

The Combined Impact of Big Data and Sustainable Practices of Green Knowledge Sharing on Improving Organization's Competitive capabilities

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Abstract

The present study aims to reveal the role of the combined impact of big data: (data volume, data speed, data value, data diversity, data credibility) and Sustainable Practices of Green Knowledge Sharing in their dimensions (eradication of pollution, protection of the knowledge environment, and sustainable development) in the competitiveness of: (Creative abilities, marketing abilities, financial abilities, managerial abilities, and human abilities), as study attempts to address a realistic problem reflected in the role of the combined influence of big data and sustainable practices of green knowledge sharing with MasterCard in Iraq in sustainable abilities, as the researcher distributed (350) questionnaire form randomly on a sample of Mastercard's employees in Iraq, and the number of forms valid for analysis (328) (93.71%), analyzed using advanced statistical software (SPSS.V.28 & AMOS.V.26), the current study pioneers its variables, as it addresses important variables that will highlight how the combined impact of big data and Sustainable Practices of Green Knowledge Sharing can be invested in improving the organization's competitiveness. Study summarized a set of conclusions, most notably the focus of the company's management on guiding workers to be obliged to continuously examine data to get rid of harmful and unhelpful data. This has enhanced the company's perception of the importance of viewing the use of big data in the development of its internal operations.

Keywords: *big data, Sustainable Practices of Green Knowledge Sharing, competitiveness.*

INTRODUCTION

The orientation toward the customer represents a modern management philosophy that prevails over the work of companies of all kinds and affects the total operations carried out, which makes this customer the determining factor and the basis for the success of the company mainly, especially the service sector. As the gap and the philosophy of the existence of these companies is mainly to serve the community and achieve its tilt and ambitions, so the customer service and

understanding of its requirements and needs is ranked first in the priorities of the work of companies, which directs these companies to use big data and sustainable practices of green knowledge sharing in order to improve their competitiveness. Big data and sustainable green knowledge sharing practices are a component of modern management as they help create competitive excellence at the moment.

Perhaps the rapid growth in data production in terms of size, speed, value, diversity and

credibility, has made the term big data modern for most regional, local and international entities and institutions in tracking methodologies and procedures that can be adopted to benefit from the use of big data in all areas of life, especially in improving competitiveness. This led to the prevalence of sustainable practices in order to reduce issues that could contradict the goals of the organization in achieving success and competitive excellence, which called for the use of innovations in the areas of management, collection and analysis of big data quickly. By engaging with sustainable practices of green knowledge sharing and helping stakeholders gain better knowledge to improve their competitiveness.

Data processed with big database management tools or in the usual ways, such as search engines and computers, are structured and structured data, often of one type and their size is measured in different units. This prompted the need to invest sustainable practices of green knowledge sharing in order to improve the ability to work with the data set of large sizes and direct it in a way that is a benefit to the company Master Card in Iraq as a sample for the current study.

Methodology of study

First, study problem

The service sector is witnessing intense competition between the organizations operating in it, which is no longer limited to local organizations, but has become the focus of international organizations toward working in Iraq and entering into competition with national organizations owned by the state, and in light of this fierce competition witnessed by the service sector in Iraq, It has become necessary for MasterCard to give high priority to concepts of competitiveness and improvement.

The success of organizations in all their activities is the result of the efforts of

managers and subordinates as a result of the hard work they provide because they are partners in achieving success and supporting their organization, and this requires the presence of workers who are able to manage the organizations and play stimulating roles to work efficiently and effectively. Big data and sustainable practices of green knowledge sharing have become the philosophy that reflects the practices and roles of managers and subordinates, as they express the competitive capabilities of these managers to develop a clear vision for the management of the organization, through big data and sustainable practices of green knowledge sharing. In this sense, the problem of study arises, which is reflected in the fundamental question "What is the combined effect of big data and sustainable practices of green knowledge sharing in improving the competitiveness of the organization?"

In order to answer the main question, the following sub-questions must be answered:

1. What is the level of big data (data size, speed of data, data diversity, data value, and data credibility) in the sample studied, and what is the level of sustainable practices of green knowledge sharing (pollution elimination, environmental protection, sustainable development)?
2. What is the level of competitive capabilities within the sample studied in the field of (cost, quality, delivery and flexibility)?
3. How does Big Data and Sustainable Green knowledge sharing practice improve competitiveness?
4. Is there a difference between the sample studied in terms of the level of big data (data volume, data speed, data diversity, data value, data reliability), Sustainable practices of green knowledge sharing (pollution eradication, environmental protection, sustainable development)?

Second, objectives of study

In addition to the contribution that the current study makes toward demonstrating how big data (data size, speed of data, data diversity, data value, data reliability) can be used, Sustainable practices of green knowledge sharing (pollution elimination, environmental protection, sustainable development) to improve competitiveness (creative, marketing, financial, managerial and human), It seeks to achieve a number of important objectives:

1. Identify the level of big data (data volume, speed of data, data diversity, data value, and data credibility) in the sample studied, as well as determine the level of sustainable practices of green knowledge sharing (pollution eradication, environmental protection, sustainable development).
2. To reveal the level of competitive capabilities within the sample studied in the field (creative capabilities, marketing capabilities, financial capabilities, administrative capabilities, and human capabilities).
3. Identify the extent to which big data and sustainable practices of green knowledge sharing contribute to improving competitiveness.
4. A statement of the extent to which the sample studied differs in terms of the level of big data (data size, speed of data, data diversity, data value, data reliability), Sustainable practices of green knowledge sharing (pollution eradication, environmental protection, sustainable development).
5. Measure the strength of the correlation and impact of big data, sustainable practices of green knowledge sharing, and competitiveness.

