# Marketing Information Systems and their Role in the Success of Knowledge Sharing by Employing the Professional Skills of Human Resources

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**Abstract**

*The current research aims to clarify the role that marketing information systems play in the success of knowledge sharing by employing the professional skills of human resources in institutions. The importance of the research is highlighted by noting the growing interest in the concepts of marketing information systems in the success of knowledge sharing in developed countries and trying to apply these concepts in the Iraqi environment, and to achieve For the objectives of the research, a questionnaire was designed and prepared in accordance with the objective of the research. It was distributed in the researched libraries. All managers who hold administrative and technical positions in the researched university libraries were selected as the study population, in addition to selecting all library workers, who numbered (120) managers and workers. As a sample for research.*

*The data obtained from the researched field was analyzed using the correlation coefficient and linear regression models as well, which helped to reach a set of conclusions, the most important of which is "There is an increase in the impact of marketing information systems on knowledge sharing when mediating the professional skills of human resources in libraries at the universities studied." And in In light of the conclusions, a number of recommendations were presented, the most important of which is: "The researched libraries should exploit the positive impact of marketing information systems in knowledge sharing by mediating the professional skills of human resources, enabling them to provide luxurious educational services of high value to achieve the expected benefit from data related to costs that cover the needs of beneficiaries when needed." ".*

**Keywords:** *marketing information systems, professional skills for human resources, knowledge sharing.*

## Introduction

Many efforts and contributions to improving business results in the field of library and information center management have focused on enhancing and developing operational formulas and practices with the aim of improving the work of libraries within the framework of an integrated process to enhance efforts and organize the various material, human and technological resources to achieve the maximum possible levels of investment for these resources as major inputs to the work system in libraries. In order to achieve the best results on the one hand and achieve the planned goals on the other hand. Information centers in general and libraries in particular are considered an integral part of the

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components of modern societies as a means of continuity, growth and development of society. In the same context, human resources occupy the forefront of attention in any institution as they are an essential source of development and advancement. Institutions, including libraries, have begun to compete in order to obtain The best combination of human resources, as the theory of resources and skills believes that the permanent competitive distinction of an organization is based on the characteristics or excellence of its human resources. True competitiveness has become about the skills (soft and hard) of the human resource, and that any organization that seeks to achieve its goals has become dependent on the efficiency of its human resource and what is available. They have skills, and what distinguishes one person from another in success is the effort he puts in to refine himself and the skills he has learned and developed.

In a related context, it can be pointed out to the necessity of sharing knowledge between workers within institutions, which works to transfer tangible and intangible ideas, as a major and decisive factor in achieving the goals of the existence of libraries. Contemporary terminology has witnessed the emergence of an important term within the framework of what is known as marketing information systems, as a term that has become frequently repeated in recent times. It is a necessary administrative function for any administration in any organization that aims to promote its products, whether its product is tangible or intangible. Among the meanings of Marketing: Creating awareness or awareness and the need to serve a specific product, and in order to adequately determine the role of marketing information systems in the success of knowledge sharing in its theoretical and field directions, the research sought to address this within four axes. The first: the general framework of the research and its methodology. The second axis summarizes the theoretical framework, and the second axis summarizes the theoretical framework. The third focuses on getting familiar with the field aspect within a path determined by the research methodology, and the fourth axis specializes in reviewing the research's conclusions and recommendations.

Research problem

The research problem focuses on how to benefit from the contents of marketing information systems in the success of knowledge sharing and how to activate the relationship between them through employing the professional skills of human resources?

Based on these principles, the research problem was framed with the following research questions:

1. What is the research sample's level of awareness of the contents and dimensions of the marketing information systems variable, the dimensions of the human resources professional skills variable, and the dimensions of the knowledge sharing variable?
2. Are there significant correlations between the independent dimension represented by the dimensions of marketing information systems and the intermediate dimension represented by the professional skills of human resources and the dependent dimension represented by knowledge sharing?
3. Is there a significant effect of marketing information systems and knowledge sharing in mediating the professional skills of human resources?

Research importance

The importance of the research can be indicated by noting the growing interest in the concepts of marketing information systems and employing professional skills for human resources in the success of knowledge sharing in developed countries and the attempt to apply these concepts in the Iraqi environment, by discussing the possibility of adapting them for application according to the perspective adopted by the research. The importance of the research is demonstrated by discussing one of the recent topics in the field Marketing information systems, as well as the implications of developing professional skills for human resources in the researched libraries and the topic of

knowledge sharing. Perhaps addressing the study of these concepts would open new horizons and encourage other researchers to study the details of other dimensions and factors that were not addressed in the research.

