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The effect of knowledge capabilities on the quality of green service An analytical study of the opinions of a sample of workers in private hospitals in the Middle Euphrates region

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Abstract

The current research aims to identify the impact of Knowledge Capabilitieson the quality of green service in private hospitals in the middle Euphrates region, and according to the foregoing, the research adopts an analytical approach, for the research variables, as a random sample was selected from a group of private hospital workers, whose number is (293) workers. The researchers used the questionnaire as a basic tool for data collection. Many statistical methods were used in the research, such as standard deviations, arithmetic averages, and structural equation modeling with the help of the statistical programs(SPSS.var.25), (AMOS.var.25). The current research reached a set of targeted conclusions and recommendations.

Key words: Knowledge Capabilities , Quality Green Service

المستخلص

يهدف البحث الحالي إلى التعرف على تأثير القابليات المعرفية في جودة الخدمة الخضراء, في المستشفيات الاهلية في منطقة الفرات الاوسط ، وبموجب ما تقدم يتبنى البحث منهجا تحليلاً, لمتغيرات البحث , اذ تم اختيار عينة عشوائية من مجموعة من العاملين المستشفيات الاهلية والبالغ عددهم (293) عاملا. استخدم الباحثان الاستبانة كأداة أساسية لجمع البيانات . واستعمل في البحث العديد من الوسائل الإحصائية كالانحرافات المعيارية, المتوسطات الحسابية, ونمذجة المعادلة الهيكلية بمساعدة البرامج (SPSS.var.25) ، (AMOS.var.25) الاحصائية وتوصل البحث الحالي الى مجموعة من الاستنتاجات والتوصيات الهادفة.

الكلمات الدلالية: القابليات المعرفية, جودة الخدمة الخضراء.

Introduction

Knowledge Capabilities have emerged greatly in the literature of strategic philosophy that helped organizations develop their capabilities to deal with dynamic environments and uncertainty in business environments. Through structural Knowledge Capabilities, cultural Knowledge Capabilities, technical Knowledge Capabilities and human Knowledge Capabilities that allow organizations to achieve priority and adapt to external variables, on the other hand, the quality of green service works through the analysis of activities to exclude activities that are not environmentally friendly and have a negative impact on the environment, Which requires additional costs borne by the organization and society, which increases the damage to the environment and thus the customer's reluctance to deteriorate the competitive advantage of the product and decrease sales, profits and market share of organizations, and replacing these activities with green activities leads to improving service quality, improving competitive advantage, reducing costs and increasing service efficiency , and leads to the optimal use of available resources and increase the market share of the organization.

Methodology

First: Research Problem

1-What is the reality of the cognitive abilities practiced by the studied sample in the field of (cultural Knowledge Capabilities, structural Knowledge Capabilities, human Knowledge Capabilities, and technological Knowledge Capabilities)?

2-What is the role played by green service quality in improving the relationship between Knowledge Capabilitiesin its dimensions (cultural Knowledge Capabilities, structural Knowledge Capabilities, human Knowledge Capabilities, and technological Knowledge Capabilities) and Quality Green Service?

3- What is the nature of the relationship between Knowledge Capabilitiesin their dimensions and the quality of green service?

Second: Research objectives

1- Determining the level and nature of the Knowledge Capabilities that the workers with the private hospitals under study imagine.
2- Determining the nature of workers' awareness of the quality of green service in the light of the activities carried out by the private hospitals under study.
3- Verifying the influence relationship between cultural Knowledge Capabilities and the quality of green service for private hospitals.

Third: Importance Of Research

1-The health sector is one of the vital and important sectors in contemporary societies, especially in the Iraqi society. It is one of the sectors that have a direct impact on the health and safety of society. Therefore, conducting studies and research would increase the chances of success and development of this sector.
2-The importance of the researched variables at the intellectual and applied level in the field of knowledge management, as the research contributes to enriching the knowledge side of topics that the local and Arab library lacks, including the topic of Knowledge Capabilitiesand the quality of green service, which is one of the modern variables that attract great interest from researchers, and this enrichment is not limited to The theoretical presentation and narration include exposure to the nature of the possible relationships between them, whether through discussion based on the logical and mental framework, or at the level of practical testing of a set of hypotheses by linking these variables.
3- It is also hoped that this research will benefit private hospitals in our dear country in forming an integrated framework that can be relied upon in diagnosing the method of dealing with green services provided by private hospitals.

Fourth: Hypotheses

H_{0-1}:The first main hypothesis: **There is a positive, significant correlation between cognitive capabilities and green service quality. Four sub-hypotheses are derived from this hypothesis**:
1-The first sub-hypothesis: There is a positive correlation with a moral significance between the structural Knowledge Capabilities and the quality of green service represented by (dependency, tangibility, empathy, guarantee, green communication)
2-The second sub-hypothesis: There is a positive correlation with a moral significance between human Knowledge Capabilities and the quality of green service represented by (dependency, tangibility, empathy, guarantee, green communication)
3-The third sub-hypothesis: There is a positive correlation with a moral significance between technological Knowledge Capabilities and the quality of green service represented by (dependency, tangibility, empathy, guarantee, green communication)
4- Fourth sub-hypothesis: There is a positive correlation with a moral significance between cultural Knowledge Capabilities and the quality of green service represented by (dependency, tangibility, empathy, guarantee, green communication)
H_{0-2}:The second main hypothesis: **There is a significant effect relationship between cognitive capabilities and the quality of green service, and four sub-hypotheses are derived from this hypothesis:**
1- The first sub-hypothesis: There is a significant effect relationship between the structural Knowledge Capabilities and the quality of green service represented by (dependence, tangibility, empathy, guarantee, green communication)
2- The second sub-hypothesis: There is a significant effect relationship between human Knowledge Capabilities and the quality of green service represented by (dependence, tangibility, empathy, guarantee, green communication)
3- The third sub-hypothesis: There is a significant effect relationship between Knowledge Capabilities and the quality of green service represented by (dependency, tangibility, empathy, guarantee, green communication)
4-Fourth sub-hypothesis: There is a significant effect relationship between cultural Knowledge Capabilities and the quality of green service represented by (dependency, tangibility, empathy, guarantee, green communication).