Third, importance of study

The scientific importance of study stems from highlighting the importance of big data,

sustainable practices of green knowledge sharing, and competitive capabilities for the sample, in other words, highlighting the scientific importance of study in the following:

- a) Study provides a clear and accurate picture of the importance of big data and sustainable practices of green knowledge sharing to the sample, which contributes to improving competitiveness for as long as possible.
- b) Bridging the knowledge gap in Arab studies regarding the combined impact of big data and sustainable practices of green knowledge sharing in improving the competitiveness of the organization, an Arab study has not yet (to the extent of the researcher's knowledge) addressed the relationship between them.
- c) Describe the actual reality of the role played by the combined impact of big data and sustainable practices of green knowledge sharing in improving the competitiveness of the organization, and understand the nature of the impact among them on the performance of the organization.
- d) The current study helps lay the foundations for understanding the dimensions and practical implications of leaders' practices as symbols that form the basis for contemporary leaders who are able to invest big data and sustainable practices of green knowledge sharing in improving competitiveness at all levels within organizations.

Fourth: The hypothetical plan of study

After addressing the problem, objectives and importance of study and in the light of what has been explained about the results of previous studies, the hypothetical outline of study was prepared, see Figure (1), which contributes to the nature and type of

relationship between the variables included in study, as follows:

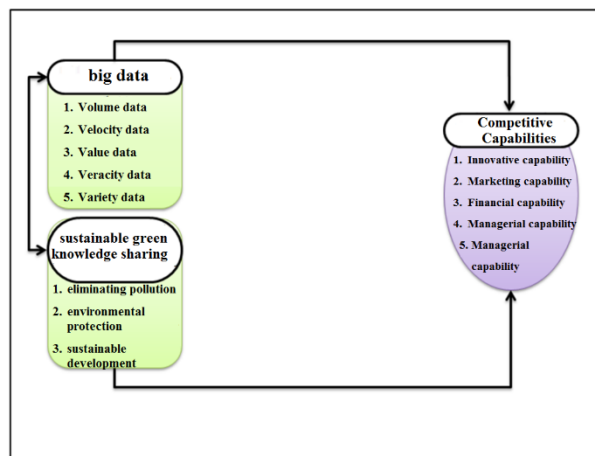
1. Independent variables:

a) Big Data: This variable has been measured in five dimensions (data size, data speed, data diversity, data value, and data reliability) based on a scale (Ghasemaghahi, 2021).

b) Sustainable practices of green knowledge sharing: This variable has been measured in five dimensions (pollution elimination, environmental protection, and sustainable development) based on a scale (Chang & Hung, 2021).

2. Dependent variable: Including competitive capabilities, this variable has been measured in four dimensions (creative capabilities, marketing capabilities, financial capabilities, managerial capabilities, and human capabilities) based on a scale (Gimenez et al., 2019).

Figure (1) the hypothetical model of study



Fifth, study

The first major hypothesis is that big data has a significant influence on competitiveness, and this hypothesis has a set of sub-hypotheses.

The second main hypothesis: There is a significant influence relationship to the sustainable practices of green knowledge

sharing in competitive capabilities, and this hypothesis has a set of sub-hypotheses.

The third key hypothesis is that there is a significant shared impact of big data and sustainable practices of green knowledge sharing in competitive capabilities.

The theoretical side

First, big data

1. The concept of Big Data

It was not the basis of big data (Big Data) in 2008 with the opening of Chris Anderson nor was it from the invention of Google in 1998 nor from the founding of Apple in 1976, but the emergence of big data starting from the 1950s when the so-called quantum revolution appeared. The first attempts were to connect relatively large groups of data by means of the computational power of a computer (Barnes, 2013:297).

Data volumes are constantly increasing, and the analysis of this large amount of data may be beyond the capabilities of workers, which called the technological revolution to produce a set of technological tools that reduce the effort and time in the analysis of data, and we now live in the time of big data. The attempts to benefit from its analysis, and its management are an important factor in the organizations and their research centers, and perhaps the most important reasons that led to the emergence and spread of the term big data is due to (Vasarhelyi & Krahel, 2012:3):

1. There are some scientific fields that require huge data for analysis such as meteorology, genetics, genomics, complex physical simulations, and biological and environmental research.

2. The emergence of social networks that send a huge amount of data around the clock and various bodies.

3. Lower storage costs of this data.

4. Laws that require that such data be kept in databases.

5. The emergence of Internet of things technology that allows all devices to communicate with each other, connect with Internet technology and produce new data.

Big Data (Big Data) is a large, fast and diverse set of data that means not only measuring data sets, but also big data management processes, it requires new ways to deal with its collection, storage, supervision, and capture, which requires forms and innovative types of data processing. The ability to adapt and deal with big data is greater than the ability of users, and the ability of software and computer programs to analyze and transform it into information, so that users can improve their vision and make appropriate decisions (Le-Hong & Laney, 2013:46).

Big Data refers to the large volume of data generated from various sources such as shopping, e-consumption, daily use of online communications and services, electronic devices, credit cards and bank debit cards, as well as data published by government agencies as a result of their legal duties or as part of open data projects. Big data is a concept that drives business organizations toward many challenges. The concept can take different interpretations, and although it has received wide attention in recent years, there is no specific definition of it (Mostafa, 2022:1221), and table (1) shows the outcome of what is going to be obtained for the group of researchers' views on the concept of big data.

