues have been studied with the related devices (medical oxygen concentrator).” (Energy Efficiency in Health Workshop Final Report, 2012).

2.2.2.2. Environmental Technologies Support

The aim of this program is; with its clean and sustainable production approach, it supports clean production technologies in terms of application, which includes technological innovations suitable for minimum energy, water, raw material consumption and waste generation

throughout the production processes. Possible project topics that can participate in this program are;

- Reducing wastes at their source/converting them into production (recycling and recovery)
- Reducing water consumption or wastewater generation at source (water saving, wastewater recovery)
- Reduction of emissions at source (such as combustion process optimization)
- Reducing raw material consumption
- Switching to the use of non-hazardous or low-hazardous chemicals
- Reducing oil consumption/waste oil generation
- Using environmentally friendly technologies in energy production and use
- To generate new products/fuel/energy from wastes (such as organic waste)
- Environmentally friendly product production
- Industrial ecology (such as physically close structures using each other's waste or waste heat)
- Carbon capture and storage systems

Businesses and structures that have projects on the specified issues can benefit from this incentive program and realize their transition to nature-friendly technology systems by reducing their cost burden.

2.2.2.3. Energy Efficiency Support

The aim of this program is; to maintain competitiveness in sectors with high energy use, to reduce external dependency and greenhouse gas emissions, and to support projects and applications for energy efficiency. In addition, this program aims to contribute to the realization of the energy efficiency goals and targets set by the Energy Efficiency Law and Energy Efficiency Regulation. Possible project topics that can participate in this program are;

- Improving steam generation and distribution systems
- Improving combustion (boiler, furnace, etc.), heating and cooling systems
- Saving electricity through system optimization of devices such as fans, pumps, compressors, etc.

- Making the production technologies used more efficient
- Evaluation of waste heat
- Process and operation optimization, such as shortening production times, lowering temperature or pressure levels, etc.
- Increasing electricity generation efficiencies, generating electricity and heat together

Businesses and structures that have projects on the specified issues can benefit from this incentive program and realize their transition to energy efficiency by reducing their cost burden.

2.2.2.4. Renewable Energy Support

The aim of this program is to support the reduction of greenhouse gas emissions by supporting energy generation and related investment projects through renewable energy sources such as wind, solar, biomass, biogas and geothermal, etc. Possible project topics that can participate in this program are;

- Electricity generation from renewable energy sources
- Renewable energy production and storage
- Wind farms
- Biogas and heat, electricity production from organic wastes
- PV (photovoltaic) systems
- Geothermal power plants
- Hybrid systems
- Solar cooling technologies
- Underground thermal energy storage and use of ground heat

Businesses and structures that have projects on the specified issues can benefit from this incentive program and realize their transition to renewable energy by reducing their cost burden.

2.2.2.5. Smart Energy Europe Program

“The aim of this program is to take measures to increase energy efficiency in all sectors, to encourage the use of renewable and efficient energy, to increase the rational use of energy resources and to increase energy efficiency, to encourage

the diversification of energy resources, and to encourage energy efficiency and the use of new energy resources in the field of logistics. In the program goals; at least 20% less greenhouse gas emission, 20% better energy efficiency, increasing the amount of renewable energy in the whole range of energy to 20%, 10% of the fuel used in the transportation sector is biofuel.” (European Union Programs, 2007-2013)

Thanks to this program, businesses can reduce their cost burden and at the same time create a healthier supply chain system for the environment.

2.2.2.6. Medical Waste Legislation

Medical waste regulation in Turkey primarily includes the classification and definition of wastes. Later, these wastes are divided into two separate groups as “Hazardous Wastes” and “Non-Hazardous Wastes”. As can be seen in the regulations, medical wastes are in the hazardous waste group. After grouping, medical wastes are defined, collected, transported, disposed and managed in accordance with the provisions of the “Medical Waste Control Regulation”. In addition, the “Polluter-Pays” principle in force in Turkey forms the basis of many regulations. According to this principle, “Expenses for the prevention, limitation, elimination of pollution and degradation and improvement of the environment are covered by the polluter or the one causing the degradation. Necessary expenses incurred by public institutions and organizations due to the fact that the polluter does not take the necessary measures to stop, eliminate or reduce the pollution or degradation, or these measures are taken directly by the competent authorities, are collected from the polluter in accordance with the provisions of Law No. 6183 on the Procedure for Collection of Public Claims.” (Environmental Law, 1983) With this principle, it is guaranteed that the institution generating the waste pays the costs themselves. With this practice, it is aimed to reduce the costs of combating environmental pollution and to make institutions more sensitive to the environment for fear of costs. In addition, Turkey is in the process of transition to “Zero Waste” regulation, which aims to prevent waste, use resources more efficiently and reduce the amount of waste generated. According to the decision taken by the Ministry of Environment, this transition period is aimed to be completed by 2023. The fact that this regulation, which is widely used in the world and has positive effects, will be implemented in Turkey is a promising development.

Recently, there have been many developments regarding green practices in the world and Turkey. Some of these developments can also be applied to medical supply chain processes.

However, many possible incentives and laws can be enacted to create a more environmentally friendly medical supply chain. These suggestions will be discussed in the following sections.

In the next section, it will be provided a brief on the reasons of current incentives and laws not sufficient.

2.3. REASONS OF CURRENT INCENTIVES AND LAWS NOT SUFFICIENT

Green practices are of undeniable importance in the medical supply chain. Today, green practices have gained importance in all sectors as a result of reasons such as the industrializing world, increasing population, changing consumer perceptions and gradually decreasing energy resources and increasing environmental pollution. The need for green application in the sector is high, especially due to the importance of the medical supply chain for human health, its complex structure and high energy consumption. Since the process of transition to green practices requires costly investments and changes, it is very unlikely that businesses can do these processes without support or with their own preferences. For this reason, incentives and laws are of great importance for the transition to green practices.

Most of the incentives and laws that exist in the world today are generally comprehensive. The number of incentives and laws specific to the medical supply chain is extremely insufficient. Certification systems are at the top of the medical supply chain incentive applications. However, these systems only cover hospital buildings. However, green practices are needed in all processes in the medical supply chain. Green building certification systems are mostly voluntary practices. For this reason, their sanction power is weak. Although it is mandatory to use these systems for new buildings in some countries, necessary actions should be taken to spread these applications. Another important application is the PGEU stance document. With this document, PGEU has set targets to reduce the negative effects of drugs on the environment. This promising study covers the pharmaceutical sector, which is only one link in the medical supply chain. In addition, only pharmacists participating in the PGEU community adopt these goals. In addition, the necessary actions for these goals have not yet been implemented. Another important application is the EU Waste Prevention and Management Policy. Although these practices seem successful on paper, they are only incentive-oriented and could not be implemented. These practices, which pose great risks to the environment such as waste management, must be guaranteed by laws and strictly controlled. In addition, these practices

should be developed by taking advantage of developing technologies and waste output should be minimized and damage to nature should be prevented. Although the WHO waste principles contain promising developments, they lack sanctions. In addition, since there are pre-development processes for some principles, they still have points open to improvement.

Considering Turkey specific, it is an undeniable fact that the SEVER Project will provide many benefits in terms of the environment. However, the project could not show its potential benefits due to the lack of enforcement power and the slow progress of the implementation. Although the Environmental Technologies Support program is not a specific program for the medical supply chain, it can be adapted to the medical supply chain as it covers all sectors. However, this program is participating with an optional project instead of a ready change. For this reason, the project failed to attract the attention of medical supply chain members. Likewise, although the Energy Efficiency Support program provides promising incentives, it has become the preferred program of industry organizations rather than the medical supply chain. The Renewable Energy Support program, on the other hand, is mostly preferred in the energy and construction sector due to its radical changes. The Smart Europe Energy Program, on the other hand, is a new and partially unknown program that wants to reach every sector that uses energy. It will take time for these reasons to be recognized and to become necessary within the medical supply chain. Medical Waste Legislation is generally regulated in accordance with the waste management legislation in the world. However, thanks to the changing world conditions and developing technology, it is possible to create and implement regulations with higher environmental awareness. For this reason, existing medical waste legislation needs to be renewed. Also, looking at the implementation, it is seen that waste management in Turkey is not in compliance with the legislation. While hospital waste needs to be collected separately, many municipalities collect and store hospital waste together with household waste. In addition, the compartments in the storage areas that are special for medical wastes are not in accordance with the conditions specified in the relevant regulations. Finally, in the process of harmonization with EU standards, incineration facilities for medical waste disposal have been requested, but in practice, very few hospitals have incinerators.

The year 2020 has been a year when the pandemic has taken over the agenda in Turkey as in the whole world. As evidenced by vaccine inventions, the cold chain is of vital importance for human health. Pfizer Biontech vaccine, which has an efficiency rate of 95%, needs -70 celcius degree tanks. However, the cold chain in Turkey could not provide this coldness countrywide at that time. For this reason, the cold chain infrastructure of Turkey transformed to be suitable

enough, before the highly-efficient Pfizer Biontech vaccine was supplied. Part of the vaccine shortage experienced in 2021 in low-rated cold chain countries, when the study was conducted, might be result of insufficient transportation and maintenance systems.

Considering the regulations and practices in the world and in Turkey, deficiencies, setbacks and points that are open to improvement stand out. By implementing the necessary improvements, it may be possible to reduce environmental pollution and possible dangers, and businesses will save money thanks to the long-term cost advantages of green practices.

In the next section, it will be provided a brief on the suggestions for green practices in the medical supply chain.

3. SUGGESTIONS

There are many regulations that can be made to popularize green practices due to the insufficiency of current incentives and laws in the medical supply chain. This study offers new recommendations for generalizing green practices in the medical supply chain.

3.1. ENERGY

First, the use of renewable energy should be encouraged to help solve the most important problem in the world, energy. The medical supply chain uses a high amount of energy to produce these products correctly and deliver them safely to the recipient, as its structure and materials in the chain are of vital importance. If the use of renewable energy is encouraged during this whole process, both the energy cost and the environmental problems caused by limited energy can be greatly reduced.

The most important problem in the transition to renewable energy is the establishment costs of the renewable energy system. To solve this problem, organizations should be supported with government support. If organizations that want to switch to renewable energy are given grant support of 30% for their costs and the option of receiving interest-free credit by covering the remaining costs without tax, many organizations will switch to the renewable energy system.

3.2. RECYCLING

Another important problem is the inadequacy of the recycling system. The vast majority of waste generated at every step of the medical supply chain from the production stage to post-consumption is recyclable products. However, since recycling is not encouraged during the process, these wastes are left to nature without recycling. The medical supply chain has a system that is constantly active due to its nature. The harm of wastes from processes such as uninterrupted production, transportation and use of nature is increasing day by day. In addition, some of the medical supply chain wastes pose a risk in terms of living healthy. Wastes mixed into the soil damage the vegetation and make fertile soils unusable. The wastes thrown into the water are perceived and consumed by sea creatures as food and cause the death of these creatures. The diversity of sea creatures decreasing day by day continues to decrease for these reasons. Wastes thrown into garbage areas can be consumed by street animals such as cats, dogs and birds. Many stray animals die every day due to the consumption of toxic waste. Thanks to the incentives to be brought to the recycling system, environmental pollution can be prevented, while the lives of many living things can be saved and costs can be reduced thanks to recycling.

The biggest shortcoming of the recycling system is insufficient incentives. For the transition to the recycling system, institutions need planning from the beginning and implementation processes to practice this plan. Due to the constantly active nature of the medical supply chain, it is very difficult to implement such a transition without incentives. A new system means time and expense by institutions. For this reason, institutions should be motivated by government incentives to establish an effective recycling system. Institutions that recycle 50% of their wastes can be encouraged by being exempted from environmental and sanitation tax. In addition, since these institutions reduce the amount of waste, they need fewer services provided by the state for environment and cleaning. For this reason, they actually get this tax exemption by qualifying. Thanks to this incentive, the process of transition to recycling accelerates, environmental problems are solved, diversity of living things is preserved and costs are reduced.

Using recyclable products is also of great importance in terms of environmental problems. Recyclable products that can be turned into raw materials and put into the production process again without damaging nature when their life is overdue to their nature. Even in a successful recycling system, the harmful waste output may occur due to non-recyclable products. The use of recyclable products increases the recycling rate by preventing this obligatory waste output.

Non-recyclable products such as gloves, surgical gowns etc. used in the medical supply chain pose a great threat to the environment. These products are short-lived products due to their nature and their use is requisite. For this reason, the amount of waste generated continues to threaten nature by increasing day by day. It is possible to reduce the waste rate with minor modifications such as using natural rubber latex gloves instead of nitrile gloves. Although managers know the benefits of using environmentally friendly products, they continue to use plastics to a large extent to reduce their costs.

Government incentives are of great importance to increase the use of recyclable products. It is not possible to spread the use of recyclable products without preventing cost increase. If the taxes on recyclable products are removed and these products are produced by government channels, it becomes possible for institutions to access these products at very affordable prices. This opportunity can greatly increase the use of recyclable products. In addition, if the sterilization processes of the products that can be reused after sterilization, such as surgical gowns, are provided free of charge by the government, these products become reusable and do not become waste. Thanks to this incentive program, waste generation is prevented, environmentally friendly product usage policy is adopted and costs are reduced for organizations.

3.3. PURCHASING

Green purchasing is relatively new, but it is a promising practice for solving environmental problems. Green purchasing is provided by the supply of products where all processes from the raw material of a product to the stage of disposal can be carried out in an environmentally friendly manner. Within the scope of green purchasing, the amount of waste output and environmental problems can be significantly reduced in all processes from the producer to disposal. Green purchasing is a practice that has not been sufficiently widespread due to its costs. However, if green purchasing can become widespread, the amount of waste generated will decrease significantly, and institutions will also be able to reduce waste disposal costs. As the need for the cleaning services provided by the state in addition to the institutions and organizations, the government cleaning costs and workload will decrease. With an appropriate incentive program, institutions can be motivated to green purchasing.

The products that comply with the green purchasing procedure are exempted from tax and companies can be directed to these products. In addition, if the necessary state aid can be applied to producers, the cost and therefore the prices of the products will decrease significantly. At this stage, organizations that adopt the green purchasing system will realize the positive effects that arise for other processes in the supply chain such as the disposal process and make green purchasing a company procedure. As a result of this change, an environmentally friendly product life cycle will be achieved by reducing the amount of waste generated during the life cycle of the product.

3.4. PACKAGING

Nowadays, all products are covered with various packaging to prevent deterioration in processes that extend with the effect of the globalized supply chain. The most used type of packaging is plastic packaging. Its low cost, ease of use and storage make plastic the most preferred type of packaging. In particular, the necessity of staying sterile for products in the medical supply chain makes the use of packaging more important. Frequently changed and continuously used products such as masks are presented to the user in individual plastic packages. These plastic packaging wastes, which are dysfunctional at the moment of use, create an important environmental problem.

Green packaging is a concept that emerged to make the mandatory use of packaging environmentally friendly. Thanks to the green packaging, environmentally friendly products are preferred in the packaging stage of the products. In addition, in green packaging, unnecessary packaging costs are avoided by keeping the size of the packaging material exactly suitable for the product. The most important reason why green packaging cannot be used is that it has a higher cost than plastic packaging. Due to the competitive environment, institutions cannot solve this problem on their own. For this reason, they need government incentives. To solve this problem, the state can establish its own packaging factories and provide green packaging material for a small fee. In addition, the increase in taxes for producers who continue to use plastic packaging and tax reductions for producers using green packaging will make green packaging widespread. In this way, environmentally friendly production will be supported by preventing the damage caused by plastic packaging wastes to nature.

3.5. GREEN MEDICAL SUPPLY CHAIN

Green Medical Supply Chain is a concept that expresses the use of green practices in every step of the medical supply chain from production to disposal. This concept, which has a new history, is almost unheard of in Turkey, except for a small number of academic sources. Since individuals and institutions cannot receive the necessary training, they are not aware of the changes that need to be made, and they inadvertently cause an increase in environmental problems by using the usual order. To solve this problem, the experts of the subject should organize training programs for the relevant people at regular intervals. However, there are currently no standardized training programs on the subject. In addition, the cost of a regular training program is too high for institutions to afford alone.

To solve this problem, the state can undertake program editing. This deficiency can be filled with low-priced training programs to be organized by the Ministry of Health and Professional Chambers. Participation should be mandatory to increase the effectiveness of education. In this way, all relevant personnel will complete this training program and apply it to business procedures. In addition, to increase educational motivation, individuals and institutions who have successfully completed this program should be awarded a certificate. These certificate holders can have many side benefits in government institutions. In addition, making this certificate compulsory when applying to government staff will increase the motivation for the trainings. Thanks to these incentives, individuals and institutions that have completed their training will continue their processes within the scope of green medical supply chain practices. In this way, while the functionality of the related concept increases, nature-friendly practices will also become widespread.

3.6. MEDICAL WASTE

Medical waste constitutes the biggest potential hazard in the healthcare industry. These wastes can consist of injurious wastes such as sharp and piercing materials, as well as materials that cause infection or contain toxic gases. Many healthcare professionals are injured or sick due to these wastes. In addition, if these wastes are not treated appropriately, some of them mix into the soil and water and harm nature, while some of them cause injury to street animals. Relevant personnels are periodically trained in accordance with the regulation on the control of medical

wastes. However, the scope of these relevant personnels is insufficient in practice. Health personnel such as doctors and nurses who are in direct contact with medical wastes are not included in this training program. However, the interaction of these personnels, who work at the first moment when medical waste is formed, with medical waste is of critical importance.

To solve this problem, the trainings should be expanded to include all medical supply chain workers and required by law. At the end of these trainings, which should be repeated every 6 months, the relevant personnel should be subjected to an exam and the personnel who successfully complete the exam should be given a medical waste training certificate. To increase motivation for training, personnel who do not have the relevant period certificate should not be assigned during the period. In this way, the attention level of the personnel who realizes the necessity of completing the training successfully will increase and an efficient training program will be provided. Thanks to the relevant trainings, the damage of medical wastes to the environment will be reduced and the personnel injuries due to inadequate training will be minimized.

Another important issue related to medical waste is waste management. Waste management is guaranteed by regulation. The waste management regulation in Turkey generally seems to be in accordance with the principles of the World Health Organization. However, when looking at the implementation, it is seen that the regulation only on paper. Items that seem functional in the regulation cannot find a response in real life. Due to insufficient inspections, the relevant institutions and persons do not feel the obligation to implement these regulations sufficiently.

To solve this problem, deterrent methods such as strict controls and high penalties should be used by the state. Frequent unannounced inspections should be carried out by the Ministry of Health to the relevant institutions. Serious penalties should be imposed on the institution for deficiencies recognized as a result of these inspections and a period of one month should be given to correct the deficiency. Institutions that are noticed that the deficiencies have not been corrected at the end of the given period should be sealed and closed for a certain period of time. Organizations that are afraid of financial and functional penalties to be brought about by the lack of waste management will keep their waste management activities at the maximum level thanks to these measures. In this way, environmental and health problems caused by inadequate waste management can be minimized.

UATF (National Waste Transportation Form) is a form that is mandatory for institutions carrying and disposing of hazardous wastes. Thanks to this form, the whole process from

collection to disposal of wastes is monitored, audited and carried out in accordance with the procedures. Thanks to this form, operations related to hazardous wastes are carried out within maximum safety precautions. However, according to the Regulation on Control of Medical Wastes published by the Ministry of Environment in the Official Gazette on January 25, 2017, “it is not required to use UATF during the transportation of medical waste in health institutions that produce up to 1 kilogram of medical waste per day”. (Official Gazette) According to this article of the regulation, healthcare organizations such as pharmacies, veterinarians and doctor's offices that generate small amounts of waste are exempted from the obligation to use UATF. Although these institutions alone produce small amounts of waste, the total amount of waste transported without the UATF obligation is more than it seems, since they are large in number. This leads to deficiencies in waste control and many dangers that may arise as a result of deficiency.

To solve this problem, the use of UATF should be made mandatory for all institutions producing medical waste, regardless of the amount of waste. In addition, as another advantage of technological developments, in the waste shipment process, instead of the printed National Waste Transportation Form (UATF), the “Transport Number” created automatically on the MoTAT can be used. In this way, processes with workloads such as printed form purchasing and form delivery can be eliminated and a much faster automated system can be used instead. As a result of all these procedures, the process from the collection of wastes to their disposal can be followed for all institutions and can be made compliant with the regulation.

3.7. E-RESULT SYSTEM

Nowadays, information is provided digitally in many sectors. In this way, while the workload was reduced, the processes started to accelerate and the waste of paper was prevented to a great extent. However, the health sector has not been fully adapted to digital information systems. Due to the result-based system of the health sector, many documents such as analysis results, imaging results and reports are included in the process in printed form. These printed documents cause a great deal of paper waste. In addition, while patients have to go to health institutions more frequently due to the system of printing out the results, this creates an extra workload for healthcare employees.

In order to solve this problem, regulation can be issued aiming that all health institutions must switch to the e-result system. Thanks to the E-Nabız (e-pulse) system, which is widespread today, hospitals become integrated every day and collect patient information under a single platform. Documents uploaded by different doctors to the system have become easily accessible by the relevant doctors. Thanks to this system, unnecessary tests, etc., have been greatly reduced. However, this system is mostly used by healthcare employees. Since patients prefer to take their result documents by hand, they frequently apply to health institutions with non-obligatory situations such as getting results. Due to the multi-page reports and results, the use of paper by health institutions is increasing significantly. If the mandatory e-result system is switched to, the application to health institutions is reduced, regular documentation is kept, and the costs of the organizations can decrease thanks to the reduced labor force and paper consumption.

3.8. ENVIRONMENTAL OFFICER

According to the Ministry of Environment and Urbanization; the environmental officer is “the officer who evaluates the compliance of the activities of the facilities that are subject to inspection in accordance with the Environmental Law and the regulations put into effect based on this law and that causes and/or may cause environmental pollution as a result of its activities, whether the measures taken are effectively implemented, and organizes annual inspection programs in the facility”. (Ministry of Environment and Urbanization, General Directorate of Environmental Impact Assessment, Permit and Inspection) Environmental impacts should be monitored at every step of the medical supply chain processes. From the point of view of an environmental officer, small details that are not noticed by the personnel working in the process can be critical. The potential dangers created by the unique structure of the chain are at a level that can lead to environmental disasters at any time.

To solve this problem, an obligation to employ environmental officers may be imposed on every institution in the medical supply chain. Thanks to the environmental officer, possible problems can be detected and solved at the initial stage and necessary actions can be taken to prevent these problems. Half of the salary of the environmental officer should be covered by the state so that the cost of extra staff does not burden the institutions. Environmental problems will be greatly reduced thanks to the environmental officer. Since the cost to be spent by the state and

institutions for environmental problems will decrease, the salary to be paid to these employees will be compensated in this way. This personnel, who can prevent environmental disasters to a great extent without incurring extra costs, are of critical importance for the medical supply chain management to be carried out in an environmentally friendly manner.

3.9. GREEN BUILDING SYSTEMS

Green building systems are generally used in hospitals around the world. Thanks to these systems, especially the amount of energy spent has decreased significantly. In addition, certificates, which are an important part of these systems, are a source of motivation for institutions. Institutions that have these certificates are rewarded with incentives such as tax deductions by the state, and they are preferred by the population with increased environmental awareness. The importance of green building certification systems, which are required for new buildings in some countries, is drawing attention day by day.

Despite the developments in the world, green building systems have not received the attention they deserve in Turkey. Except for a few pilot applications, there is no work in this area. To solve this problem, the green building system should be mandatory for new buildings. As seen in the examples abroad, these systems in Turkey should be supported with certification systems and certified structures should be motivated with incentives such as tax deductions. In addition, building owners should be supported from the land selection and they should be provided with great advantages to buy state lands. Individuals and institutions who see these advantages will be more willing to participate in these systems, realizing that their costs will decrease for long term. As the systems become widespread, energy savings will be achieved, waste rates will decrease and recycling rates will increase. In addition to their numerous benefits to the environment, these systems will also greatly reduce the costs of institutions.

3.10. DRUG WASTES

Drugs, which are a very important part of the health system, are not monitored adequately after they are delivered to users. Waste from pharmaceutical packages is thrown into the garbage along with household waste. A more serious problem is unused or expired drug waste. Users

throw away these wastes that need to be disposed of, along with the household wastes. Since these wastes are dumped into the land in municipal dumps, pharmaceutical raw materials mix with the soil and poison the nature. In addition, there is a risk that these drug wastes will be consumed by street animals living around the dump before they mixed the soil. Medicines are products that require great care during protection and disposal due to the danger of their ingredients. It is again the duty of healthcare employees to create awareness of users on this issue. However, today, there is no such training among the job descriptions of healthcare employees.

In order to solve this problem, it should be made mandatory to create the awareness of users about drug waste separation. Considering the hard work system and multitasking healthcare employees, it would be an inefficient choice to employ healthcare professionals for such an awareness program. Instead, drug waste brochures prepared by the Ministry of Health should be distributed to the public free of charge by pharmacies. In addition, a special package that can be used for drug waste should also be given to the citizen at this time. Citizens who come to the drug purchase with a full package of drug waste for incentive purposes should be provided with a discount from the drug contribution fee according to the content of the waste. In this way, users will be motivated to be more careful about drug waste and leaving the drug waste to nature will be prevented. As a result of this change, the damage caused by drug wastes to the environment will be prevented and many street animals will be saved from the risk of consuming drugs.

3.11. ZERO WASTE REGULATION

Zero waste regulation is widespread worldwide as a promising solution to environmental problems. With this regulation, waste generation that will cause environmental problems when the products reach their end of life is prevented. End-of-life products are separated and included in the production process in stages such as recycling and re-production. In this way, while the waste output is eliminated, the need for raw materials decreases, thus reducing costs. Zero waste regulation, whose importance is increasing day by day, has not yet gained the importance it deserves in Turkey. Governments around the world have made the zero waste regulation mandatory in many sectors. Health sector comes first among these sectors. Due to the content of the sector and the wastes, the potential dangers are incomparably more serious than other

sectors. For this reason, the sector in which the implementation of zero waste regulation is the most important in the world is the health sector.

Transition to zero waste management in the health sector in Turkey is currently limited to only healthcare institutions with a capacity of 100 beds or more. However, this number is far above the average capacity. For this reason, most of the health institutions do not apply the zero waste regulation. The reason for the wastes generated in the health sector is largely due to the lack of this regulation. Another activity that can be done to reduce the waste output rate makes the zero waste regulation mandatory for all health institutions. “The target date of the Ministry of Health for this step is 31.12.2022.” (Official Gazette, Zero Waste Regulation, 2019) However, global natural disasters show that every day the waste output is not reduced, bringing great dangers. For this reason, it is necessary to urgently switch to the zero waste regulation.

3.12. TRANSPORT and STORAGE

Transport and storage are among the most important parts of the medical supply chain. A large amount of energy is consumed in these processes. If the processes are not managed correctly and if the products break down, this energy used will also be wasted. In order to prevent this waste of energy, energy efficiency should be promoted in transportation and storage processes. Products which process on transportation and storage in the medical supply chain are mostly products that need a cold chain. For this reason, the potential risk encountered during the transportation and storage of these products is much higher than the risks encountered during ordinary transportation. In addition, the cold chain constantly uses a large amount of energy during both the storage and transportation process. For this reason, a malfunction that may occur in any link of the chain; leads to loss of product, energy and costs. In addition, due to the high energy spent and the wastes to be generated, this situation harms the nature every time.

In order to solve this problem, energy efficiency should be increased in transportation and storage processes within the medical supply chain. As a first step, the GDP guide should be made a legal obligation. Thanks to the GDP guide, the errors that may occur during the transportation of the products are minimized and the financial losses and environmental problems caused by these errors can be prevented to a great extent. In addition, the systems used during the storage and transportation of the medical supply chain products should be made energy-efficient at the maximum level. In order to reduce the energy costs of cold storage, the

use of Teflon white paint should be mandatory in medical warehouses. This requirement should be strictly controlled, and institutions that do not use appropriate materials should be severely punished. In addition, an integration system should be established between warehouses and vehicles. Thanks to these systems, temperature changes and energy losses that will occur when the tank covers are opened and during loading will be prevented. Vehicles carrying out the transportation activity should be equipped with cold containers that will be kept higher than the vehicle floor. In this way, the contact of the container with the vehicle base will be cut and heat loss will be prevented. Although these methods provide great gains in the long term, they cause serious costs for institutions in the beginning. For this reason, organizations that want to switch to energy efficiency should be supported with tax reductions, credit supports and incentive programs. In addition, strict audit of legal obligations and punishment of institutions that act against them will greatly increase the rate of implementation of these obligations by the institutions in the sector.

All these suggestions have emerged with the aim of generalizing green practices in the medical supply chain. These proposals are expected to have promising results. It is thought that the widespread use of green practices in a sector that is of vital importance such as the medical supply chain can set an example for other sectors. For a more livable world, we have to transition to environmentally friendly practices in the medical supply chain, as in every sector.

In the next section, it will be provided a brief on the survey results for suggested green practices in the medical supply chain.

4. SURVEY RESULTS

A survey study was used to evaluate the recommendations made in this study by medical supply chain employees. As a result of the survey, medical supply chain workers are expected to support green practices. In addition, a positive relationship between education level and green practice supports is also an expected result. Survey questions can be found in Appendix section 6.2.1. Survey.

Survey method was used to collect data in this study. The survey was administered to actively working medical supply chain workers through Google Surveys. As a result of the survey, a usable sample of 106 people was obtained. According to the results of the survey, 72 people in

the sample are in the 20-39 age range. 31 people in the sample are between the ages of 40-59. Finally, 3 people in the sample are in the 60+ age range. While 43 people in the sample are men, 63 people are women. The sample was also classified according to educational status, and according to the results, the education level of 2 participants was at pre-high school level, 9 people were at the high school level, 20 people were at the associate degree level, 50 people were at the undergraduate level, and the remaining 25 people were at the graduate level. While 57 people participating in the survey are healthcare professionals, 31 people are hospital administration employees, 3 people are medical representatives, 8 people are pharmacists and the remaining 7 people are other employees in the medical supply chain.

The histogram and pie-slice graphs of the age statistics of the people participating in the survey are as follows.

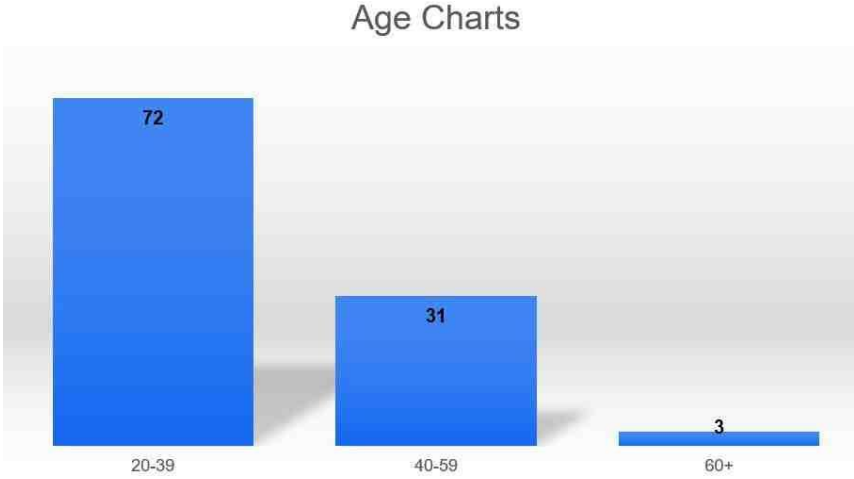


Figure 4.1. Age Histogram Chart

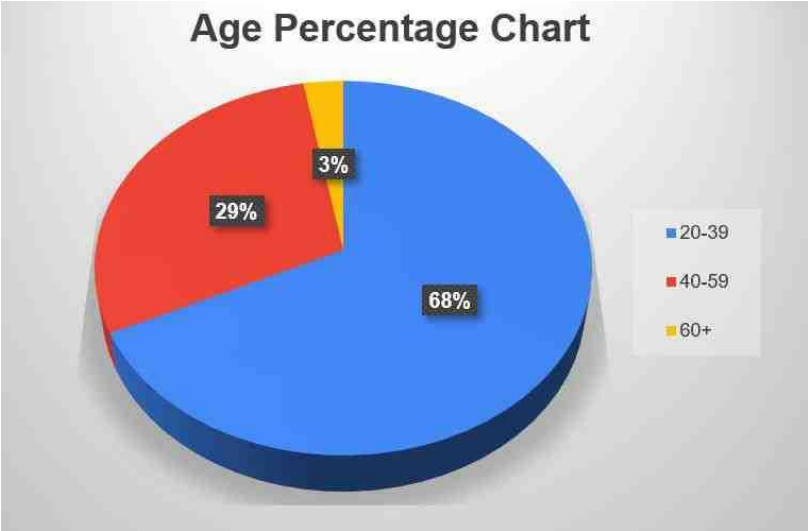


Figure 4.2. Age Percentage Chart

According to these charts, 68% of the participants (72 people) are between the ages of 20-39, while 29% (31 people) are between the ages of 40-59 and 3% (3 people) are over 60 years old. The histogram and pie-slice graphs of the gender statistics of the people participating in the survey are as follows.