Fifth: Materials and Methods

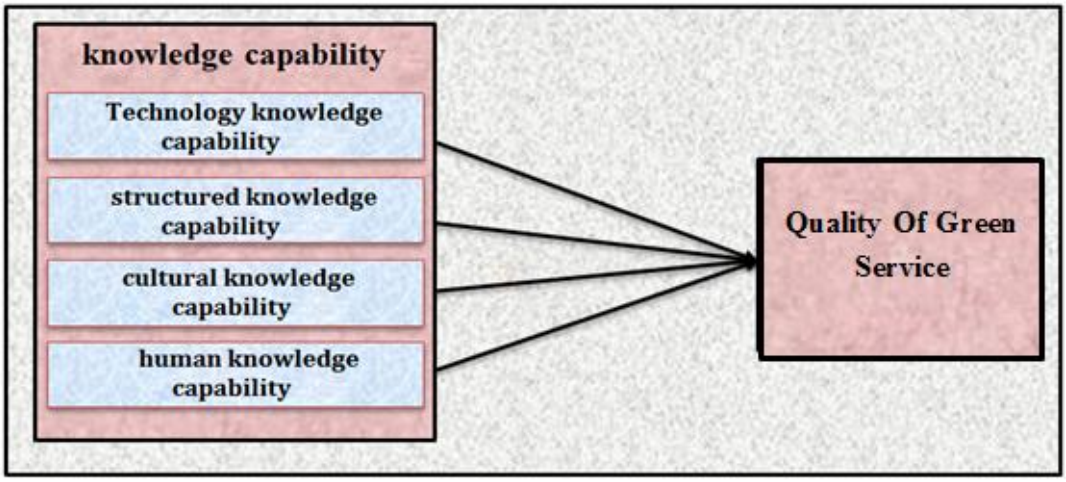
We relied on the questionnaire to obtain data from the operational side. The questionnaire in its final form included three parts, the first of which dealt with the information of the individuals who were examined, while the second questionnaire included questions to deal with cognitive abilities and the

third included measures after green service quality and was prepared on the basis of the random sampling method.

Sixth: Study sample

The study population consists of individuals working in private hospitals in the middle Euphrates region, and to test the hypotheses of the study and achieve its objectives, a questionnaire was distributed and after a period of time (two months), (293) questionnaires were obtained. Which represents the research sample

Seventh: The research scheme



Figure(1) theoretical framework for research

Literature Review

First: The Concept Knowledge capability

It is the use of knowledge assets such as human, organizational and information capital, to produce knowledge integration through a series of coordinated knowledge processes, such as knowledge acquisition, transfer, integration, and application (Chuang, 2004:459). They also represent the capacity to mobilize and deploy knowledge resources in conjunction with other resources and capacities to enable activities Knowledge management, with a positive impact on competitive advantage and organizational effectiveness (Ye et al., 2009:4507). It was defined by (Datta,2012:84) as the ability to innovate through the first two aspects of introducing or integrating new members into the organization as an external source of knowledge needed to achieve innovation and the second aspect is the ability to learn.

(Hilmersson et al., 2020:536) was identified as the ability to acquire knowledge and information, as well as the organizational capacity to protect knowledge and information in order to encourage employees to use this capability as a tool to work more efficiently. (Yee& EZE,2021:289) is seen as a means for the organization to explore markets and enhance and improve its competitiveness.

Second: Importance knowledge capability

The essence of knowledge capacity is collective learning, which is essential for organizations to obtain and maintain competitive advantage, a set of capability that includes learning capacity (knowledge resources, absorptive capacity and learning system) and communication ability (tools and technology, association and interaction) and creativity ability (innovation in the field of management, structures and value) (Ye et al., 2009:4507).

Having been multidisciplinary in nature and incorporating concepts used in strategic management, organization theory, and information systems management, (Candra,2018:143) stated that it is important to achieve the best use of knowledge and achieve a sustainable competitive advantage and high performance. It emphasizes a formal, integrated approach to the management of the organizations' intangible assets. Knowledge capability are of great value to organizations because of their ability to generate and combine different types of knowledge that will lead to the development of new knowledge that will make the discovery of new areas of knowledge possible (Mamoun et al., 2020:33).

The cognitive capabilities of the organization represent the source and capital of organizational competition, the knowledge capacity of the institutions is the ability that organizations apply and manage knowledge to increase efficiency. The cognitive capacity of an organization determines the

quantity and quality of knowledge of creation, the scope and depth of knowledge, the efficiency and the result of the application of knowledge. Therefore, it is very important to scientifically evaluate the cognitive capacity of an organization (Wang&Li, 2011:1386). Cognitive capabilities help to apply the results of scientific research in organizational contexts of the organization, and this is done through three sets of guiding principles (Massingham, 2014: 1075):

A - Strategy: any knowledge management work tools.