Table (1) the concept of Big Data according to the views of the researchers

NO.	Researcher	Concept
1	Pence& Williams,2016:504	A set of platforms with the size, variety, speed, honesty and value of the data being processed
2	ISO 2017:xx	A set of data that has unique characteristics such

		as size, speed, diversity, honesty, value, that cannot be processed efficiently using traditional technology to make use of and divides big data into structured or structured data, unstructured or unstructured data, semi-structured or semi-structured data
3	De Mauro et al.,2018:756	Information assets of this size, speed and diversity require specific technology and analytical methods to turn them into value
4	Yeoman, 2019:1	Very large datasets that can be analyzed computationally to reveal patterns, trends, and correlations, especially in relation to worker behaviors
5	Manita,et al.2020:11	The amount of data that reaches or exceeds the limits that information systems can store or process, or is a dataset that is larger than a typical database and requires tools and software to capture, store, manage, and analyze that data
6	Ghasemaghaei, 2021:2	High-speed, high-volume and highly diverse data, requiring advanced technology for data collection, storage, distribution and analysis.
7	Dehbi et al.,2022:439	Large volume of high-speed, complex and variable data

Based on the above, the researcher believes that the big data represents a large combination of structured, unstructured and semi-structured data that can be converted into knowledge that can be invested in improving the performance of the organization through the capture, sharing, storage and application of knowledge.

2. Dimensions of Big Data

Big data can be measured in the following dimensions:

- **Volume of data:** Is the number of terabytes released daily from the data in the content, which increases in size with the magnitude of the size of machines, devices that depend in principle on the Internet, and the expansion and increased reliance on the Internet of things in 2000 800.000 petabytes of data was stored globally. By 2022, the volume of data is expected to reach 35 zettabytes of data stored globally, and there is no doubt that social media ranks first in the volume of data stored, in addition to the ever-increasing number of mobile phones (Coninck, 2017:5).
- **Data speed:** Data speed refers to the speed of data flow, which requires the speed of data processing and analysis in real time, where some data requires a rapid response to its analyzes (Othman, 2022:561).
- **Data diversity:** Data diversity refers to the diversity of data types, which include both structured data (such as numbers) and unstructured data (such as images, customer reviews, audio, and sensor data) (Ggasemaghahi, 2021:3).
- **Data value:** The value of data is the essence of big data and it is the characteristic that describes the main goal of collecting a huge volume of data and the value shows whether the data is useful or not. The value of big data can be measured by how useful the data is or how useful the information an organization can extract from that data is by knowing how predictable and useful the information it can extract from that data (Mostafa, 2022:1223).
- **Data credibility:** This property refers to the inherent distrust of the data and the uncertainty of its sources, both of which arise from inaccuracies, delays, inconsistency, and misinformation in the data. This refers to the

ability of big data technology to eliminate biases and anomalies in data as statistical tools and technology have been developed to deal with data uncertainty and distrust with specific confidence levels or periods (95714 Lee, 2017:293; Nazir et al.,2020:)

Second: Sustainable practices of green knowledge sharing

1. The concept of green knowledge sharing

Nowadays, organizations focus heavily on knowledge sharing, which is an essential part of knowledge management, as knowledge sharing refers to the exchange of information between workers or communities. As for knowledge sharing in organizations, it is related to the sharing of ideas, suggestions, experiences, experiences and skills by employees, so the sharing of knowledge in any organization is simply the way in which the organization provides knowledge to its employees, through the exchange of their implicit and explicit knowledge to create new knowledge. Knowledge sharing is therefore an important human behavior that organizations need to gain a competitive position in the new knowledge-based economy where when workers join organizations, they bring with them the behaviors gained from experiences that either enhance or prevent effective knowledge sharing. Knowledge leaders need to take a holistic and integrated approach to developing human performance in organizations to change their organizations to reach outstanding performance to keep up with the new knowledge-intensive world (Kazem, 2021:28).

Knowledge sharing occurs at both the operational and organizational levels. At the worker level, knowledge sharing occurs through employees sharing that knowledge and helping each other accomplish something better, faster, or more efficiently. It is the capture, organization, reuse, and transfer of

experience-based knowledge within the organization and make this knowledge available to others at work. So it can be said that knowledge sharing at the organizational level is a culture of social interaction, which involves sharing the knowledge, experiences and skills of the worker through the management or the entire organization. Knowledge sharing consists of a set of common agreements related to providing workers with access to relevant information and building and using knowledge networks within organizations (Connelly&Kelloway, 2003:298), in other words, the concept of knowledge sharing is one of the most pioneering philosophical and intellectual concepts that has captured the wide interest of researchers. Table (2) shows the outcome of what is available for a range of researchers' views on the concept of knowledge sharing.

Table (2) the concept of knowledge sharing according to the views of the researchers

NO.	Researcher	Concept
1	Cuerva et al., 2014:105	The potential that the organization uses to promote creativity and participation among its employees.
2	Lin&Chen, 2017:1663	The extent to which green knowledge is shared by employees of organizations to improve organizational environmental performance
3	Ali et al.,2019:62	The outcome of the organization's investment of its working energies to implement the transformative process of internal and external environmental knowledge to reach safety to gain green creative potential.
4	Qadeer& Nauman,2021:108	The extent to which an organization can share knowledge, access the best technology and use the resources that sustain its business operations and

		expand into competitive markets.
5	Ma et al.,2022:4	The complementary skills and knowledge of employees of an organization through which knowledge can be shared and shared in order to maintain organizational capabilities
6	Wang et al., 2022:182	A mechanism to encourage workers to contribute to knowledge sharing and the search for new green knowledge.
7	Biwott, 2022:2	A vital tool in the modern knowledge economy for organizations to achieve sustainable long-term success.

From the above, the researcher believes that green knowledge sharing is a synthesis of the transfer and exchange of green knowledge among the employees of the organization in order to improve the possibilities of the organization in investing resources and discover new mechanisms for the development of its products.