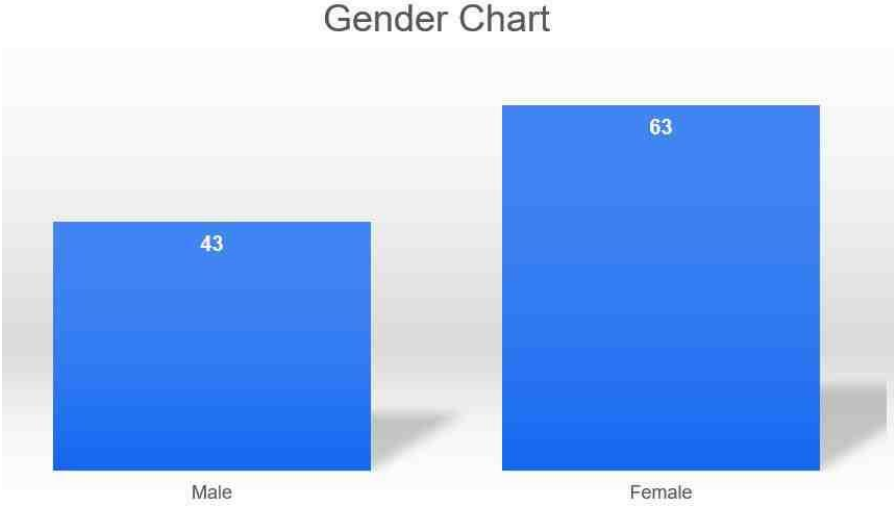


Figure 4.3. Gender Histogram Chart

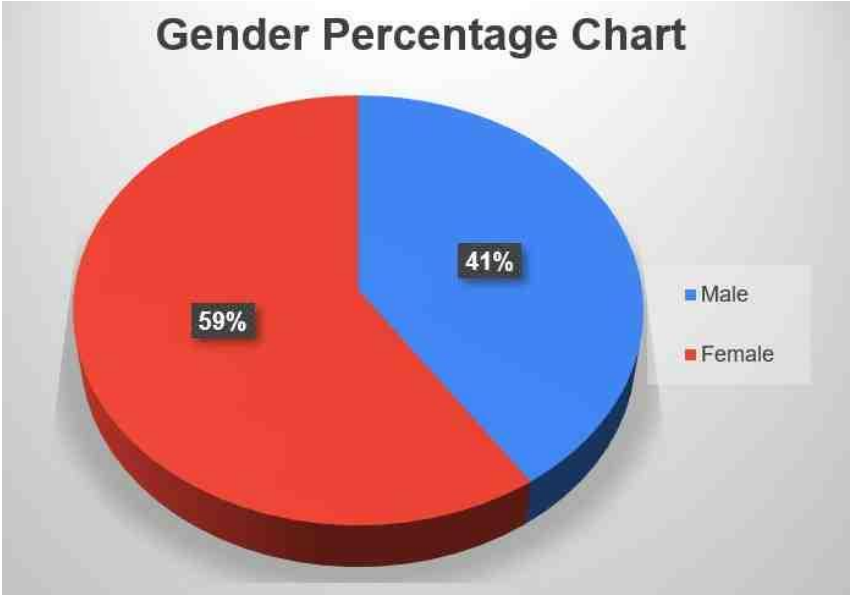


Figure 4.4. Gender Percentage Chart

According to these graphs, 59% of the participants (63 people) are women, while 41% (43 people) are male participants.

The histogram and pie-slice graphs of the educational status statistics of the people participating in the survey are as follows.

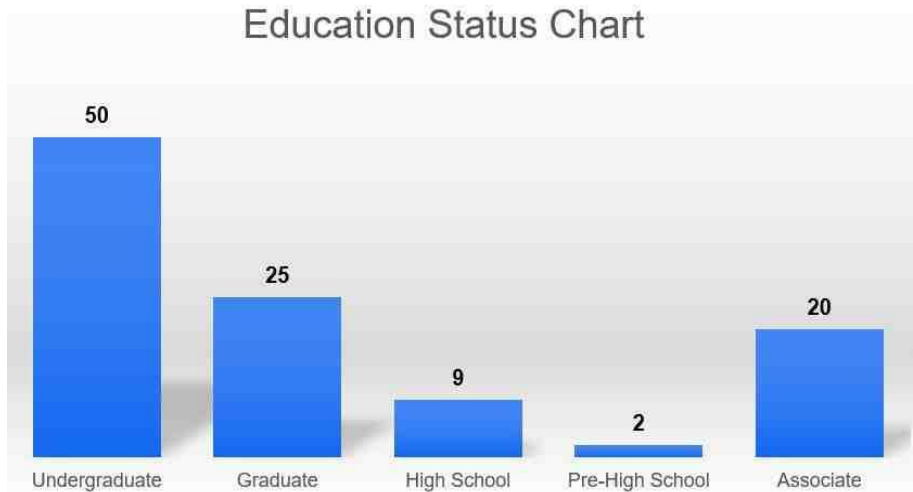


Figure 4.5. Education Status Histogram Chart

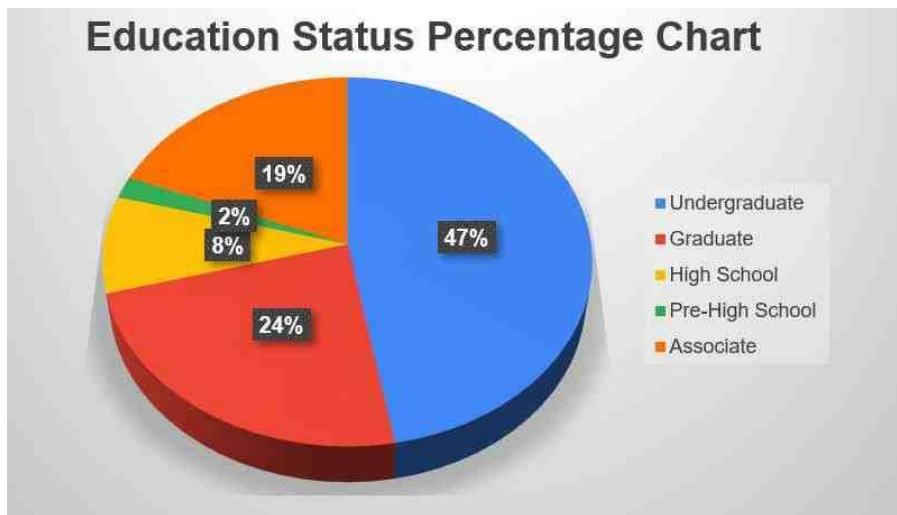


Figure 4.6. Education Status Percentage Chart

According to these graphs, 2% of the participants (2 people) have pre-high school, 8% (9 people) high school, 19% (20 people) associate degree, 47% (50 people) undergraduate and 24% (25 people) graduate education level.

The histogram and pie chart graphs of the occupational status statistics of the people participating in the survey are as follows.

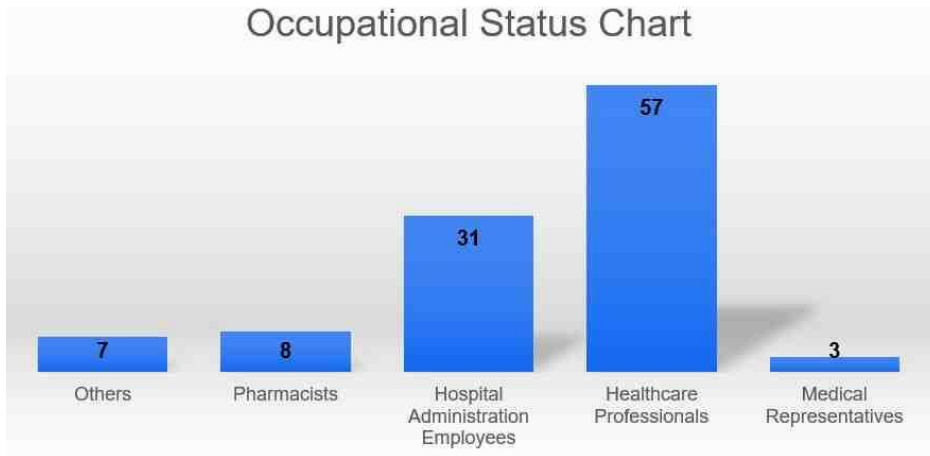


Figure 4.7. Occupation Status Histogram Chart

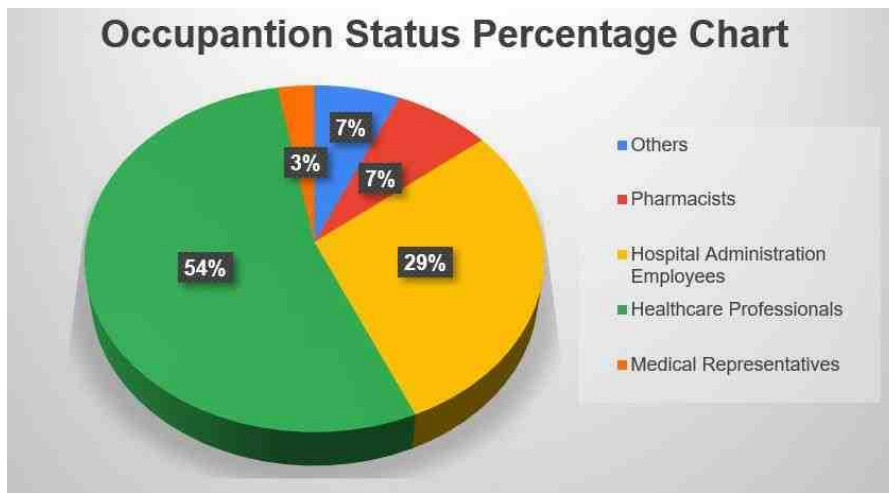


Figure 4.8. Occupation Status Percentage Chart

According to these graphics, 54% of the respondents (57 people) are healthcare professionals, 29% (31 people) hospital administration employees, 7% (8 people) pharmacists, 3% (3 people) medical representatives and 7% (7 people) other employees in the medical supply chain.

The question posed to the participants in the next question of the survey is as follows:

“Is renewable energy used in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses to the survey on renewable energy use are as follows.

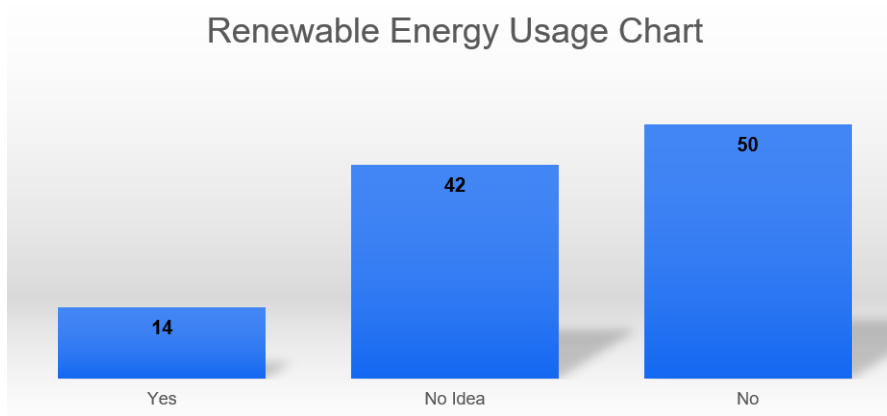


Figure 4.9. Renewable Energy Usage Histogram Chart

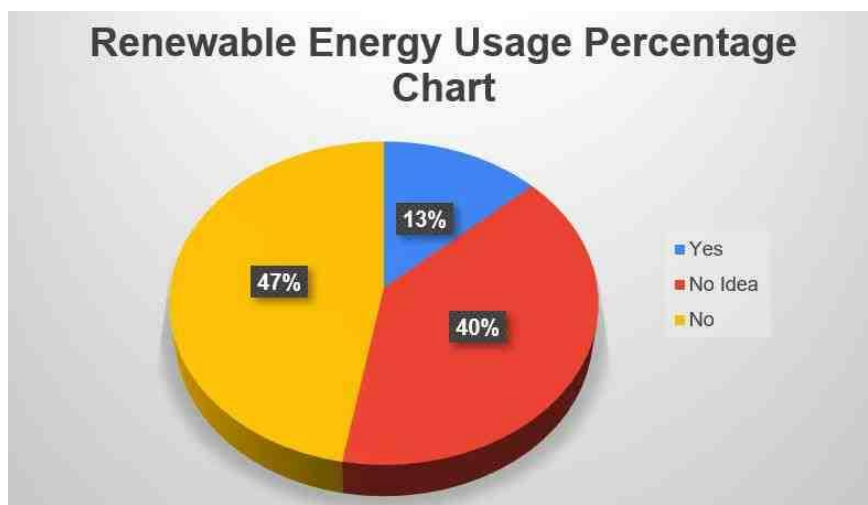


Figure 4.10. Renewable Energy Usage Percentage Chart

According to these graphics, 13% of the respondents (14 people) work in institutions that use renewable energy, while 47% (50 people) work in institutions that do not use renewable energy. 40% (42 people) of the participants do not have any idea about the use of renewable energy.

The question posed to the participants in the next question of the survey is as follows:

“Do you support the use of renewable energy in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses to the support of green energy use are as follows.

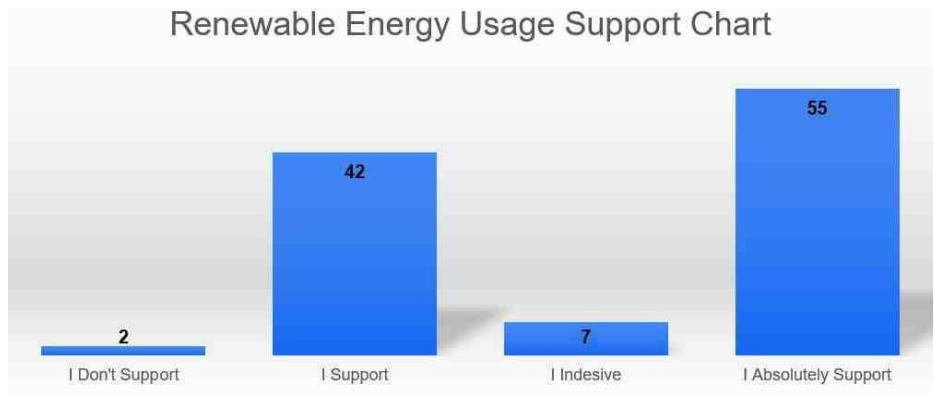


Figure 4.11. Renewable Energy Usage Support Histogram Chart

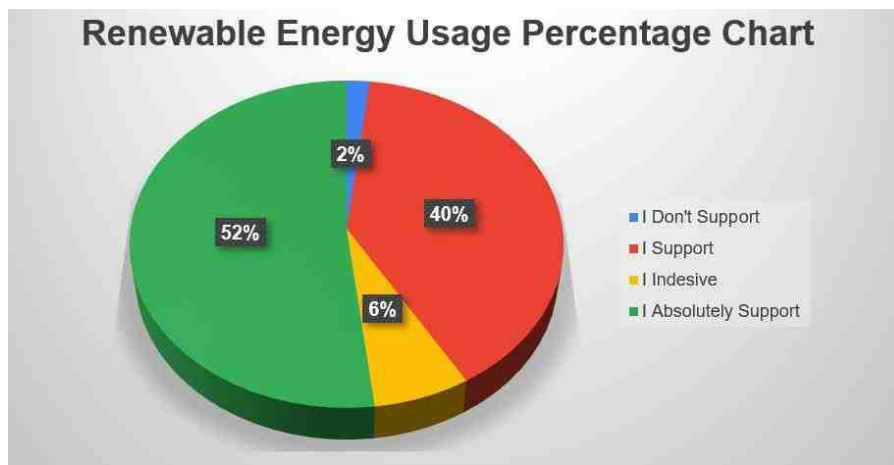


Figure 4.12. Renewable Energy Usage Percentage Chart

According to these graphs, 52% of the survey respondents (55 people) absolutely support the use of renewable energy, 40% (42 people) support it, 6% (7 people) are undecided and only 2% of the participants (2 people) do not support the use of green energy. In addition, although there was absolutely don't support option as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Do you think the existing recycling system in your institution should be improved?”

The histogram and pie-slice graphs of the statistics of the respondents' responses to the development of the recycling system are as follows.

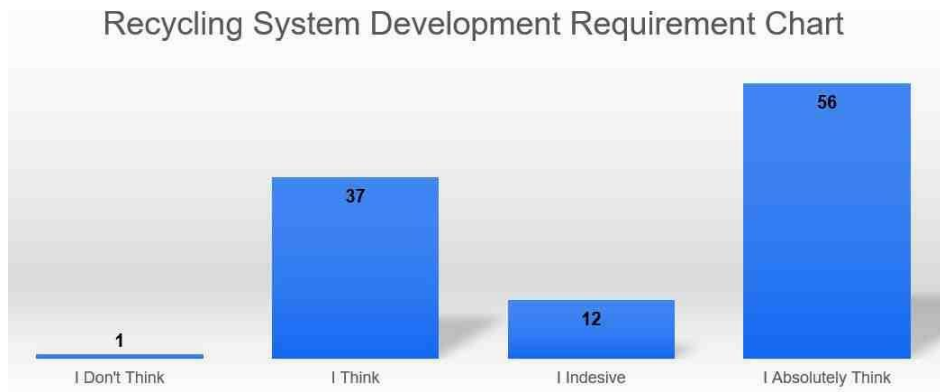


Figure 4.13. Recycling System Development Requirement Histogram Chart

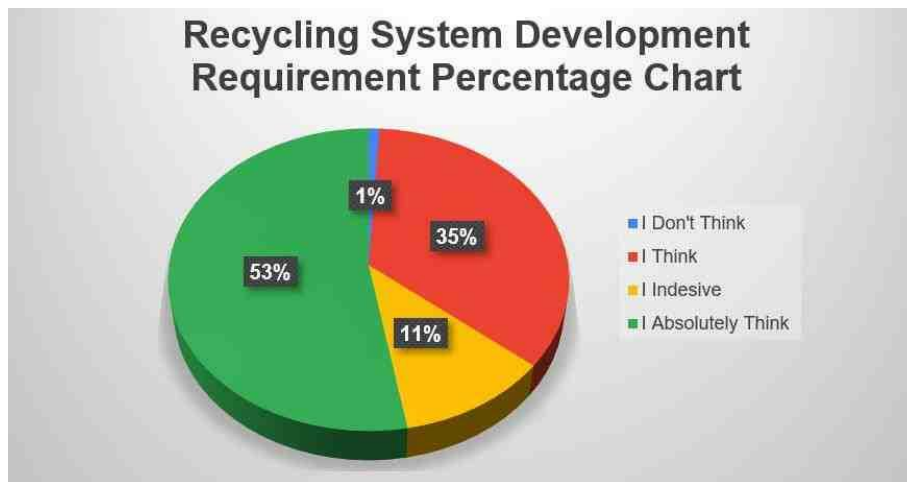


Figure 4.14. Recycling System Development Requirement Percentage Chart

According to these graphics, 53% of the respondents (56 people) absolutely think that the recycling system should be developed, 35% (37 people) think that it should be developed, 11% (12 people) are undecided and only 1% (1 person) of the participants do not think that it should be developed. In addition, although there was an option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Is a sufficient amount of recyclable products used in your institution?”

The histogram and pie-slice graphs of the statistics of the responses of the people who participated in the questionnaire regarding the use of recyclable products are as follows.

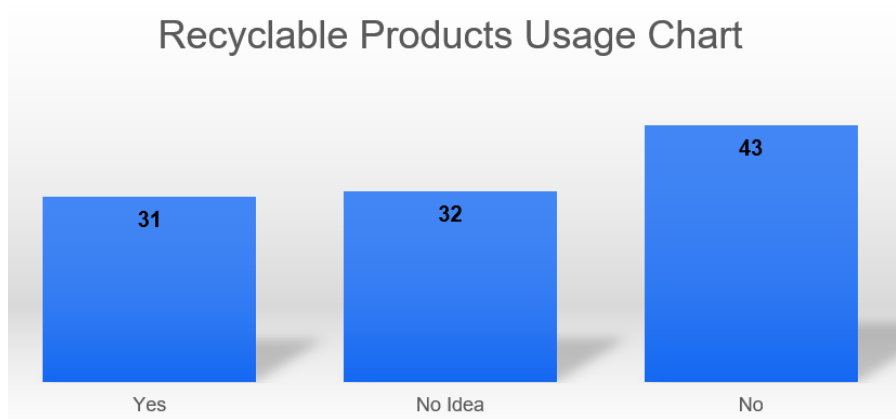


Figure 4.15. Recyclable Products Usage Histogram Chart

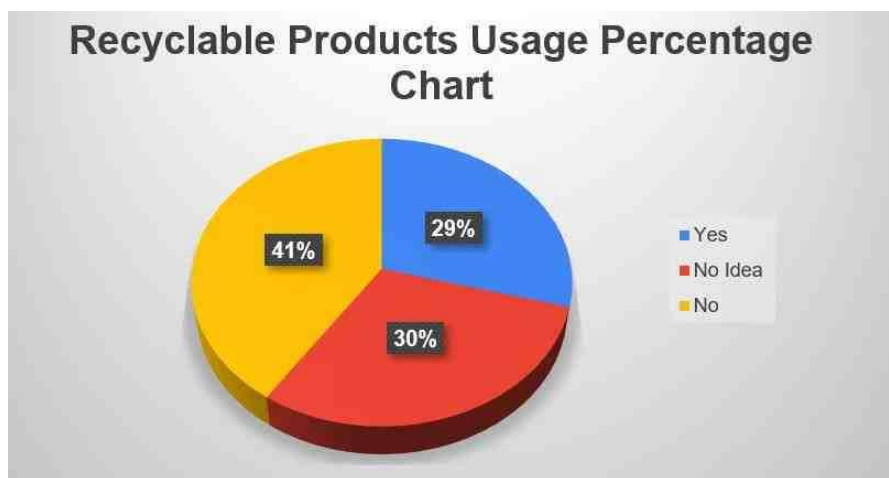


Figure 4.16. Recyclable Products Usage Percentage Chart

According to these graphics, 41% of the respondents (43 people) find the use of recyclable products insufficient, while 29% (31 people) find it sufficient. 30% (32 people) of the participants do not have any idea about the adequacy of using recyclable products.

The question posed to the participants in the next question of the survey is as follows:

“Do you think the use of current recyclable products should be increased in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses regarding the need to increase the use of recyclable products are as follows.

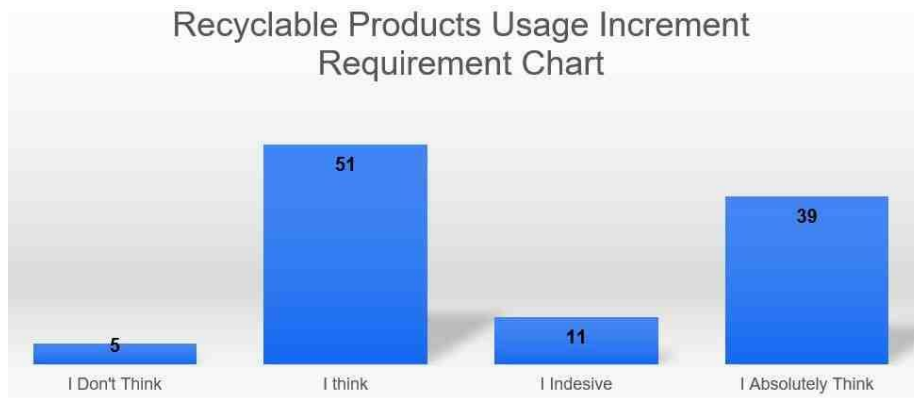


Figure 4.17. Recyclable Products Usage Increment Requirement Histogram Chart

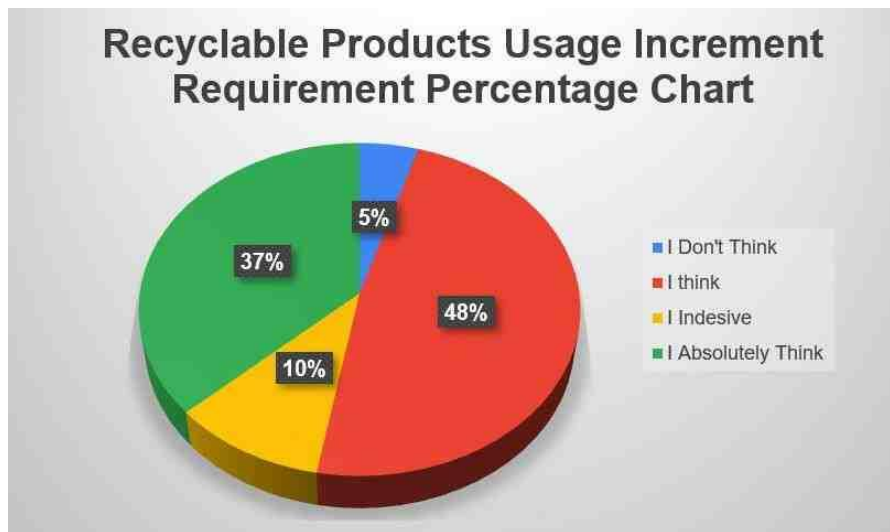


Figure 4.18. Recyclable Products Usage Increment Requirement Percentage Chart

According to these graphs, 37% of the respondents (39 people) absolutely think that the use of recyclable products should be increased, 48% (51 people) think that it should be increased, 10% (11 people) are undecided and only 5% (5 people) of the participants do not think that it should be increased. In addition, although there was an option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Is green purchasing used in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents' responses on green purchasing use are as follows.

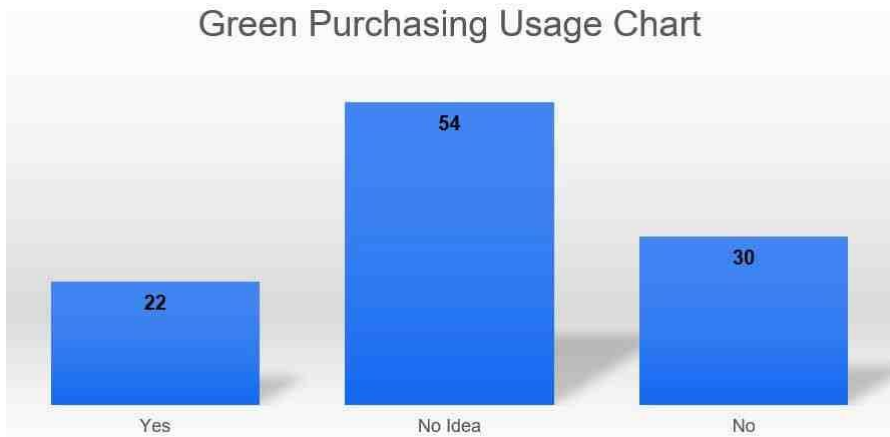


Figure 4.19. Green Purchasing Usage Histogram Chart

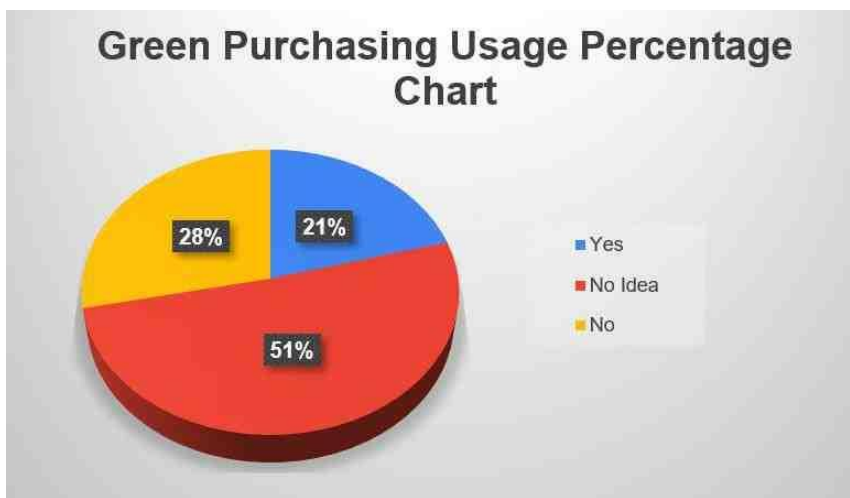


Figure 4.20. Green Purchasing Usage Percentage Chart

According to these graphics, 21% of the respondents (22 people) work in institutions that use green purchasing, while 28% (30 people) work in institutions that do not use green purchasing. 51% (54 people) of the participants do not have any idea about the use of green purchasing.

The question posed to the participants in the next question of the survey is as follows:

“Do you think green purchases should be increased in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses regarding the need to increase green purchases are as follows.



Figure 4.21. Green Purchasing Usage Increment Requirement Histogram Chart

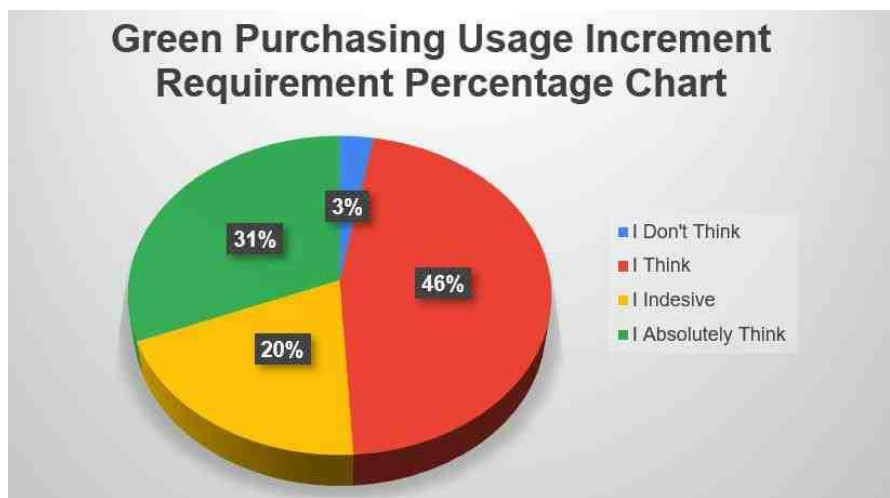


Figure 4.22. Green Purchasing Usage Increment Requirement Percentage Chart

According to these graphs, 31% of the respondents (33 people) absolutely think that green purchasing usage should be increased, 46% (49 people) think that it should be increased, 20% (21 people) are undecided and only 3% (3 people) of the participants do not think that it should be increased. In addition, although there was the option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Do you receive regular medical waste training at your institution?”

The histogram and pie-slice graphs of the statistics of the responses of the people participating in the survey on regular medical waste education are as follows.

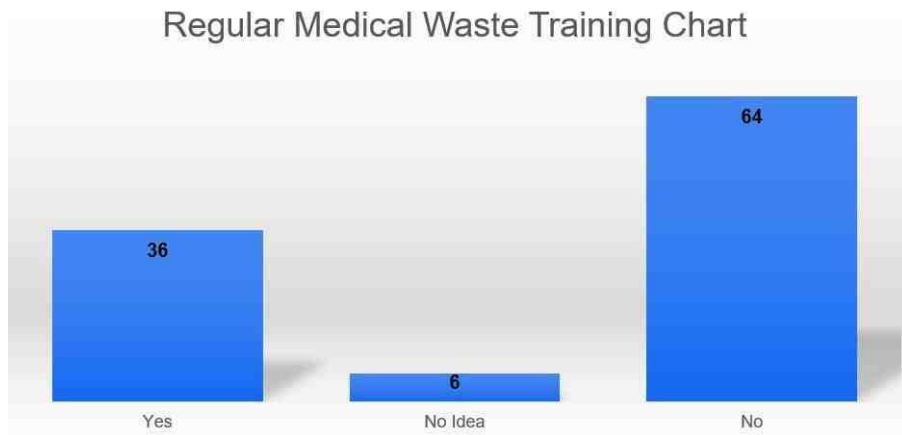


Figure 4.23. Regular Medical Waste Training Histogram Chart



Figure 4.24. Regular Medical Waste Training Percentage Chart

According to these graphics, 34% of the respondents (36 people) work in institutions that provide regular medical waste training, while 60% (64 people) work in institutions that do not provide regular medical waste training. 6% (6 people) of the participants do not have any idea about regular medical waste education.

The question posed to the participants in the next question of the survey is as follows:

“Do you think that more frequent medical waste training should be given in your institution?”

The histogram and pie graphs of the statistics of the respondents’ responses regarding the necessity of increasing the frequency of medical waste trainings are as follows.



Figure 4.25. Medical Waste Training Increment Requirement Histogram Chart

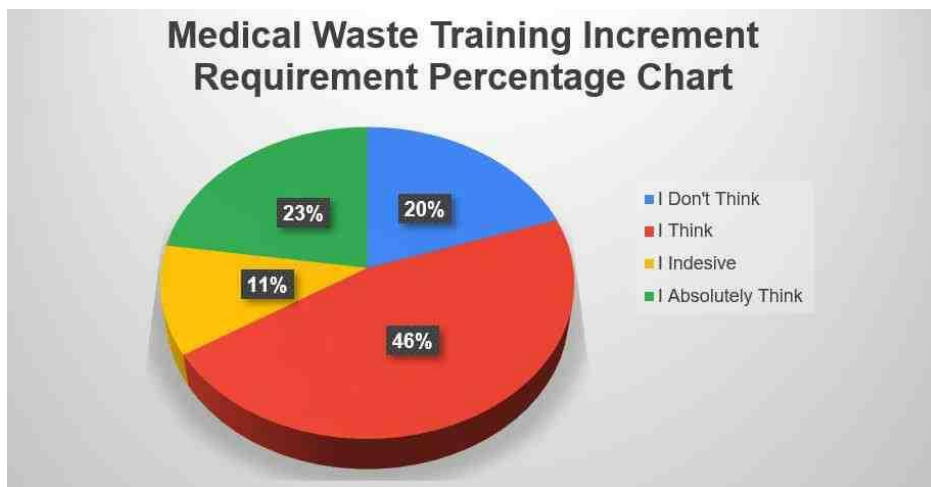


Figure 4.26. Medical Waste Training Increment Requirement Percentage Chart

According to these graphs, 23% of the respondents (24 people) absolutely think that the frequency of medical waste training should be increased, 46% (49 people) think it should be, 11% (12 people) are undecided and 20% (21 people) of the participants do not think that it should be increased. In addition, although there was the option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Is green packaging used in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents' responses regarding the use of green packaging are as follows.