B - Implementation: addressing the barriers.

C- Organizational performance: how to measure value.

(Singh et al., 2006:8) pointed out that the cognitive capabilities enable the organization to improve its performance relative to its competitors, and it also allows the organization to achieve the speed of innovation (ie, explore and exploit market opportunities), and thus this flexibility also allows the organization to take competitive actions in its market, which leads Turn to better relative performance.

The effective use of knowledge enhances competitive advantage and improves organizational success, as knowledge management has become increasingly important, as organizations have realized that the effective use of their wide and diverse knowledge assets and resources provides them with the ability to innovate and respond to rapidly changing customer expectations, and organizations are also developing cognitive capabilities to help support a group Of vital operational and innovative activities, and thus the interest in cognitive capabilities led to focus on developing and implementing knowledge management processes and infrastructure necessary to support daily work practices (Sandhawalia&Dalcher, 2011:313).

Third: Dimensions knowledge capability

1-. Knowledge capability Technology

The technology component of knowledge infrastructure is it systems that enable the integration of information and knowledge into the organization, as well as the creation, transfer, storage, and preservation of the organization's knowledge resources (yang et al., 2014:44). (Aujirapongpan, 2010:14) noted that it itself does not enhance organizational performance, but it can increase organizational performance when combined with other human and commercial assets, although technology is not always directly related to organizational performance, and it can boost performance and lead to a sustainable advantage. Technology infrastructure may not directly contribute to organizational performance; It is a key enabler of other knowledge sources such as knowledge acquisition and knowledge application processes, which may itself enhance organizational performance (Alaarj et al., 2017:185;chen&Fong,2012:4).

2-Structured knowledge capability

The organizational structure consists of organizational hierarchy, rules and regulations, and is a means of coordination and oversight in which regulatory actors can be directed toward organizational effectiveness (yang et al., 2014:44). (Aujirapongpan, 2010:14) stated that changes in the organization's structure, such as the transition from hierarchical to flat forms, are necessary for effective transport and the creation of knowledge in the organization. These changes have been positively correlated with the extension of output improvement in terms of financial services and conditions (Alaarj et al., 2017:185;chen&Fong,2012:4).

3- Cultural knowledge capability

Culture in the context of knowledge management is a complex set of values, beliefs, behaviors and symbols that affect knowledge management in companies, and knowledge-supporting culture is therefore a major factor affecting knowledge management and the results of its use (yang et al., 2014:44). He pointed out (Alaarj et al., 2017:185;chen&Fong,2012:4). Cultural dimensions are related to the organization's performance, changes in organizational culture are necessary for the implementation of knowledge management programs.

2.3.4. Human knowledge capacities

These capability are the most important elements of effective knowledge transfer and exchange, as they have proven A number of experimental institutions have a direct relationship to the exchange of knowledge (Chen&Fong,2012:4). Social interaction has a perpetual relationship with knowledge sharing within organizations, and can be an effective means of transmitting tacit knowledge (Yang et al., 2014:44).Working closely with each other is centered on the existence of an intimacy between the source and the recipient, as knowledge is shared through a common understanding and perception of human knowledge capability and the existence of two important aspects, first, that the relationship between the knowledge owner and the recipient must be properly constructed. The second must

measure the degree of understanding and understanding among the members of the organization (Miranda, 2011:384).

Fourth: Concept Green Service Quality

Green service quality can be defined as a method that seeks to create harmonious and environmentally friendly green services on the basis of the traditional total quality, in order to meet the green demand of customers taking into account the needs of society, resources, the environment, customer satisfaction, social development, environmental protection, sustainable energy and other dimensions of satisfaction, as well as their compatibility with Increasing competition and increasing customer requirements for obtaining the highest level of quality (Sui et al., 2019: 130). Green quality has become one of the most important strategic variables on which organizations are based, as quality is the most important competitive weapon for the organization, and the source of its superiority and competitive distinction as a factor of attraction for many customers and the successful way to meet their needs and desires (Sharifzadeh et al., 2019:1032). (Paulin et al., 2020:11) indicated that organizations can play an important role in environmental supervision through the application of green service quality and the launch of green services, and the concept of green service quality is of great importance to expand the significance of quality management and change the concept of quality management and implementation of management and control After all, green service quality is the fifth largest management nucleus after production management, financial management, quality management and logistics management (Emre et al., 2020: 73).

Fifthly : Importance Green Service Quality

Resource optimization (energy and materials) and environmental issues within the life cycle are taken seriously, and blueprints and labels are developed, which are used to inform customers of environmentally friendly services. Therefore, green services are developed and provided that aim to reduce the environmental impact of the service, in addition to the development of many Guidelines and evaluation methods to be applied to the evaluation of green services, such as the green checklist, environmental design, environmental performance measures, life-cycle assessment and life-cycle costing. These tools can only be applied through green service quality (Kuo, 2003:89). (Wang et al., 2010:95) indicated that green service quality provides valuable information to decision makers in terms of service structure, retention, pricing strategies, and important indicators for assessing the environmental quality of organizations, and can also play a key role in determining whether an organization is environmentally friendly.

And (Guyader et al., 2019:2) added that the importance of the quality of green service is as follows:

1- Reducing the negative environmental impact of current services, and moving towards providing a green service that expands biodiversity and other natural resources.

2- The quality of green service does not focus only on providing the service, but rather meeting the needs of customers (while reducing the environmental impact of consumption), but it also focuses on improving the environmental benefits.