2. Sustainable practices of green knowledge sharing

Green knowledge sharing can be measured by three sustainable practices (Chang & Hung, 2021):

a) The elimination of pollution (pollution): Improving environmental awareness and sensitivity helps workers to live in a healthier and safer environment, which is only possible by increasing qualified workers receiving environmental education (Cetin&Nisanci, 2010:1830), so in order to raise the level of environmental awareness among workers, environmental education applications must be introduced into their work (Simsekli, 2015:223).

b) Environmental protection (environmental protection): The environmental trend of the consumer is related

to the environmental knowledge he possesses toward the left issues about the environment and preservation, environmental knowledge is different and can be described depending on the extent of knowledge of the environmental problems that exist today (Al-Bakri & Ismail, 2016:67). (Al-Sakani, 2015:48) argues that environmental knowledge is concerned with knowledge, concepts, and associated environmental problems, and efficiently confront environmental problems. Kaufmann et al., 2012:52) showed that environmental knowledge represents general knowledge about facts, concepts and relationships concerning the natural environment and prominent ecosystems.

c) Sustainable Development (sustainable development): Business sustainability improves an organization's ability to use advertising and other communications to build and maintain a high level of environmental awareness and to attract sufficient attention to a percentage of people. The declaration may include indirect learning by portraying workers who look like people from the target group who enjoy and benefit from their experience of environmental conservation in order to use safe products. The idea behind indirect learning is that it is cost-free to the extent that one can observe and copy the behavior of others, if that is seen to have been successfully enhanced – or alternatively one can avoid what one does if one notices negative consequences (Abbas, 2021:45).

Third, competitive capabilities

1. The concept of competitive capabilities

Competitive capabilities reflect the ability of the organization to build a position in the market and increase the perceived value of its products by its customers in order to achieve their satisfaction, they represent the dimensions that the production system of any organization must possess in order to strengthen the requirements of the markets

that the organization seeks to compete, Competitive capabilities are defined as the set of quality, flexibility, creativity and time that is relevant to the underlying foundations and lead to the development of permanent sets of capabilities, and capabilities play a key role in determining the capabilities selected in the organization (Al-Faouri, 2019:32). From the above, the researcher believes that the development of a comprehensive definition of the concept of competitive capabilities is very difficult because there is no inventory and agreement between researchers on one concept, and therefore table (3) shows the outcome of what is available to a group of views of researchers toward the concept of competitive capabilities.

Table (3) the concept of competitive capabilities according to the views of the researchers

NO.	Researcher	Concept
1	Al-jawazneh& Al-Awawdeh,2016:126	The ability of a business organization to produce the right goods and services of good quality, at the right price and at the right time.
2	Sadq et al., 2018:53	The ability of an organization to formulate and implement its policies to improve its attitudes against competition organizations
3	Sadq et al.,2019:5	The ability of an organization to undertake a particular activity or set of activities that contributes to improving the capabilities, skills and knowledge of the functional staff of that organization
4	Hossain, & Islam, 2019:3	The extent to which the organization can achieve high efficiency in service delivery and generate value for it
5	Hutton& Eldridge,2019:3	An outcome to align the organization's capabilities and priorities in order to

		build its strategies and achieve competitive capabilities through cost, quality, delivery and flexibility.
6	Falahat al.,2021:2 et	The capabilities necessary to establish and maintain their competitive capabilities in the target market to promote their products or services
7	Al-Zaidi al.,2022:28 et	Organizations with unique capabilities are not available to their competitors

Based on the above, the researcher believes that competitive capabilities represent a combination of capabilities and precedents aimed at improving the ability of the organization to formulate its strategies using cost, quality, flexibility and time in order to improve its internal processes and achieve performance and organizational success.

2. Elements of competitive capabilities

The elements of competitive capabilities can be determined by agreement of a number of researchers, namely (Al-Zaidi et al. 2022; Hutton& Eldridge,2019):

a) **Cost** : Cost-effectiveness refers to the ability of educated organizations to provide products and services at the lowest possible cost, it is a critical factor in determining the competitive position of most organizations, cost is an important competitive tool if implemented well, as organizations cannot set competitive prices without constant control of costs (Al-Jubouri, 2005:22).

b) **Quality**: Quality is the first area of high performance evaluation that includes strong characteristics and stronger durability, the second area conforming to quality specifications, and is one of the factors of customer retention, and then achieve competition with other competitors, so the organization must focus on strategic consideration in product quality through

continuous improvements to keep pace with future needs (Newwa&Maryam, 2018:48).

c) **Delivery**: Delivery is seen as the total delivery time required by the activity from start to finish, as organizations can consider the delivery factor to compete with each other (Abou-Moghliet al, 2012: 4).

d) **Flexibility**: The dimension of flexibility represents the adaptability to the variables in the product mix, production volume and product design, and there are two different perspectives on flexibility, and the basis of marketing management lies in the diversification of the products you offer to customers. Operations management tries to constrain this trend as diversification confuses stability, efficiency and cost-effectiveness of the production system, including flexibility to produce a wide range of products and introduce new products, quickly modify existing products, and respond to customer needs (Saadia&Abdel-Razzak, 2020:411).

3. Dimensions of competitive capabilities

Competitive capabilities can be measured in five important dimensions, with the agreement of a number of researchers, as well as their relevance to the field of application of study, namely (Gimenez et al., 2019):

- **Creative capabilities**: They are usually called creative capabilities, as they are two sides of the same currency, nowadays, in a world characterized by development and openness, the promotion of creativity is a must, Creative capabilities are the primary way in which entrepreneurs can keep up with the constant change taking place in the internal and external environment (Ganciu&Ganciu, 2014:111).

- **Marketing capabilities**: Strong marketing capabilities are the main driver of sustainable development (Mariadoss et al., 2011:1306).