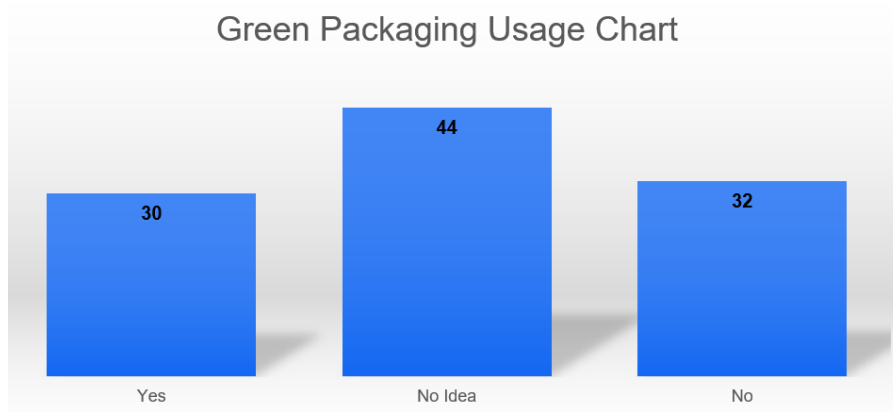


Figure 4.27. Green Packaging Usage Histogram Chart

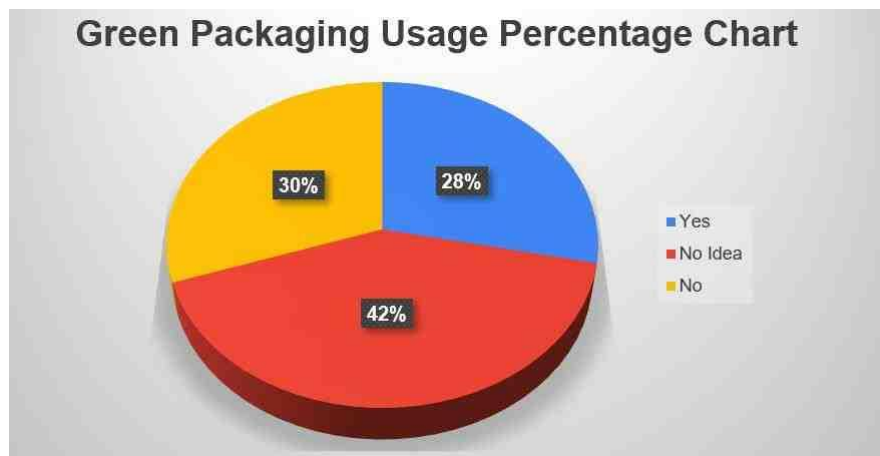


Figure 4.28. Green Packaging Usage Percentage Chart

According to these graphics, 28% of the respondents (30 people) work in institutions that use green packaging, while 30% (32 people) work in institutions that do not use green packaging. 42% (44 people) of the participants do not have any idea about the use of green packaging.

The question posed to the participants in the next question of the survey is as follows:

“Do you think the current green packaging practices should be increased in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses regarding the need for increasing the green packaging practices are as follows.

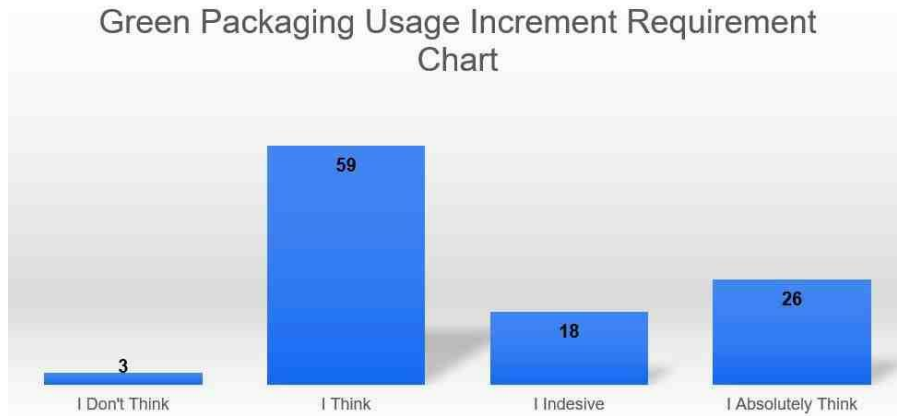


Figure 4.29. Green Packaging Usage Increment Requirement Histogram Chart



Figure 4.30. Green Packaging Usage Increment Requirement Percentage Chart

According to these graphs, 24% of the respondents (26 people) absolutely think that green packaging practices should be increased, 56% (59 people) think that it should be increased, 17% (18 people) are undecided and only 3% (3 people) of the participants do not think that it should be increased. In addition, although there was the option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Is there Green Medical Supply Chain training provided in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents' responses to the survey on green medical supply chain education are as follows.

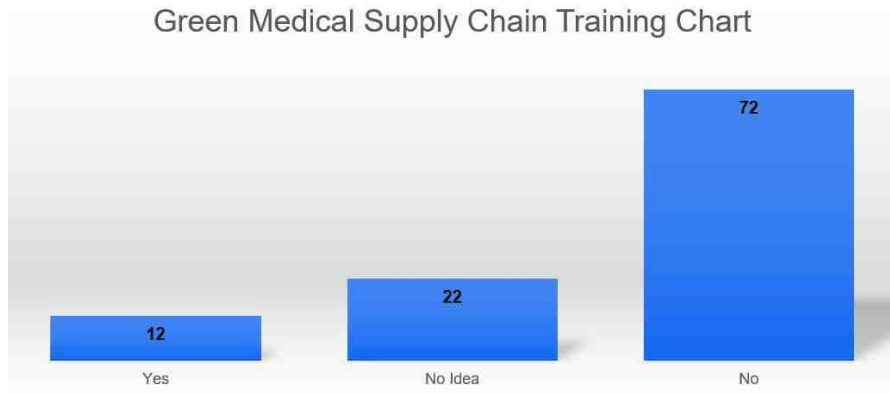


Figure 4.31. Green Medical Supply Chain Training Histogram Chart

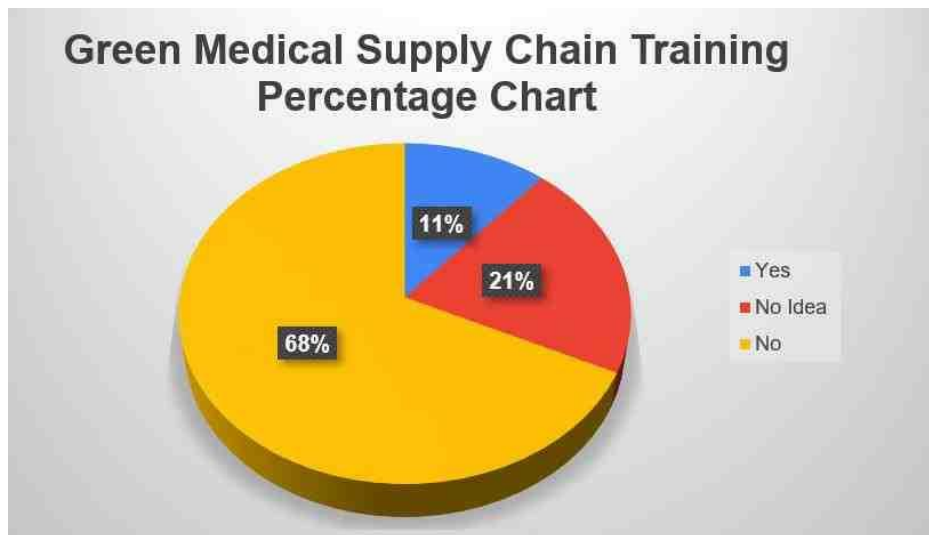


Figure 4.32. Green Medical Supply Chain Training Percentage Chart

According to these graphics, 11% of the respondents (12 people) work in institutions that provide green medical supply chain training, while 68% (72 people) work in institutions that do not provide green medical supply chain training. 21% (22 people) of the participants do not have any idea about the green medical supply chain.

The question posed to the participants in the next question of the survey is as follows:

“Do you think that the current Green Medical Supply Chain trainings at your institution should be increased?”

The histogram and pie-slice graphs of the statistics of the respondents’ answers regarding the need to increase green medical supply chain trainings are as follows.

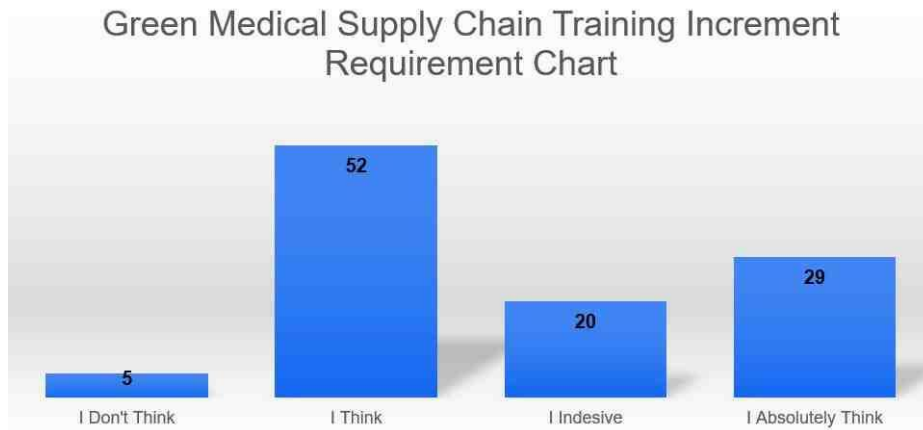


Figure 4.33. Green Medical Supply Chain Training Increment Requirement Histogram Chart

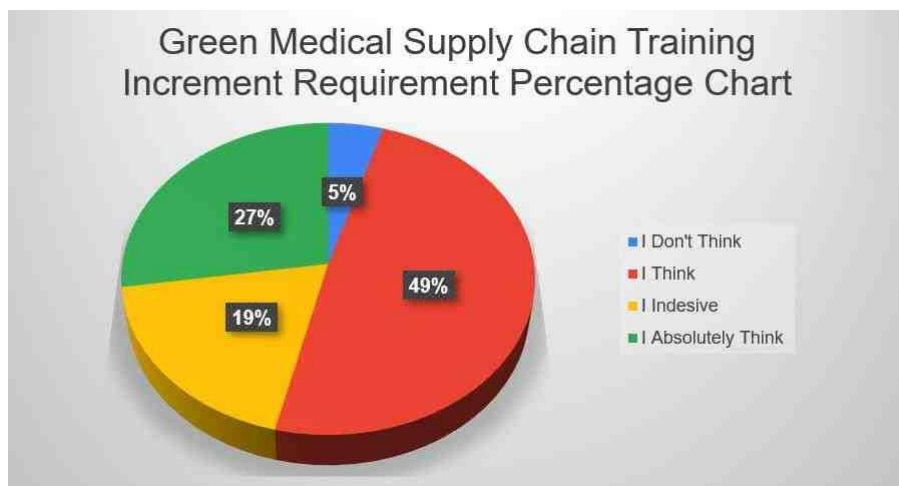


Figure 4.34. Green Medical Supply Chain Training Increment Requirement Histogram Chart

According to these graphs, 27% of the respondents (29 people) absolutely think that green medical supply chain trainings should be increased, 49% (52 people) think that it should be increased, 19% (20 people) are undecided and only 5% (5 people) of the participants do not think that it should be increased. In addition, although there was the option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Is waste management effectively controlled at your institution?”

Histogram and pie-slice graphs for the statistics of the respondents' responses to the survey on effective waste management control are as follows.



Figure 4.35. Effective Waste Management Control Histogram Chart



Figure 4.36. Effective Waste Management Control Percentage Chart

According to these graphics, 35% of the respondents (37 people) think that waste management is effectively controlled, while 34% (36 people) think that it is not controlled effectively. 31% of the participants (33 people) do not have any idea about effective waste management.

The question posed to the participants in the next question of the survey is as follows:

“Do you think that existing waste management controls in your institution should be improved?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses regarding the need to improve waste management controls are as follows.



Figure 4.37. Waste Management Controls Development Support Histogram Chart

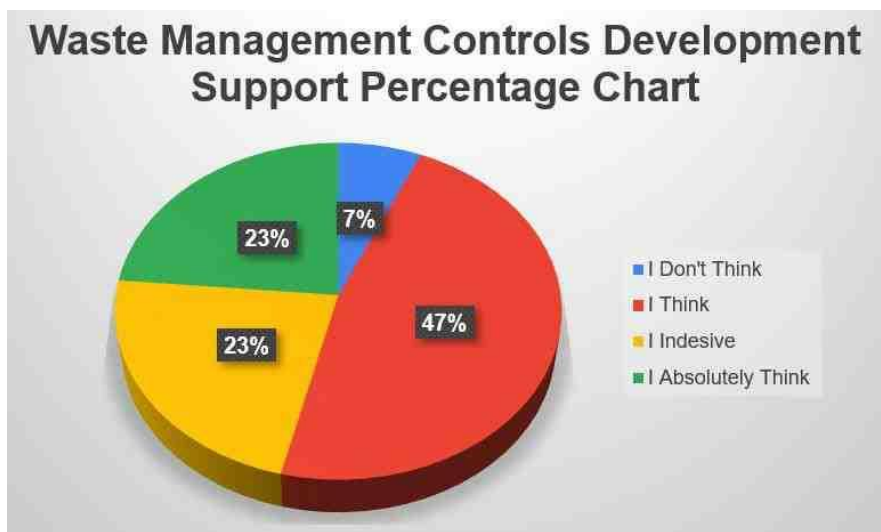


Figure 4.38. Waste Management Controls Support Percentage Chart

According to these graphs, 23% of the respondents (25 people) absolutely think that waste management controls should be improved, 47% (50 people) think that they should be improved, 23% (24 people) are undecided and only 7% of the participants (7 people) do not think that they should be improved. In addition, although there was the option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Does your institution use an e-result system?”

Histogram and pie-slice graphs of the statistics of the respondents' answers regarding the use of the E-Result system are as follows.

E-Result Systems Usage Chart

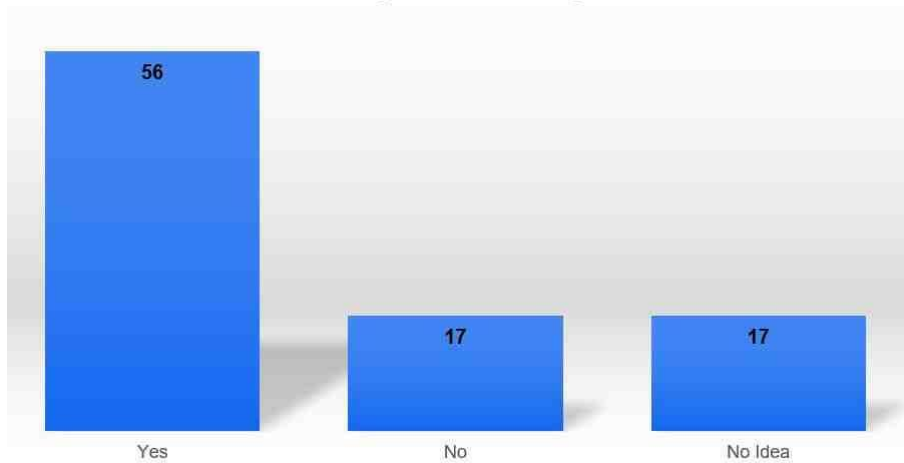


Figure 4.39. E-Result Systems Usage Histogram Chart

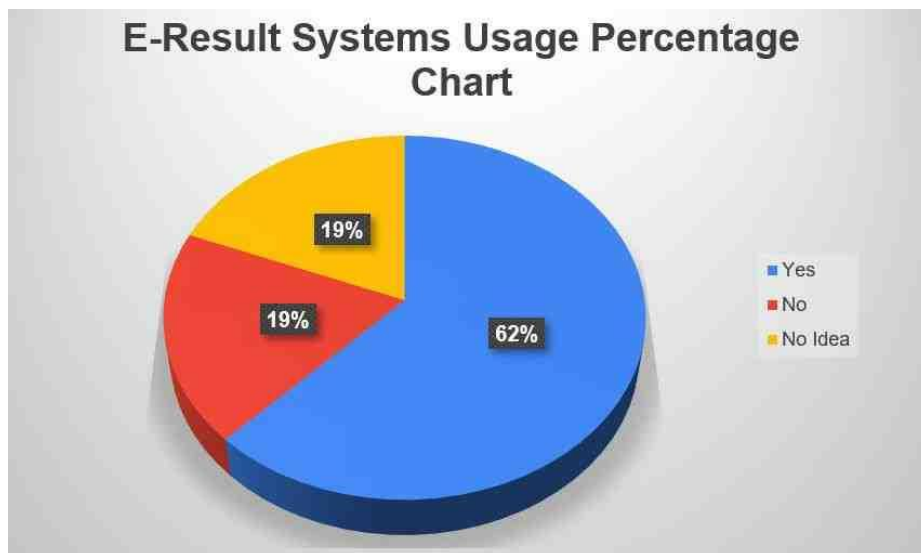


Figure 4.40. E-Result Systems Usage Percentage Chart

According to these graphics, 62% of the respondents (56 people) work in institutions where the e-result system is used, while 19% (17 people) work in institutions where the e-result system is not used. 19% of the participants (17 people) do not have any idea about using the e-result system.

The question posed to the participants in the next question of the survey is as follows:

“Would you like to use only e-result system mandatory in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents’ answers regarding the use of the mandatory e-result system are as follows.

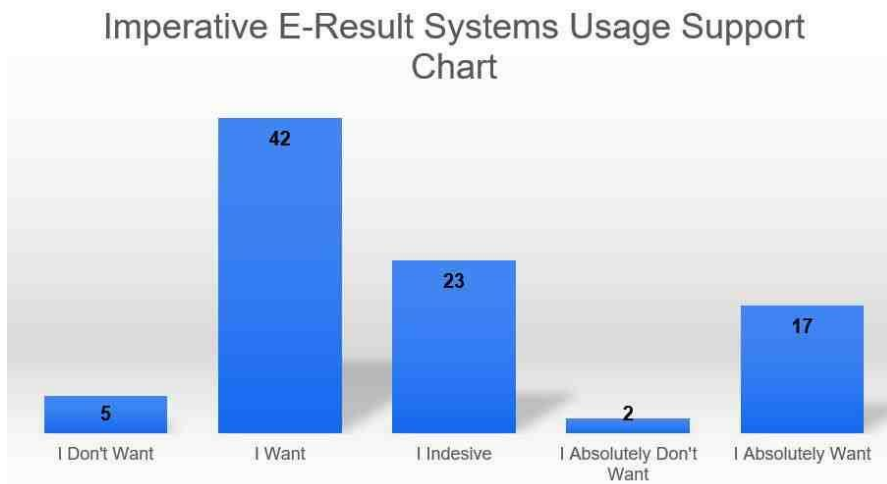


Figure 4.41. Imperative E-Result Systems Usage Support Histogram Chart

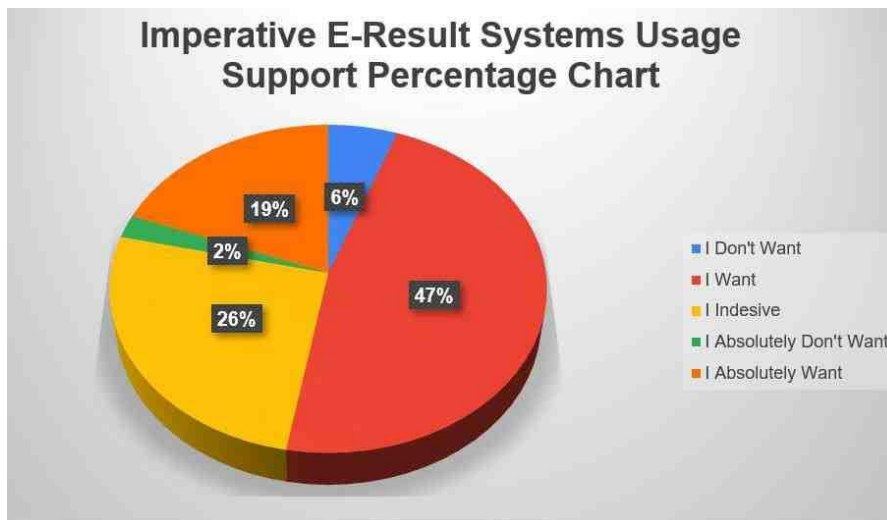


Figure 4.42. Imperative E-Result Systems Usage Support Percentage Chart

According to these graphs, 19% of the respondents (17 people) absolutely want to use only the e-result system, while 47% (42 people) want, 26% (23 people) are undecided and 6% (5 people) do not. Only 2% of the participants (2 people) absolutely do not want to use only the e-result system.

The question posed to the participants in the next question of the survey is as follows:

“Would you support salaried environmental personnel employment in your institution?”

The histogram and pie slice graphs of the statistics of the respondents’ responses to the support of salaried environmental personnel are as follows.

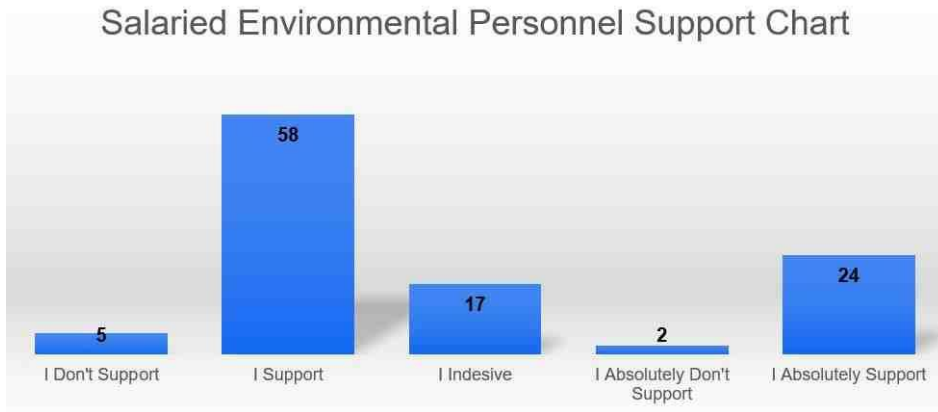


Figure 4.43. Salaried Environmental Personnel Support Histogram Chart

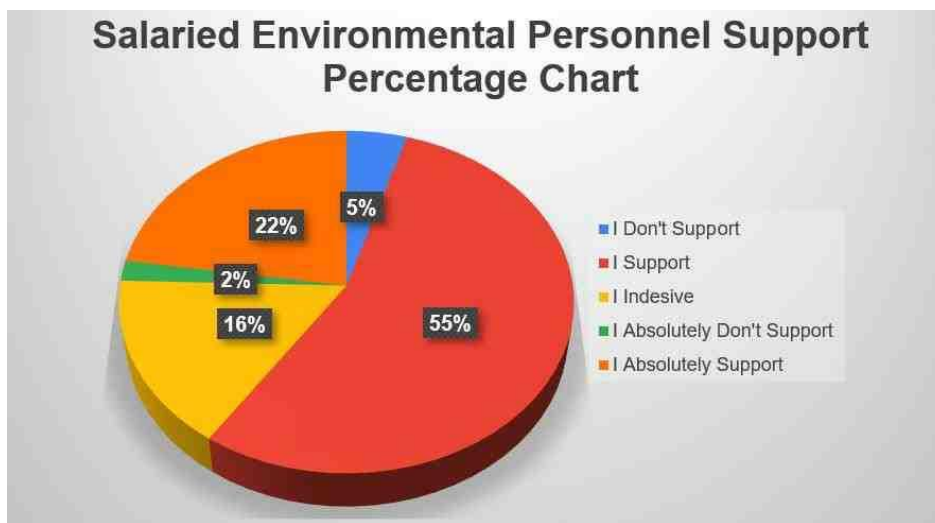


Figure 4.44. Salaried Environmental Personnel Suport Percentage Chart

According to these graphics, 22% of the respondents (24 people) absolutely support employing salaried environmental personnel, 55% (58 people) support, 16% (17 people) undecided, 5% (5 people) do not. Only 2% of the participants (2 people) absolutely do not support employing salaried environmental personnel.

The question posed to the participants in the next question of the survey is as follows:

“Is the green building system used in your institution?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses regarding the use of the green building system are as follows.

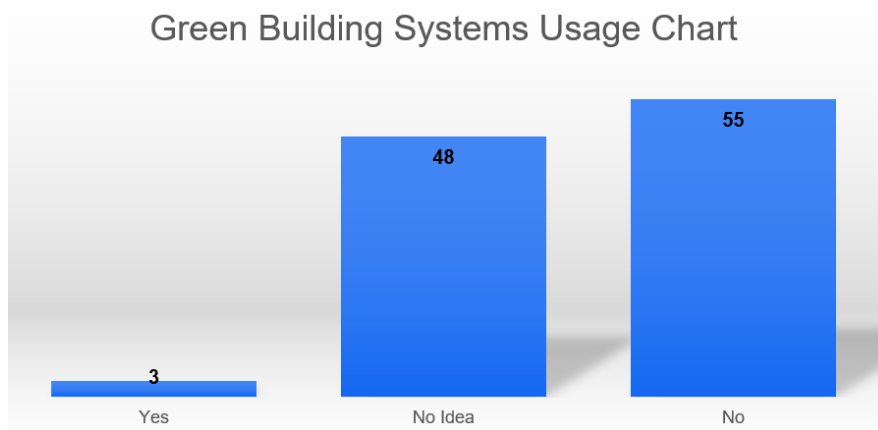


Figure 4.45. Green Building Systems Usage Histogram Chart

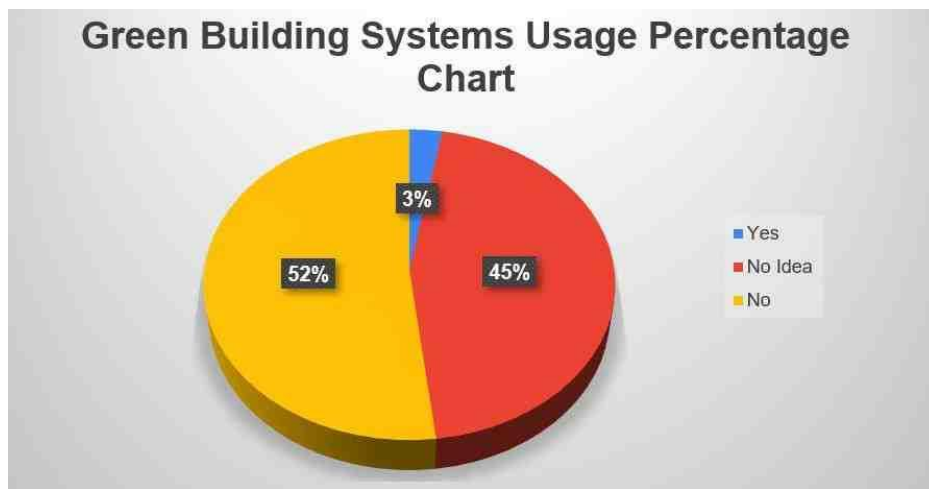


Figure 4.46. Green Building Systems Usage Percentage Chart

According to these graphics, only 3% of the respondents (3 people) work in institutions where the green building system is used, while 52% (55 people) work in institutions where the green building system is not used. 45% of the participants (48 people) do not have any idea about the use of green building systems.

The question posed to the participants in the next question of the survey is as follows:

“If the green building system is not used, would you support its use?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses to the use of green building systems are as follows.

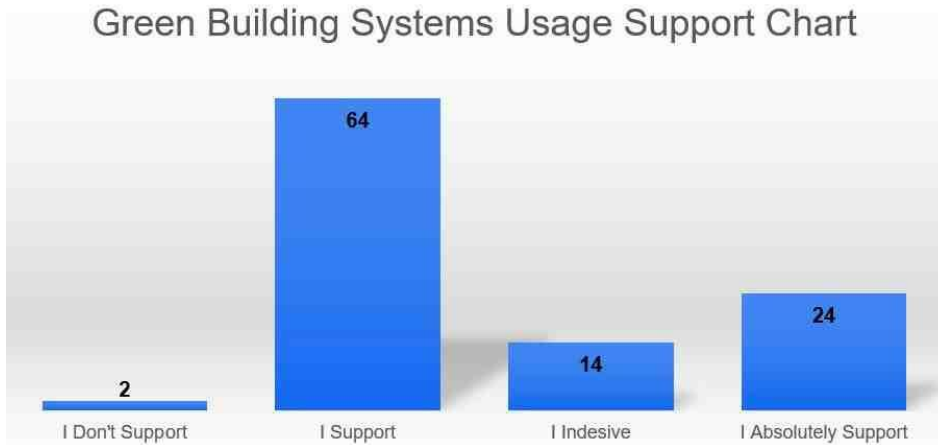


Figure 4.47. Green Building Systems Usage Support Histogram Chart

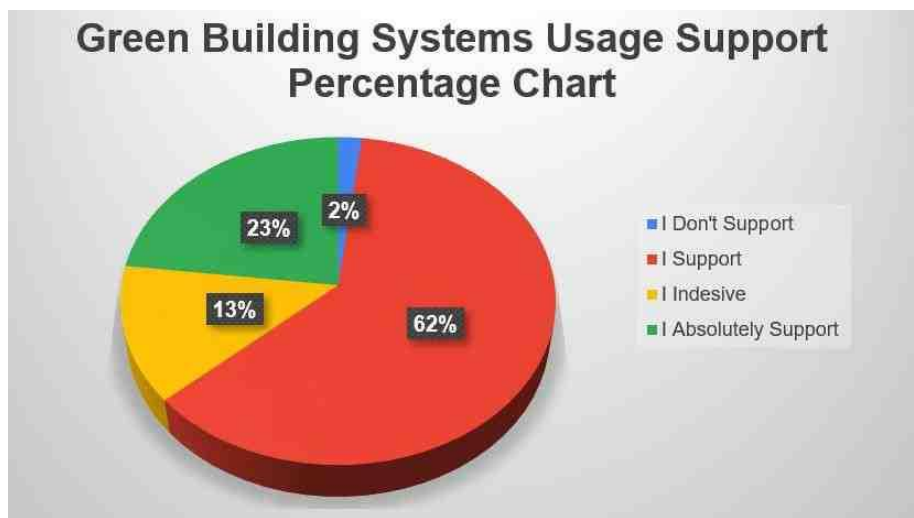


Figure 4.48. Green Building Systems Usage Support Percentage Chart

According to these graphics, 23% of the respondents (24 people) absolutely support the use of green building systems, 62% (64 people) support it, 13% are (14 people) undecided and only 2% of the participants (2 people) do not support the use of green building systems. In addition, although there was the option I absolutely don't support as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Do you think users should be informed about drug waste?”

The histogram and pie-slice graphs of the statistics of the respondents' responses regarding the need to inform drug waste are as follows.



Figure 4.49. Drug Waste Informing Requirement Histogram Chart



Figure 4.50. Drug Waste Informing Requirement Percentage Chart

According to these graphs, 43% of the respondents (45 people) absolutely think that users should be informed about drug waste, 50% (52 people) think, 6% (6 people) are undecided and only 1% of the participants (1 person) do not think that users should be informed about drug waste. In addition, although there was the option I absolutely don't think as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Does your institution use a zero waste system?”

Histogram and pie-slice graphs for the statistics of the respondents' responses regarding the use of the zero waste system are as follows.

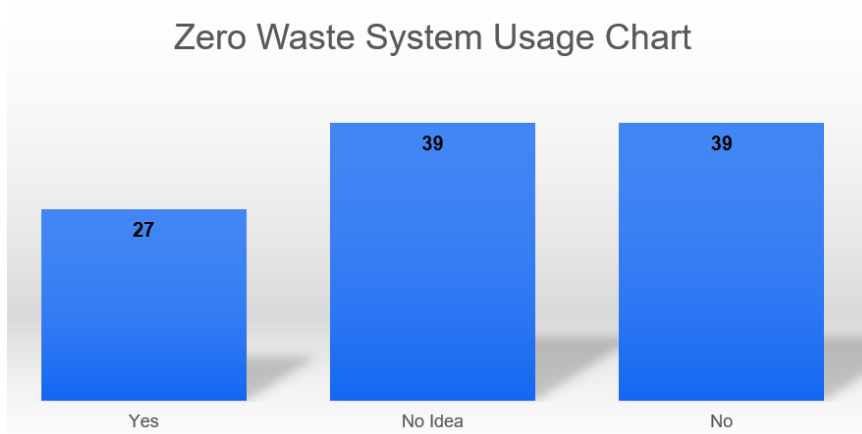


Figure 4.51. Zero Waste System Usage Histogram Chart



Figure 4.52. Zero Waste System Usage Percentage Chart

According to these graphics, only 26% of the respondents (26 people) work in institutions where zero waste system is used, while 37% (39 people) work in institutions where zero waste system is not used. 37% of the participants (39 people) do not have any idea about the use of the zero waste system.

The question posed to the participants in the next question of the survey is as follows:

“If it is not used, would you support its use?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses to support the use of zero waste system are as follows.

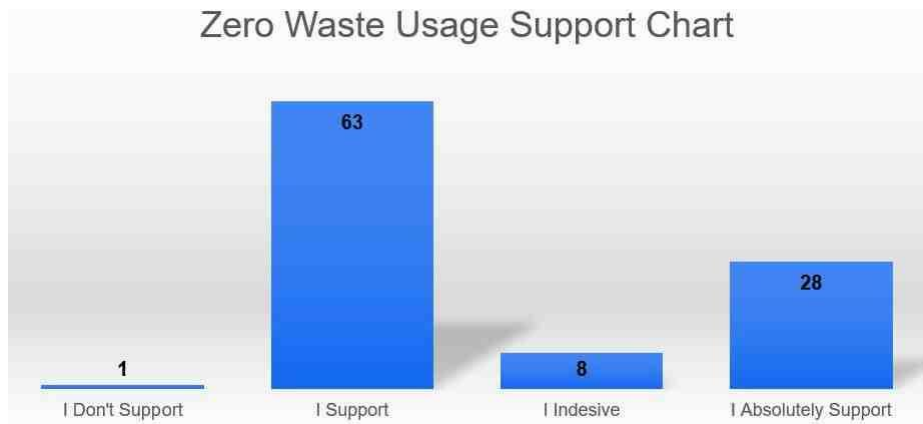


Figure 4.53. Zero Waste Usage Support Histogram Chart

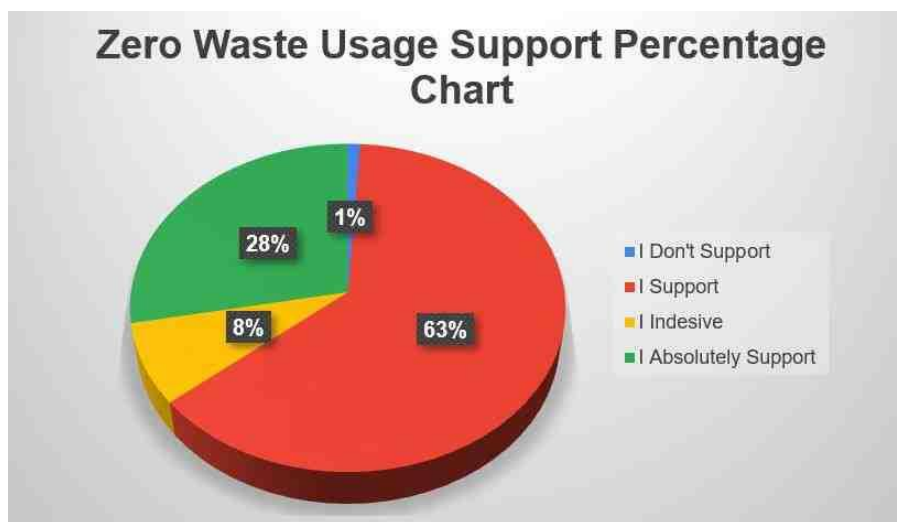


Figure 4.54. Zero Waste Usage Support Percentage Chart

According to these graphs, 28% of the respondents (28 people) absolutely support the use of the zero waste system, 63% (63 people) support the use of the zero waste system, 8% (8 people) are undecided and only 1% of the participants (1 person) do not support the use of the zero waste system of the users. In addition, although there was the option I absolutely don't support as an answer, none of the participants preferred this answer.