3- Green service quality helps reduce the risk of depleting the natural ecosystem resources for the preservation of humanity.

4-Green service quality can help meet customers' needs and concerns in the field of environmental protection by providing intangible services that go beyond the environmental benefits of a tangible product.

And (Chan et al., 2016:433) pointed out that providing these services complementary with green services, such as educating customers about the appropriate use of the product to reduce the costs of consumables (such as fuel and electricity) and providing maintenance services to extend the life cycle of the product, can meet the current needs of customers and better future. The ability to develop environmentally friendly products is vital to the sustainability of the business, in addition, the combination of intangible green services with services can create causal ambiguity, and thus be valuable and difficult to imitate, leading to the generation of competitive advantage (Assenova, 2012:18).

Sixth: dimensions Green Service Quality

1-Reliability

Reliability depends on the accuracy and timeliness of the service provided, and it is also the ability of the organization providing the service to perform the expected service reliably and accurately. Determined, has a sincere desire to solve problems, and can be relied upon in error-free performance according to customer expectations (Ali & Raza, 2017:559). (Naik et al., 2010:239) believes that it indicates the presence of working individuals who can be trusted and feel safe when dealing with them

by customers, and it is the trust that arises between the organization and its customers as a result of meeting their expectations through fair, transparent, honest and responsible delivery. As for (Lee&Cheng, 2018:32), it referred to reliability, which means that the service provider is capable of it and able to provide it at the expected level, reliably and effectively.

2- Tangible

Tangibles include the organization's physical facilities, equipment, personnel and communication materials used to promote its services, and all physical facilities directly related to service provision (equipment, personnel, and means of communication), and tangible organizations often use tangible organizations to improve their image, and ensure continuous communication with the customer (Haji, 2017: 56). The higher the tangibility, the more the service provider has the following advantages (Lee & Cheng, 2018: 32):

A- Enhancing the capacity and effectiveness of the services provided.
b- It is a source of attraction for new customers because it constitutes a competitive advantage.
C- Customers feel satisfied as a result of obtaining additional services.

3- Empathy

Empathy refers to the individual attention that the organization provides to its customers, and includes ease of access, ease of communication with service providers and efforts to understand the needs of customers, and it is an attempt to understand the customer's perspective through individual attention (Michael, 2017: 17-18).

4- Assurance

The Assurance is the knowledge, interest and skills shown by the working individuals that inspire credibility and trust, and the knowledge of the working individuals is their ability to instill confidence in customers and thus make the customer feel confident and secure. It also means the availability of safety and security devices and the procedures associated with them in order to preserve the property of customers (Al-Neyadi et al., 2018:98).

5- green communication

Green communication is the practice of selecting energy-efficient technologies, products, communications and networks, and minimizing the use of resources in all areas of the organization. Green communication is "the dissemination of information and implementation of communication practices related to the environment, a broad field that includes research and practice regarding how different actors (such as organizations, states and individuals) interact) regarding issues related to the environment and how cultural products affect society towards environmental issues (Luo et al., 2014:3214).

Green communication means the use of all written, audio, and visual media to educate community members and provide them with all information, facts and opinions about environmental issues, their causes and dimensions, and proposed solutions to address them (Gandotra et al., 2017: 2). Green communication is also defined as every human activity that affects the environment, politically, socially and developmentally (Anwar, 2018:3). It is one of the most important environmental awareness wings, and it is a tool that, if properly invested, has a positive impact on advancing environmental awareness and spreading sound awareness of environmental issues.

Seventh:-The relationship between cognitive capabilities and green service quality

Using epistemological capabilities in designing goods/services and reflecting the green benefits of goods/services makes a difference. Not everyone thinks from an environmental perspective, so organizations may want to create opportunities to turn environmental principles into real business lessons by collecting and organizing green service quality, along with Therefore, organizations must make efforts to raise employee awareness of environmental issues, as educating employees about green service is an inexpensive but effective way to build momentum and deliver green service quality, so organizations must have their own cognitive capabilities in order to create green knowledge from their own experience in order to Creating green service quality (Attia&Zibar, 2019:434), and the cognitive capabilities to operate the green knowledge base can be collected and used in green service quality, that organizations that use certain knowledge capabilities will achieve higher innovative performance in terms of sales of new services and reduce unit cost of production, which enables them to Building green service quality (Lin & Chen, 2017: 1664). Organizations can rely on cognitive capabilities to better understand customer needs, to provide personal information, and to increase interaction between organizations and their customers. Maintaining the relationship with customers, improving the quality of green service (Tseng, 2016: 216).

Applied Aspect Of Research

First: description and coding of the research variables and dimensions

This paragraph shows the way in which the variables of the study are expressed in a way that makes it easier for the reader to interpret and understand the data, and to conclude the goal and purpose that the study seeks to achieve. Researchers have to analyze the data in a flexible and easy way, and therefore the table (1) shows the symbols that express the variables involved in the analysis

Table (1) description and coding of the study variables and dimensions

Statistic indicator symbol	Number of items	Dimensions	Variables
TM	4	Knowledge capability Technology	Knowledge capability
ST	4	Structured knowledge capability	
CI	4	Cultural knowledge capability	
HU	3	Human knowledge capability	
RE	3	Reliability	Green Service Quality
TA	4	Tangible	
SY	5	Empathy	
SE	5	Assurance	
CO	6	green communication	

1- Confirmatory construct validity of the Knowledge capability Scale:

The Knowledge capability variable was measured through four sub-dimensions: (technological cognitive abilities (4) paragraphs, structural cognitive abilities (4) paragraphs, cultural cognitive abilities (4) paragraphs, human cognitive abilities (3) paragraphs). As it becomes clear that the estimates of the standard parameter have exceeded the ratio (0.40) and that all of them are significant ratios, because when following the values of the critical ratio (C.R.) shown in Table (19) it turned out that it is greater than (2.56) at the level of significance (0.01) and this indicates the feasibility of this parameters and their validity.