- **Financial capabilities:** Financial capabilities are defined as the individual ability to apply appropriate financial knowledge, perform and take desired financial behaviors (Xiao et al., 2022:3).
- **Managerial capabilities:** An organization's managerial capabilities refer to the ability of an organization or company to use its resources to implement strategies (Juwono & Mailangkay, 2018:188), and the organization's managerial capabilities are the strategic application of capabilities, i.e., their use and deployment to achieve specific organizational goals (Walraven et al., 2021:3).
- **Human capacities:** These are the most important elements of effective transfer and exchange of knowledge, as a number of empirical studies have proven that they have a direct relationship with the occurrence of knowledge exchange, as social interaction has a direct relationship with knowledge sharing within organizations, and can therefore be an effective means of transferring knowledge. In addition, working closely with the other is

through the familiarity of the source and the recipient, where knowledge is shared through a common understanding and the perception of cognitive abilities as contributing to the strengthening of the relationship between the knowledge maker and the recipient must be properly constructed. It also improves the organization's ability to measure the degree of acquaintance and understanding among the organization's members (yang & Chen, 2007: 99).

The practical side

The first step: Coding and characterization

This paragraph is concerned with two variables (sustainable practices of green knowledge sharing, and competitiveness) by expressing them with a set of symbols aimed at providing the exact meaning of the interpretation of the data and building a clear perception in the reader about the symbols used in the analysis, and perhaps table (4) more clearly indicates the coding and characterization of study variables.

Table (4) Coding and characterization of the variables under study

variable	dimensions	NO.	Cod
big data	Volume data	4	BVOL ₁ - BVOL ₄
	Velocity data	4	BVEL ₁ - BVEL ₄
	Value data	4	BVAL ₁ - BVAL ₄
	Veracity data	3	BVER ₁ - BVER ₃
	Variety data	3	BVAR ₁ - BVAR ₃
sustainable green knowledge sharing	eliminating pollution	5	SGKEL ₁ - SGKEL ₅
	environmental protection	5	SGKEN ₁ - SGKEN ₅
	sustainable development	5	SGKSU ₁ - SGKSU ₅
Competitive Capabilities	Innovative capability	3	CCIN ₁ - CCIN ₃
	Marketing capability	4	CCMA ₁ - CCMA ₄
	Financial capability	6	CCFI ₁ - CCFI ₆
	Managerial capability	3	CCMN ₁ - CCMN ₃
	Managerial capability	4	CCHU ₁ - CCHU ₄

Second, the natural distribution test

Note from the results of table (5) that the data for study variables follow the normal distribution and have taken a linear path in its spread, which means that the form of distribution of the company data is almost

similar to the normal distribution and does not suffer from the condition of non-twinkling. This leads us to accept the assumption that the data of study variables are drawn from a society whose data follow the normal distribution

Table (5) Test the normal distribution of study variables

variable	dimensions	NO.	(Kol-Smi)	(SIG)
big data	Volume data	4	3.362	0.200*
	Velocity data	4	3.279	
	Value data	4	3.916	
	Veracity data	3	4.381	
	Variety data	3	4.775	
sustainable green knowledge sharing	eliminating pollution	5	3.003	
	environmental protection	5	2.955	
	sustainable development	5	3.454	
Competitive Capabilities	Innovative capability	3	3.557	
	Marketing capability	4	3.205	
	Financial capability	6	4.047	
	Managerial capability	3	4.488	
	Managerial capability	4	3.182	

Third, describe study variables

1. Big data

The results presented in table (6) show that the big data variable obtained the agreement of a number of individuals of the studied company with a high arithmetic average of (3.41), good relative importance (68%) and a standard deviation (0.24). The results showed that the level of interest of the employees of the studied company and the keenness on the credibility and quality of high data is due to the possession of after the credibility of data on the first place with an average arithmetic (3.56) and a standard deviation equal to (0.28), which means the company considered to develop its huge technical capabilities in order to get rid of uncertainty. The lack of confidence and improving the credibility of customers by the company's keenness to keep their data strictly confidential, and this has received a relative interest (71%), as after the speed of data on the calculation of the value (3.31), pointing to the moderation of the answers of the employees of the company studied toward the importance of improving its capabilities by (66%).

Table (6) Presentation, analysis and interpretation of the Big Data variable

dimensions	mean	And S.D	%	order of importance
Volume data	3.47	0.32	69%	2
Velocity data	3.31	0.26	66%	5
Value data	3.34	0.30	67%	4
Veracity data	3.38	0.23	68%	3
Variety data	3.56	0.28	71%	1
mean of big data				
mean		3.41	And S.D	0.24
%				
68%				

2. Describe sustainable practices of knowledge sharing

Notes from the results reviewed in table (7) that the sustainable practices variable for green knowledge sharing obtained the agreement of a number of individuals of the studied company with a moderate arithmetic average of (3.36), Of relative importance (67%) and a standard deviation (0.24) to indicate the consensus of the employees of the studied company on the transfer and exchange of knowledge in a way that ensures the investment of resources and the discovery of

new mechanisms to develop its services, The sample responses showed that the level of interest in improving its capabilities in knowledge of facts, concepts and relationships of the specialization of the work environment to contribute to its preservation is due to the possession after the protection of the knowledge environment on the first place with an average arithmetic (3.43) and a standard deviation equal to (0.24), which means the interest of the company studied comprehensive planning to maintain aspects Development has a focus on the social, economic and financial aspects to achieve the company's community goals, and this has received a relative interest (69%), and after sustainable development received a calculation center (3.24) indicating the agreement of the company studied toward the importance of improving its capabilities by (65%).