The question posed to the participants in the next question of the survey is as follows:

“Do you think your transport system needs improvement in terms of energy efficiency?”

Histogram and pie-slice graphs for the statistics of the respondents' responses regarding the need for improvement in terms of energy efficiency of the transport system are as follows.

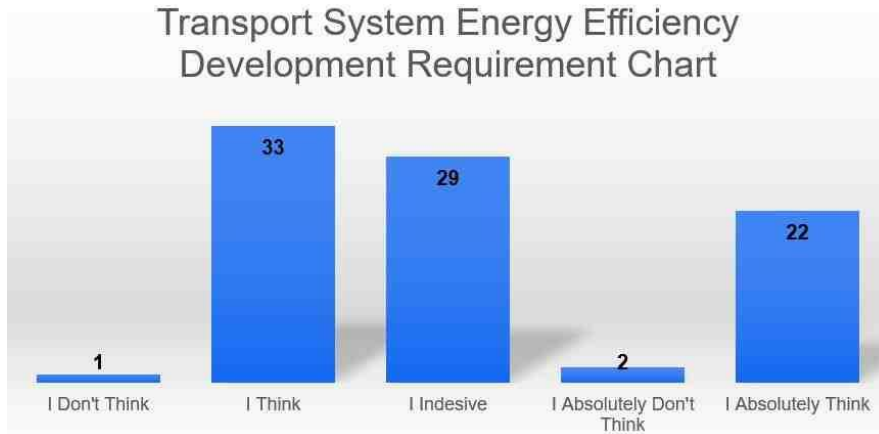


Figure 4.55. Transport System Energy Efficiency Development Requirement Histogram Chart

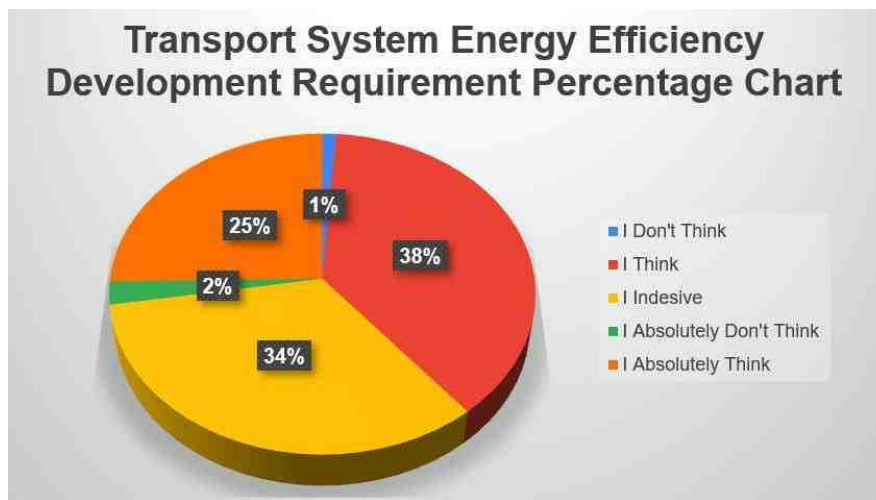


Figure 4.56. Transport System Energy Efficiency Development Requirement Percentage Chart

According to these graphs, 25% of the respondents (22 people) absolutely think that the transportation system needs improvement in terms of energy efficiency, 38% (33 people) think, 34% (29 people) are unstable, 1% (1 person) do not. Only 2% of the participants (2 people) absolutely do not think that the transport system needs improvement in terms of energy efficiency.

The question posed to the participants in the next question of the survey is as follows:

“Is the GDP guideline respected during the transport process?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses regarding the implementation of the GDP guide during the migration process are as follows.

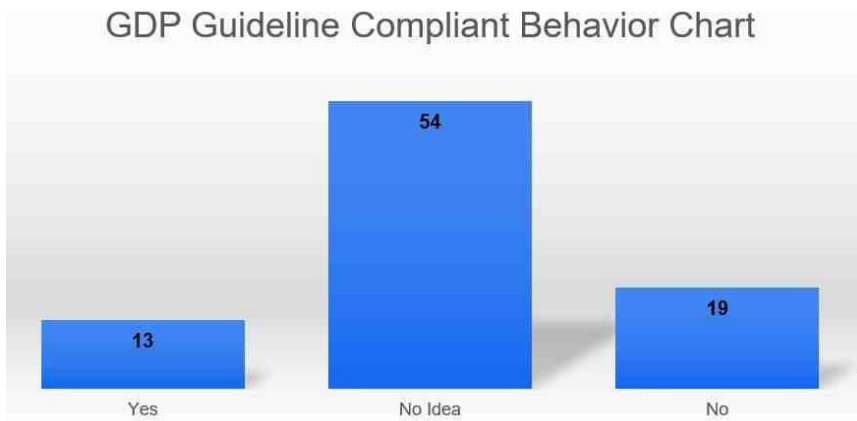


Figure 4.57. GDP Guideline Compliant Behavior Histogram Chart

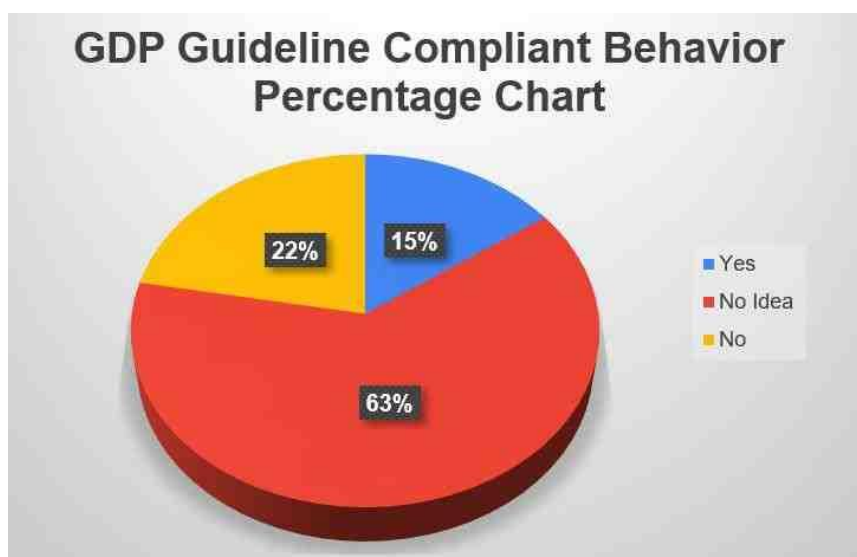


Figure 4.58. GDP Guideline Compliant Behavior Percentage Chart

According to these graphics, only 15% of the respondents (13 people) think that the GDP Guidelines are followed during the transportation process, while 22% (19 people) think that the GDP Guidelines are not followed. 63% of the participants (54 people) do not have any idea about compliance with the GDP Guidelines.

The question posed to the participants in the next question of the survey is as follows:

“Would you support the GDP guideline to become a legal obligation?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses to support the GDP Guidelines as a legal obligation are as follows.



Figure 4.59. GDP Guideline Legal Requirement Support Histogram Chart

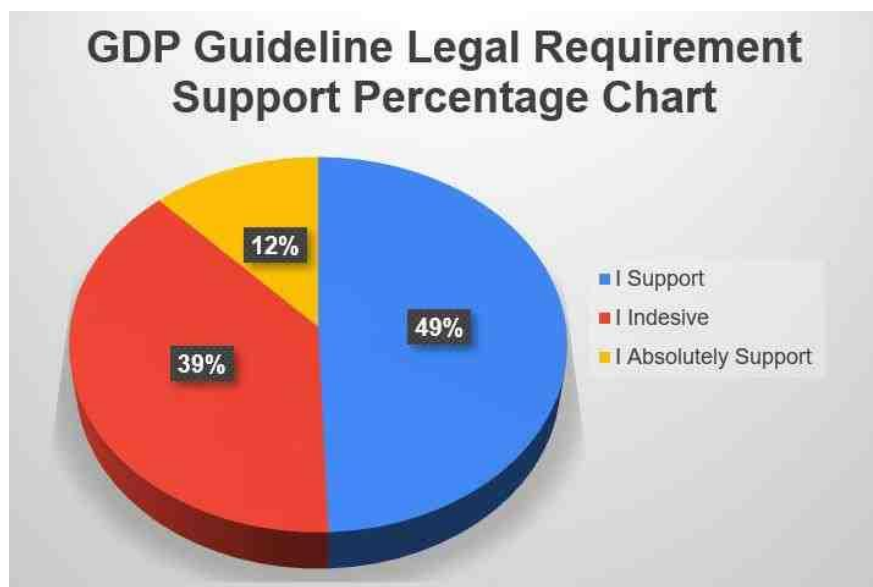


Figure 4.60. GDP Guideline Legal Requirement Support Percentage Chart

According to these graphics, 12% of the respondents (10 people) absolutely support making the GDP Guidelines a legal obligation, while 49% (41 people) support them and 39% (32 people) are undecided. Also, although there are options I don't support and I absolutely don't support, none of the participants chose these options.

The question posed to the participants in the next question of the survey is as follows:

“Is Teflon white paint used in the pharmaceutical warehouse used by your institution?”

The histogram and pie-slice graphs of the responses of the respondents regarding the use of Teflon white paint in pharmaceutical warehouses are as follows.

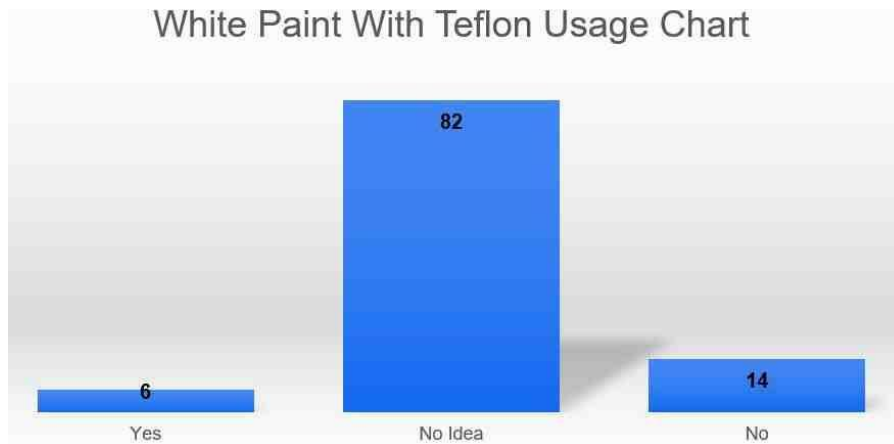


Figure 4.61. White Paint With Teflon Usage Histogram Chart

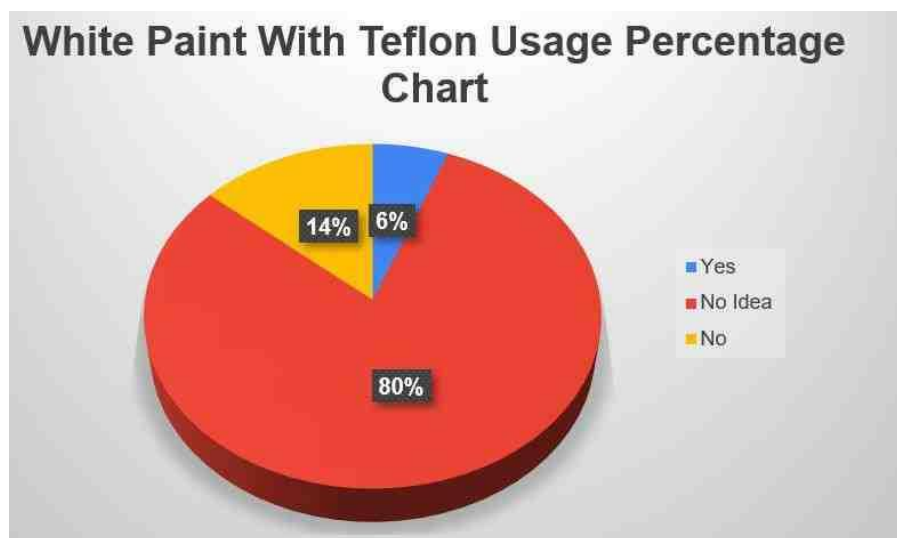


Figure 4.62. White Paint With Teflon Usage Percentage Chart

According to these graphics, only 6% of the respondents (6 people) stated that Teflon white paint was used in the pharmaceutical warehouses used by their institutions, while 14% (14 people) stated that Teflon white paint was not used in the pharmaceutical warehouses used by their institutions. In addition, 80% of the participants (82 people) do not have any idea about the use of Teflon white paint.

The question posed to the participants in the next question of the survey is as follows:

“Would you support the use of Teflon white paint in pharmaceutical warehouses?”

The histogram and pie-slice graphs of the statistics of the respondents’ responses to the use of Teflon white paint in pharmaceutical warehouses are as follows.

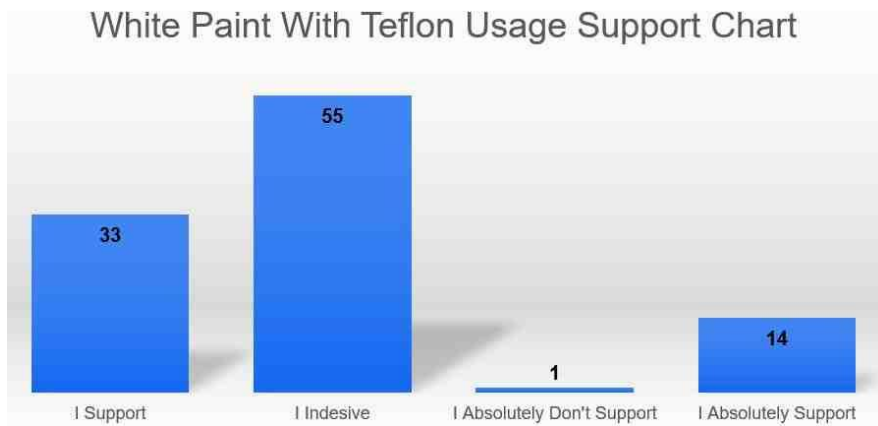


Figure 4.63. White Paint With Teflon Usage Support Histogram Chart

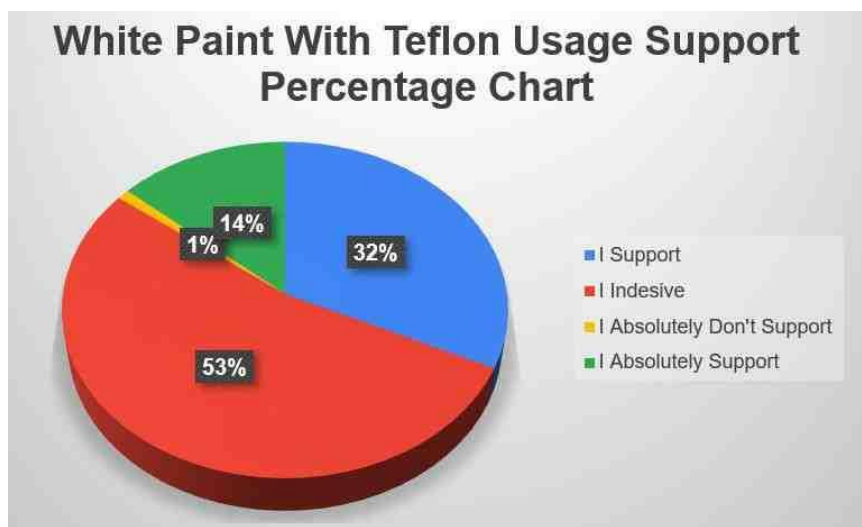


Figure 4.64. White Paint With Teflon Usage Support Percentage Chart

According to these graphs, 14% of the respondents (14 people) absolutely support the use of Teflon white paint in pharmaceutical warehouses, while 32% (33 people) support the use of Teflon white paint, 53% (55 people) are undecided, and only 1% of the participants (1 person) absolutely don't support the use of Teflon white paint in pharmaceutical warehouses. In addition, although there is an option I don't support, none of the participants chose this option.

The question posed to the participants in the next question of the survey is as follows:

“Does your institution use UATF for all waste?”

The histogram and pie-slice graphs of the statistics of the respondents' responses regarding the use of UATF are as follows.

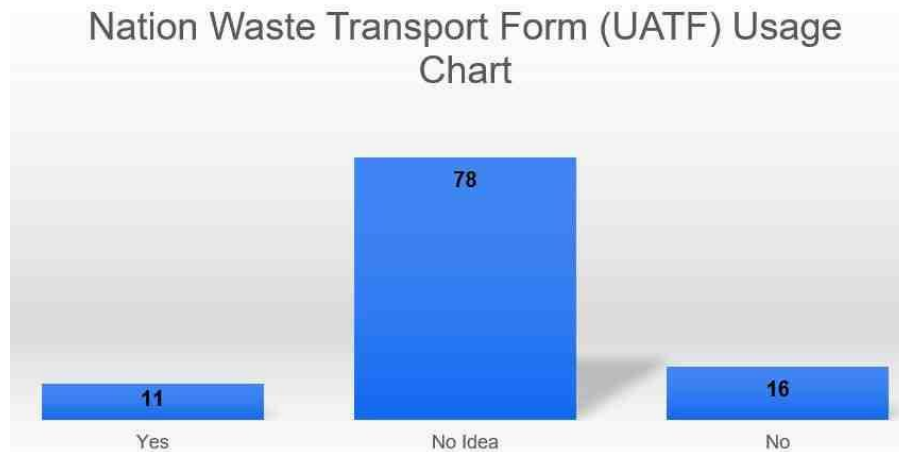


Figure 4.65. Nation Waste Transport Form (UATF) Usage Histogram Chart

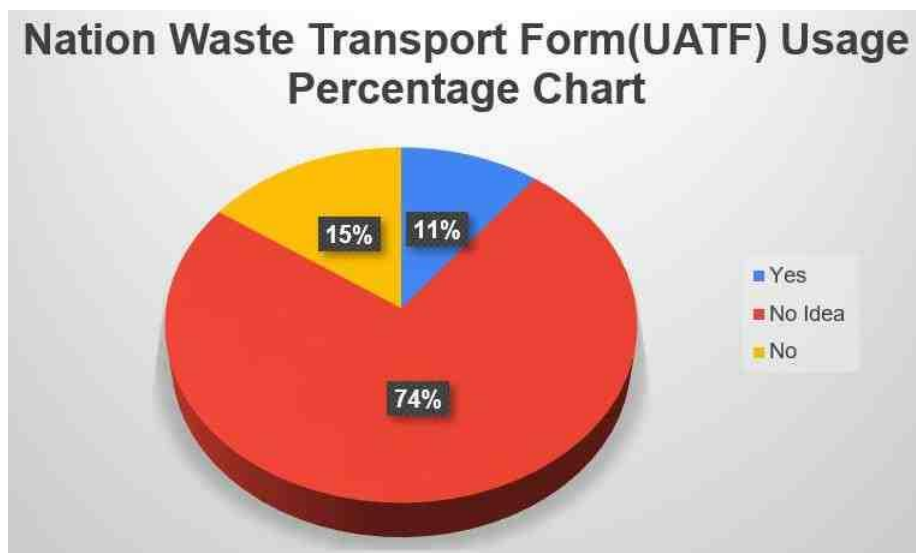


Figure 4.66. Nation Waste Transport Form (UATF) Usage Percentage Chart

According to these graphics, only 11% of the respondents (11 people) state that UATF is used for all wastes in the institutions they work with, while 15% (16 people) state that UATF is not used for all wastes in the institutions they work. In addition, 74% of the participants (78 people) do not have any idea about the use of UATF.

The question posed to the participants in the last question of the survey is as follows:

“Do you think the use of UATF should become widespread in your institution?”

Histograms and pie-slice graphs of the statistics of the respondents’ responses regarding the need to expand the use of UATF are as follows.

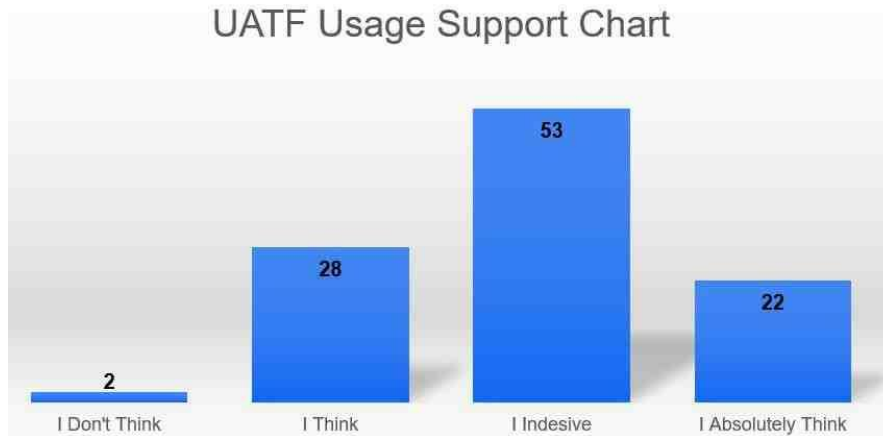


Figure 4.67. UATF Usage Support Histogram Chart

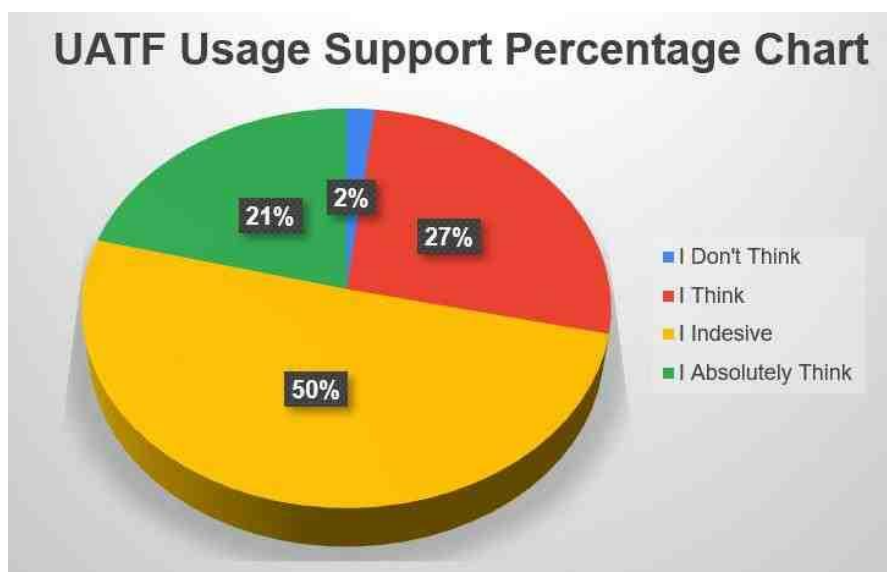


Figure 4.68. UATF Usage Support Percentage Chart

According to these graphs, 21% of the respondents (22 people) absolutely think that the use of UATF should be expanded, 27% (28 people) think, 50% are (53 people) undecided and only 2% of the participants (2 people) do not think that the use of UATF should be expanded. In addition, although there is an option of I absolutely don't think, none of the participants chose this option.

According to the results obtained from the survey answers, current applications are mostly insufficient. In addition, medical supply chain employees, who are the primary interlocutors of these practices, greatly support the spread of green practices. Considering these results, it is expected that great success will be achieved if the recommendations are implemented.

In the next section, it will be provided a brief on correlation analysis results for the survey of green practices in the medical supply chain.

4.1. CORRELATION ANALYSIS

The data used in this study were obtained through the Likert scale using the survey method. The data obtained are not suitable for normal distribution due to its structure. Normality test is presented in Appendix section 6.1.2. Normality Test. For this reason, Two Tailed Spearman Correlation test, which is a non-parametric analysis method, was applied in accordance with the data. Since only scale sizes can be controlled in non-parametric tests, parametric results for gender and occupation were also examined. The tests were carried out through the SPSS program and the test results are presented in Appendix section 6.1.3. as a table. The correlations found according to the test results and the estimated reasons for these correlations are as follows.

According to the tests results;

No significant correlations were obtained between gender and any other data. As the reason for this; it is thought that the need for green practice is valid for all people regardless of gender. For this reason, current practices evaluations and support situations are not affected by the gender variable.

No significant correlations were obtained between occupation and any other data. The reason for this is the universality of the need for green practice. People do not need to belong to any professional group to realize the effectiveness of current practices. In addition, considering that every conscious person will realize the need for green practice, it is an expected result that there will not be a significant correlation.

A very significant positive ($p < 0.01$) correlation was found between age and education level. The reason for this correlation is estimated as the time required for the education level to rise. A very significant negative correlation ($p < 0.01$) was found between age and salaried environmental worker support. The reason for this negative correlation is estimated as the generation difference. This awareness is higher in the younger generation as environmental issues have gained importance recently. For this reason, the salaried environmental element seems to be an unusual idea for the older generation. There is a very significant negative correlation ($p < 0.01$) between age and the use of UATF for all waste. The reason for this is thought to be related to the time people spend in their institutions. Since the use of UATF is not an old practice, institutions that have been in existence for many years have not been able to use UATF for all their wastes. It is thought that there is a very significant negative correlation

($p < 0.01$) between age and the use of UATF for all wastes due to the responses of older people who have been working in these institutions for many years.

A negatively significant ($p < 0.05$) correlation was found between education and green purchasing usage. The correlation of this seems to be an unexpected result in terms of research. The correlation between education level and awareness is considered as the predicted reason for this relationship. As the level of education increases, people have more insight into green practices and can better observe the lack of these practices. In addition, the concept of green purchasing is considered to be a relatively new concept as another possible reason. Green purchasing, a concept unheard of by the older generation, may still be unfamiliar to this generation. Considering the significant correlation between education and age, it is predicted that this effect may also be reflected in the education correlation. Still, it is thought that researching this unexpected correlation and the reason for this correlation will contribute to the literature. A negatively significant correlation ($p < 0.05$) was found between education and support for the compulsory use of only e-result system. This result was an unexpected result for the research. The reason for this result is predicted to be the correlation between the participants and the result system. Employees with a high level of education are less concerned with the results system and delivery of results than other supply chain employees. For this reason, they are not aware of the workload created by the result delivery process. However, employees with a relatively low level of education are more aware of the benefits of using the compulsory e-results system, as they are more frequently involved in the results system. In addition, the concept of e-result is considered to be a relatively new concept as another possible cause. E-result, a concept unheard of by the older generation, may still be unfamiliar to this generation. Considering the significant correlation between education and age, it is predicted that this effect may also be reflected in the education correlation. Still, it is thought that researching this unexpected relationship and the reason for this correlation will contribute to the literature. A very significant negative correlation ($p < 0.01$) was found between education and the usage of zero waste system. This result was an unexpected result for the research. The reason for this result is predicted to be the decrease in the ability of the participants to distinguish between the waste system and the zero waste system as the level of education decreases. The zero waste system is a very difficult and rare practice to implement. Such a relationship is anticipated as participants with relatively low education levels consider it as a waste system. In addition, this estimate matches with the answers given by the participants with different education levels working in the same institution. In addition, as another possible reason, the concept of zero

waste system is considered to be a relatively new concept. The zero waste system, a concept not heard much by the older generation, may still be unfamiliar to this generation. Considering the significant correlation between education and age, it is predicted that this effect may also be reflected in the education correlation. Still, it is thought that researching this unexpected correlation and the reason for this correlation will contribute to the literature. A very significant positive correlation ($p < 0.01$) was found between education level and behavior in accordance with the GDP Guidelines. The reason for this correlation is again the correlation between the education level of the people and the institution they work for. Green practices are considered to be more prevalent in higher education levels, as they work in institutions with relatively higher status. A negatively significant correlation ($p < 0.05$) was found between education level and supporting the use of Teflon white paint in pharmaceutical warehouses. This is thought to be due to an incomplete knowledge common among people with higher education levels. Due to the very common knowledge that Teflon is a carcinogenic substance, people with a high level of education may be biased towards using Teflon white paint. In addition, the concept of Teflon white paint as another possible reason is considered to be a relatively new concept. Teflon white paint, a concept not heard much by the older generation, may still be unfamiliar to this generation. Considering the significant correlation between education and age, it is predicted that this effect may also be reflected in the education correlation. Still, it is thought that researching this unexpected correlation and the reason for this correlation will contribute to the literature. It is thought that there is a correlation between the education level of individuals and their interactions with pharmaceutical warehouses.

There is a negatively very significant ($p < 0.01$) correlation between the use of renewable energy and the need to increase the use of recyclable products. The reason for this correlation is thought to be the improved recyclable product usage rates of institutions using renewable energy. For this reason, the participants do not feel any need for improvement. It was found that there is a very significant positive correlation ($p < 0.01$) between the use of renewable energy and regular medical waste trainings. The reason for this correlation is thought to be the positive correlation between institutions implementing green practices and regular medical waste trainings. There is a very significant positive correlation ($p < 0.01$) between the use of renewable energy and green medical supply chain trainings. The reason for this correlation is considered to be the positive correlation between the use of renewable energy and trainings on green practices, as in medical waste trainings. A very significant positive correlation ($p < 0.01$) has been found between the use of renewable energy and the use of green building systems. The close

relationship between the use of renewable energy and the use of green building systems is considered as the reason for this correlation. As it is known, the use of renewable energy is one of the most important parts of green building systems. Therefore, the positive correlation between the two results was predictable. A very significant positive correlation ($p < 0.01$) was found between the use of renewable energy and the use of Teflon white paint in pharmaceutical warehouses. The energy efficiency provided by both practices is predicted as the reason for this correlation. As it is known, the use of Teflon white paint is an important practice for energy efficiency. At the same time, the use of renewable energy is very important for energy efficiency. For this reason, it is thought that there is a positive relationship between the data regarding these two practices.

A very significant positively ($p < 0.01$) correlation was found between renewable energy use support and recycling system development support. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for renewable energy and the participants who are aware of the need for the recycling system are mostly the same people. For this reason, this correlation becomes understandable. A very significant positive correlation ($p < 0.01$) was found between the support for renewable energy use and the need to increase green purchases. The green practices needs awareness of the participants is considered as the reason for this correlation. Considering the large intersection cluster formed by the participants who are aware of the need for renewable energy and the participants who are aware of the increasing need for green purchases, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the support of renewable energy use and the need for increasing green packaging practices. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system need. For this reason, this significant correlation is expected between the participants who are aware of both needs. A very significant positive correlation ($p < 0.01$) was found between the support of renewable energy use and the increasing need for green medical supply chain trainings. The reason for this correlation is considered to be the parallelism between the participants' green practices needs awareness and education awareness. Participants who are aware of the need for renewable energy are mostly aware of the increasing need for green medical supply chain trainings. For this reason, this correlation becomes an expected result. A very significant positive correlation ($p < 0.01$) was found between support for renewable energy use and support for salaried environmental personnel. The green practices

needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for renewable energy and the participants who are aware of the need for salaried environmental personnel are mostly the same group. Therefore, this significant correlation is expected. A very significant positive correlation ($p < 0.01$) was found between support for renewable energy use and support for green building systems. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for renewable energy are mostly aware of the need for using a green building system as well as other green practices needs. Therefore, this significant correlation between the two practices is an expected relationship. A positively very significant correlation ($p < 0.01$) was found between the use of renewable energy support and the need for information on drug waste separation. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for renewable energy and the participants who are aware of the need for drug waste separation information are mostly a common community. Therefore, this correlation is a predictable result. A very significant positive correlation ($p < 0.01$) was found between support for renewable energy use and support for zero waste usage. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole systems need. For this reason, this significant correlation is expected between the participants who are aware of both needs.

There is a positively very significant ($p < 0.01$) correlation between the development need of the recycling system and the need to increase the use of recyclable products. The relationship between the recycling system and the use of recyclable products is seen as the reason for this result. The development needs of both systems move parallel to each other. There is a very significant positive correlation ($p < 0.01$) between the development need of the recycling system and the need for increasing green purchases. The green practices needs awareness of the participants is considered as the reason for this correlation. The users who are aware of the development needs of the recycling system and the users who are aware of the increasing need for green purchases are in parallel to a large extent. Therefore, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the development need of the recycling system and the need for increasing green packaging practices. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the development need of the recycling system and the participants who are aware of the increasing need of green packaging practices are mostly common

participants. So this correlation is a reasonable result. A very significant positive correlation ($p < 0.01$) was found between the development need of the recycling system and the need for increasing green medical supply chain trainings. The reason for this correlation is considered to be the parallelism between the participants' awareness of green practices needs and their awareness of training needs. Considering the large intersection cluster formed by the participants who are aware of the development need of the recycling system and the participants who are aware of the need for increasing the green medical supply chain trainings, this correlation seems reasonable. There is a very significant negative correlation ($p < 0.01$) between the development need of the recycling system and the use of green building systems. The strong link between green practices is considered as the reason for this correlation. The recycling system is an important part of green building systems. Therefore, the recycling system has developed sufficiently in the institutions using the green building systems and the participants do not feel the need to develop the recycling system. For this reason, the negative relationship between the development requirement of the recycling system and the use of green building systems is an expected result. A positively very significant correlation ($p < 0.01$) was found between the development requirement of the recycling system and the need for improvement in terms of energy efficiency of the transportation system. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the development need of the recycling system are mostly aware of the need for improvement in terms of energy efficiency of the transportation system. Likewise, participants who are aware of the need for improvement in terms of energy efficiency of the transportation system are also aware of the development need of the recycling system. Therefore, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the development need of the recycling system and the need to expand the use of UATF. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system's needs. For this reason, this significant correlation is expected between the participants who are aware of both needs.