As for the purpose of ensuring that these paragraphs measure a multi-dimensional variable, the quality indicators of conformity in Figure (14) indicate by comparing them with Table (19) (indicators and rule of conformity quality modeling the structural equation) and after conducting a set of Modification Indices were It fulfills the acceptance rule assigned to it, and thus the cognitive capabilities consists of four basic dimensions (technological cognitive abilities, structural cognitive abilities, cultural cognitive abilities, human cognitive abilities) because the values of these indicators are identical to the structural equation modeling rules. This confirms that the data that was pulled from the research sample is identical to the measurement model represented here by the cognitive abilities scale.

Table (2) estimates of the Knowledge capability variable model

paragraphs	path	Dimensions	S.R.W	Appreciation	standard error	Critical Ratio	Appreciation
Te1	<---	Knowledge capability Technology	.409	1.000			
Te2	<---	Knowledge capability Technology	.425	.980	.221	4.443	***
Te3	<---	Knowledge capability Technology	.541	1.190	.239	4.986	***
Te4	<---	Knowledge capability Technology	.686	1.707	.329	5.194	***
St1	<---	Structured knowledge capability	.416	.623	.093	6.695	***
St2	<---	Structured knowledge capability	.789	.875	.059	14.721	***
St3	<---	Structured knowledge capability	.765	.853	.060	14.185	***
St4	<---	Structured knowledge capability	.816	1.000			
Cl1	<---	Cultural knowledge capability	.444	.624	.092	6.789	***
Cl2	<---	Cultural knowledge capability	.728	.895	.067	13.445	***
Cl3	<---	Cultural knowledge capability	.712	.764	.059	12.890	***
Cl4	<---	Cultural knowledge capability	.798	1.000			
Hu1	<---	Human knowledge capability	.711	1.000			
Hu2	<---	Human knowledge capability	.584	.822	.088	9.346	***
Hu3	<---	Human knowledge capability	.606	.961	.102	9.467	***

2-Confirmatory construct validity of the Green Service Quality Scale:

The green service quality variable was measured through five sub-dimensions: (dependency (3) paragraphs, tangibility (4) paragraphs, empathy (5) paragraphs, assurance (5) paragraphs, and green communication (6). As it is clear from Figure (15) that the estimates of the standard parameter did not exceed (0.40), which indicates that the assumption that the (23) phrases measure the structure of (green service quality) is incorrect, as it appears that some standard regression weights are less than (0.4), which is (CO3).

After the researcher made the deletion of the less saturated paragraphs and the development of co-variance relationships, it was found by comparing the quality indicators of conformity with those in Table (3) to the validity of the assumption that the (22) paragraphs measure the structure of (green service quality), which consists of five dimensions and in In light of the standard regression weights appearing on the shares, it is possible to judge the validity of all paragraphs because their value is greater than (0.40) and it is statistically acceptable (Costello & Osborne, 2005). As for the purpose of making sure that these paragraphs measure a four-dimensional variable, the indicators of the quality of conformity indicate, by comparing them with Table (20) (indicators and the rule of conformity quality modeling the structural equation) that these paragraphs (22) measure five dimensions and not one dimension because the values of these indicators It conforms to the structural equation modeling rules. This confirms that the data that was pulled from the research sample is identical to the measurement model represented here by the green service quality scale.

Table (3) estimates of the green service quality variable model

paragraphs	path	Dimensions	S.R.W	Appreciation	standard error	Critical Ratio	Appreciation	paragraphs
Re1	<---	Reliability	.777	1.000				
Re2	<---	Reliability	.782	.960	.067		14.256	***
Re3	<---	Reliability	.832	1.005	.066		15.299	***
Ta1	<---	Tangible	.801	1.000				
Ta2	<---	Tangible	.692	.905	.070		12.851	***
Ta3	<---	Tangible	.692	.789	.061		12.906	***
Ta4	<---	Tangible	.672	.789	.063		12.467	***
Sy1	<---	Empathy	.571	.713	.072		9.894	***
Sy2	<---	Empathy	.578	.647	.065		9.989	***
Sy3	<---	Empathy	.639	.908	.082		11.091	***
Sy4	<---	Empathy	.767	1.000				
Sy5	<---	Empathy	.630	.801	.072		11.078	***
Se1	<---	Assurance	.750	1.089	.078		13.983	***
Se2	<---	Assurance	.735	1.000				
Se3	<---	Assurance	.689	.945	.070		13.535	***
Se4	<---	Assurance	.744	.929	.074		12.525	***
Se5	<---	Assurance	.738	1.083	.088		12.332	***
Co1	<---	green communication	.784	1.000				
Co2	<---	green communication	.577	.820	.083		9.915	***
Co4	<---	green communication	.707	.986	.078		12.587	***
Co5	<---	green communication	.720	.954	.074		12.868	***
Co6	<---	green communication	.582	.848	.091		9.317	***

Second:

Topic Is Interested In Presenting The Descriptive Statistics Of The Variables Included In The Analysis, As A Set Of Statistical Methods Were Used, Represented By (Arithmetic Mean, Standard Deviation, Relative Importance, And Order Of Importance) To Achieve The Results That The Research Seeks To Reach, And Therefore Descriptive Statistics Can Be Presented The Current Search Is As Follows:-

1-Descriptive analysis of the Knowledge capability variable

Table (4) shows the results of descriptive statistics for the Knowledge capability variable, which is measured in four field dimensions, as the total arithmetic mean for this variable was (3.7477), the standard deviation was (0.9543), and the relative importance reached (75%). These statistical results indicate that the Knowledge capability variable It has attained a high degree of importance according to the answers of the study sample members, which indicates that the management of private hospitals in the middle Euphrates region, the study sample, is concerned with Knowledge capability at the level of their career in terms of enhancing the capabilities of workers with the technological, Knowledge, cultural and human skills that their jobs need. Dimensions of sub-cognitive abilities in the field at the level of private hospitals in the middle Euphrates region of the study sample, it was arranged as follows (cultural Knowledge capability, human Knowledge capability, structural Knowledge capability, and technological Knowledge capability) respectively according to the answers of the respondents, as shown in the table (4) .

Table (4) descriptive statistics analysis of the Knowledge capability variable

Order of importance	**Relative importance**	**Standard deviation**	**mean**	**Dimensions**
4	73	.9645	3.6604	Knowledge capability Technology
3	.73	.9492	3.6724	Structured knowledge capability
1	.78	.9638	3.9283	Cultural knowledge capability
2	.74	.9398	3.7295	Human knowledge capacities
––	.75	.9543	3.7477	**Knowledge capability**

2- Descriptive analysis of the Green Service Quality variable

Results of Table (5) revealed that the general average level of agreement for the sensory brand variable was (81%), with an arithmetic mean of (4.05) and a standard deviation of (0.535), which indicates the interest of the studied sample in the social experience dimension with an arithmetic mean equal to (4.35).) and a standard deviation of (0.594) with a relative importance of (87%), and on the other hand, there is a weakness by the studied sample by paying attention to the dimension of the emotional experience, as the arithmetic mean was equal to (3.95) and the standard deviation was (0.654) with a relative importance equal to (79%).), which indicates the necessity of the studied restaurants' interest in building positive relationships with customers in order to improve the customer's desire to buy and use the products of those restaurants.

Table (5) analysis of descriptive statistics for the variable Green Service Quality

Order of importance	Relative importance	Standard deviation	mean	Dimensions
1	.77	.9900	3.8589	Reliability
2	.77	.9410	3.8464	Tangible
3	.76	.8543	3.7823	Empathy
5	.74	.9730	3.6955	Assurance
4	.74	.9415	3.7119	green communication
--	.75	.9400	3.7790	**Green Service Quality**

Third: - Hypothesis

The researcher for the purpose of testing hypotheses relied on two statistical methods:-

1-Correlation hypothesis

(H0-1: There is a positive, significant correlation between Knowledge capability and green service quality)

This paragraph relates to testing the correlation relations between the independent variable (Knowledge capability) and the dependent variable (green service quality). Table (4) shows the matrix of simple correlation coefficients (Pearson) between the Knowledge capability variable and the green service quality variable. It turns out that there is a positive and moral correlation between Knowledge capability variable and the green service quality variable in its dimensions, as the value of the simple correlation coefficient between them reached (.809**) and this value indicates the strength of the direct relationship between the Knowledge capability variable and the green service quality variable, and that what supports this The significance of the correlation relationship that appeared at a level of significance (1%) and with a confidence degree of (99%) and table (4) illustrates this relationship, as this result shows that the availability of structural, technological, cultural and human tribes in private hospitals in the middle Euphrates region contribute to achieving green quality for its products, which establishes the acceptance of the third main hypothesis, which states that (There Is A Significant Correlation Between The Dimensions Of Knowledge Capability And The Green Service Quality Variable). At the level of significance (1%), that is, the outcome of the decision is acceptable with a confidence level of (99%).

Table (4) Matrix of correlation coefficients between the Knowledge Capability variable and the green service quality variable

Correlations						
		Knowledge capability Technology	Structured knowledge capability	Cultural knowledge capability	Human knowledge capacities	**Knowledge capability**
Knowledge capability Technology	Pearson Correlation	1	.493**	.215**	.210**	.590**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	293	293	293	293	293
Structured knowledge capability	Pearson Correlation	.493**	1	.651**	.538**	.863**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	293	293	293	293	293
Cultural knowledge capability	Pearson Correlation	.215**	.651**	1	.707**	.839**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	293	293	293	293	293
Human knowledge capacities	Pearson Correlation	.210**	.538**	.707**	1	.809**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	293	293	293	293	293
Knowledge capability	Pearson Correlation	.590**	.863**	.839**	.809**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	293	293	293	293	293
Green Service Quality	Pearson Correlation	.274**	.660**	.787**	.758**	.809**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	293	293	293	293	293
**. Correlation is significant at the 0.01 level (2-tailed).						

The following sub-hypotheses stem from the main hypothesis:

1-Testing the first sub-hypothesis:

There is a positive correlation between the technological cognitive capabilities dimension and the green service quality variable

Table (4) showed a positive and significant correlation between the technological cognitive capabilities dimension and the green service quality variable. The value of the correlation coefficient with the green service quality variable was (.274**) at a significant level of (1%), i.e. with a confidence degree of (99%). This indicates the existence of a direct relationship between them. What supports this result is the calculated (Sig. (2-tailed)) value of the correlation between the dimension of technological cognitive capabilities and the green service quality variable, sustainable performance, which is (.000), as this result indicates the significance of the correlation relationship within a low correlation level.