Table (7) presents, analyzes and interprets the changing sustainable practices of green knowledge sharing

dimensions	mean	And S.D	%	order of importance
eliminating pollution	3.40	0.34	68%	2
environmental protection	3.43	0.24	69%	1
sustainable development	3.24	0.27	65%	3
mean of sustainable green knowledge sharing				
mean	3.36	And S.D	0.24	
%				
67%				

3. Description of competitive capabilities

The results reviewed in table (8) show that the competitive capabilities variable obtained the agreement of a number of the members of the studied company with a high arithmetic average of (3.38), Of good relative importance (68%) and standard deviation (0.29) to indicate the consensus of the employees of the studied company to improve the ability of the

organization to formulate its strategies using cost, quality, flexibility and time in order to improve its internal processes and achieve performance and organizational success, The results showed that the level of interest of the employees of the studied company toward the use of high management and marketing skills to manage its internal tasks, It is due to the possession of after management capabilities on the first place with an average arithmetic (3.45) and a standard deviation equal to (0.47), which means the focus of the company studied to maximize its ability to adapt to the culture of the society in which it works, and this has received a relative interest of (69%), After the marketing capabilities, he also obtained an arithmetic mean of (3.30), indicating the agreement of the company considered toward the importance of improving its capabilities by (66%).

Table (8) Presentation, analysis and interpretation of the variable competitiveness

dimensions	mean	And S.D	%	order of importance
Innovative capability	3.38	0.36	68%	3
Marketing capability	3.30	0.27	66%	5
Financial capability	3.37	0.20	67%	4
Managerial capability	3.45	0.47	69%	1
Managerial capability	3.39	0.40	68%	2
mean of Competitive Capabilities				
mean	3.38	And S.D	0.29	
%				
68%				

Fourth, test the assumptions

H1: There is a meaningful influence relationship of big data in competitive capabilities.

The results of table (9) show that there is an effect of the moral of big data in

competitiveness, as the increase of big data by one unit leads to an improvement in competitiveness by (0.923) and by a standard error ratio equal to (0.132) and a critical value of (7.061). This means that the company is aware of the importance of enhancing competitiveness by investing in the size,

speed, value, diversity and credibility of big data.

Big data also contributed to explaining (0.839) the amount of variation in competitiveness, while the remaining value lies outside study limits.

Table (9) Results of analyzing the impact of Big Data on competitiveness

path			S.W	S.E.	C.R.	R2	(P)
big data	--->	Competitive Capabilities	0.932	0.132	7.061	0.839	0.001

H2: There is a significant impact relationship for sustainable practices of green knowledge sharing in competitive capabilities.

company is aware of the importance of enhancing competitiveness by investing the company's capabilities to eliminate pollution, protect the knowledge environment, and sustainable development.

The results of table (10) show that there is a moral effect of sustainable practices of green knowledge sharing in competitiveness, as the increase of sustainable practices of green knowledge sharing by one unit leads to an improvement in competitiveness by (0.645) and a standard error rate equal to (0.151) and a critical value of (4.272). This means that the

Sustainable practices of green knowledge sharing have also contributed to explaining (0.915) the amount of variation in competitiveness, while the remaining value lies outside study's boundaries.

Table (10) Results of the analysis of the impact of sustainable practices of green knowledge sharing on competitiveness

path			S.W	S.E.	C.R.	R2	(P)
sustainable green knowledge sharing	--->	Competitive Capabilities	0.645	0.151	4.272	0.915	0.001

H3: that there is a significant co-influence of big data and sustainable practices of green knowledge sharing in competitive capabilities.

(0.951) and sustainable practices of green knowledge sharing by (0.892), which leads to improved competitiveness and reduce the standard error rate to (0.061, 0.062) Respectively for big data and sustainable practices of green knowledge sharing, which means the well-thought out company recognizes the importance of enhancing competitive capabilities by investing the company's capabilities in the combined

The findings of Table (11) show a shared impact of big data and sustainable practices of green knowledge sharing in competitive capabilities. Increasing the combined impact of big data and sustainable practices of green knowledge sharing by one unit enhances the ability of the company to rely on big data by

impact of big data and sustainable practices of green knowledge sharing.

The combined impact of big data and sustainable practices of green knowledge

sharing has also contributed to explaining (0.915) the amount of variation in competitiveness, while the remaining value lies outside study's boundaries.

Table (11) Results of the joint impact analysis of big data and sustainable practices of green knowledge sharing in competitiveness

path			S.W	S.E.	C.R.	R2	(P)
big data	--->	Competitive Capabilities	0.951	0.061	15.590	0.915	0.001
sustainable green knowledge sharing	--->		0.892	0.062	14.387		0.001

Conclusions and recommendations

First, the conclusions

1. The results showed that the research company is concerned with the credibility of the data obtained from its customers and focuses on the quality of the data, which means the company understands the importance of focusing on processing data with high credibility and consistency.

2. The results showed that the level of interest of the employees of the company studied and the keenness on the credibility and quality of high data, which means the company is interested in developing its huge technical capabilities in order to get rid of uncertainty and mistrust and improve the credibility of customers by the company to keep their data confidential.

3. The company's employees' answers showed that the company in question motivates employees to protect the working environment by cooperating with it by adhering to the principles necessary to protect the working climate.

4. The management of the company is keen to invest part of its potential in the field of research and development, through the

company's awareness of the importance of developing its ability to invest technology in its operations to the fullest extent, as well as focusing the management of the company on the ability to obtain funding by focusing on increasing financial reserves through self-financing.

5. The answers showed the consensus of the employees of the studied company to improve the ability of the organization to formulate its strategies using cost, quality, flexibility and time in order to improve its internal operations and achieve performance and organizational success, and the results showed that the level of interest of the employees of the studied company toward the use of high management and marketing skills to manage its internal tasks.

Second, the recommendations

1. The considered company should recognize the importance of focusing on making deterrent decisions to guide employees to protect the work environment, which requires the informed company to recognize the importance of focusing on informing employees of the value of their knowledge participation and the pursuit of sustainable development of the company

2. The need to pay attention to building positive relations with employees and ensure the sustainability of this relationship well, which requires the consensus of the employees of the studied company to transfer and exchange knowledge in a way that ensures the investment of resources and the discovery of new mechanisms to develop its services, The sample responses showed that the level of interest in improving its capabilities in knowing the facts, concepts and relationships of specialization of the work environment to contribute to its preservation.