There is a positively very significant ($p < 0.01$) correlation between the use of recyclable products and medical waste trainings. The reason for this correlation is considered to be the awareness of institutions for green practices and training needs. Considering the parallelism between institutions that pay attention to the use of recyclable products and institutions that pay attention to medical waste trainings, this correlation is expected. There is a very significant

positive correlation ($p < 0.01$) between the use of recyclable products and the use of green building systems. The green practices awareness of the institutions is considered as the reason for this correlation. The recycling system is an important part of green building systems. For this reason, this correlation between the use of recyclable products and the use of green building systems becomes predictable. A very significant negative correlation ($p < 0.01$) was found between the use of recyclable products and the need for improvement in terms of energy efficiency of the transportation system. The reason for this correlation is considered to be the parallelism of the green practices usage of the institutions. Considering the parallelism between the institutions paying attention to the use of recyclable products and the institutions paying attention to the energy efficiency of the transportation system, this correlation is reasonable. A very significant positive correlation ($p < 0.01$) was found between the use of recyclable products and compliance with the GDP Guidelines. The parallel relationship between the green practices usage of the institutions is considered as the reason for this correlation. Considering the parallelism between institutions that pay attention to the use of recyclable products and companies that pay attention to the condition of compliance with the GDP Guidelines, this correlation is reasonable. A very significant positive correlation ($p < 0.01$) was found between the use of recyclable products and the use of Teflon white paint. The parallel relationship between the green practices use of institutions is considered as the reason for this correlation. Considering the parallelism between institutions that pay attention to the use of recyclable products and companies that pay attention to the use of Teflon white paint, this correlation is reasonable.

A positively very significant ($p < 0.01$) correlation was found between the need for increasing the use of recyclable products and the need for increasing green purchases. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need to increase the use of recyclable products and the participants who are aware of the need for increasing green purchases consist of a largely overlapping sample. Therefore, this correlation seems reasonable. There is a positively very significant correlation ($p < 0.01$) between the need to increase the use of recyclable products and the need to increase medical waste trainings. The parallelism between the participants' awareness of green practice and training needs is considered as the reason for this correlation. Considering the parallelism of users who are aware of the need to increase the use of recyclable products and those who are aware of the need to increase the frequency of medical waste trainings, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the need to

increase the use of recyclable products and the need for increasing green packaging practices. The green practices needs awareness of the participants is considered as the reason for this correlation. Considering the large intersection cluster formed by the participants who are aware of the need to increase the use of recyclable products and the participants who are aware of the need for increasing the use of green packaging, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the need to increase the use of recyclable products and the need for increasing green medical supply chain trainings. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need to increase the use of recyclable products and the participants who are aware of the increasing need for green medical supply chain trainings are largely composed of a common audience. For this reason, this correlation is a predictable result. There is a very significant negative correlation ($p < 0.01$) between the need to increase the use of recyclable products and the use of green building systems. The strong link between green practicess is considered as the reason for this correlation. Environmental practices such as the use of recyclable products constitute an important part of green building systems. For this reason, the negative correlation between the need to increase the use of recyclable products and the use of green building systems is an expected result. A positively very significant correlation ($p < 0.01$) was found between the need to increase the use of recyclable products and the need for information on drug waste separation. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system need. For this reason, this significant correlation is expected between the participants who are aware of both needs. A very significant positive correlation ($p < 0.01$) was found between the need for increasing the use of recyclable products and support for zero waste usage. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need to increase the use of recyclable products and the participants who are aware of the use requirement of zero waste practices are mostly the same people. Therefore, this correlation is a reasonable result. A very significant positive correlation ($p < 0.01$) was found between the need to increase the use of recyclable products and the need to expand the use of UATF. The green practices needs awareness of the participants is considered as the reason for this correlation. Considering the parallelism of the participants who are aware of the need to increase the use of recyclable products and the participants who are aware of the need to expand the use of UATF, this correlation is predictable.

There is a positively very significant ($p < 0.01$) correlation between the use of green purchasing and the use of green packaging. The green practices awareness of the institutions is considered as the reason for this correlation. Considering the parallel between the institutions paying attention to the use of green purchasing and the institutions paying attention to the use of green packaging, this correlation is expected. A positively significant correlation ($p < 0.05$) was found between the use of green purchasing and effective waste management control. The reason for this correlation is considered to be the parallelism between the green practices and waste control requirement awareness of the institutions. Considering the parallelism between institutions that pay attention to the use of green purchasing and institutions that pay attention to effective waste control, this correlation is expected. A very significant negative correlation ($p < 0.01$) was found between the use of green purchasing and the need for effective waste management control development. The reason for this correlation is considered to be the parallelism between the green practices and waste control requirement awareness of the institutions. As stated in the previous correlation, there is a parallelism between institutions that pay attention to the use of green purchasing and institutions that pay attention to effective waste control. Employees of institutions that regularly implement waste controls find waste management audits sufficient and do not need any improvement. Therefore, this negative correlation is expected, which occurs with the control development requirement. There is a very significant positive correlation ($p < 0.01$) between the use of green purchasing and the use of green building systems. The green practices awareness of the institutions is considered as the reason for this correlation. The use of green products is an important part of green building systems. For this reason, this correlation between the use of green purchasing and the use of green building system becomes predictable. There is a very significant positive correlation ($p < 0.01$) between the use of green purchasing and the use of a zero waste system. The green practices awareness of the institutions is considered as the reason for this correlation. Institutions that are aware of the importance of using green products and institutions that are aware of the importance of using zero waste systems are in parallel. For this reason, this correlation between the use of green purchasing and the use of a zero waste system becomes predictable. A very significant positive correlation ($p < 0.01$) was found between the use of green purchasing and the use of Teflon white paint. The parallel relationship between the green practices use of institutions is considered as the reason for this correlation. Considering the parallelism between the companies paying attention to the use of green purchasing and the companies paying attention to the use of Teflon white paint, this correlation is reasonable. A very significant positive correlation ($p < 0.01$) was found between the use of green purchasing and the use of UATF for all waste. The parallel relationship

between the green practices use of institutions is considered as the reason for this correlation. Considering the parallelism between the institutions paying attention to the use of green purchasing and the companies paying attention to the use of UATF, it is seen that this correlation is reasonable.

There is a positively very significant ($p < 0.01$) correlation between the increasing need of green purchasing and the need for increasing medical waste trainings. The parallelism between the participants' awareness of green practices and trainings needs is considered as the reason for this correlation. Considering the intersection cluster of users who are aware of the need to increase the frequency of green purchases and the users who are aware of the need to increase the frequency of medical waste trainings, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the increase requirement of green purchasing operations and the need for increase in green packaging practices. The green practices needs awareness of the participants is considered as the reason for this correlation. Considering the participants who are aware of the increasing need for green purchasing and the common group of participants who are aware of the need for increasing green packaging practices, this correlation is reasonable. A very significant positive correlation ($p < 0.01$) was found between the increasing need for green purchasing operations and the need for increasing green medical supply chain trainings. The reason for this correlation is considered to be the parallelism between the participants' awareness of green practices needs and their awareness of training needs. Participants who are aware of the increasing need for green purchases are mostly aware of the green medical supply chain training and other trainings enhancement needs. Similarly, the participants who are aware of the training increase needs are also aware of the green practices requirements. Therefore, this correlation is predictable. A positively very significant correlation ($p < 0.01$) was found between the increased requirement of green purchases and the need for improvement of waste management controls. The green practices needs awareness of the participants is considered as the reason for this correlation. There is great parallelism between the participants who are aware of the increasing need for green purchasing and the participants who are aware of the need for improvement of waste management controls. Therefore, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the increase requirement of green purchases and green building systems usage support. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system's need. For this reason,

this significant correlation is expected between the participants who are aware of both needs. A positively very significant correlation ($p < 0.01$) was found between the need to increase green purchases and the need for separation of drug waste. The green practices needs awareness of the participants is considered as the reason for this correlation. Considering the large intersection cluster formed by the participants who are aware of the need to increase the green purchasing process and the participants who are aware of the need for information about the separation of drug waste, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the increase requirement of green purchases and support for zero waste usage. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the increasing need for green purchasing operations and the participants who are aware of the usage requirement of zero waste practices are mostly the same people. Therefore, this correlation is a predictable result. A very significant positive correlation ($p < 0.01$) was found between the increase requirement of green purchases and support for the use of Teflon white paint. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need to increase green purchases and the participants who are aware of the need to use Teflon white paint mostly stated similar needs towards green practices, so this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) has been found between the need for increasing the use of green purchases and the need to expand the use of UATF. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need to increase the use of green purchases and the participants who are also aware of the need to expand the use of UATF are largely composed of a similar group. For this reason, this correlation is a predictable result.

A positively very significant ($p < 0.01$) correlation was found between regular medical waste trainings and green medical supply chain trainings. The awareness of the trainings needs of the institutions is considered as the reason for this correlation. Considering the parallelism between institutions that pay attention to regular medical waste trainings and institutions that pay attention to green medical supply chain trainings, this correlation is expected. A very significant positive correlation ($p < 0.01$) was found between regular medical waste trainings and effective waste management control. The reason for this correlation is considered to be the parallelism between the educational needs of institutions and their awareness of waste control needs. Considering the parallelism between institutions that pay attention to regular medical waste trainings and institutions that pay attention to effective waste control, this correlation is

expected. A very significant negative correlation ($p < 0.01$) was found between regular medical waste trainings and the need for effective waste management control development. The parallelism between the medical waste trainings and waste control practices of institutions is considered as the reason for this correlation. As stated in the previous correlation, there is a parallelism between institutions that pay attention to regular medical waste trainings and institutions that pay attention to effective waste control. Considering the relationship between control practices and control requirements, this negative relationship is expected between the control development requirement and effective waste controls. Therefore, this negative correlation is expected, which occurs with the audit development requirement. There is a very significant positive correlation ($p < 0.01$) between regular medical waste trainings and use of green building systems. The reason for this correlation is considered to be the parallelism between the educational needs of institutions and their awareness of green practice needs. For this reason, this correlation between regular medical waste trainings and the use of green building systems becomes predictable. A very significant positive correlation ($p < 0.01$) was found between regular medical waste trainings and the use of Teflon white paint. The parallel relationship between the green practice use of institutions and education practices is considered as the reason for this correlation. Considering the parallelism between institutions that pay attention to regular medical waste trainings and institutions that pay attention to the use of Teflon white paint, this correlation is reasonable.

A very significant positive correlation ($p < 0.01$) was found between the increasing need for medical waste trainings and the increasing need for green packaging practices. The reason for this correlation is considered to be the parallelism between the participants' awareness of trainings needs and green practices needs awareness. Considering the large intersection cluster formed by the participants who are aware of the increasing need for medical waste trainings and the participants who are aware of the need for increasing the green packaging practices, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the increasing need for medical waste trainings and the increasing need for green medical supply chain trainings. Participants' awareness of trainings needs is considered as the reason for this correlation. Considering the parallel between the participants who are aware of the need for increasing the medical waste trainings and the participants who are aware of the need for increasing the green medical supply chain trainings, this correlation is predictable. A very significant positive correlation ($p < 0.01$) was found between the increasing need for medical waste trainings and the need for improvement of waste management controls. The

reason for this correlation is considered to be the parallelism between the participants' awareness of trainings needs and green practice needs awareness. Participants who are aware of the need to increase the medical waste trainings and the participants who are aware of the need for improvement of waste management controls gather on a common ground to a large extent. Therefore, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the increasing need for medical waste trainings and the support of salaried environmental personnel. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system's needs. For this reason, this significant correlation is expected between the participants who are aware of both needs. A very significant positive correlation ($p < 0.01$) was found between the increase requirement of medical waste trainings and support for zero waste usage. The reason for this correlation is considered to be the parallelism between the participants' awareness of trainings needs and their awareness of green practices needs. This correlation is predictable considering the parallelism of participants who are aware of the need to increase the medical waste trainings and the participants who are aware of the use requirement of zero waste practices. A positively very significant correlation ($p < 0.01$) was found between the increasing need for medical waste trainings and the need to improve the transportation system in terms of energy efficiency. The reason for this correlation is considered to be the parallelism between the participants' awareness of trainings needs and their awareness of green practices needs. Considering the large intersection cluster formed by the participants who are aware of the need to increase the medical waste trainings and the participants who are aware of the need to improve the transportation system in terms of energy efficiency, this correlation seems reasonable. There is a positively very significant correlation ($p < 0.01$) between the need for increasing the medical waste trainings and the support to make the GDP Guidelines a legal obligation. The reason for this correlation is considered to be the parallelism between the participants' awareness of trainings needs and their awareness of green practices needs. Participants who are aware of the increasing need for medical waste trainings and those who are aware of the need to make the GDP Guidelines a legal obligation often cross. For this reason, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the increase requirement of medical waste trainings and support for the use of Teflon white paint. The reason for this correlation is thought to be the parallelism between the participants' awareness of trainings needs and their awareness of green practices needs. Participants who are aware of the need to increase the medical waste trainings and the participants who are aware of the need to use Teflon white paint are mostly aware of both

practices needs. Therefore, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the need to increase the use of medical waste trainings and the need to expand the use of UATF. The parallelism between awareness of trainings needs and green practices needs awareness is considered as the reason for this correlation. Considering the large intersection cluster of participants who are aware of the need to increase the use of UATF, this correlation seems reasonable.

There is a very significant positive correlation ($p < 0.01$) between the use of green packaging and the use of zero waste system. The green practices awareness of the institutions is considered as the reason for this correlation. Institutions that are aware of the importance of using green packaging and institutions that are aware of the importance of using zero waste systems are in parallel. For this reason, this correlation between the use of green purchasing and the use of zero waste system becomes predictable.

A positively very significant correlation ($p < 0.01$) was found between the increase in green packaging usage requirement and the increase need for green medical supply chain trainings. The reason for this correlation is considered to be the parallelism between the participants' awareness of green practices needs and their awareness of training needs. Participants who are aware of the need to increase the use of green packaging and the participants who are aware of the increasing need for green medical supply chain trainings are mostly the same participants. So this correlation is reasonable. A positively very significant correlation ($p < 0.01$) was found between the increase requirement of green packaging usage and the need for improvement of waste management controls. The reason for this correlation is considered to be the parallelism between the participants' awareness of the needs for green practices and the need for controls. There is a great parallelism between the participants who are aware of the need to increase the green packaging practices and the participants who are aware of the need for improvement of waste management controls. Considering this parallelism, this correlation is a predictable result. A positively very significant correlation ($p < 0.01$) was found between the green packaging usage increase requirement and the support of mandatory usage the only e-result system. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system's need. For this reason, this significant correlation is expected between the participants who are aware of both needs. A very significant positive correlation ($p < 0.01$) was found between the need for increasing the use of green packaging and the support of salaried environmental personnel. The green practices needs awareness of the participants is considered

as the reason for this correlation. Considering the intersection of the participants who are aware of the need for green packaging usage increase and the participants who are aware of the need for salaried environmental personnel, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the need for increasing the use of green packaging and support for green building systems. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need to increase the use of green packaging and the participants who are aware of the need for using a green building system are mostly composed of a common crowd of people. Therefore, this correlation is a predictable result. A positively very significant correlation ($p < 0.01$) was found between the need to increase the use of green packaging and the need for information on drug waste separation. The green practices needs awareness of the participants is considered as the reason for this correlation. This correlation is an expected result, as the participants who are aware of the need to increase the use of green packaging and the participants who are aware of the need for information on drug waste segregation are mostly aware of both needs. A very significant positive correlation ($p < 0.01$) was found between the need for increasing the use of green packaging and support for zero waste usage. The green practices needs awareness of the participants' is considered as the reason for this correlation. There is a high parallelism between participants who are aware of the need to increase the use of green packaging and those who are aware of the need to use zero waste practices. So this correlation is a reasonable result. A positively very significant correlation ($p < 0.01$) was found between the need to increase the use of green packaging and the need to improve the transportation system in terms of energy efficiency. The green practices needs awareness of the participants is considered as the reason for this correlation. Considering the large intersection cluster formed by the participants who are aware of the need to increase the use of green packaging and the participants who are aware of the need to improve the transportation system in terms of energy efficiency, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the need to increase the use of green packaging and support for the use of Teflon white paint. The reason for this correlation is thought to be the participants' awareness of green practice needs. Participants who are aware of the need to increase the use of green packaging and those who are aware of the need to use Teflon white paint overlap to a large extent. Therefore, this correlation is a predictable result. A very significant positive correlation ($p < 0.01$) was found between the need to increase the use of green packaging and the need to expand the use of UATF. Green practices needs awareness is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole

system's needs. For this reason, this significant correlation is expected between the participants who are aware of both needs.

A very significant positive correlation ($p < 0.01$) was found between green medical supply chain trainings and effective waste management control. The parallelism between the training needs of institutions and their awareness of waste control needs is considered as the reason for this correlation. Considering the parallelism between institutions that pay attention to green medical supply chain trainings and institutions that pay attention to effective waste control, this correlation is expected. A very significant positive correlation ($p < 0.01$) was found between green medical supply chain trainings and salaried environmental worker support. The close relationship between the trainings provided by the institutions and the green practices needs awareness of the participants is considered as the reason for this correlation. This correlation is predictable when considering the common mass of participants who receive green medical supply chain trainings and the participants who are aware of the need for salaried environmental personnel. There is a very significant positive correlation ($p < 0.01$) between green medical supply chain trainings and the use of green building systems. The reason for this correlation is considered to be the parallelism between the training needs of institutions and their awareness of green practices needs. For this reason, this correlation between green medical supply chain trainings and green building systems usage becomes predictable. A positively very significant correlation ($p < 0.01$) was found between green medical supply chain trainings and GDP Guidelines compliance. The reason for this correlation is considered to be the parallelism between the training needs of institutions and their awareness of green practices needs. Considering the use of green practices by institutions that implement green medical supply chain trainings, this result seems reasonable. A very significant positive correlation ($p < 0.01$) was found between green medical supply chain trainings and the use of Teflon white paint. The parallel relationship between the green practices use of institutions and training needs is considered as the reason for this correlation. Considering the parallelism between institutions that pay attention to green medical supply chain trainings and institutions that pay attention to the use of Teflon white paint, this correlation is reasonable. A very significant positive correlation ($p < 0.01$) was found between green medical supply chain trainings and the use of UATF. The reason for this correlation is considered to be the parallelism between the training needs of institutions and their awareness of green practices needs. Considering the large intersection clusture of institutions that pay attention to green medical supply chain training

practices and institutions that pay attention to the use of UATF, this correlation seems reasonable.

A positively very significant correlation ($p < 0.01$) was found between the need to increase green medical supply chain trainings and the need for improvement of waste management controls. The reason for this correlation is considered to be the parallelism between the participants' awareness of the need for green practices and training practices. Participants who are aware of the need to increase green medical supply chain trainings and the participants who are aware of the development need of waste management controls are mostly composed of the same group. Therefore, this correlation is a predictable result. A positively very significant correlation ($p < 0.01$) was found between the need for increasing green medical supply chain trainings and support for salaried environmental personnel. The reason for this correlation is considered to be the parallelism between the participants' green practices needs awareness and training practices needs awareness. Participants who are aware of the need for green implementation are mostly aware of the whole system's need. For this reason, this significant correlation is expected between the participants who are aware of both needs. A very significant positive correlation ($p < 0.01$) was found between the need to increase green medical supply chain training and support for the use of green building systems. The reason for this correlation is considered to be the parallelism between the participants' green practice needs awareness and training practices need awareness. Considering the large intersection cluster of participants who are aware of the need to increase green medical supply chain trainings and the participants who are aware of the need to use the green building systems, this correlation seems reasonable. A positively very significant correlation ($p < 0.01$) was found between the need to increase green medical supply chain trainings and the need for information on drug waste separation. The reason for this correlation is thought to be the parallelism between the participants' green practice needs awareness and training practices need awareness. There is a large sample of participants who are aware of the need to increase green medical supply chain trainings and participants who are aware of the need for information on drug waste separation. Therefore, this correlation is an expected result. A positively very significant correlation ($p < 0.01$) was found between the need to increase green medical supply chain trainings and support for zero waste usage. The reason for this correlation is thought to be the parallelism between the participants' green practices needs awareness and training practices need awareness. Participants who are aware of the need to increase green medical supply chain trainings and the participants who are aware of the need to use zero waste practices are largely aware of both

needs. So this correlation is a reasonable result. A positively very significant correlation ($p < 0.01$) was found between the need to increase green medical supply chain trainings and the need to improve the transportation system in terms of energy efficiency. The reason for this correlation is considered to be the parallelism between the participants' green practices needs awareness and training practices need awareness. Considering the intersection of participants who are aware of the need to increase green medical supply chain trainings and the participants who are aware of the need to improve the transportation system in terms of energy efficiency, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the need for increasing green medical supply chain trainings and support for the use of Teflon white paint. The reason for this correlation is considered to be the parallelism between the participants' green practices needs awareness and training practices need awareness. Participants who are aware of the need to increase green medical supply chain trainings and the participants who are aware of the need to use Teflon white paint, mostly come together on a common ground. Therefore, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the need to increase green medical supply chain trainings and the need to expand the use of UATF. The reason for this correlation is considered to be the parallelism between the participants' awareness of the need for green practices and the need for training practices. Considering the parallelism of the participants who are aware of the need to increase green medical supply chain trainings and the participants who are aware of the need to expand the use of UATF, this correlation seems to be a predictable result.

A very significant negative correlation ($p < 0.01$) was found between effective waste management control and the need for effective waste management control development. The reason for this correlation is obvious. Such a result is expected since controls deemed adequate will eliminate the need for control development. There is a very significant positive correlation ($p < 0.01$) between effective waste management control and the use of green building systems. The reason for this correlation is considered to be the parallelism between the controlling needs of institutions and their awareness of the green practices requirement. For this reason, this correlation between effective waste management control and the use of green building systems becomes predictable. A positively significant correlation ($p < 0.01$) was found between effective waste management control and compliance with GDP Guidelines. The reason for this correlation is considered to be the parallelism between the controlling needs of the institutions and their awareness of the green practices requirement. Considering the use of green practices by institutions that implement effective waste management control, this result is reasonable.

A positively very significant correlation ($p < 0.01$) was found between the need for effective waste management control development and the support for mandatory use of only the e-result system. The green practices needs awareness of the participants is considered as the reason for this correlation. Since the participants who are aware of the need for effective waste management control development and the participants who are aware of the need to use the e-result system are mostly composed of the same people, this correlation seems to be predictable. A very significant positive correlation ($p < 0.01$) was found between the need for effective waste management control development and the support of salaried environmental personnel. The reason for this correlation is considered to be the parallelism between the participants' green practices needs awareness and control practices need awareness. Participants who are aware of the need for effective waste management control development and the participants who are aware of the need for salaried environmental personnel have a large intersection. Therefore, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the need for effective waste management control development and support for the use of green building systems. The reason for this correlation is considered to be the parallelism between the participants' green practices needs awareness and control practices need awareness. There is a high parallelism between the participants who are aware of the need for effective waste management control development and the participants who are aware of the need to use the green building systems. Therefore, this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the need for effective waste management control development and support for zero waste usage. The reason for this correlation is thought to be the parallelism between the participants' awareness of the need for green practices and the need for control practices. Considering the large intersection cluster of the participants who are aware of the need for effective waste management control development and the participants who are aware of the need for the use of zero waste practices, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the need for effective waste management control development and support for the use of Teflon white paint. The reason for this correlation is considered to be the parallelism between the participants' awareness of the needs for green practices and the need for control practices. Participants who are aware of the need for effective waste management control development are mostly aware of the need to use Teflon white paint. Likewise, the participants who are aware of the need to use Teflon white paint are also largely aware of the need for effective waste management control. Therefore, this correlation is a predictable result. A positively very significant correlation ($p < 0.01$) was found between the need for effective waste management

control development and the need to expand the use of UATF. The reason for this correlation is considered to be the parallelism between the participants' awareness of the need for green practices and the need for control practices. Considering that the participants who are aware of the need for effective waste management control development and the participants who are aware of the need to expand the use of UATF are mostly composed of the same population, it is seen that this correlation is an expected result.

A positively very significant correlation ($p < 0.01$) was found between the support for the use of e-result system only and the support for green building systems. Participants' awareness of the needs for green practices is considered as the reason for this correlation. Participants who are aware of the needs for green practices are mostly aware of the whole system's need. For this reason, this significant correlation is expected between the participants who are aware of both needs.

A very significant positive correlation ($p < 0.01$) was found between the support of salaried environmental personnel and the support of using green building systems. Participants' awareness of the needs for green practices is considered as the reason for this correlation. There is a great parallelism between the participants who are aware of the need for salaried environmental personnel and the participants who are aware of the need to use a green building system. So this correlation is a reasonable result. A positively very significant correlation ($p < 0.01$) was found between the support of salaried environmental personnel and the need for information on drug waste separation. The reason for this correlation is considered to be the awareness of the participants needs for green practices. This correlation seems to be a predictable result, as the participants who are aware of the need for salaried environmental personnel and the participants who are aware of the need for information about the separation of drug waste mostly come together in a common sample. A very significant positive correlation ($p < 0.01$) has been found between support for salaried environmental personnel and support for the use of zero waste system. The reason for this correlation is thought to be the participants' awareness of the needs for green practices. Considering the large intersection cluster formed by the participants who are aware of the need for salaried environmental personnel and the participants who are aware of the need for the use of zero waste system, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between the support of salaried environmental personnel and the use of Teflon white paint in pharmaceutical warehouse. The reason for this correlation is considered to be the parallelism between the participants' awareness of the needs for green practices and the use of green practices by the

institutions. A very significant positive correlation ($p < 0.01$) was found between the support of salaried environmental personnel and the need to expand the use of UATF. Participants' awareness of the needs for green practices is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system need. For this reason, this significant correlation is expected between the participants who are aware of both needs.

A very significant positive correlation ($p < 0.01$) was found between the use of green building system and the use of Teflon white paint in pharmaceutical warehouse. The reason for this correlation is considered to be the parallelism between the green practice usage of the institutions.

A positively very significant correlation ($p < 0.01$) was found between the support for the use of green building systems and the need for information on drug waste separation. Participants' awareness of the needs for green practices is considered as the reason for this correlation. Considering the parallelism between the participants who are aware of the need to use green building systems and the participants who are aware of the need for information on drug waste separation, this correlation seems reasonable. A very significant positive correlation ($p < 0.01$) was found between green building systems usage support and zero waste system usage support. The reason for this correlation is thought to be the participants' awareness of the needs for green practices. Considering the large intersection created by the participants who are aware of the need for the use of green building systems and the participants who are aware of the need for the use of zero waste systems, it is realized that this correlation is an expected result. A very significant positive correlation ($p < 0.01$) was found between the support for the use of green building systems and the need to expand the use of UATF. Participants' awareness of the needs for green practices is considered as the reason for this correlation. Participants who are aware of the need for the use of green building systems and the participants who are aware of the need to expand the use of UATF mostly gather on a common ground. Therefore, this correlation is a predictable result.

A very significant positive correlation ($p < 0.01$) was found between the need for information on drug waste separation and support for the use of zero waste system. The reason for this correlation is thought to be the participants' awareness of the needs for green practices. Participants who are aware of the need for green practices are mostly aware of the whole system's need. For this reason, this significant correlation is expected between the participants who are aware of both needs.

A very significant positive correlation ($p < 0.01$) has been found between the use of zero waste system and the use of UATF. The reason for this correlation is considered to be the institutions' awareness of the needs for green practices. Considering the large intersection cluster of institutions that pay attention to the use of zero waste systems and institutions that pay attention to the use of UATF, this correlation seems reasonable.

A very significant positive correlation ($p < 0.01$) has been found between the support for the use of zero waste system and the need for improvement in terms of energy efficiency of the transportation system. The reason for this correlation is considered to be the participants' awareness of the needs for green practices. Considering the large intersection cluster formed by the participants who are aware of the need for the use of zero waste system and the participants who are aware of the need for improvement in terms of energy efficiency of the transportation system, this correlation is reasonable. A very significant positive correlation ($p < 0.01$) was found between the support for the use of zero waste system and the need to expand the use of UATF. The green practices needs awareness of the participants is considered as the reason for this correlation. This correlation seems reasonable considering the intersection of participants who are aware of the need for the use of a zero waste system and those who are aware of the need to expand the use of UATF.

There is a positively very significant correlation ($p < 0.01$) between the need to improve the energy efficiency of the transportation system and the support for making the GDP Guidelines a legal requirement. Participants' awareness of the needs for green practices is considered as the reason for this correlation. There is a broad parallel between the participants who are aware of the need for improvement in terms of energy efficiency of the transportation system and the participants who are aware of the need to make the GDP Guidelines a legal obligation. For this reason, this correlation is an expected result. A positive significant correlation ($p < 0.01$) was found between the need for improvement in terms of energy efficiency of the transportation system and support for the use of Teflon white paint in the pharmaceutical warehouse. Participants' awareness of the needs for green practice is considered as the reason for this correlation. Participants who are aware of the need for improvement in terms of energy efficiency of the transportation system and the participants who are aware of the necessity of using Teflon white paint in the pharmaceutical warehouses are mostly composed of a common audience. Therefore, this correlation is a predictable result.

A very significant positive correlation ($p < 0.01$) was found between the compliance with the GDP Guidelines and the use of Teflon white paint. The parallel correlation between the green

practices use of institutions is considered as the reason for this correlation. Considering the parallelism between the institutions that pay attention to the compliance with the GDP Guidelines and the companies that pay attention to the use of Teflon white paint, this correlation is reasonable. A positively very significant correlation ($p < 0.01$) was found between compliance with the GDP Guidelines and the use of UATF for all waste. The parallel relationship between the green practices usage of the institutions is considered as the reason for this correlation. Considering the parallelism between the institutions that pay attention to the behavior in accordance with the GDP Guidelines and the companies that pay attention to the use of UATF, it is seen that this correlation is reasonable.

A positive significant correlation ($p < 0.01$) was found between the support for making the GDP Guidelines a legal requirement and the support for the use of Teflon white paint in the pharmaceutical warehouses. Participants' awareness of the needs for green practices is considered as the reason for this correlation. Considering the large intersection cluster of participants who are aware of the need to make the GDP Guidelines a legal obligation and the participants who are aware of the necessity of using Teflon white paint in the pharmaceutical warehouses, this correlation seems reasonable. A positively very significant correlation ($p < 0.01$) was found between the support of making the GDP Guidelines a legal obligation and the need to expand the use of UATF. The green practices needs awareness of the participants is considered as the reason for this correlation. Participants who are aware of the need for green implementation are mostly aware of the whole system's need. For this reason, this significant correlation is expected between the participants who are aware of both needs.

A very significant positive correlation ($p < 0.01$) was found between the use of Teflon white paint in the pharmaceutical warehouses stores and the use of UATF for all wastes. The parallel relationship between the green practices usage of the institutions is considered as the reason for this correlation. Considering the parallelism between institutions that pay attention to the use of Teflon white paint in the pharmaceutical warehouses and institutions that pay attention to the use of UATF, this correlation is reasonable.

A very significant positive correlation ($p < 0.01$) has been found between the support for the use of Teflon white paint in pharmaceutical warehouses and the need to expand the use of UATF. The green practices needs awareness of the participants is considered as the reason for this correlation. Considering the intersection between the participants who are aware of the need to use teflon white paint in pharmaceutical warehouses, and who are aware of the need to expand the use of UATF, this correlation seems reasonable.

Considering the correlation results, the results appeared to support the research in general terms. Apart from the ones explained in this section, many meaningful results have been obtained that support these results. According to the correlation results, four unexpected correlations were found. These results are listed as follows.

1. A negatively significant correlation ($p < 0.05$) was found between education and green purchasing use.
2. A negatively significant relationship ($p < 0.05$) was found between education and support for the compulsory use of only e-result system.
3. A very significant negative correlation ($p < 0.01$) was found between education and the use of a zero waste system.
4. A negatively significant correlation ($p < 0.05$) was found between education level and supporting the use of Teflon white paint in pharmaceutical warehouses.