Research objectives

In light of its problem and importance, the current research aims to achieve the following objectives:

1.      Formulating a theoretical framework that includes the concept of marketing information systems, as well as framing the perspective of professional skills, expressing a new vision of the implications of knowledge sharing.
2.      Measuring the level of availability of the dimensions of current research for both marketing information systems and professional skills for human resources in the researched libraries, and the factors and sequential influences they contain in the stages of the hypothetical model towards the success of knowledge sharing.
3.      Measuring the nature of the relationship, influence and contribution of the dimensions and factors of marketing information systems and the use of professional human resources skills and knowledge sharing by testing the research hypotheses according to the hypothetical scheme.

Research Hypotheses

The first hypothesis: There are no significant correlations between the independent dimension represented by marketing information systems and the variable represented by employing professional human resources skills and the dependent variable represented by knowledge sharing.

The second hypothesis: There is no positive significant effect of marketing information systems on the success of knowledge sharing in the presence of professional skills.

Research population and sample

Due to the importance of the research variables, their contents and dimensions, university libraries were chosen as a field for research, and directors who hold administrative and technical positions in the researched university libraries were considered the research population, in addition to selecting all library workers, numbering (120) directors and workers, as a sample for the research.
The second axis
the theoretical side
✓      Marketing information systems
The concept of marketing information systems: It is a set of complete facilities and procedures that are used to provide management with accurate and organized information related to the marketing environment, opportunities, and marketing strategic plans. (Al-Bakr, 2022, 1237) While (Robert, R, Hamon, 2003) believes that marketing information systems is a computerized system designed to provide an organized flow of information to enable and support the organization's marketing activities. It serves the collaborative, analytical, and operational needs and enables marketers to cooperate with customers. With analytical functionality through decision support applications that enable marketers to analyze market data about customers, competitors, technology and general market conditions. According to what was stated in (Lazhar, 2006, 119), it is a continuous and organized process of effective communication between people, equipment and procedures to collect, analyze, evaluate and distribute data at the same time and to make it more valid information in making decisions for managers to improve, implement and control their marketing services.

Characteristics of marketing information systems

Marketing information systems consist of an interconnected structure of individuals, devices, and procedures designed to generate and flow information collected from

internal and external sources in order to be used as a basis for making decisions in specific areas in the field of services marketing. Therefore, when designing marketing information systems, the following characteristics must be present:

1.      Accuracy: The information must be accurate and error-free.
2.      Proper timing: delivering information to decision makers at the right time.
3.      Appropriateness: It is characterized by continuity and accuracy, and the ratio of correct information to the total information available during a certain period of time is high and continuous. (Farahtia, 2006, 50)

Dimensions of marketing information systems

1.      Equipment (physical components): The term physical components refers to machines and equipment that operate and process data and are used to perform the functions of data preparation, data entry, mathematical operations performed on that data, control of mathematical operations, and storage to provide outputs and display results. (Mousa and Nabil 2018, 6) (Sumaya, 2020, 38) referred to the physical components as all types of components and physical media used in the processes through which data and information pass.
2.       Software: Many institutions, especially university libraries, hastened to acquire and implement automated and electronic systems to provide their services to beneficiaries. Ready-made software has become available to many institutions, including libraries, at reasonable prices. At the beginning of their appearance, computers and software were simple in terms of function and equipment. Functional software was not able to store a large amount of information and was limited to immediate arithmetic and logical processors. (Hamdoun and Adel, 2006, p. 114). Over time, software, which is one of the intangible components of the computer, took over the task of operating it (Al-Anazi, 2013, 49). Systems that operate the hardware and software that operate a computer and make it capable of performing operations such as arranging, analyzing, and storing data. (Diab...et al., 2022, 10).
3.      Communication networks: Information and communications technology has become linked to the development of societies in our present era. It is considered the most important means of transferring developing societies to more developed societies, as it contributes directly to building a new society that involves new methods and technologies for the digital economy that relies on information technology. Communications The development of any institution, including university libraries, depends on the existence of rapid communication methods at all times throughout the country, especially abroad. To achieve this goal, the existence of a communication network, whether wired or wireless, reduces time and space, facilitates exchanges, and allows the deposit of information. Communication networks are known as a group of Computers, communications programs, and electronic transmission media that allow computers to communicate with each other. (Absi, 2018, 260).
4.      Knowledge workers: Knowledge workers constitute a large percentage of the workforce in advanced economies. Their expertise is important to countless institutions, including libraries, around the world, but there is still limited vision on how institutions manage these workers (Hans K…et all, 2012, 1), knowledge workers and knowledge is a main tool and the raw material for knowledge workers, defined by a group of researchers as those who have the ability to collect, store, analyze and interpret information in any field, organize and retrieve it, which enables sound decisions to be made, problems solved, challenges faced and the use of technologies. Modern and constantly developing. (Shams and Muhammad, 2020, 7).
5.      Marketing information: is that data that comes from inside and outside the organization and is processed by individuals and devices, stored and distributed for use in making decisions with the aim of improving activities related to control, planning and implementation, increasing confidence and knowledge, and reducing cases of uncertainty regarding a position or decision. (Al-Zahra, 2014, 81).