3. The company should be interested in comprehensive planning to maintain its development aspects by focusing on the social, economic and financial aspects to achieve the company's community goals.

4. The company should be interested in distributing its services well by taking capabilities of the valuable suggestions provided by the employees, which requires focusing on a high level of scientific and technological information.

5. The need for the company to focus on building high management and marketing skills, which requires the company to recognize the importance of focusing on adapting to the culture of the society in which it works, as well as the focus of the company studied to maximize its ability to adapt to the culture of the society in which it works, which requires

Reference

- Abbas, Saad Karim Hussein, 2021, The impact of green marketing mix elements on environmental consumer behavior: an analytical study of the opinions of a sample of workers in the Union Company for Food Industries Ltd. in Babylon Governorate, Master Thesis, University of Al-Qadisiyah, College of Administration and Economics.
- Abou-Moghli, A. A., Al Abdallah, G. M., & Al Muala, A. (2012). Impact of innovation on realizing competitive capabilities in banking sector in Jordan. *American Academic & Scholarly Research Journal*, 4(5), 1.
- Al-Bakri.T, & Ismail.H. (2016). The effect of the green marketing mix on consumer behavior to use the renewable energy product An analytical study on a sample of solar heaters users in Amman. *Baghdad College of Economic Sciences Journal* , (48), 57-76.
- Al-Faouri, Samer Abdel-Rahman, 2019, The Impact of Transformational Leadership in Achieving Competitive Priorities at Al-Balqa Applied University, Master Thesis, Amman Arab University, College of Business, majoring in Business Administration.
- Ali, A., Hazoor, M. S., Bari, M., & Mohsin, B. (2019). Green HRM practices and green innovation: an empirical evidence from pharmaceutical industry in Pakistan. *Pacific Business Review International Volume*, 11(6), 61-71.
- Al-Jawazneh, B., & Al-Awawdeh, W. (2016). The Mediating Role of Corporate Characteristics on the Relationship between the Strategic Learning and the Competitive Capabilities of the Telecommunications Companies in Jordan. *International Business Research*, 9(5), 125-134.
- Al-Jubouri, Alaa Ahmed, (2005), The Impact of Competitive Strategies in Enhancing the Strategic Performance of Small Organizations, A Field Study of Some Private Sector Organizations in Mosul, Unpublished Master Thesis, University of Mosul.
- Al-Sakani, Abeer, 2015 AD "The Role of Environmental Awareness and

- Environmental Education in Reducing Environmental Problems (Iraq as a Model)" *Journal of Al-Mamoun University College*, Issue 25.
- Al-Zaidi, W., Shaban, F., & Qadir, D. (2022). Internet of Things in Enhancing Competitive Capabilities: An Exploratory Study. *International Journal of Management Science and Business Administration*, 8(2), 25-32.
- Barnes, T. J. (2013). Big data, little history. *Dialogues in Human Geography*, 3(3), 297-302
- Biwott, G. (2022). Emotional Intelligence As A Driving Engine For Green Knowledge-Sharing Behaviour Among Academic Staff In Kenyan Universities. *Journal of Advanced Research in Economics and Administrative Sciences*, 3(2), 1-17.
- Cetin, G., & Nisanci, S. H. (2010). Enhancing students' environmental awareness. *Procedia-Social and Behavioral Sciences*, 2(2), 1830-1834.
- Chang, T. W., & Hung, C. Z. (2021). How to shape the employees' organization sustainable green knowledge sharing: Cross-level effect of green organizational identity effect on green management behavior and performance of members. *Sustainability*, 13(2), 626.
- Coninck, N. (2017). The relationship between big data analytics and operations research, (Unpublished Master Thesis), Universiteit Gent, Ghent: Belgium.
- Connelly, C.E. & Kelloway, E.K. (2003), — Predictors of employees' perceptions of knowledge sharing cultures ||, *Leadership & Organization Development Journal*, Vol. 24 No. 5, pp. 294-301.
- Cuerva, M.C., Triguero-Cano, A. and Corcoles, D. (2014), "Drivers of green and non-green innovation: empirical evidence in Low-Tech SMEs", *Journal of Cleaner Production*, Vol. 68 No. 1, pp. 104-113.
- De Mauro A., Greco M., Grimaldi M., Ritala P. (2018). In (Big) Data we trust: Value creation in knowledge organizations - Introduction to the special issue. *Information Processing and Management*, Vol. 54, Issue 5. Pp. 755-757.
- Dehbi, S., Lamrani, H. C., Belgnaoui, T., & Lafou, T. (2022). Big Data Analytics and Management control. *Procedia Computer Science*, 203, 438-443.
- Falahat, Mohammad, Yan-Yin Lee, Pedro Soto-Acosta, and Thurasamy Ramayah. 2021. Entrepreneurial, market, learning and networking orientations as determinants of business capability and international performance: The contingent role of government support. *International Entrepreneurship and Management Journal* 1–22.
- Ganciu, M., & Ganciu, O. M. (2014). Development of the Creative Capacity by Means of Aerobic Dance in Higher Deadlock Education. *Procedia-Social and Behavioral Sciences*, 163, 110-114.
- Ghasemaghaei, M. (2021). Understanding the impact of big data on firm performance: The necessity of conceptually differentiating among big data characteristics. *International Journal of Information Management*, 57, 102055.
- Giménez, J., Madrid-Guijarro, A., & Duréndez, A. (2019). Competitive capabilities for the innovation and performance of Spanish construction companies. *Sustainability*, 11(19), 5475.
- Hossain, K. & Islam, S. (2019). An Analysis of Destination Attributes to Enhance Tourism Competitiveness in Bangladesh.