2-Second sub-hypothesis test:

There is a positive correlation between the structural cognitive capabilities dimension and the green service quality variable

Table (4) showed a positive and significant correlation between the dimension of structural cognitive abilities and the green service quality variable. The value of the correlation coefficient with the green service quality variable reached (.660**) at a significant level of (1%), i.e. with a confidence degree of (99%). This indicates a strong and positive direct relationship between them.

What supports this result is the calculated (Sig. (2-tailed) value of the correlation between the dimension of structural cognitive capabilities and the green service quality variable, which is (.000), as this result indicates the significance of the correlation and within the level of a very strong correlation. Based on the foregoing, the correlation relationship between the structural cognitive capabilities dimension and the green service quality variable can be interpreted as a direct positive correlation between them.

3-Third Sub-Hypothesis Test:

There is a positive correlation between the cultural cognitive capabilities dimension and the green service quality variable

Table (4) showed the existence of a positive and significant correlation between the dimension of cultural cognitive capabilities and the green service quality variable. The value of the correlation coefficient with the green service quality variable was (.787**) at a significant level of (1%), i.e. with a confidence degree of (99%). This indicates a strong and positive direct relationship between them.

What supports this result is the calculated (Sig. (2-tailed)) value of the correlation between the dimension of cultural cognitive capabilities and the green service quality variable, which is (.000), as this result indicates the significance of the correlation and within the level of a very strong correlation. Based on the foregoing, the correlation between the dimension of cultural cognitive capabilities and the green service quality variable can be interpreted as a direct positive correlation between them.

4-Fourth Sub-Hypothesis Test:

There is a positive correlation between the human cognitive capabilities dimension and the green service quality variable

Table (4) showed a positive and significant correlation between the human cognitive abilities dimension and the green service quality variable. The value of the correlation coefficient with the green service quality variable was (.758**) at a significant level of (1%), i.e., with a confidence degree of (99%). This indicates a strong and positive direct relationship between them.

What supports this result is the calculated (Sig. (2-tailed)) value of the correlation between the dimension of human cognitive abilities and the green service quality variable, which is (.000), as this result indicates the significance of the correlation relationship within the level of a very strong correlation. Based on the foregoing, the correlation between the human cognitive capabilities dimension and the green service quality variable can be interpreted as a direct positive correlation between them.

2 - Impact Hypothesis

The second main hypothesis(There is a significant effect relationship between Knowledge capability and green service quality).

Table (5) is the structural model of the study that shows the independent variable (Knowledge capability) and the mediating variable (green service quality). The coefficient of determination), which is called the standard coefficients (used to test hypotheses) (R2), which shows that the cognitive ability variable is able to explain 65% of the changes that occur on the green service quality variable in private hospitals in the middle Euphrates region, the study sample. The remaining percentage (35%) is attributed to the contributions of other variables not included in the study model.

Table (5) Impact model estimates between the Knowledge capability variable and the green service quality variable

variable and dimensions	track	variable	S.R.W	Estimate	S.E.	C.R.	P
green service quality	<---	Knowledge capability	.809	.942	.040	23.522	***

1-**Four sub-hypotheses are derived from this hypothesis**: The first sub-hypothesis: There is a statistically significant effect of the technological Knowledge capability dimension in the green service quality variable

The researcher relied in testing the sub-hypotheses of the direct impact relationship between the dimensions of the independent variable (Knowledge capability) and the mediating variable (green service quality) on the structural model and using structural equation modeling. On the interpretation of (8%) of the changes that occur in the variable of green service quality in private hospitals in the middle Euphrates region, the study sample. As for the remaining percentage, which is (92%), it is attributed to the contributions of other variables not included in the study model.

As shown in Table (6) that the value of the marginal slope coefficient (β) between the dimension of technological Knowledge capability and the green service quality variable β= 0.27, P < .01). It is a positive, significant value, in addition to the critical ratio C.R. Which was greater than (2.56), reaching (4.869), which fulfills the required condition, and this result is in line with the expectations of the study, and as a result of the outputs of the structural model of the influence relationship between the dimension of technological Knowledge capability and the quality of green service accepts the first sub-hypothesis of the direct impact hypotheses between the dimensions of Knowledge capability and the variable Green service quality**.**

2-The second sub-hypothesis: There is a statistically significant effect of the dimension of structural Knowledge capability in the green service quality variable

The interpretation coefficient (R2) shows that the structural cognitive capabilities dimension is able to explain (44%) of the changes that occur in the variable of green service quality in private hospitals in the middle Euphrates region, the study sample. The remaining percentage (56%) is attributed to the contributions of other variables not included in the study model.

As shown in Table (6) that the value of the marginal slope coefficient (β) between the dimension of structural Knowledge capability and the green service quality variable (β = 0.660, P < .01). It is a positive, significant value, in addition to the critical ratio C.R. Which was greater than (2.56), reaching (15.013) and it fulfills the required condition and this result was in line with the expectations of the study, and as a result of the outputs of the structural model of the influence relationship between the dimension of structural Knowledge capability and the green service quality variable, the second sub-hypothesis of the direct impact hypotheses between the dimensions of cognitive capabilities is accepted. And the Green service quality variable.