Table 4.1. Correlations Results Table

Explanation	Positive Correlation	Negative Correlation
Time Requirement for Education	Age-Educational Level	
Generation Difference		Age-Salaried Environment Officer
Relationship of Age and Institution		Age-Use of UATF
Unexpected		Education-Green Purchasing Usage, Education-Support Usage of Only E-Result Systems, Education-Usage of Zero Waste System, Education-Support of the Use of Teflon White Paint

Relationship Between Education Level and the Situation	Education-Behavior in According to GDP Guideline	
Relationship Between the Practices and Requirement		Use of Renewable Energy- Need to Increase the Use of Recyclable Products, Development Need of the Recycling System-Use of Green Building Systems, Use of Green Purchasing- Need for Effective Waste Management Control Development, Effective Waste Management Control-Need for Effective Waste Management Control Development,
Relationship Between Trainings and the Green Practices	Use of Renewable Energy-Regular Medical Waste Trainings, Use of Renewable Energy-Green Medical Supply Chain Trainings, Use of Recyclable Products-Medical Waste Trainings, Regular Medical Waste Trainings-Effective Waste Management Control, Regular Medical Waste Trainings-Use of Green Building System, Regular Medical Waste Trainings-Use of Teflon White Paint, Green Medical Supply Chain Trainings-Effective Waste Management Control, Green Medical Supply Chain Trainings-Use of Green Building System, Green Medical Supply Chain Trainings-GDP Guidelines Compliance, Green Medical Supply Chain Trainings-Use of Teflon White	Medical Waste Education- Need for Effective Waste Management Control Development,

	Paint, Green Medical Supply Chain Trainings-Use of UATF	
Relationship Between the Green Application Usage of the Institutions	Use of Renewable Energy-the Use of Green Building Systems, Use of Renewable Energy-Use of Teflon White Paint, Use of Recyclable Products-Use of Green Building Systems, Use of Recyclable Products-Compliance with the GDP Guidelines, Use of Recyclable Products-Use of Teflon White Paint, Use of Green Purchasing-Effective Waste Management Control, Use of Green Purchasing-Use of Green Building Systems, Use of Green Purchasing-Use of Zero Waste System, Use of Green Purchasing-Use of Teflon White Paint, Use of Green Purchasing-Use of UATF, Use of Green Packaging-Use of Zero Waste System, Effective Waste Management Control-Green Building Systems, Effective Waste Management Control-Compliance with GDP Guidelines, Use of Green Building Systems-Use of Teflon White Paint, Use of Zero Waste System-Use of UATF, Compliance with the GDP Guidelines-Use of Teflon White Paint, Compliance with the GDP Guidelines-Use of UATF, Use of Teflon White Paint-Use of UATF	Use of Recyclable Products-Need for Improvement in Terms of Energy Efficiency of the Transportation System,
The Green Practices Needs Awareness of Participants	Renewable Energy Use Support-Recycling System Development Support, Support for Renewable Energy Use-the Need to Increase Green Purchases, Support of Renewable Energy Use-the Need for Increasing Green Packaging, Support for Renewable Energy Use-Support for Salaried Environmental Personnel, Support for Renewable Energy Use and Support for Green Building Systems, Use of Renewable Energy Support-Need for Information on Drug Waste Separation, Support for Renewable Energy Use-Support for Zero Waste Use, Development Need of the Recycling System-Need to Increase the Use of Recyclable Products, Development Need of the Recycling System-Need to Increase the Use of Recyclable Products, Development Need of the Recycling System-Need for Increasing Green Purchases, Development Need of the Recycling System-Need for Increasing Green Packaging, Development Requirement of the Recycling System-Need for Improvement in terms of Energy Efficiency of the Transportation System, Development Need of the Recycling System-Need to Expand the Use of UATF, Need for Increasing the Use of Recyclable Products-Need for Increasing Green Purchases, Need to Increase the Use of Recyclable Products-Need for Increasing Green Packaging, Need to Increase the Use of Recyclable Products-Use of Green Building	

	<p>Systems, Need to Increase the Use of Recyclable Products-Need for Information on Drug Waste Separation, Need for Increasing the Use of Recyclable Products-Support for Zero Waste Usage, Need to Increase the Use of Recyclable Products-Need to Expand the Use of UATF, Use of Green Purchasing-Use of Green Packaging, Increase Requirement of Green Purchasing Operations-Need for Increase in Green Packaging, Increase Requirement of Green Purchases-Need for Improvement of Waste Management Controls, Increase Requirement of Green Purchases-Green Building Systems Usage Support, Need to Increase Green Purchases-Need for Separation of Drug Waste, Increase Requirement of Green Purchases-Support for Zero Waste Usage, Increase Requirement of Green Purchases-Support for the Use of Teflon White Paint, Need for Increasing the Use of Green Purchases-Need to Expand the Use of UATF, Increase Requirement of Green Packaging Usage-Need for Improvement of Waste Management Controls, Green Packaging Usage Increase Requirement-Support of Mandatory Usage the Only E-Result System, Need for Increasing the Use of Green Packaging-Support of Salaried Environmental Personnel, Need for Increasing the Use of Green Packaging-Support for Green Building Systems, Need to Increase the Use of Green Packaging-Need for Information on Drug Waste Separation, Need for Increasing the Use of Green Packaging-Support for Zero Waste Usage, Need to Increase the Use of Green Packaging-Need to Improve the Transportation System in Terms of Energy Efficiency, Need to Increase the Use of Green Packaging-Support for the Use of Teflon White Paint, Need to Increase the Use of Green Packaging-Need to Expand the Use of UATF, Need for Effective Waste Management Control Development-Support for Mandatory Use of Only the E-Result System, Need for Effective Waste Management Control Development-Support of Salaried Environmental Personnel, Need for Effective Waste Management Control Development-Support for the Use of Green Building Systems, Need for Effective Waste Management Control Development-Support for Zero Waste Usage, Need for Effective Waste Management Control Development-Support for the Use of Teflon White Paint, Need for Effective Waste Management Control Development-Need to Expand the Use of UATF, Support for the Use of E-Result System Only-Support for Green Building Systems, Support of</p>	
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	<p>Salaried Environmental Personnel-Support of Using Green Building Systems, Support of Salaried Environmental Personnel-Need for Information on Drug Waste Separation, Support for Salaried Environmental Personnel-Support for the Use of Zero Waste System, Support of Salaried Environmental Personnel-Use of Teflon White Paint, Support of Salaried Environmental Personnel-Need to Expand the Use of UATF, Support for the Use of Green Building Systems-Need for Information on Drug Waste Separation, Green Building Systems Usage Support-Zero Waste System Usage Support, Support for the Use of Green Building Systems-Need to Expand the Use of UATF, Need for Information on Drug Waste Separation-Support for the Use of Zero Waste System, Support for the Use of Zero Waste System-Need for Improvement in Terms of Energy Efficiency of the Transportation System, Support for the Use of Zero Waste System-Need to Expand the Use of UATF, Need to Improve the Energy Efficiency of the Transportation System-Support for Making the GDP Guidelines a Legal Requirement, Need for Improvement in Terms of Energy Efficiency of the Transportaion System-Support for the Use of Teflon White Paint, Support for Making the GDP Guidelines a Legal Requirement-Support for the Use of Teflon White Paint, Support of Making the GDP Guidelines a Legal Obligation-Need to Expand the Use of UATF, Support for the Use of Teflon White Paint-Need to Expand the Use of UATF.</p>	
<p>Relationship Between the Education Awareness and the Awareness of the Green Practices</p>	<p>Support of Renewable Energy Use-the Increasing Need for Green Medical Supply Chain Trainings, Development Need of the Recycling System-Need for Increasing Green Medical Supply Chain Trainings, Need to Increase the Use of Recyclable Products-Need to Increase Medical Waste Trainings, Need to Increase the Use of Recyclable Products-Need for Increasing Green Medical Supply Chain Trainings, Need of Green Purchasing-Need for Increasing Medical Waste Trainings, Increasing Need for Green Purchasing Operations-Need for Increasing Green Medical Supply Chain Trainings, Increasing Need for Medical Waste Trainings-Increasing Need for Green Packaging, Increasing Need for Medical Waste Trainings-Need for Improvement of Waste Management Controls, Increasing Need for Medical Waste Trainings-Support of Salaried Environmental Personnel, Increase Requirement of Medical Waste Trainings-Support for Zero Waste Usage, Increasing Need for Medical Waste Trainings-Need to Improve</p>	

	<p>the Transportation System in Terms of Energy Efficiency, Need for Increasing the Medical waste Trainings-Support to Make the GDP Guidelines a Legal Obligation, Increase Requirement of Medical Waste Trainings-Support for the Use of Teflon White Paint, Need to Increase the Use of Medical Waste Trainings-Need to Expand the Use of UATF, Green Packaging Usage Requirement-Increase Need for Green Medical Supply Chain Trainings, Need to Increase Green Medical Supply Chain Trainings-Need for Improvement of Waste Management Controls, Need for Increasing Green Medical Supply Chain Trainings-Support for Salaried Environmental Personnel, Need to Increase Green Medical Supply Chain Trainings-Support for the Use of Green Building Systems, Need to Increase Green Medical Supply Chain Trainings-Need for Information on Drug Waste Separation, Need to Increase Green Medical Supply Chain Trainings-Support for Zero Waste Usage, Need to Increase Green Medical Supply Chain Trainings-Need to Improve the Transportation System in Terms of Energy Efficiency, Need for Increasing Green Medical Supply Chain Trainings-Support for the Use of Teflon White Paint, Green Medical Supply Chain Trainings-Need to Expand the Use of UATF,</p>	
Relationship Between the Awareness of the Training Needs of the Institutions	Regular Medical Waste Trainings-Green Medical Supply Chain Trainings,	
Relationship Between the Awareness of the Training Needs of the Participants	Increasing Need for Medical Waste Trainings-Increasing Need for Green Medical Supply Chain Trainings,	
Relationship Between Trainings and the Awareness of the Green Practices	Green Medical Supply Chain Trainings-Salaried Environmental Officer Support	

Estimated explanations have been made for these correlations. In order to retest these relationships, the survey can be repeated by detailing the survey questions. Although relevant

information was provided at the beginning of the survey, as questions progress, respondents may tend to ignore this information. For example, a participant who has never heard of the concept of zero waste system may perceive it as not using any waste system and respond accordingly. For this reason, the survey can be applied again by detailing the survey questions to explain the concepts within the relevant question. However, it is thought that investigating these unexpected correlations in depth will be beneficial in terms of future studies and literature. In the next section, it will be provided a brief on the conclusion of this study in general terms.

5. CONCLUSION

As a dangerous consequence of the increasing world population and industrialization, the amount of resource scarcity and pollution is increasing day by day. For this reason, the need for green practice is increasing in all sectors. Due to its structure and importance, the health sector is one of the slowest moving sectors in transition to green practice. However, considering the dangerous situation the world is in, it can be easily noticed that the transition to green practices should be implemented urgently in all sectors.

The purpose of this study is to provide suggestions that will facilitate the transition to green practices. The transition to green practices is challenging for institution owners due to the high costs incurred at the beginning of the process. For this reason, institutions should be directed to green practices through government incentives and laws. The energy problem, which is seen as the most important green practice problem in the world, occupies a large place in the medical supply chain. In order to solve this problem, it is recommended that institutions be directed to use renewable energy with government incentives. According to the survey results, this recommendation is also highly supported by the medical supply chain staff. In addition, as can be seen from the correlation results, positive significant correlations were found between the support of this recommendation and the support of other green practice suggestions. Another important green practice problem is the inadequacy of the recycling system. In order to solve this problem, it has been suggested that institutions should be encouraged by the state to establish a recycling system. In addition, if the use of recyclable products is increased at the very beginning of the process, the waste output is greatly reduced. For this, producers should be encouraged by the state to produce recyclable products, and users to use recyclable products.

Recycling system and use of recyclable products are again highly supported by the survey participants, and there is a significant positive correlation between them and many other green practices support. Another suggestion to increase the use of recyclable products is to encourage green purchasing practices for producers and buyers. Although green purchasing is not widely used in sector, it is a practice that is widely supported by employees according to the survey results. In addition, significant positive correlations were found between green purchasing support and many green practices support such as necessary trainings. However, in addition to these relations, unexpectedly, a negative significant correlation was found between education and green purchasing support. It is thought that researching this relationship, whose estimated reason is explained in the correlation section, will be useful in terms of the literature. Packaging waste creates a major environmental problem for the medical supply chain where the use of disposable sterile products is high. The use of green packaging is very inadequate due to its costs. In order to solve this problem, producers and users are supported with government incentives, and if the state supports the process as a producer, it is thought that the process of transition to green packaging practices will be much faster. Even though the usage rate is very low, green packaging is supported by the sector employees to a great extent. Lack of education and control can be shown as one of the most important causes of environmental problems experienced today. Many organizations do not provide their employees with adequate training in critical issues such as the green medical supply chain and medical waste. In addition to the lack of education, institutions are not subject to adequate control on issues such as medical waste management. As a result of these reasons, uninformed people and uncontrolled processes in the sector cause an increase in environmental problems. To solve these problems, relevant trainings should be organized by the government and participation in this event should be mandatory for medical supply chain employees. In addition, if the relevant controls are applied frequently and unannounced and deterrent penalties are given for deficiencies, the institutions will need to improve themselves greatly. According to the survey results, training and supervision practices are supported by the participants to a great extent. In addition, significant positive correlations were found between supporting all these practices. Another important issue for medical waste is the use of UATF. The use of UATF is currently required only under certain conditions. Instead, if the use of UATF is mandatory for every waste that is classified as medical waste, it will be much easier to protect from the dangers caused by these wastes. As the survey results show, users often do not know about the use of UATF. For this reason, there is a large group who are unsure about support for UATF use. However, most of the participants outside of this group support the dissemination of the use of UATF. Significant positive

correlations were found between the support for the dissemination of the use of UATF and the support of other green practices.

Hospitals, which are one of the most important links of the medical supply chain, experience a high amount of paper waste due to all these environmental problems as well as the printed result system. In addition, the process of giving results is an extra workload for hospital staff. To solve this problem, it is recommended to use only the e-result system as a necessity. In this way, waste of paper and workload can be greatly reduced. Compulsory use of only e-result system is greatly supported by the participants. However, according to an unexpected result, a negatively significant correlation was found between education and the support of usage compulsory e-result system. The estimated reason for this correlation is explained in the correlation analysis section. However, in-depth investigation of this unexpected result is recommended for future studies. It should be made mandatory by the state for salaried environmental personnel to take part in the medical supply chain so that they can identify the problems that may occur during the entire process at an early stage and take the necessary measures, and they should also be supported with incentives. The salaried environmental worker is greatly supported by the sector employees. Significant positive correlations were found between this support and other green practices supports. Green hospital practices, which are rarely seen in our country, are frequently implemented in our country and supported by incentives, many problems are avoided thanks to environmentally friendly structures. According to the survey results, most of the participants support the use of green building systems. In addition, as can be seen from the correlation results, there are significant positive correlations between the green building system support and most of the other green practices supports. Most of the users do not have any information about drug wastes, which are very risky for the environment and human health. For this reason, users should be informed about drug waste and users should be encouraged to decompose drug waste by the government. The vast majority of sector employees are aware of this requirement. In addition, significant positive correlations were found between the need for information on drug waste and many other green practices supports. Unfortunately, the zero waste regulation, which is a promising application for health institutions, has remained in a very limited structure today. It is expected that making this regulation mandatory for all health institutions will provide great benefits for the waste system. The zero waste system is highly supported by the participants. According to the correlation results, positive significant correlations were found between the zero waste system and many green practices supports. In addition, as an unexpected result, a very significant

negative correlation was found between the use of zero waste system and education. Although the predictive reasons for this unexpected correlation are explained in the correlation section, it is thought that it will be useful to investigate the correlation in depth. The energy issue has a critical importance in the transportation and storage chains in the medical supply chain. These chains, which consume a lot of energy, are areas suitable for development in terms of energy efficiency. It is thought that making the GDP Guidelines mandatory is the most important measure that can be taken in this regard. According to the survey results, most of the sector employees do not know about the use of GDP. For this reason, there is a large mass of people who are unsure about making the GDP Guidelines a legal obligation. However, most of the participants outside of this group support making the GDP Guidelines a legal obligation. In addition, significant positive correlations were found between the support of making the GDP Guidelines a legal obligation and many other green practices supports. In addition, if the vehicles and warehouses are properly integrated and designed in accordance with energy efficiency, it is thought that a large amount of energy will be saved. Most of the industry employees are aware that transportation processes need improvement in terms of energy efficiency. There are significant positive correlations between this need and other green practices needs awareness. In addition to these, the use of Teflon white paint in pharmaceutical warehouses should be made obligatory by the state in order to ensure energy efficiency in pharmaceutical warehouses. Most of the sector employees do not have an idea about the use of Teflon white paint, which is a very new practice yet. For this reason, the largest mass consists of undecided participants. However, when looking at the participants except for the undecided population, it is seen that the use of Teflon white paint is highly supported. In addition, as an unexpected result, a negatively significant correlation was found between education and support for the use of Teflon white paint. Although the estimated result of this unexpected correlation is explained in the correlation section, it will be useful for future studies to investigate the cause of the correlation in depth.

Although these suggestions provide great gains in the long term, they cause serious costs for institutions in the beginning. For this reason, organizations that want to switch to energy efficiency should be supported with tax reductions, credit supports and incentive programs. In addition, strict control of legal obligations and punishment of institutions that act against them will greatly increase the rate of implementation of these obligations by the institutions in the sector.

In order to test the effectiveness of the suggestions, information about the use and support of green practices was collected from medical supply chain employees by using a survey method in this study. As can be seen from the survey results, although green practices are not used sufficiently in most of the medical supply chain, medical supply chain employees support these suggestions. Spearman correlation test was applied to the results via SPSS in order to check the relationship between the results. Most of the correlation results appeared to support the purpose of the study. However, some unexpected relationships have been identified as well. Estimated explanations for these relationships are made in the correlation section. However, a more detailed study for the reasons of these relationships will be useful in terms of the literature.

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5.1. APPENDIX

5.1.1. Survey

EVALUATION ON GREEN PRACTICES IN THE MEDICAL SUPPLY CHAIN

This survey was created in order to measure the effectiveness of the current situation and the proposed policies in the master's thesis on incentives and law proposals to expand the use of green practices in the medical supply chain. Answer the questions presented in the questionnaire by marking the answer that best suits you. Your answers and personal information in the survey will remain anonymous.

- **Green Purchasing:** It is the procurement of products and services that are more sensitive to human health and the environment in the purchasing process.
- **Green Packaging:** It is the preference of environmentally friendly materials in the packaging stage of the products.
- **Green Building System:** It is an environmentally friendly, economical and healthy building system in which the building is evaluated and designed within the framework of its life cycle starting from the land selection process, suitable for the conditions specific to the nature in which it is located, oriented towards energy saving and renewable resources, materials with low environmental effects, and provides water efficiency.
- **E-Result System:** People's analysis, radiological imaging, etc. It is the system where the result information can be accessed via an online platform instead of the result sheet.
- **Zero Waste Regulation:** Waste management that includes the prevention of waste, the more efficient use of resources, the prevention or minimization of waste generation by reviewing the reasons for waste generation, and the collection and recovery of waste separately at its source in case of occurrence.
- **GDP (Good Distribution Practices) Guide:** A set of guidelines regulating wholesale distribution activities in order to protect the integrity and quality of medical products from the manufacturer to the end user.
- **White Paint with Teflon:** A new type of paint that contains Teflon and thus reduces the cooling costs of drug stores.

*Required

1. SURNAME - NAME

2. AGE *

Mark only one oval.

20-39

40-59

60+

3. Gender *

Mark only one oval.

Woman

Men

4. Educational Status *

Mark only one oval.

Under High School

High School

Associate Degree

Undergraduate

Graduate

5. Occupation *

6. Institution of you work *

7. Is renewable energy used in your institution? *

Mark only one oval.

Yes

No

No Idea

8. Do you support the use of renewable energy in your institution? *

Mark only one oval.

- I Absolutely Support
- I Support
- I Indecisive
- I Don't Support
- I Absolutely Don't Support

9. Do you think that the existing recycling system in your institution should be improved? *

Mark only one oval.

- I Absolutely Think
- I think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

10. Do you think that enough recyclable products are used in your institution? *

Mark only one oval.

- Yes
- No
- No Idea

11. Do you think that the current use of recyclable products should be increased in your institution? *

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

12. Do you think that the current use of recyclable products should be increased in your institution? *

Mark only one oval.

- Yes
- No
- No Idea

13. Do you think that green purchases should be increased in your institution? *

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

14. Do you receive regular medical waste training at your institution? *

Mark only one oval.

- Yes
- No
- No Idea

15. Do you think that more frequent medical waste training should be given in your institution? *

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

16. Is green packaging used in your institution? *

Mark only one oval.

- Yes
- No
- No Idea

17. Do you think that the current green packaging practices should be increased in your institution? *

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I A bsolutely Don't Think

18. Is there Green Medical Supply Chain training provided in your institution? *

Mark only one oval.

- Yes
- No
- No Idea

19. Do you think that the current Green Medical Supply Chain trainings at your institution should be increased? *

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

20. Is waste management effectively controlled in your institution? *

Mark only one oval.

- Yes
- No
- No Idea

21. Do you think that existing waste management controls at the institution you work for should be improved? *

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

22. Is the current e-result system used in your institution?

Only hospital staff have to answer.

Mark only one oval.

- Yes
- No
- No Idea

23. Would you like to use only the e-result system compulsory in your institution?

Only hospital staff have to answer.

Mark only one oval.

- I Absolutely Want
- I Want
- I Indesive
- I Don't Want
- I Absolutely Don't Want

24. Are there enough environmental volunteers working in your institution? *

Mark only one oval.

- Yes
- No
- No Idea

25. Would you support the employment of salaried environmental personnel in your institution? *

Mark only one oval.

- I Absolutely Support
- I Support
- I Indesive
- I Don't Support
- I Absolutely Don't Support

26. Is the green building system used in your institution? *

Mark only one oval.

- Yes
- No
- No Idea

27. If the green building system is not used in your institution, would you support its use?

Mark only one oval.

- I Absolutely Support
- I Support
- I Indesive
- I Don't Support
- I Absolutely Don't Support

28. Do you think users should be informed about drug waste?

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

29. Does your institution use a zero waste system? *

Mark only one oval.

- Yes
- No
- No Idea

30. If not, would you support its use?

Mark only one oval.

- I Absolutely Support
- I Support
- I Indesive
- I Don't Support
- I Absolutely Don't Support

31. Do you think your conveying system needs improvement in terms of energy efficiency?

Mark only one oval.

- I Absolutely Think
- I Think
- I Indesive
- I Don't Think
- I Absolutely Don't Think

32. Is the GDP guideline respected during the migration process?

Mark only one oval.

- Yes
- No
- No Idea

33. Would you support making the GDP manual a legal requirement?

Mark only one oval.

- I Absolutely Support
- I Support
- I Indesive
- I Don't Support
- I Absolutely Don't Support

34. Is teflon white paint used in the medicine warehouse used by your institution?

Mark only one oval.

- Yes
- No
- No Idea

35. Would you support the use of teflon white paint in drug stores?

Mark only one oval.

- I Absolutely Support
- I Support
- I Indesive
- I Don't Support
- I Absolutely Don't Support

5.1.2. Test of Normality

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Age	,419	104	,000	,636	104	,000
Education	,283	104	,000	,854	104	,000
Rewanable_Energy_Usage	,303	104	,000	,763	104	,000
Rewanable_Energy_Support	,323	104	,000	,723	104	,000
Recycling_Sysytem_Development_Support	,326	104	,000	,753	104	,000
Recyclable_Product_Usage	,266	104	,000	,780	104	,000
Recyclable_Product_Usage_Increment_Requirement	,265	104	,000	,799	104	,000
Green_Purchase_Usage	,267	104	,000	,801	104	,000
Green_Purchase_Usage_Increment_Requirement	,245	104	,000	,837	104	,000
Regular_Medical_Waste_Training	,393	104	,000	,642	104	,000
Medical_Waste_Training_Increment_Requirement	,300	104	,000	,827	104	,000

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Green_Packaging_Usage	,212	104	,000	,807	104	,000
Green_Packaging_Usage_Increment_Requirement	,297	104	,000	,816	104	,000
Green_Medical_Supply_Chain_Training	,422	104	,000	,629	104	,000
Green_Medical_Supply_Chain_Training_Inc_Requirement	,274	104	,000	,837	104	,000
Effective_Waste_Management_Control	,230	104	,000	,789	104	,000
Waste_Management_Contr_ols_Development_Support	,267	104	,000	,852	104	,000
E_Result_Systems_Usage	,335	104	,000	,722	104	,000
Imperative_E_Result_Systems_Usage_Support	,222	104	,000	,868	104	,000
Salaried_Environmental_Personnel_Support	,313	104	,000	,819	104	,000
Green_Building_Systems_Usage	,347	104	,000	,687	104	,000
Green_Building_Systems_Usage_Support	,312	104	,000	,789	104	,000
Drug_Waste_Informing_Requirement	,269	104	,000	,768	104	,000
Zero_Waste_System_Usage	,243	104	,000	,797	104	,000
Zero_Waste_Usage_Support	,307	104	,000	,788	104	,000
Transport_System_Energy_Efficiency_Develop_Requirement	,260	104	,000	,830	104	,000
GDP_Guideline_Compliant_Behavior	,359	104	,000	,728	104	,000
GDP_Guideline_Legal_Requirement_Support	,328	104	,000	,739	104	,000
White_Paint_With_Teflon_Usage	,447	104	,000	,573	104	,000
White_Paint_With_Teflon_Usage_Support	,326	104	,000	,768	104	,000

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Nation_Waste_Transport_Form_Usage	,392	104	,000	,674	104	,000
Nation_Waste_Transport_Form_Usage_Support	,316	104	,000	,790	104	,000

a. Lilliefors Significance Correction

5.1.3. Correlation Table

Correlations

			Age	Education
Spearman's rho	Age	Correlation Coefficient	1,000	,391**
		Sig. (2-tailed)	.	,000
		N	106	106
	Education	Correlation Coefficient	,391**	1,000
		Sig. (2-tailed)	,000	.
		N	106	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,133	-,093
		Sig. (2-tailed)	,176	,343
		N	106	106
	Rewanable_Energy_Support	Correlation Coefficient	,077	,164
		Sig. (2-tailed)	,431	,092
		N	106	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,013	,078
		Sig. (2-tailed)	,894	,425
		N	106	106
	Recyclable_Product_Usage	Correlation Coefficient	-,013	,059
		Sig. (2-tailed)	,899	,551
		N	106	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,034	,069
		Sig. (2-tailed)	,731	,480
		N	106	106
	Green_Purchase_Usage	Correlation Coefficient	-,154	-,197*
		Sig. (2-tailed)	,114	,043
		N	106	106
	Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,150	,139
		Sig. (2-tailed)	,126	,156
		N	106	106

Correlations

			Renewable_Energy_Usage
Spearman's rho	Age	Correlation Coefficient	-,133
		Sig. (2-tailed)	,176
		N	106
	Education	Correlation Coefficient	-,093
		Sig. (2-tailed)	,343
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	1,000
		Sig. (2-tailed)	.
		N	106
	Renewable_Energy_Support	Correlation Coefficient	,045
		Sig. (2-tailed)	,647
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	-,111
		Sig. (2-tailed)	,257
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,133
		Sig. (2-tailed)	,174
		N	106
Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,269**	
	Sig. (2-tailed)	,005	
	N	106	
Green_Purchase_Usage	Correlation Coefficient	,204*	
	Sig. (2-tailed)	,036	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,103	
	Sig. (2-tailed)	,293	
	N	106	

Correlations

			Renewable_Energy_Support
Spearman's rho	Age	Correlation Coefficient	,077
		Sig. (2-tailed)	,431
		N	106
	Education	Correlation Coefficient	,164
		Sig. (2-tailed)	,092
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	,045
		Sig. (2-tailed)	,647
		N	106
	Renewable_Energy_Support	Correlation Coefficient	1,000
		Sig. (2-tailed)	.
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	,270**
		Sig. (2-tailed)	,005
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,006
		Sig. (2-tailed)	,954
		N	106
Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,235*	
	Sig. (2-tailed)	,015	
	N	106	
Green_Purchase_Usage	Correlation Coefficient	-,038	
	Sig. (2-tailed)	,698	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,377**	
	Sig. (2-tailed)	,000	
	N	106	

Correlations

			Recycling_Sys- tem_Develop- ment_Support
Spearman's rho	Age	Correlation Coefficient	,013
		Sig. (2-tailed)	,894
		N	106
	Education	Correlation Coefficient	,078
		Sig. (2-tailed)	,425
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	-,111
		Sig. (2-tailed)	,257
		N	106
	Renewable_Energy_Support	Correlation Coefficient	,270**
		Sig. (2-tailed)	,005
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	1,000
		Sig. (2-tailed)	.
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,206*
		Sig. (2-tailed)	,035
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,550**
		Sig. (2-tailed)	,000
		N	106
	Green_Purchase_Usage	Correlation Coefficient	-,012
		Sig. (2-tailed)	,899
		N	106
	Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,334**
		Sig. (2-tailed)	,000
		N	106

Correlations

			Recyclable_Product_Usage
Spearman's rho	Age	Correlation Coefficient	-,013
		Sig. (2-tailed)	,899
		N	106
	Education	Correlation Coefficient	,059
		Sig. (2-tailed)	,551
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,133
		Sig. (2-tailed)	,174
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	-,006
		Sig. (2-tailed)	,954
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	-,206 [*]
		Sig. (2-tailed)	,035
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	1,000
		Sig. (2-tailed)	.
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,181
		Sig. (2-tailed)	,063
N		106	
Green_Purchase_Usage	Correlation Coefficient	,209 [*]	
	Sig. (2-tailed)	,032	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,104	
	Sig. (2-tailed)	,289	
	N	106	

Correlations

			Recyclable_Product_Usage_Increment_Requirement
Spearman's rho	Age	Correlation Coefficient	,034
		Sig. (2-tailed)	,731
		N	106
	Education	Correlation Coefficient	,069
		Sig. (2-tailed)	,480
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,269**
		Sig. (2-tailed)	,005
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,235 [†]
		Sig. (2-tailed)	,015
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	,550**
		Sig. (2-tailed)	,000
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,181
		Sig. (2-tailed)	,063
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	1,000
		Sig. (2-tailed)	.
N		106	
Green_Purchase_Usage	Correlation Coefficient	-,100	
	Sig. (2-tailed)	,307	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,474**	
	Sig. (2-tailed)	,000	
	N	106	

Correlations

		Green_Purchase_Usage	
Spearman's rho	Age	Correlation Coefficient	-,154
		Sig. (2-tailed)	,114
		N	106
	Education	Correlation Coefficient	-,197 [*]
		Sig. (2-tailed)	,043
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	,204 [*]
		Sig. (2-tailed)	,036
		N	106
	Renewable_Energy_Support	Correlation Coefficient	-,038
		Sig. (2-tailed)	,698
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	-,012
		Sig. (2-tailed)	,899
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,209 [*]
		Sig. (2-tailed)	,032
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,100
		Sig. (2-tailed)	,307
		N	106
	Green_Purchase_Usage	Correlation Coefficient	1,000
		Sig. (2-tailed)	.
		N	106
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,135	
	Sig. (2-tailed)	,166	
	N	106	

Correlations

			Green_Purchase_Usage_Increment_Requirement
Spearman's rho	Age	Correlation Coefficient	,150
		Sig. (2-tailed)	,126
		N	106
	Education	Correlation Coefficient	,139
		Sig. (2-tailed)	,156
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	-,103
		Sig. (2-tailed)	,293
		N	106
	Renewable_Energy_Support	Correlation Coefficient	,377**
		Sig. (2-tailed)	,000
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	,334**
		Sig. (2-tailed)	,000
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,104
		Sig. (2-tailed)	,289
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,474**
		Sig. (2-tailed)	,000
		N	106
Green_Purchase_Usage	Correlation Coefficient	-,135	
	Sig. (2-tailed)	,166	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	1,000	
	Sig. (2-tailed)	.	
	N	106	

Correlations

		Regular_Medic al_Waste_Train ing	
Spearman's rho	Age	Correlation Coefficient	-,021
		Sig. (2-tailed)	,834
		N	106
	Education	Correlation Coefficient	-,134
		Sig. (2-tailed)	,170
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,310**
		Sig. (2-tailed)	,001
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	-,066
		Sig. (2-tailed)	,499
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	-,146
		Sig. (2-tailed)	,135
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,258**
		Sig. (2-tailed)	,008
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,217*
		Sig. (2-tailed)	,025
		N	106
Green_Purchase_Usage	Correlation Coefficient	,151	
	Sig. (2-tailed)	,122	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,183	
	Sig. (2-tailed)	,061	
	N	106	

Correlations

			Medical_Waste _Training_Incre ment_Requirem ent
Spearman's rho	Age	Correlation Coefficient	-,138
		Sig. (2-tailed)	,157
		N	106
	Education	Correlation Coefficient	-,166
		Sig. (2-tailed)	,089
		N	106
	Renwable_Energy_Usage	Correlation Coefficient	-,050
		Sig. (2-tailed)	,610
		N	106
	Renwable_Energy_Suppo rt	Correlation Coefficient	,057
		Sig. (2-tailed)	,561
		N	106
	Recycling_Sysytem_Develo pment_Support	Correlation Coefficient	,205 [*]
		Sig. (2-tailed)	,035
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,065
		Sig. (2-tailed)	,509
		N	106
	Recyclable_Product_Usage _Increment_Requirement	Correlation Coefficient	,310 ^{**}
		Sig. (2-tailed)	,001
		N	106
	Green_Purchase_Usage	Correlation Coefficient	-,099
		Sig. (2-tailed)	,313
		N	106
	Green_Purchase_Usage_In crement_Requirement	Correlation Coefficient	,262 ^{**}
		Sig. (2-tailed)	,007
		N	106

Correlations

			Green_Packaging_Usage
Spearman's rho	Age	Correlation Coefficient	-,061
		Sig. (2-tailed)	,536
		N	106
	Education	Correlation Coefficient	-,078
		Sig. (2-tailed)	,430
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	,055
		Sig. (2-tailed)	,576
		N	106
	Renewable_Energy_Support	Correlation Coefficient	-,100
		Sig. (2-tailed)	,309
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	-,011
		Sig. (2-tailed)	,914
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,134
		Sig. (2-tailed)	,171
		N	106
Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,034	
	Sig. (2-tailed)	,729	
	N	106	
Green_Purchase_Usage	Correlation Coefficient	,568**	
	Sig. (2-tailed)	,000	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,054	
	Sig. (2-tailed)	,581	
	N	106	

Correlations

			Green_Packaging_Usage_Increment_Requirement
Spearman's rho	Age	Correlation Coefficient	,086
		Sig. (2-tailed)	,378
		N	106
	Education	Correlation Coefficient	-,025
		Sig. (2-tailed)	,796
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	-,021
		Sig. (2-tailed)	,828
		N	106
	Renewable_Energy_Support	Correlation Coefficient	,344**
		Sig. (2-tailed)	,000
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	,379**
		Sig. (2-tailed)	,000
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,069
		Sig. (2-tailed)	,483
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,402**
		Sig. (2-tailed)	,000
		N	106
	Green_Purchase_Usage	Correlation Coefficient	-,054
		Sig. (2-tailed)	,581
		N	106
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,545**	
	Sig. (2-tailed)	,000	
	N	106	

Correlations

			Green_Medical _Supply_Chain _Training
Spearman's rho	Age	Correlation Coefficient	,041
		Sig. (2-tailed)	,677
		N	106
	Education	Correlation Coefficient	,023
		Sig. (2-tailed)	,817
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,282**
		Sig. (2-tailed)	,003
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	-,044
		Sig. (2-tailed)	,656
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	-,184
		Sig. (2-tailed)	,059
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,069
		Sig. (2-tailed)	,484
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,237*
		Sig. (2-tailed)	,015
		N	106
Green_Purchase_Usage	Correlation Coefficient	,201*	
	Sig. (2-tailed)	,039	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,091	
	Sig. (2-tailed)	,356	
	N	106	