- African Journal of Hospitality, Tourism and Leisure, 8(2), 1- 17
- Hutton, S., & Eldridge, S. (2019). Improving productivity through strategic alignment of competitive capabilities. *International Journal of Productivity and Performance Management*, 1-49.
- international organization for standardization (ISO/IEC). 2017. "big data". Electronic copy available at: www.iso.org
- Juwono, E., & Mailangkay, A. B. (2018). IT, BUSINESS MODEL AND ORGANIZATIONAL CAPABILITIES. *Jurnal Ilmiah Widya*, 4(3).
- Kaufmann, H. R., Panni, M. F.A. K., & Orphanidou, Y. (2012). Factors affecting consumers' green purchasing behavior: An integrated conceptual framework. *Amfiteatru Economic Journal*, 14(31), 50-69.
- Kazem, Rawnaq Jawdat, 2021, The Impact of Contradictory Leadership on Organizational Creativity: The Mediating Role of Knowledge Sharing and the Interactive Role of Psychological Safety, Master Thesis, University of Basra, College of Administration and Economics.
- Lee, I. (2017). Big data: Dimensions, evolution, impacts, and challenges. *Business Horizons*, 60(3), 293-303.
- Le-Hong, H. and Laney, D. (2013). Toolkit: Board-ready slides on big data trends and opportunities, GHARTNER RESEARCH, 1 (3), 45-83.
- Lin, Y. H., and Chen, Y. S. (2017). Determinants of green competitive capabilities: the roles of green knowledge sharing, green dynamic capabilities, and green service innovation. *Quality Quantity* 51, 1663–1685.
- Ma, L., Ali, A., Shahzad, M., & Khan, A. (2022). Factors of green innovation: the role of dynamic capabilities and knowledge sharing through green creativity. *Kybernetes*, (ahead-of-print).
- Manita, R., Elommal, N., Baudier, P.; & Hikkerova, L., (2020), "The digital transformation of external audit and its impact on corporate governance", *Technological Forecasting and Social Change*, vol. 150, issue C
- Mariadoss, B. J., Tansuhaj, p. S., & Mouri, N. (2011). Marketing capabilities and innovation-based strategies for environmental sustainability: An exploratory investigation of B2B firms. *Industrial Marketing Management*, 40(8), 1305-1318.
- Mostafa, N.F., 2022, A proposed approach to develop the role of accounting information systems from the perspective of big data analytics for the purposes of supporting decision-making: an exploratory study of the environment of big data in Egypt and its relationship to accounting information systems. *Scientific Journal of Financial and Commercial Studies and Research*, Faculty of Commerce, Damietta University, Volume 4, Issue 1, Part Two.
- Nazir, S., Khan, S., Khan, And H. U., Ali, S., Garcia-Magarino, I. Athan, R. B., & Nawaz, M. (2020). A comprehensive analysis of healthcare big data management, analytics and scientific programming. *IEEE Access*, 8, 95714-95733.
- Newwa, Zainab and Nani, Maryam and Molaty, Qumra, (2018), The Impact of Total Quality Management on Achieving Competitive Priorities, Unpublished Master's Thesis, People's Democratic Republic of Algeria.

- Othman, A, 2022, The effect of using big data analyzes on improving the disclosure of sustainable development with a field study on industrial organizations listed on the Egyptian Stock Exchange, *Scientific Journal of Financial and Administrative Studies and Research - Volume Thirteen - Number Two*.
- Qadeer, N., & Nauman, S. (2021). How Green Knowledge Sharing Enhances Green Innovation: The Roles of Innovation Capacity and Knowledge Creation.
- Saadia, Khamet, and Abdel-Razzak, Hamidi, 2020, The reality of applying competitive priorities in health organizations, a study on a number of private health organizations in the state of Bouira, *Journal of Economic Sciences, Management and Commercial Sciences*, Volume 13, Number 1.
- Sadq, Z. M., Othman, B., & Khorsheed, R. K. (2019). The impact of tourism marketing in enhancing competitive capabilities. *African Journal of Hospitality, Tourism and Leisure*, 8(5), 1-11.
- SADQ, Z.M., Aljaf, N.A. And Hasan, R.S. (2018). The Role of Human Capital in Achieving Competitive Capabilities: An Empirical Study at Knowledge Private University /Erbil, Iraq, *International Journal of Social Sciences & Educational Studies*, 4(4), 53-63.
- Simsekli, Y. (2015). An implementation to raise environmental awareness of elementary education students. *Procedia-Social and Behavioral Sciences*, 191, 222-226.
- Vasarhelyi, M. A. (2012). Financial accounting standards should not matter: It's just a layer. *Journal of Information Systems*, 26(2), 1-11.
- Walraven, P., Van De Wetering, R., Caniëls, M., Versendaal, J., & Helms, R. (2021, January). Capturing Co-evolutionary Information Systems Alignment: Conceptualization and Scale Development. In *Proceedings of the 54th Hawaii International Conference on System Sciences* (p. 6017).
- Wang, N., Wang, L., Ma, Z., & Wang, S. (2022). From knowledge seeking to knowledge contribution: A social capital perspective on knowledge sharing behaviors in online Q&A communities. *Technological Forecasting and Social Change*, 182, 121864.
- Williams JR, R. I., Morrell, D. L., & Mullane, J. V. (2014). Reinvigorating the mission statement through top management commitment. *Management Decision*.
- Xiao, J. J., Huang, J., Goyal, K., & Kumar, S. (2022). Financial capability: a systematic conceptual review, extension and synthesis. *International Journal of Bank Marketing*, (ahead-of-print).
- Yang, C., & Chen, L. C. (2007). Can organizational knowledge capabilities affect knowledge sharing behavior?. *Journal of information science*, 33(1), 95-109.
- Yeoman, I. (2019). Big data. *Journal of Revenue and Pricing Management*, 18(1), 1-1.