3-: The third sub-hypothesis: There is a statistically significant effect of the dimension of cultural cognitive capabilities in the green service quality variable

Interpretation coefficient (R2) shows that after cultural cognitive capabilities is able to explain the rate of (62%) of the changes that occur in the variable of green service quality in private hospitals in the middle Euphrates region, the study sample. The remaining percentage (38%) is attributed to the contributions of other variables not included in the study model.

As shown in Table (57) that the value of the marginal slope coefficient (β) between the dimension of cultural cognitive capabilities and the green service quality variable (β = 0.787, P < .01). It is a positive, significant value, in addition to the critical ratio C.R. Which was greater than (2.56), reaching (21.829), which fulfills the required condition, and this result matches the expectations of the study, and as a result of the outputs of the structural model of the influence relationship between the dimension of cultural cognitive capabilities and the green service quality variable, the third sub-hypothesis of the direct impact hypotheses between the dimensions of cognitive capabilities is accepted. and variable green service quality.

4-Fourth sub-hypothesis: There is a statistically significant effect of the dimension of human cognitive capabilities in the green service quality variable

The interpretation coefficient (R2) shows that after the human cognitive abilities, it is able to explain the rate of (57%) of the changes that occur in the variable of green service quality in private hospitals in the middle Euphrates region, the study sample. As for the remaining percentage (43%) due to the contributions of other variables not included in the study model.

As shown in Table (58) that the value of the marginal slope coefficient (β) between the dimension of human cognitive abilities and the green quality of service variable (β = 0.758, P < .01). It is a positive, significant value, in addition to the critical ratio C.R. Which was greater than (2.56), reaching (18,867), which fulfills the required condition, and this result is in accordance with the expectations of the study, and as a result of the outputs of the structural model of the influence relationship between the dimension of human cognitive abilities and the green service quality variable, the fourth sub-hypothesis of the direct impact hypotheses is accepted between the dimensions of cognitive abilities and variable

Green service quality.

Conclusions and Recommendation

1-Conclusions

1-The results of the study indicated that there is a very strong direct correlation between cognitive abilities and the variable of sustainable performance, which reflects the availability of cognitive abilities in its dimensions, which indicates a direct reflection of a very strong percentage of the emergence of sustainable performance in private hospitals in the middle Euphrates region of the study sample.

2-The results of the study revealed that there is a strong direct correlation between the green service quality variable and the sustainable performance variable, and this reflects the extent to which the green service quality is related to its dimensions in enhancing sustainable performance in private hospitals in the middle Euphrates region, the study sample. This result shows that the capacity of private hospitals in the Euphrates region The Middle East aims to achieve reliability, tangibility, empathy, assurance and green communication, which enhances and achieves sustainable performance.

3- It was noted from the results of the study that there are correlations between the independent variable (cognitive abilities) and the mediating variable (green service quality), as the value of the simple correlation coefficient between them was (. The quality of green service, as this result shows that the availability of structural, technological, cultural and human tribes in private hospitals in the middle Euphrates region contribute to achieving a green quality of their services.

4-The results of the study indicate the development of workers' abilities to make suggestions about their tasks and the tasks of their other colleagues in order to ensure the achievement of communication in sharing knowledge and information within the surveyed hospitals.
5-The results of the study resulted in the interest of private hospitals in appointing workers with appropriate skills with departments that need specialists in the required field, which enhances their ability to achieve success in their service activities directed towards customers and enhance awareness towards the environment and its preservation.
6- Hospital management's interest in sustainable performance variables and green service quality, in order to create new markets, gain new customers, and reduce as hospitals constantly strive to reduce damage and losses, reduce costs, and reduce environmental pollutants through the hospital administration's introduction of new techniques and methods in its work.
7-The results of the study reflected the hospitals' interest in making periodic changes to their organizational structure, which makes it easier for them to discover new knowledge and facilitate the procedures of the knowledge exchange process across its various functional departments.
8- Hospitals' interest in providing educational and training programs for all their employees indicates the successful implementation of their technologies and service quality tools, which contributes to investing their resources in a way that aims to create value for the hospital.

2-Recommendations

1-Private hospital administrations should pay more attention to developing cognitive capabilities, because any change that occurs in the level of cognitive capabilities contributes to a noticeable positive change in the level of competitiveness and thus achieve profitability and then survival and growth in the long run.
2-The need for hospitals to focus on coordination (appropriateness) between the cognitive capabilities they possess and the processes and goals they seek to achieve, which indicates the need to develop the capabilities and skills of working individuals.
3-Focusing on hospitals' interest in improving technological infrastructure in order to ensure the dissemination of knowledge between departments and sub-units, which requires them to use an internal database to facilitate the transfer and knowledge sharing process.
4-Working to address all problems related to green service quality by motivating workers to improve in all green service quality activities.
5-Ensuring continuous improvement and development in the requirements of green service quality in hospitals in order to ensure the improvement of the offered products compared to competitors.
6-Private hospital administrations should invest levels of good cultural capabilities and try to employ them in other fields by encouraging the administration to spread a culture of knowledge sharing, especially between old and new workers, and emphasizing the necessity of hiring people with experience and skill more than relying on educational attainment.
7-Holding seminars and workshops with employees that aim to clarify the goals that the hospital seeks to achieve and the expected benefits from the application of green service quality for the hospital and its employees.
8-The continuous endeavor of the private hospital administrations to develop the skills of their employees on a regular basis, which requires them to be able to understand the tasks of the employees to each other.
9-The need for hospitals to be keen to respond effectively and truly to environmental requirements and work to address them as much as possible, which requires them to provide the necessary information about dealing with common problems.

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