Correlations

			Green_Medical _Supply_Chain _Training_Inc_ Requir
Spearman's rho	Age	Correlation Coefficient	-,006
		Sig. (2-tailed)	,951
		N	106
	Education	Correlation Coefficient	-,026
		Sig. (2-tailed)	,791
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,077
		Sig. (2-tailed)	,430
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,308**
		Sig. (2-tailed)	,001
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,396**
		Sig. (2-tailed)	,000
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,156
		Sig. (2-tailed)	,110
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,458**
		Sig. (2-tailed)	,000
		N	106
Green_Purchase_Usage	Correlation Coefficient	-,132	
	Sig. (2-tailed)	,176	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,491**	
	Sig. (2-tailed)	,000	
	N	106	

Correlations

			Effective_Waste_Management_Control
Spearman's rho	Age	Correlation Coefficient	,008
		Sig. (2-tailed)	,933
		N	106
	Education	Correlation Coefficient	-,039
		Sig. (2-tailed)	,690
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	,108
		Sig. (2-tailed)	,271
		N	106
	Renewable_Energy_Support	Correlation Coefficient	,040
		Sig. (2-tailed)	,682
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	,107
		Sig. (2-tailed)	,273
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,166
		Sig. (2-tailed)	,089
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,023
		Sig. (2-tailed)	,811
		N	106
Green_Purchase_Usage	Correlation Coefficient	,232 [*]	
	Sig. (2-tailed)	,017	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,083	
	Sig. (2-tailed)	,396	
	N	106	

Correlations

			Waste_Manage ment_Controls_ Development_S upport
Spearman's rho	Age	Correlation Coefficient	-,046
		Sig. (2-tailed)	,642
		N	106
	Education	Correlation Coefficient	,018
		Sig. (2-tailed)	,857
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,171
		Sig. (2-tailed)	,079
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,217*
		Sig. (2-tailed)	,026
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,183
		Sig. (2-tailed)	,060
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,108
		Sig. (2-tailed)	,272
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,355**
		Sig. (2-tailed)	,000
		N	106
	Green_Purchase_Usage	Correlation Coefficient	-,308**
		Sig. (2-tailed)	,001
		N	106
	Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,531**
		Sig. (2-tailed)	,000
		N	106

Correlations

		E_Result_Systems_Usage	
Spearman's rho	Age	Correlation Coefficient	-,076
		Sig. (2-tailed)	,436
		N	106
	Education	Correlation Coefficient	-,091
		Sig. (2-tailed)	,353
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	-,095
		Sig. (2-tailed)	,334
		N	106
	Renewable_Energy_Support	Correlation Coefficient	-,071
		Sig. (2-tailed)	,467
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	-,144
		Sig. (2-tailed)	,140
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,092
		Sig. (2-tailed)	,350
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,067
		Sig. (2-tailed)	,497
N		106	
Green_Purchase_Usage	Correlation Coefficient	-,007	
	Sig. (2-tailed)	,941	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,042	
	Sig. (2-tailed)	,670	
	N	106	

Correlations

			Imperative_E_ Result_System s_Usage_Supp ort
Spearman's rho	Age	Correlation Coefficient	-,051
		Sig. (2-tailed)	,607
		N	106
	Education	Correlation Coefficient	-,199 [*]
		Sig. (2-tailed)	,041
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,082
		Sig. (2-tailed)	,403
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,175
		Sig. (2-tailed)	,072
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,144
		Sig. (2-tailed)	,142
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,010
		Sig. (2-tailed)	,923
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,003
		Sig. (2-tailed)	,972
N		106	
Green_Purchase_Usage	Correlation Coefficient	-,064	
	Sig. (2-tailed)	,518	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,116	
	Sig. (2-tailed)	,237	
	N	106	

Correlations

		Salaried_Environmental_Personnel_Support	
Spearman's rho	Age	Correlation Coefficient	-,263**
		Sig. (2-tailed)	,006
		N	106
	Education	Correlation Coefficient	-,062
		Sig. (2-tailed)	,528
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,097
		Sig. (2-tailed)	,322
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,257**
		Sig. (2-tailed)	,008
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	-,011
		Sig. (2-tailed)	,907
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,042
		Sig. (2-tailed)	,670
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,055
		Sig. (2-tailed)	,577
		N	106
Green_Purchase_Usage	Correlation Coefficient	,042	
	Sig. (2-tailed)	,669	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,224*	
	Sig. (2-tailed)	,021	
	N	106	

Correlations

			Green_Building _Systems_Usa ge
Spearman's rho	Age	Correlation Coefficient	-,144
		Sig. (2-tailed)	,142
		N	106
	Education	Correlation Coefficient	-,104
		Sig. (2-tailed)	,287
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,353**
		Sig. (2-tailed)	,000
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	-,102
		Sig. (2-tailed)	,300
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	-,375**
		Sig. (2-tailed)	,000
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,255**
		Sig. (2-tailed)	,008
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,224*
		Sig. (2-tailed)	,021
		N	106
	Green_Purchase_Usage	Correlation Coefficient	,261**
		Sig. (2-tailed)	,007
		N	106
	Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,101
		Sig. (2-tailed)	,302
		N	106

Correlations

			Green_Building _Systems_Usa ge_Support
Spearman's rho	Age	Correlation Coefficient	-,094
		Sig. (2-tailed)	,345
		N	104
	Education	Correlation Coefficient	,047
		Sig. (2-tailed)	,634
		N	104
	Rewanable_Energy_Usage	Correlation Coefficient	-,003
		Sig. (2-tailed)	,976
		N	104
	Rewanable_Energy_Support	Correlation Coefficient	,405**
		Sig. (2-tailed)	,000
		N	104
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,080
		Sig. (2-tailed)	,419
		N	104
	Recyclable_Product_Usage	Correlation Coefficient	,147
		Sig. (2-tailed)	,138
		N	104
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,178
		Sig. (2-tailed)	,070
		N	104
	Green_Purchase_Usage	Correlation Coefficient	-,009
		Sig. (2-tailed)	,928
		N	104
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,453**	
	Sig. (2-tailed)	,000	
	N	104	

Correlations

			Drug_Waste_In forming_Require ment
Spearman's rho	Age	Correlation Coefficient	,174
		Sig. (2-tailed)	,074
		N	106
	Education	Correlation Coefficient	,079
		Sig. (2-tailed)	,419
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,093
		Sig. (2-tailed)	,345
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,452**
		Sig. (2-tailed)	,000
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,014
		Sig. (2-tailed)	,885
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,004
		Sig. (2-tailed)	,967
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,278**
		Sig. (2-tailed)	,004
		N	106
	Green_Purchase_Usage	Correlation Coefficient	,027
		Sig. (2-tailed)	,782
		N	106
	Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,279**
		Sig. (2-tailed)	,004
		N	106

Correlations

		Zero_Waste_System_Usage	
Spearman's rho	Age	Correlation Coefficient	-,182
		Sig. (2-tailed)	,062
		N	106
	Education	Correlation Coefficient	-,258**
		Sig. (2-tailed)	,008
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,055
		Sig. (2-tailed)	,573
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	-,110
		Sig. (2-tailed)	,263
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	-,048
		Sig. (2-tailed)	,628
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,060
		Sig. (2-tailed)	,540
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,004
		Sig. (2-tailed)	,967
N		106	
Green_Purchase_Usage	Correlation Coefficient	,339**	
	Sig. (2-tailed)	,000	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,079	
	Sig. (2-tailed)	,420	
	N	106	

Correlations

			Zero_Waste_Usage_Support
Spearman's rho	Age	Correlation Coefficient	-,008
		Sig. (2-tailed)	,938
		N	106
	Education	Correlation Coefficient	,100
		Sig. (2-tailed)	,309
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	,044
		Sig. (2-tailed)	,657
		N	106
	Renewable_Energy_Support	Correlation Coefficient	,479**
		Sig. (2-tailed)	,000
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	,158
		Sig. (2-tailed)	,107
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,004
		Sig. (2-tailed)	,967
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,287**
		Sig. (2-tailed)	,003
		N	106
	Green_Purchase_Usage	Correlation Coefficient	-,153
		Sig. (2-tailed)	,118
		N	106
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,382**	
	Sig. (2-tailed)	,000	
	N	106	

Correlations

			Transport_System_Energy_Efficiency_Development_Requirement
Spearman's rho	Age	Correlation Coefficient	-,093
		Sig. (2-tailed)	,343
		N	106
	Education	Correlation Coefficient	-,170
		Sig. (2-tailed)	,081
		N	106
	Renewable_Energy_Usage	Correlation Coefficient	-,061
		Sig. (2-tailed)	,537
		N	106
	Renewable_Energy_Support	Correlation Coefficient	,131
		Sig. (2-tailed)	,182
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	,293**
		Sig. (2-tailed)	,002
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,281**
		Sig. (2-tailed)	,004
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,209 [†]
		Sig. (2-tailed)	,032
N		106	
Green_Purchase_Usage	Correlation Coefficient	,077	
	Sig. (2-tailed)	,430	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,109	
	Sig. (2-tailed)	,264	
	N	106	

Correlations

			GDP_Guideline _Compliant_Be havior
Spearman's rho	Age	Correlation Coefficient	,081
		Sig. (2-tailed)	,410
		N	106
	Education	Correlation Coefficient	,322**
		Sig. (2-tailed)	,001
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,089
		Sig. (2-tailed)	,366
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,231 [†]
		Sig. (2-tailed)	,017
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	-,007
		Sig. (2-tailed)	,942
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,300**
		Sig. (2-tailed)	,002
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,003
		Sig. (2-tailed)	,974
		N	106
Green_Purchase_Usage	Correlation Coefficient	,018	
	Sig. (2-tailed)	,858	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,051	
	Sig. (2-tailed)	,604	
	N	106	

Correlations

			GDP_Guideline _Legal_Require ment_Support
Spearman's rho	Age	Correlation Coefficient	,027
		Sig. (2-tailed)	,780
		N	106
	Education	Correlation Coefficient	-,065
		Sig. (2-tailed)	,508
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,080
		Sig. (2-tailed)	,415
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,020
		Sig. (2-tailed)	,835
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,109
		Sig. (2-tailed)	,266
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,002
		Sig. (2-tailed)	,981
		N	106
Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,124	
	Sig. (2-tailed)	,206	
	N	106	
Green_Purchase_Usage	Correlation Coefficient	,227*	
	Sig. (2-tailed)	,019	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,076	
	Sig. (2-tailed)	,439	
	N	106	

Correlations

			White_Paint_With_Teflon_Usage
Spearman's rho	Age	Correlation Coefficient	-,138
		Sig. (2-tailed)	,159
		N	106
	Education	Correlation Coefficient	-,035
		Sig. (2-tailed)	,725
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,322**
		Sig. (2-tailed)	,001
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	,050
		Sig. (2-tailed)	,610
		N	106
	Recycling_System_Development_Support	Correlation Coefficient	-,054
		Sig. (2-tailed)	,586
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	,249**
		Sig. (2-tailed)	,010
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,131
		Sig. (2-tailed)	,182
		N	106
	Green_Purchase_Usage	Correlation Coefficient	,328**
		Sig. (2-tailed)	,001
		N	106
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,092	
	Sig. (2-tailed)	,349	
	N	106	

Correlations

			White_Paint_With_Teflon_Usage_Support
Spearman's rho	Age	Correlation Coefficient	-,074
		Sig. (2-tailed)	,450
		N	106
	Education	Correlation Coefficient	-,217 [*]
		Sig. (2-tailed)	,025
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,129
		Sig. (2-tailed)	,188
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	-,075
		Sig. (2-tailed)	,444
		N	106
	Recycling_Sysytem_Development_Support	Correlation Coefficient	,095
		Sig. (2-tailed)	,334
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,162
		Sig. (2-tailed)	,098
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	,218 [*]
		Sig. (2-tailed)	,025
N		106	
Green_Purchase_Usage	Correlation Coefficient	,197 [*]	
	Sig. (2-tailed)	,043	
	N	106	
Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	,257 ^{**}	
	Sig. (2-tailed)	,008	
	N	106	

Correlations

			Nation_Waste_Transport_Form_Usage
Spearman's rho	Age	Correlation Coefficient	-,277**
		Sig. (2-tailed)	,004
		N	106
	Education	Correlation Coefficient	-,046
		Sig. (2-tailed)	,643
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	,170
		Sig. (2-tailed)	,082
		N	106
	Rewanable_Energy_Support	Correlation Coefficient	-,023
		Sig. (2-tailed)	,814
		N	106
	Recycling_Sysstem_Development_Support	Correlation Coefficient	,007
		Sig. (2-tailed)	,944
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,047
		Sig. (2-tailed)	,632
		N	106
	Recyclable_Product_Usage_Increment_Requirement	Correlation Coefficient	-,028
		Sig. (2-tailed)	,778
		N	106
	Green_Purchase_Usage	Correlation Coefficient	,264**
		Sig. (2-tailed)	,006
		N	106
	Green_Purchase_Usage_Increment_Requirement	Correlation Coefficient	-,148
		Sig. (2-tailed)	,129
		N	106

Correlations

		Nation_Waste_ Transport_For m_Usage_Sup port	
Spearman's rho	Age	Correlation Coefficient	-,017
		Sig. (2-tailed)	,861
		N	106
	Education	Correlation Coefficient	,064
		Sig. (2-tailed)	,513
		N	106
	Rewanable_Energy_Usage	Correlation Coefficient	-,121
		Sig. (2-tailed)	,215
		N	106
	Rewanable_Energy_Suppo rt	Correlation Coefficient	,141
		Sig. (2-tailed)	,150
		N	106
	Recycling_Sysytem_Develo pment_Support	Correlation Coefficient	,265**
		Sig. (2-tailed)	,006
		N	106
	Recyclable_Product_Usage	Correlation Coefficient	-,059
		Sig. (2-tailed)	,548
		N	106
	Recyclable_Product_Usage _Increment_Requirement	Correlation Coefficient	,442**
		Sig. (2-tailed)	,000
N		106	
Green_Purchase_Usage	Correlation Coefficient	,046	
	Sig. (2-tailed)	,641	
	N	106	
Green_Purchase_Usage_In crement_Requirement	Correlation Coefficient	,543**	
	Sig. (2-tailed)	,000	
	N	106	

Correlations

		Age	Education
Regular_Medical_Waste_Training	Correlation Coefficient	-,021	-,134
	Sig. (2-tailed)	,834	,170
	N	106	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,138	-,166
	Sig. (2-tailed)	,157	,089
	N	106	106
Green_Packaging_Usage	Correlation Coefficient	-,061	-,078
	Sig. (2-tailed)	,536	,430
	N	106	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,086	-,025
	Sig. (2-tailed)	,378	,796
	N	106	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,041	,023
	Sig. (2-tailed)	,677	,817
	N	106	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	-,006	-,026
	Sig. (2-tailed)	,951	,791
	N	106	106
Effective_Waste_Management_Control	Correlation Coefficient	,008	-,039
	Sig. (2-tailed)	,933	,690
	N	106	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-,046	,018
	Sig. (2-tailed)	,642	,857
	N	106	106
E_Result_Systems_Usage	Correlation Coefficient	-,076	-,091
	Sig. (2-tailed)	,436	,353
	N	106	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-,051	-,199
	Sig. (2-tailed)	,607	,041
	N	106	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	-,263**	-,062
	Sig. (2-tailed)	,006	,528
	N	106	106

Correlations

		Renewable_Energy_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	,310**
	Sig. (2-tailed)	,001
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,050
	Sig. (2-tailed)	,610
	N	106
Green_Packaging_Usage	Correlation Coefficient	,055
	Sig. (2-tailed)	,576
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-,021
	Sig. (2-tailed)	,828
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,282**
	Sig. (2-tailed)	,003
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	-,077
	Sig. (2-tailed)	,430
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,108
	Sig. (2-tailed)	,271
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-,171
	Sig. (2-tailed)	,079
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,095
	Sig. (2-tailed)	,334
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-,082
	Sig. (2-tailed)	,403
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,097
	Sig. (2-tailed)	,322
	N	106

Correlations

		Renewable_Energy_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-,088
	Sig. (2-tailed)	,499
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,057
	Sig. (2-tailed)	,561
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,100
	Sig. (2-tailed)	,309
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,344**
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,044
	Sig. (2-tailed)	,656
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requr	Correlation Coefficient	,308**
	Sig. (2-tailed)	,001
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,040
	Sig. (2-tailed)	,682
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,217*
	Sig. (2-tailed)	,026
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,071
	Sig. (2-tailed)	,467
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,175
	Sig. (2-tailed)	,072
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,257**
	Sig. (2-tailed)	,008
	N	106

Correlations

		Recycling_System_Development_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-,146
	Sig. (2-tailed)	,135
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,205*
	Sig. (2-tailed)	,035
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,011
	Sig. (2-tailed)	,914
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,379**
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,184
	Sig. (2-tailed)	,059
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,396**
	Sig. (2-tailed)	,000
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,107
	Sig. (2-tailed)	,273
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,183
	Sig. (2-tailed)	,060
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,144
	Sig. (2-tailed)	,140
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,144
	Sig. (2-tailed)	,142
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	-,011
	Sig. (2-tailed)	,907
	N	106

Correlations

		Recyclable_Product_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	.258**
	Sig. (2-tailed)	.008
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-.065
	Sig. (2-tailed)	.509
	N	106
Green_Packaging_Usage	Correlation Coefficient	.134
	Sig. (2-tailed)	.171
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-.069
	Sig. (2-tailed)	.483
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	.069
	Sig. (2-tailed)	.484
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requr	Correlation Coefficient	-.156
	Sig. (2-tailed)	.110
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	.166
	Sig. (2-tailed)	.089
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-.108
	Sig. (2-tailed)	.272
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-.092
	Sig. (2-tailed)	.350
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-.010
	Sig. (2-tailed)	.923
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	.042
	Sig. (2-tailed)	.670
	N	106

Correlations

		Recyclable_Product_Usage_Increment_Requirement
Regular_Medical_Waste_Training	Correlation Coefficient	-,217 [*]
	Sig. (2-tailed)	,025
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,310 ^{**}
	Sig. (2-tailed)	,001
	N	106
Green_Packaging_Usage	Correlation Coefficient	,034
	Sig. (2-tailed)	,729
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,402 ^{**}
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,237 [*]
	Sig. (2-tailed)	,015
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,458 ^{**}
	Sig. (2-tailed)	,000
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,023
	Sig. (2-tailed)	,811
	N	106
Waste_Management_Contrls_Development_Support	Correlation Coefficient	,355 ^{**}
	Sig. (2-tailed)	,000
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,087
	Sig. (2-tailed)	,497
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-,003
	Sig. (2-tailed)	,972
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,055
	Sig. (2-tailed)	,577
	N	106

Correlations

		Green_Purchase_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	,151
	Sig. (2-tailed)	,122
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,099
	Sig. (2-tailed)	,313
	N	106
Green_Packaging_Usage	Correlation Coefficient	,568**
	Sig. (2-tailed)	,000
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-,054
	Sig. (2-tailed)	,581
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,201*
	Sig. (2-tailed)	,039
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	-,132
	Sig. (2-tailed)	,176
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,232*
	Sig. (2-tailed)	,017
	N	106
Waste_Management_Contrls_Development_Support	Correlation Coefficient	-,308**
	Sig. (2-tailed)	,001
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,007
	Sig. (2-tailed)	,941
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-,064
	Sig. (2-tailed)	,518
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,042
	Sig. (2-tailed)	,669
	N	106

Correlations

		Green_Purchase_Usage_Increment_Requirement
Regular_Medical_Waste_Training	Correlation Coefficient	-,183
	Sig. (2-tailed)	,061
	N	108
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,262**
	Sig. (2-tailed)	,007
	N	108
Green_Packaging_Usage	Correlation Coefficient	-,054
	Sig. (2-tailed)	,581
	N	108
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,545**
	Sig. (2-tailed)	,000
	N	108
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,091
	Sig. (2-tailed)	,356
	N	108
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,491**
	Sig. (2-tailed)	,000
	N	108
Effective_Waste_Management_Control	Correlation Coefficient	-,083
	Sig. (2-tailed)	,396
	N	108
Waste_Management_Controls_Development_Support	Correlation Coefficient	,531**
	Sig. (2-tailed)	,000
	N	108
E_Result_Systems_Usage	Correlation Coefficient	,042
	Sig. (2-tailed)	,670
	N	108
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,116
	Sig. (2-tailed)	,237
	N	108
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,224*
	Sig. (2-tailed)	,021
	N	108

Correlations

		Regular_Medic al_Waste_Train ing
Regular_Medical_Waste_Training	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,244 [*]
	Sig. (2-tailed)	,012
	N	106
Green_Packaging_Usage	Correlation Coefficient	,231 [*]
	Sig. (2-tailed)	,017
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-,067
	Sig. (2-tailed)	,497
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,491 ^{**}
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	-,174
	Sig. (2-tailed)	,075
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,450 ^{**}
	Sig. (2-tailed)	,000
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-,326 ^{**}
	Sig. (2-tailed)	,001
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,094
	Sig. (2-tailed)	,340
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-,026
	Sig. (2-tailed)	,788
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	-,004
	Sig. (2-tailed)	,966
	N	106

Correlations

		Medical_Waste _Training_Incre ment_Requirem ent
Regular_Medical_Waste_Tr aining	Correlation Coefficient	-,244 [*]
	Sig. (2-tailed)	,012
	N	106
Medical_Waste_Training_In crement_Requirement	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,075
	Sig. (2-tailed)	,442
	N	106
Green_Packaging_Usage_I ncrement_Requirement	Correlation Coefficient	,510 ^{**}
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Ch ain_Training	Correlation Coefficient	-,045
	Sig. (2-tailed)	,644
	N	106
Green_Medical_Supply_Ch ain_Training_Inc_Requr	Correlation Coefficient	,592 ^{**}
	Sig. (2-tailed)	,000
	N	106
Effective_Waste_Managem ent_Control	Correlation Coefficient	-,242 [*]
	Sig. (2-tailed)	,013
	N	106
Waste_Management_Contr ols_Development_Support	Correlation Coefficient	,411 ^{**}
	Sig. (2-tailed)	,000
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,024
	Sig. (2-tailed)	,811
	N	106
Imperative_E_Result_Syste ms_Usage_Support	Correlation Coefficient	,242 [*]
	Sig. (2-tailed)	,012
	N	106
Salaried_Environmental_Pe rsonnel_Support	Correlation Coefficient	,346 ^{**}
	Sig. (2-tailed)	,000
	N	106

Correlations

		Green_Packaging_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	.231*
	Sig. (2-tailed)	.017
	N	108
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-.075
	Sig. (2-tailed)	.442
	N	108
Green_Packaging_Usage	Correlation Coefficient	1.000
	Sig. (2-tailed)	.
	N	108
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	.005
	Sig. (2-tailed)	.982
	N	108
Green_Medical_Supply_Chain_Training	Correlation Coefficient	.138
	Sig. (2-tailed)	.159
	N	108
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	-.027
	Sig. (2-tailed)	.781
	N	108
Effective_Waste_Management_Control	Correlation Coefficient	.120
	Sig. (2-tailed)	.220
	N	108
Waste_Management_Controls_Development_Support	Correlation Coefficient	-.152
	Sig. (2-tailed)	.119
	N	108
E_Result_Systems_Usage	Correlation Coefficient	-.022
	Sig. (2-tailed)	.825
	N	108
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-.048
	Sig. (2-tailed)	.643
	N	108
Salaried_Environmental_Personnel_Support	Correlation Coefficient	.009
	Sig. (2-tailed)	.928
	N	108

Correlations

		Green_Packaging_Usage_Increment_Requirement
Regular_Medical_Waste_Training	Correlation Coefficient	-,067
	Sig. (2-tailed)	,497
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,510**
	Sig. (2-tailed)	,000
	N	106
Green_Packaging_Usage	Correlation Coefficient	,005
	Sig. (2-tailed)	,962
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,025
	Sig. (2-tailed)	,799
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,889**
	Sig. (2-tailed)	,000
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,011
	Sig. (2-tailed)	,908
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,527**
	Sig. (2-tailed)	,000
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,020
	Sig. (2-tailed)	,842
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,284**
	Sig. (2-tailed)	,003
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,323**
	Sig. (2-tailed)	,001
	N	106

Correlations

		Green_Medical _Supply_Chain _Training
Regular_Medical_Waste_Training	Correlation Coefficient	.491**
	Sig. (2-tailed)	.000
	N	108
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-.045
	Sig. (2-tailed)	.844
	N	108
Green_Packaging_Usage	Correlation Coefficient	.138
	Sig. (2-tailed)	.159
	N	108
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-.025
	Sig. (2-tailed)	.799
	N	108
Green_Medical_Supply_Chain_Training	Correlation Coefficient	1.000
	Sig. (2-tailed)	.
	N	108
Green_Medical_Supply_Chain_Training_Inc_Requr	Correlation Coefficient	-.018
	Sig. (2-tailed)	.853
	N	108
Effective_Waste_Management_Control	Correlation Coefficient	.322**
	Sig. (2-tailed)	.001
	N	108
Waste_Management_Contrls_Development_Support	Correlation Coefficient	-.116
	Sig. (2-tailed)	.237
	N	108
E_Result_Systems_Usage	Correlation Coefficient	.058
	Sig. (2-tailed)	.557
	N	108
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	.069
	Sig. (2-tailed)	.482
	N	108
Salaried_Environmental_Personnel_Support	Correlation Coefficient	.254**
	Sig. (2-tailed)	.009
	N	108

Correlations

		Green_Medical _Supply_Chain _Training_Inc_ Requir
Regular_Medical_Waste_Training	Correlation Coefficient	-,174
	Sig. (2-tailed)	,075
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,592**
	Sig. (2-tailed)	,000
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,027
	Sig. (2-tailed)	,781
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,689**
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,018
	Sig. (2-tailed)	,853
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requir	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,042
	Sig. (2-tailed)	,666
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,566**
	Sig. (2-tailed)	,000
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,029
	Sig. (2-tailed)	,765
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,236*
	Sig. (2-tailed)	,015
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,409**
	Sig. (2-tailed)	,000
	N	106

Correlations

		Effective_Waste_Management_Control
Regular_Medical_Waste_Training	Correlation Coefficient	,450**
	Sig. (2-tailed)	,000
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,242*
	Sig. (2-tailed)	,013
	N	106
Green_Packaging_Usage	Correlation Coefficient	,120
	Sig. (2-tailed)	,220
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-,011
	Sig. (2-tailed)	,908
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,322**
	Sig. (2-tailed)	,001
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	-,042
	Sig. (2-tailed)	,666
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-,308**
	Sig. (2-tailed)	,001
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,006
	Sig. (2-tailed)	,950
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-,024
	Sig. (2-tailed)	,809
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,029
	Sig. (2-tailed)	,770
	N	106

Correlations

		Waste_Management_Controls_Development_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-,328**
	Sig. (2-tailed)	,001
	N	108
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,411**
	Sig. (2-tailed)	,000
	N	108
Green_Packaging_Usage	Correlation Coefficient	-,152
	Sig. (2-tailed)	,119
	N	108
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,527**
	Sig. (2-tailed)	,000
	N	108
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,116
	Sig. (2-tailed)	,237
	N	108
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,566**
	Sig. (2-tailed)	,000
	N	108
Effective_Waste_Management_Control	Correlation Coefficient	-,308**
	Sig. (2-tailed)	,001
	N	108
Waste_Management_Controls_Development_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	108
E_Result_Systems_Usage	Correlation Coefficient	,085
	Sig. (2-tailed)	,385
	N	108
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,278**
	Sig. (2-tailed)	,004
	N	108
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,384**
	Sig. (2-tailed)	,000
	N	108

Correlations

		E_Result_Systems_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	-,094
	Sig. (2-tailed)	,340
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,024
	Sig. (2-tailed)	,811
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,022
	Sig. (2-tailed)	,825
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,020
	Sig. (2-tailed)	,842
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,058
	Sig. (2-tailed)	,557
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,029
	Sig. (2-tailed)	,765
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,008
	Sig. (2-tailed)	,950
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,085
	Sig. (2-tailed)	,385
	N	106
E_Result_Systems_Usage	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,232 [*]
	Sig. (2-tailed)	,017
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,215 [*]
	Sig. (2-tailed)	,027
	N	106

Correlations

		Imperative_E_Result_Systems_Usage_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-,026
	Sig. (2-tailed)	,788
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,242 [*]
	Sig. (2-tailed)	,012
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,046
	Sig. (2-tailed)	,643
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,284 ^{**}
	Sig. (2-tailed)	,003
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,069
	Sig. (2-tailed)	,482
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,236 [*]
	Sig. (2-tailed)	,015
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,024
	Sig. (2-tailed)	,809
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,278 ^{**}
	Sig. (2-tailed)	,004
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,232 [*]
	Sig. (2-tailed)	,017
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,231 [*]
	Sig. (2-tailed)	,017
	N	106

Correlations

		Salaried_Enviro nmental_Perso nnel_Support
Regular_Medical_Waste_Tr aining	Correlation Coefficient	-,004
	Sig. (2-tailed)	,988
	N	106
Medical_Waste_Training_In crement_Requirement	Correlation Coefficient	,346**
	Sig. (2-tailed)	,000
	N	106
Green_Packaging_Usage	Correlation Coefficient	,009
	Sig. (2-tailed)	,926
	N	106
Green_Packaging_Usage_I ncrement_Requirement	Correlation Coefficient	,323**
	Sig. (2-tailed)	,001
	N	106
Green_Medical_Supply_Ch ain_Training	Correlation Coefficient	,254**
	Sig. (2-tailed)	,009
	N	106
Green_Medical_Supply_Ch ain_Training_Inc_Requir	Correlation Coefficient	,409**
	Sig. (2-tailed)	,000
	N	106
Effective_Waste_Managem ent_Control	Correlation Coefficient	,029
	Sig. (2-tailed)	,770
	N	106
Waste_Management_Contr ols_Development_Support	Correlation Coefficient	,384**
	Sig. (2-tailed)	,000
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,215*
	Sig. (2-tailed)	,027
	N	106
Imperative_E_Result_Syste ms_Usage_Support	Correlation Coefficient	,231*
	Sig. (2-tailed)	,017
	N	106
Salaried_Environmental_Pe rsonnel_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106

Correlations

		Green_Building _Systems_Usa ge
Regular_Medical_Waste_Training	Correlation Coefficient	,320**
	Sig. (2-tailed)	,001
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,098
	Sig. (2-tailed)	,318
	N	106
Green_Packaging_Usage	Correlation Coefficient	,203*
	Sig. (2-tailed)	,037
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-,072
	Sig. (2-tailed)	,466
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,252**
	Sig. (2-tailed)	,009
	N	106
Green_Medical_Supply_Chain_Training_Inc_Require	Correlation Coefficient	-,070
	Sig. (2-tailed)	,477
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,305**
	Sig. (2-tailed)	,001
	N	106
Waste_Management_Contrls_Development_Support	Correlation Coefficient	-,226*
	Sig. (2-tailed)	,020
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,152
	Sig. (2-tailed)	,120
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-,092
	Sig. (2-tailed)	,350
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,110
	Sig. (2-tailed)	,263
	N	106

Correlations

		Green_Building _Systems_Usa ge_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-,095
	Sig. (2-tailed)	,339
	N	104
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,222 [*]
	Sig. (2-tailed)	,024
	N	104
Green_Packaging_Usage	Correlation Coefficient	-,014
	Sig. (2-tailed)	,891
	N	104
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,505 ^{**}
	Sig. (2-tailed)	,000
	N	104
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,043
	Sig. (2-tailed)	,861
	N	104
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,391 ^{**}
	Sig. (2-tailed)	,000
	N	104
Effective_Waste_Management_Control	Correlation Coefficient	-,058
	Sig. (2-tailed)	,558
	N	104
Waste_Management_Controls_Development_Support	Correlation Coefficient	,501 ^{**}
	Sig. (2-tailed)	,000
	N	104
E_Result_Systems_Usage	Correlation Coefficient	,148
	Sig. (2-tailed)	,134
	N	104
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,380 ^{**}
	Sig. (2-tailed)	,000
	N	104
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,497 ^{**}
	Sig. (2-tailed)	,000
	N	104

Correlations

		Drug_Waste_In forming_Require ment
Regular_Medical_Waste_Training	Correlation Coefficient	-,019
	Sig. (2-tailed)	,850
	N	108
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,193 [*]
	Sig. (2-tailed)	,047
	N	108
Green_Packaging_Usage	Correlation Coefficient	,182
	Sig. (2-tailed)	,062
	N	108
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,268 ^{**}
	Sig. (2-tailed)	,005
	N	108
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,054
	Sig. (2-tailed)	,581
	N	108
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,347 ^{**}
	Sig. (2-tailed)	,000
	N	108
Effective_Waste_Management_Control	Correlation Coefficient	,027
	Sig. (2-tailed)	,781
	N	108
Waste_Management_Controls_Development_Support	Correlation Coefficient	,212 [*]
	Sig. (2-tailed)	,029
	N	108
E_Result_Systems_Usage	Correlation Coefficient	,044
	Sig. (2-tailed)	,656
	N	108
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,156
	Sig. (2-tailed)	,109
	N	108
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,273 ^{**}
	Sig. (2-tailed)	,005
	N	108

Correlations

		Zero_Waste_System_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	,181
	Sig. (2-tailed)	,063
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	-,100
	Sig. (2-tailed)	,306
	N	106
Green_Packaging_Usage	Correlation Coefficient	,451**
	Sig. (2-tailed)	,000
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,064
	Sig. (2-tailed)	,517
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,159
	Sig. (2-tailed)	,103
	N	106
Green_Medical_Supply_Chain_Training_Inc_Req	Correlation Coefficient	-,043
	Sig. (2-tailed)	,662
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,138
	Sig. (2-tailed)	,157
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-,199*
	Sig. (2-tailed)	,041
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,161
	Sig. (2-tailed)	,099
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,044
	Sig. (2-tailed)	,656
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,164
	Sig. (2-tailed)	,094
	N	106

Correlations

		Zero_Waste_Usage_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-,082
	Sig. (2-tailed)	,528
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,278**
	Sig. (2-tailed)	,004
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,015
	Sig. (2-tailed)	,877
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,374**
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,064
	Sig. (2-tailed)	,516
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,333**
	Sig. (2-tailed)	,000
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,038
	Sig. (2-tailed)	,899
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,458**
	Sig. (2-tailed)	,000
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,082
	Sig. (2-tailed)	,528
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,080
	Sig. (2-tailed)	,415
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,275**
	Sig. (2-tailed)	,004
	N	106

Correlations

		Transport_System_Energy_Efficiency_Development_Requirement
Regular_Medical_Waste_Training	Correlation Coefficient	-,015
	Sig. (2-tailed)	,881
	N	108
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,451**
	Sig. (2-tailed)	,000
	N	108
Green_Packaging_Usage	Correlation Coefficient	,155
	Sig. (2-tailed)	,112
	N	108
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,304**
	Sig. (2-tailed)	,002
	N	108
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,013
	Sig. (2-tailed)	,895
	N	108
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,421**
	Sig. (2-tailed)	,000
	N	108
Effective_Waste_Management_Control	Correlation Coefficient	,012
	Sig. (2-tailed)	,904
	N	108
Waste_Management_Controls_Development_Support	Correlation Coefficient	,137
	Sig. (2-tailed)	,160
	N	108
E_Result_Systems_Usage	Correlation Coefficient	-,075
	Sig. (2-tailed)	,447
	N	108
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,051
	Sig. (2-tailed)	,802
	N	108
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,212*
	Sig. (2-tailed)	,029
	N	108

Correlations

		GDP_Guideline _Compliant_Be havior
Regular_Medical_Waste_Training	Correlation Coefficient	,228 [*]
	Sig. (2-tailed)	,019
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,010
	Sig. (2-tailed)	,917
	N	106
Green_Packaging_Usage	Correlation Coefficient	-,023
	Sig. (2-tailed)	,817
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,165
	Sig. (2-tailed)	,092
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,262 ^{**}
	Sig. (2-tailed)	,007
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,159
	Sig. (2-tailed)	,104
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,372 ^{**}
	Sig. (2-tailed)	,000
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-,109
	Sig. (2-tailed)	,266
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,033
	Sig. (2-tailed)	,734
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,025
	Sig. (2-tailed)	,801
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,191
	Sig. (2-tailed)	,050
	N	106

Correlations

		GDP_Guideline _Legal_Require ment_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-.083
	Sig. (2-tailed)	.396
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	.266**
	Sig. (2-tailed)	.006
	N	106
Green_Packaging_Usage	Correlation Coefficient	.143
	Sig. (2-tailed)	.144
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	.171
	Sig. (2-tailed)	.079
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	.083
	Sig. (2-tailed)	.400
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requr	Correlation Coefficient	.141
	Sig. (2-tailed)	.148
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-.010
	Sig. (2-tailed)	.921
	N	106
Waste_Management_Contrls_Development_Support	Correlation Coefficient	.025
	Sig. (2-tailed)	.796
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-.148
	Sig. (2-tailed)	.129
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	-.059
	Sig. (2-tailed)	.548
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	.112
	Sig. (2-tailed)	.252
	N	106

Correlations

		White_Paint_With_Teflon_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	,278**
	Sig. (2-tailed)	,004
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,199*
	Sig. (2-tailed)	,041
	N	106
Green_Packaging_Usage	Correlation Coefficient	,109
	Sig. (2-tailed)	,267
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,139
	Sig. (2-tailed)	,154
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	,381**
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training_Inc_Req	Correlation Coefficient	,236*
	Sig. (2-tailed)	,015
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	,237*
	Sig. (2-tailed)	,015
	N	106
Waste_Management_Contr ols_Development_Support	Correlation Coefficient	-,080
	Sig. (2-tailed)	,543
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,101
	Sig. (2-tailed)	,302
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,074
	Sig. (2-tailed)	,452
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,432**
	Sig. (2-tailed)	,000
	N	106

Correlations

		White_Paint_With_Teflon_Usage_Support
Regular_Medical_Waste_Training	Correlation Coefficient	-,192 [*]
	Sig. (2-tailed)	,048
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,277 ^{**}
	Sig. (2-tailed)	,004
	N	106
Green_Packaging_Usage	Correlation Coefficient	,105
	Sig. (2-tailed)	,285
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,313 ^{**}
	Sig. (2-tailed)	,001
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,014
	Sig. (2-tailed)	,888
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	,287 ^{**}
	Sig. (2-tailed)	,003
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,047
	Sig. (2-tailed)	,634
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,280 ^{**}
	Sig. (2-tailed)	,004
	N	106
E_Result_Systems_Usage	Correlation Coefficient	,156
	Sig. (2-tailed)	,110
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,142
	Sig. (2-tailed)	,148
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,237 [*]
	Sig. (2-tailed)	,014
	N	106

Correlations

		Nation_Waste_ Transport_For m_Usage
Regular_Medical_Waste_Training	Correlation Coefficient	.195 [*]
	Sig. (2-tailed)	.045
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	.014
	Sig. (2-tailed)	.888
	N	106
Green_Packaging_Usage	Correlation Coefficient	.169
	Sig. (2-tailed)	.083
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	-.115
	Sig. (2-tailed)	.239
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	.264 ^{**}
	Sig. (2-tailed)	.006
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requirement	Correlation Coefficient	.004
	Sig. (2-tailed)	.965
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	.226 [*]
	Sig. (2-tailed)	.020
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	-.241 [*]
	Sig. (2-tailed)	.013
	N	106
E_Result_Systems_Usage	Correlation Coefficient	.115
	Sig. (2-tailed)	.242
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	.075
	Sig. (2-tailed)	.444
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	.190
	Sig. (2-tailed)	.051
	N	106

Correlations

		Nation_Waste_ Transport_For m_Usage_Sup port
Regular_Medical_Waste_Training	Correlation Coefficient	-,196 [*]
	Sig. (2-tailed)	,045
	N	106
Medical_Waste_Training_Increment_Requirement	Correlation Coefficient	,401 ^{**}
	Sig. (2-tailed)	,000
	N	106
Green_Packaging_Usage	Correlation Coefficient	,169
	Sig. (2-tailed)	,083
	N	106
Green_Packaging_Usage_Increment_Requirement	Correlation Coefficient	,458 ^{**}
	Sig. (2-tailed)	,000
	N	106
Green_Medical_Supply_Chain_Training	Correlation Coefficient	-,084
	Sig. (2-tailed)	,392
	N	106
Green_Medical_Supply_Chain_Training_Inc_Requr	Correlation Coefficient	,470 ^{**}
	Sig. (2-tailed)	,000
	N	106
Effective_Waste_Management_Control	Correlation Coefficient	-,052
	Sig. (2-tailed)	,595
	N	106
Waste_Management_Controls_Development_Support	Correlation Coefficient	,452 ^{**}
	Sig. (2-tailed)	,000
	N	106
E_Result_Systems_Usage	Correlation Coefficient	-,027
	Sig. (2-tailed)	,784
	N	106
Imperative_E_Result_Systems_Usage_Support	Correlation Coefficient	,146
	Sig. (2-tailed)	,134
	N	106
Salaried_Environmental_Personnel_Support	Correlation Coefficient	,266 ^{**}
	Sig. (2-tailed)	,006
	N	106

Correlations

		Age	Education
Green_Building_Systems_Usage	Correlation Coefficient	-,144	-,104
	Sig. (2-tailed)	,142	,287
	N	106	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,094	,047
	Sig. (2-tailed)	,345	,634
	N	104	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,174	,079
	Sig. (2-tailed)	,074	,419
	N	106	106
Zero_Waste_System_Usage	Correlation Coefficient	-,182	-,258**
	Sig. (2-tailed)	,062	,008
	N	106	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,008	,100
	Sig. (2-tailed)	,938	,309
	N	106	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,093	-,170
	Sig. (2-tailed)	,343	,081
	N	106	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,081	,322**
	Sig. (2-tailed)	,410	,001
	N	106	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,027	-,065
	Sig. (2-tailed)	,780	,508
	N	106	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	-,138	-,035
	Sig. (2-tailed)	,159	,725
	N	106	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,074	-,217*
	Sig. (2-tailed)	,450	,025
	N	106	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,277**	-,046
	Sig. (2-tailed)	,004	,643
	N	106	106

Correlations

		Renwanable_Energy_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,353**
	Sig. (2-tailed)	,000
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,003
	Sig. (2-tailed)	,978
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	-,093
	Sig. (2-tailed)	,345
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,055
	Sig. (2-tailed)	,573
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,044
	Sig. (2-tailed)	,657
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,061
	Sig. (2-tailed)	,537
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,089
	Sig. (2-tailed)	,366
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	-,080
	Sig. (2-tailed)	,415
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,322**
	Sig. (2-tailed)	,001
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,129
	Sig. (2-tailed)	,188
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,170
	Sig. (2-tailed)	,082
	N	106

Correlations

		Renewable_Energy_Support
Green_Building_Systems_Usage	Correlation Coefficient	-,102
	Sig. (2-tailed)	,300
	N	108
Green_Building_Systems_Usage_Support	Correlation Coefficient	,405**
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,452**
	Sig. (2-tailed)	,000
	N	108
Zero_Waste_System_Usage	Correlation Coefficient	-,110
	Sig. (2-tailed)	,283
	N	108
Zero_Waste_Usage_Support	Correlation Coefficient	,479**
	Sig. (2-tailed)	,000
	N	108
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,131
	Sig. (2-tailed)	,182
	N	108
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,231*
	Sig. (2-tailed)	,017
	N	108
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,020
	Sig. (2-tailed)	,835
	N	108
White_Paint_With_Teflon_Usage	Correlation Coefficient	,050
	Sig. (2-tailed)	,610
	N	108
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,075
	Sig. (2-tailed)	,444
	N	108
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,023
	Sig. (2-tailed)	,814
	N	108

Correlations

		Recycling_System_Development_Support
Green_Building_Systems_Usage	Correlation Coefficient	-,375**
	Sig. (2-tailed)	,000
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,080
	Sig. (2-tailed)	,419
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,014
	Sig. (2-tailed)	,885
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,048
	Sig. (2-tailed)	,628
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,158
	Sig. (2-tailed)	,107
	N	106
Transport_System_Energy_Efficiency_Development_Requirement	Correlation Coefficient	,293**
	Sig. (2-tailed)	,002
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	-,007
	Sig. (2-tailed)	,942
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,109
	Sig. (2-tailed)	,266
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	-,054
	Sig. (2-tailed)	,586
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,095
	Sig. (2-tailed)	,334
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,007
	Sig. (2-tailed)	,944
	N	106

Correlations

		Recyclable_Product_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,255**
	Sig. (2-tailed)	,008
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,147
	Sig. (2-tailed)	,138
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,004
	Sig. (2-tailed)	,967
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,060
	Sig. (2-tailed)	,540
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,004
	Sig. (2-tailed)	,967
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,281**
	Sig. (2-tailed)	,004
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,300**
	Sig. (2-tailed)	,002
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,002
	Sig. (2-tailed)	,981
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,249**
	Sig. (2-tailed)	,010
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,162
	Sig. (2-tailed)	,098
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,047
	Sig. (2-tailed)	,632
	N	106

Correlations

		Recyclable_Product_Usage_Increment_Requirement
Green_Building_Systems_Usage	Correlation Coefficient	-,224 [*]
	Sig. (2-tailed)	,021
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,178
	Sig. (2-tailed)	,070
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,278 ^{**}
	Sig. (2-tailed)	,004
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,004
	Sig. (2-tailed)	,967
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,287 ^{**}
	Sig. (2-tailed)	,003
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,209 [*]
	Sig. (2-tailed)	,032
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	-,003
	Sig. (2-tailed)	,974
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,124
	Sig. (2-tailed)	,206
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	-,131
	Sig. (2-tailed)	,182
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,218 [*]
	Sig. (2-tailed)	,025
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,028
	Sig. (2-tailed)	,778
	N	106

Correlations

		Green_Purchase_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,261**
	Sig. (2-tailed)	,007
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,009
	Sig. (2-tailed)	,928
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,027
	Sig. (2-tailed)	,782
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,339**
	Sig. (2-tailed)	,000
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,153
	Sig. (2-tailed)	,118
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,077
	Sig. (2-tailed)	,430
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,018
	Sig. (2-tailed)	,858
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,227*
	Sig. (2-tailed)	,019
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,328**
	Sig. (2-tailed)	,001
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,197*
	Sig. (2-tailed)	,043
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,264**
	Sig. (2-tailed)	,006
	N	106

Correlations

		Green_Purchase_Usage_Increment_Requirement
Green_Building_Systems_Usage	Correlation Coefficient	-,101
	Sig. (2-tailed)	,302
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,453**
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,279**
	Sig. (2-tailed)	,004
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,079
	Sig. (2-tailed)	,420
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,382**
	Sig. (2-tailed)	,000
	N	106
Transport_System_Energy_Efficiency_Development_Requirement	Correlation Coefficient	,109
	Sig. (2-tailed)	,264
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,051
	Sig. (2-tailed)	,604
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,076
	Sig. (2-tailed)	,439
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	-,092
	Sig. (2-tailed)	,349
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,257**
	Sig. (2-tailed)	,008
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,148
	Sig. (2-tailed)	,129
	N	106

Correlations

		Regular_Medic al_Waste_Train ing
Green_Building_Systems_Usage	Correlation Coefficient	,320**
	Sig. (2-tailed)	,001
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,095
	Sig. (2-tailed)	,339
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	-,019
	Sig. (2-tailed)	,850
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,181
	Sig. (2-tailed)	,063
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,062
	Sig. (2-tailed)	,528
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,015
	Sig. (2-tailed)	,881
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,228*
	Sig. (2-tailed)	,019
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	-,083
	Sig. (2-tailed)	,396
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,278**
	Sig. (2-tailed)	,004
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,192*
	Sig. (2-tailed)	,048
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,195*
	Sig. (2-tailed)	,045
	N	106

Correlations

		Medical_Waste _Training_Incre ment_Requirem ent
Green_Building_Systems_Usage	Correlation Coefficient	-,098
	Sig. (2-tailed)	,318
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,222 [*]
	Sig. (2-tailed)	,024
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,193 [*]
	Sig. (2-tailed)	,047
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,100
	Sig. (2-tailed)	,306
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,278 ^{**}
	Sig. (2-tailed)	,004
	N	106
Transport_System_Energy_Efficiency_Develop_Require	Correlation Coefficient	,451 ^{**}
	Sig. (2-tailed)	,000
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,010
	Sig. (2-tailed)	,917
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,266 ^{**}
	Sig. (2-tailed)	,006
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,199 [*]
	Sig. (2-tailed)	,041
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,277 ^{**}
	Sig. (2-tailed)	,004
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,014
	Sig. (2-tailed)	,888
	N	106

Correlations

		Green_Packaging_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,203 [*]
	Sig. (2-tailed)	,037
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,014
	Sig. (2-tailed)	,891
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,182
	Sig. (2-tailed)	,082
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,451 ^{**}
	Sig. (2-tailed)	,000
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,015
	Sig. (2-tailed)	,877
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,155
	Sig. (2-tailed)	,112
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	-,023
	Sig. (2-tailed)	,817
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,143
	Sig. (2-tailed)	,144
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,109
	Sig. (2-tailed)	,287
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,105
	Sig. (2-tailed)	,285
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,189
	Sig. (2-tailed)	,083
	N	106

Correlations

		Green_Packaging_Usage_Increment_Requirement
Green_Building_Systems_Usage	Correlation Coefficient	-,072
	Sig. (2-tailed)	,468
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,505**
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,268**
	Sig. (2-tailed)	,005
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,084
	Sig. (2-tailed)	,517
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,374**
	Sig. (2-tailed)	,000
	N	106
Transport_System_Energy_Efficiency_Development_Requirement	Correlation Coefficient	,304**
	Sig. (2-tailed)	,002
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,165
	Sig. (2-tailed)	,092
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,171
	Sig. (2-tailed)	,079
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,139
	Sig. (2-tailed)	,154
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,313**
	Sig. (2-tailed)	,001
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,115
	Sig. (2-tailed)	,239
	N	106

Correlations

		Green_Medical _Supply_Chain _Training
Green_Building_Systems_Usage	Correlation Coefficient	,252**
	Sig. (2-tailed)	,009
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,043
	Sig. (2-tailed)	,861
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,054
	Sig. (2-tailed)	,581
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,159
	Sig. (2-tailed)	,103
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,084
	Sig. (2-tailed)	,516
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,013
	Sig. (2-tailed)	,895
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,262**
	Sig. (2-tailed)	,007
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,083
	Sig. (2-tailed)	,400
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,381**
	Sig. (2-tailed)	,000
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,014
	Sig. (2-tailed)	,888
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,264**
	Sig. (2-tailed)	,006
	N	106

Correlations

		Green_Medical _Supply_Chain _Training_Inc_ Requir
Green_Building_Systems_Usage	Correlation Coefficient	-,070
	Sig. (2-tailed)	,477
	N	108
Green_Building_Systems_Usage_Support	Correlation Coefficient	,391**
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,347**
	Sig. (2-tailed)	,000
	N	108
Zero_Waste_System_Usage	Correlation Coefficient	-,043
	Sig. (2-tailed)	,862
	N	108
Zero_Waste_Usage_Support	Correlation Coefficient	,333**
	Sig. (2-tailed)	,000
	N	108
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,421**
	Sig. (2-tailed)	,000
	N	108
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,159
	Sig. (2-tailed)	,104
	N	108
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,141
	Sig. (2-tailed)	,148
	N	108
White_Paint_With_Teflon_Usage	Correlation Coefficient	,238*
	Sig. (2-tailed)	,015
	N	108
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,287**
	Sig. (2-tailed)	,003
	N	108
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,004
	Sig. (2-tailed)	,985
	N	108

Correlations

		Effective_Waste_Management_Control
Green_Building_Systems_Usage	Correlation Coefficient	,305**
	Sig. (2-tailed)	,001
	N	108
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,058
	Sig. (2-tailed)	,558
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,027
	Sig. (2-tailed)	,781
	N	108
Zero_Waste_System_Usage	Correlation Coefficient	,138
	Sig. (2-tailed)	,157
	N	108
Zero_Waste_Usage_Support	Correlation Coefficient	-,038
	Sig. (2-tailed)	,899
	N	108
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,012
	Sig. (2-tailed)	,904
	N	108
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,372**
	Sig. (2-tailed)	,000
	N	108
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	-,010
	Sig. (2-tailed)	,921
	N	108
White_Paint_With_Teflon_Usage	Correlation Coefficient	,237*
	Sig. (2-tailed)	,015
	N	108
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,047
	Sig. (2-tailed)	,634
	N	108
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,226*
	Sig. (2-tailed)	,020
	N	108

Correlations

		Waste_Management_Controls_Development_Support
Green_Building_Systems_Usage	Correlation Coefficient	-,226 [*]
	Sig. (2-tailed)	,020
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,501 ^{**}
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,212 [*]
	Sig. (2-tailed)	,029
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,199 [*]
	Sig. (2-tailed)	,041
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,458 ^{**}
	Sig. (2-tailed)	,000
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,137
	Sig. (2-tailed)	,160
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	-,109
	Sig. (2-tailed)	,268
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,025
	Sig. (2-tailed)	,798
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	-,080
	Sig. (2-tailed)	,543
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,280 ^{**}
	Sig. (2-tailed)	,004
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,241 [*]
	Sig. (2-tailed)	,013
	N	106

Correlations

		E_Result_Systems_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,152
	Sig. (2-tailed)	,120
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,148
	Sig. (2-tailed)	,134
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,044
	Sig. (2-tailed)	,656
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,161
	Sig. (2-tailed)	,099
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,062
	Sig. (2-tailed)	,528
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,075
	Sig. (2-tailed)	,447
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,033
	Sig. (2-tailed)	,734
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	-,148
	Sig. (2-tailed)	,129
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,101
	Sig. (2-tailed)	,302
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,156
	Sig. (2-tailed)	,110
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,115
	Sig. (2-tailed)	,242
	N	106

Correlations

		Imperative_E_ Result_Systems_Usage_Support
Green_Building_Systems_Usage	Correlation Coefficient	-,092
	Sig. (2-tailed)	,350
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,380**
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,156
	Sig. (2-tailed)	,109
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,044
	Sig. (2-tailed)	,856
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,080
	Sig. (2-tailed)	,415
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,051
	Sig. (2-tailed)	,802
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,025
	Sig. (2-tailed)	,801
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	-,059
	Sig. (2-tailed)	,548
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,074
	Sig. (2-tailed)	,452
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,142
	Sig. (2-tailed)	,148
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,075
	Sig. (2-tailed)	,444
	N	106

Correlations

		Salaried_Environmental_Personnel_Support
Green_Building_Systems_Usage	Correlation Coefficient	.110
	Sig. (2-tailed)	.263
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	.497**
	Sig. (2-tailed)	.000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	.273**
	Sig. (2-tailed)	.005
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	.164
	Sig. (2-tailed)	.094
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	.275**
	Sig. (2-tailed)	.004
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	.212*
	Sig. (2-tailed)	.029
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	.191
	Sig. (2-tailed)	.050
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	.112
	Sig. (2-tailed)	.252
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	.432**
	Sig. (2-tailed)	.000
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	.237*
	Sig. (2-tailed)	.014
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	.190
	Sig. (2-tailed)	.051
	N	106

Correlations

		Green_Building _Systems_Usa ge
Green_Building_Systems_Usage	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,030
	Sig. (2-tailed)	,760
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	-,087
	Sig. (2-tailed)	,374
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,243 [*]
	Sig. (2-tailed)	,012
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,046
	Sig. (2-tailed)	,637
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,089
	Sig. (2-tailed)	,363
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,220 [*]
	Sig. (2-tailed)	,024
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	-,158
	Sig. (2-tailed)	,106
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,382 ^{**}
	Sig. (2-tailed)	,000
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,014
	Sig. (2-tailed)	,890
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,132
	Sig. (2-tailed)	,177
	N	106

Correlations

		Green_Building_Systems_Usage_Support
Green_Building_Systems_Usage	Correlation Coefficient	,030
	Sig. (2-tailed)	,760
	N	104
Green_Building_Systems_Usage_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,337**
	Sig. (2-tailed)	,000
	N	104
Zero_Waste_System_Usage	Correlation Coefficient	,129
	Sig. (2-tailed)	,191
	N	104
Zero_Waste_Usage_Support	Correlation Coefficient	,458**
	Sig. (2-tailed)	,000
	N	104
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,075
	Sig. (2-tailed)	,449
	N	104
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,073
	Sig. (2-tailed)	,463
	N	104
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	-,172
	Sig. (2-tailed)	,080
	N	104
White_Paint_With_Teflon_Usage	Correlation Coefficient	,140
	Sig. (2-tailed)	,157
	N	104
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,242*
	Sig. (2-tailed)	,013
	N	104
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,057
	Sig. (2-tailed)	,568
	N	104

Correlations

		Drug_Waste_In forming_Requr ement
Green_Building_Systems_Usage	Correlation Coefficient	-,087
	Sig. (2-tailed)	,374
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,337**
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,078
	Sig. (2-tailed)	,424
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,389**
	Sig. (2-tailed)	,000
	N	106
Transport_System_Energy_Efficiency_Develop_Requr	Correlation Coefficient	,249*
	Sig. (2-tailed)	,010
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,153
	Sig. (2-tailed)	,118
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,048
	Sig. (2-tailed)	,827
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,018
	Sig. (2-tailed)	,856
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,108
	Sig. (2-tailed)	,270
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,098
	Sig. (2-tailed)	,318
	N	106

Correlations

		Zero_Waste_System_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,243 [*]
	Sig. (2-tailed)	,012
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,129
	Sig. (2-tailed)	,191
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,078
	Sig. (2-tailed)	,424
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,213 [*]
	Sig. (2-tailed)	,028
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,127
	Sig. (2-tailed)	,196
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	-,090
	Sig. (2-tailed)	,359
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,107
	Sig. (2-tailed)	,274
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,157
	Sig. (2-tailed)	,109
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,001
	Sig. (2-tailed)	,990
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,303 ^{**}
	Sig. (2-tailed)	,002
	N	106

Correlations

		Zero_Waste_Usage_Support
Green_Building_Systems_Usage	Correlation Coefficient	-,046
	Sig. (2-tailed)	,637
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,458**
	Sig. (2-tailed)	,000
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,389**
	Sig. (2-tailed)	,000
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,213*
	Sig. (2-tailed)	,028
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Transport_System_Energy_Efficiency_Develop_Req	Correlation Coefficient	,339**
	Sig. (2-tailed)	,000
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,125
	Sig. (2-tailed)	,201
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,016
	Sig. (2-tailed)	,872
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	-,022
	Sig. (2-tailed)	,821
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,193*
	Sig. (2-tailed)	,048
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,072
	Sig. (2-tailed)	,462
	N	106

Correlations

		Transport_System_Energy_Efficiency_Develop_Req
Green_Building_Systems_Usage	Correlation Coefficient	-,089
	Sig. (2-tailed)	,363
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,075
	Sig. (2-tailed)	,449
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,249 [*]
	Sig. (2-tailed)	,010
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,127
	Sig. (2-tailed)	,196
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,339 ^{**}
	Sig. (2-tailed)	,000
	N	106
Transport_System_Energy_Efficiency_Develop_Req	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	-,028
	Sig. (2-tailed)	,778
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,370 ^{**}
	Sig. (2-tailed)	,000
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,164
	Sig. (2-tailed)	,092
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,283 ^{**}
	Sig. (2-tailed)	,007
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,214 [*]
	Sig. (2-tailed)	,028
	N	106

Correlations

		GDP_Guideline _Compliant_Be havior
Green_Building_Systems_Usage	Correlation Coefficient	,220 [*]
	Sig. (2-tailed)	,024
	N	108
Green_Building_Systems_Usage_Support	Correlation Coefficient	,073
	Sig. (2-tailed)	,463
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,153
	Sig. (2-tailed)	,118
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,090
	Sig. (2-tailed)	,359
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,125
	Sig. (2-tailed)	,201
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	-,028
	Sig. (2-tailed)	,778
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,133
	Sig. (2-tailed)	,174
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,337 ^{**}
	Sig. (2-tailed)	,000
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,031
	Sig. (2-tailed)	,749
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,390 ^{**}
	Sig. (2-tailed)	,000
	N	106

Correlations

		GDP_Guideline _Legal_Require ment_Support
Green_Building_Systems_Usage	Correlation Coefficient	-,158
	Sig. (2-tailed)	,106
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,172
	Sig. (2-tailed)	,080
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,048
	Sig. (2-tailed)	,627
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,107
	Sig. (2-tailed)	,274
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,016
	Sig. (2-tailed)	,872
	N	106
Transport_System_Energy_Efficiency_Develop_Req	Correlation Coefficient	,370**
	Sig. (2-tailed)	,000
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,133
	Sig. (2-tailed)	,174
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,178
	Sig. (2-tailed)	,068
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,277**
	Sig. (2-tailed)	,004
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,166
	Sig. (2-tailed)	,088
	N	106

Correlations

		White_Paint_With_Teflon_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,382**
	Sig. (2-tailed)	,000
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,140
	Sig. (2-tailed)	,157
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,018
	Sig. (2-tailed)	,856
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,157
	Sig. (2-tailed)	,109
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,022
	Sig. (2-tailed)	,821
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,164
	Sig. (2-tailed)	,092
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,337**
	Sig. (2-tailed)	,000
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,178
	Sig. (2-tailed)	,068
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,066
	Sig. (2-tailed)	,500
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	,518**
	Sig. (2-tailed)	,000
	N	106

Correlations

		White_Paint_With_Teflon_Usage_Support
Green_Building_Systems_Usage	Correlation Coefficient	,014
	Sig. (2-tailed)	,890
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,242 [*]
	Sig. (2-tailed)	,013
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,108
	Sig. (2-tailed)	,270
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	-,001
	Sig. (2-tailed)	,990
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,193 [*]
	Sig. (2-tailed)	,048
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,263 ^{**}
	Sig. (2-tailed)	,007
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	-,031
	Sig. (2-tailed)	,749
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,277 ^{**}
	Sig. (2-tailed)	,004
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,066
	Sig. (2-tailed)	,500
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,083
	Sig. (2-tailed)	,396
	N	106

Correlations

		Nation_Waste_ Transport_For m_Usage
Green_Building_Systems_Usage	Correlation Coefficient	,132
	Sig. (2-tailed)	,177
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	-,057
	Sig. (2-tailed)	,568
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,098
	Sig. (2-tailed)	,318
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,303**
	Sig. (2-tailed)	,002
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	-,072
	Sig. (2-tailed)	,462
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,214*
	Sig. (2-tailed)	,028
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,390**
	Sig. (2-tailed)	,000
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,166
	Sig. (2-tailed)	,088
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,518**
	Sig. (2-tailed)	,000
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	-,083
	Sig. (2-tailed)	,396
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	106

Correlations

		Nation_Waste_ Transport_For m_Usage_Sup port
Green_Building_Systems_Usage	Correlation Coefficient	-,131
	Sig. (2-tailed)	,182
	N	106
Green_Building_Systems_Usage_Support	Correlation Coefficient	,267**
	Sig. (2-tailed)	,006
	N	104
Drug_Waste_Informing_Requirement	Correlation Coefficient	,246*
	Sig. (2-tailed)	,011
	N	106
Zero_Waste_System_Usage	Correlation Coefficient	,021
	Sig. (2-tailed)	,829
	N	106
Zero_Waste_Usage_Support	Correlation Coefficient	,301**
	Sig. (2-tailed)	,002
	N	106
Transport_System_Energy_Efficiency_Develop_Requirement	Correlation Coefficient	,243*
	Sig. (2-tailed)	,012
	N	106
GDP_Guideline_Compliant_Behavior	Correlation Coefficient	,099
	Sig. (2-tailed)	,313
	N	106
GDP_Guideline_Legal_Requirement_Support	Correlation Coefficient	,443**
	Sig. (2-tailed)	,000
	N	106
White_Paint_With_Teflon_Usage	Correlation Coefficient	,019
	Sig. (2-tailed)	,846
	N	106
White_Paint_With_Teflon_Usage_Support	Correlation Coefficient	,497**
	Sig. (2-tailed)	,000
	N	106
Nation_Waste_Transport_Form_Usage	Correlation Coefficient	-,033
	Sig. (2-tailed)	,736
	N	106

Correlations

		Age	Education
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-,017	,064
	Sig. (2-tailed)	,861	,513
	N	106	106

Correlations

		Rewanable_Energy_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-,121
	Sig. (2-tailed)	,215
	N	106

Correlations

		Rewanable_Energy_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,141
	Sig. (2-tailed)	,150
	N	106

Correlations

		Recycling_System_Development_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,265**
	Sig. (2-tailed)	,006
	N	106

Correlations		
		Recyclable_Product_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-,059
	Sig. (2-tailed)	,548
	N	106

Correlations		
		Recyclable_Product_Usage_Increment_Requirement
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,442**
	Sig. (2-tailed)	,000
	N	106

Correlations		
		Green_Purchase_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,046
	Sig. (2-tailed)	,641
	N	106

Correlations		
		Green_Purchase_Usage_Increment_Requirement
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,543**
	Sig. (2-tailed)	,000
	N	106

Correlations

		Regular_Medic al_Waste_Train ing
Nation_Waste_Transport_F orm_Usage_Support	Correlation Coefficient	-.196 [*]
	Sig. (2-tailed)	.045
	N	106

Correlations

		Medical_Waste _Training_Incre ment_Requirem ent
Nation_Waste_Transport_F orm_Usage_Support	Correlation Coefficient	.401 ^{**}
	Sig. (2-tailed)	.000
	N	106

Correlations

		Green_Packagi ng_Usage
Nation_Waste_Transport_F orm_Usage_Support	Correlation Coefficient	.169
	Sig. (2-tailed)	.083
	N	106

Correlations

		Green_Packagi ng_Usage_Incr ement_Require ment
Nation_Waste_Transport_F orm_Usage_Support	Correlation Coefficient	.458 ^{**}
	Sig. (2-tailed)	.000
	N	106

Correlations		
		Green_Medical_Supply_Chain_Training
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-.084
	Sig. (2-tailed)	.392
	N	106

Correlations		
		Green_Medical_Supply_Chain_Training_Inc_Requr
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	.470**
	Sig. (2-tailed)	.000
	N	106

Correlations		
		Effective_Waste_Management_Control
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-.052
	Sig. (2-tailed)	.595
	N	106

Correlations		
		Waste_Management_Controls_Development_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	.452**
	Sig. (2-tailed)	.000
	N	106

Correlations

		E_Result_Systems_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-.027
	Sig. (2-tailed)	.784
	N	106

Correlations

		Imperative_E_Result_Systems_Usage_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	.146
	Sig. (2-tailed)	.134
	N	106

Correlations

		Salaried_Environmental_Personnel_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	.266**
	Sig. (2-tailed)	.006
	N	106

Correlations

		Green_Building_Systems_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-.131
	Sig. (2-tailed)	.182
	N	106

Correlations

		Green_Building_Systems_Usage_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,267**
	Sig. (2-tailed)	,008
	N	104

Correlations

		Drug_Waste_Informing_Requirement
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,246*
	Sig. (2-tailed)	,011
	N	108

Correlations

		Zero_Waste_System_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,021
	Sig. (2-tailed)	,829
	N	108

Correlations

		Zero_Waste_Usage_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,301**
	Sig. (2-tailed)	,002
	N	108

Correlations		
		Transport_System_Energy_Efficiency_Development_Requirement
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,243
	Sig. (2-tailed)	,012
	N	108

Correlations		
		GDP_Guideline_Compliant_Behavior
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,099
	Sig. (2-tailed)	,313
	N	108

Correlations		
		GDP_Guideline_Legal_Requirement_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,443**
	Sig. (2-tailed)	,000
	N	108

Correlations		
		White_Paint_With_Teflon_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	,019
	Sig. (2-tailed)	,848
	N	108

Correlations

		White_Paint_With_Teflon_Usage_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	.497**
	Sig. (2-tailed)	.000
	N	108

Correlations

		Nation_Waste_Transport_Form_Usage
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	-.033
	Sig. (2-tailed)	.738
	N	108

Correlations

		Nation_Waste_Transport_Form_Usage_Support
Nation_Waste_Transport_Form_Usage_Support	Correlation Coefficient	1,000
	Sig. (2-tailed)	.
	N	108

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Etik kurul raporu tezin orjinalinde mevcuttur.