✓      Professional skills for human resources

The concept of professional skills for human resources:

Skill is defined in the dictionary of educational and psychological terms as anything that an individual has learned to perform easily and accurately (Al-Hassi, 2021, 327). Terminologically, he defined it (Naziha, 2016, 26) as the ability to implement and work concretely according to a process and pre-determined goals, and this is what makes the skill more implicit and technical and difficult to transfer. (Al-Araibni, 1994, 40) defined the professional skills of human resources as the behavior of qualified individuals who participate in providing a service and work in continuing education programs to maintain high standards of performance while obtaining appropriate content of human knowledge.

As for soft skills for human resources, they have been defined as a set of positive characteristics desired to accomplish administrative tasks that depend on common sense and the ability to deal with people and not on acquired knowledge (Robles, 2012, 457). As for the hard skills of human resources, they are defined as those technical skills required in the field of processes, tools, and in the field of technologies (Sukhoo..et al, 2005, 93).

The importance of soft skills for human resources

Soft skills have become a very important topic for libraries at the present time because the distinguished employee's CV does not always correspond to real performance in addition to traditional competencies. Professional skills for human resources are among the most important skills that an individual needs in his daily life, whether it is the level of personal life or professional life in the workplace. Because mastery is not specific to a field or specialty in itself, but rather it is a part that forms the whole, in addition to being not limited to a specific category. (Cimatti, 2016, 118) Human resources soft skills also contribute to enhancing organizational loyalty by individuals to their organizations, which helps reduce turnover and absenteeism (Rao, 2013, 144). It also helps to form the personal structure of individuals in order to enhance social relationships at work, as well as the ability to find appropriate solutions to problems related to the job they practice (Sethi, 2016, 114).

Types of professional skills for human resources

**1.**     Soft skills: They are a set of characteristics, traits, and abilities that focus on the individual's personality and behavior (Tsirkas…et.al, 2020, 358). The issue of skills has become of strategic value, especially after interest in managing the soft skills of human resources during the 1990s. Professional skills for human resources constitute the primary driver for all duties and operations carried out by libraries (Meeks, 2017, 3). As a result of the changes witnessed in the environment, it was necessary for libraries to determine The most important financial and non-financial indicators that must be adopted in achieving success in libraries. Some believe that soft skills are limited to communication skills only, but this is not the case. They are all related to skills, abilities, and traits related to personality, attitudes, and behavior that help in non-technical skills that are not related to the field (Abu Zaid). ,2022, 50).

Forms of soft skills for human resources

a)     Communication skill: The skill also refers to the skills that an individual possesses in receiving and transmitting information effectively (Abu Lifa, 2021, 11). Communication skill always has a great impact when establishing a good relationship with beneficiaries. It is also useful in preparing library reports and correspondence for good communication, so it is necessary Library workers must have a good knowledge of the mother tongue and other languages to be able to communicate with beneficiaries (Gabhane, 2014, 47.

b)      Creative skills: This skill indicates that the individual cannot imitate, but rather must identify solutions that suit developments, that is, he must innovate based on his abilities, knowledge and qualifications, (et al. Lippmann, 2015, 33).

c)      Self-management skills: It is the skill of human resources in positively directing moods and impulses, through which external situations are controlled and directed in a way that is beneficial to all parties working in university libraries. (Khamis and Salman, 2020, 20).

d)      Leadership skill: the ability to deal with internal variables and the ability to plan, forecast, and develop solutions to problems that library workers may face (Al-Naimi, 2021, 239).

e)      Behavioral and social skills: Refer to the ability of university library workers to effectively use the knowledge, skills, and experience they possess, to overcome social obstacles and problems, and to easily perform the tasks and duties assigned to them through the compatibility of personal and social relationships in the work environment. (Abu Lefa, 2021, 11) .

f)      Personal skills: These are personal competencies that every individual must acquire to support technical skills, such as motivation, negotiation, communication, relationship building, public speaking, and self-marketing skills, as well as time management, stress management, and probability management (Hartiti…et al, 2020, 114).

**2.**      Hard skills: They are technical or administrative procedures related to the basic activity of the organization. These can be working with machines, computer programs, occupational safety standards, financial procedures, and service management. These skills are usually easy to observe and measure, and they are also easy to learn (Veleva, 2020, 65). . It can be viewed as technical knowledge that can be obtained through life experiences, whether in employment or through training courses, and it is considered one of the main skills that produce knowledge that can be touched directly (Santoso.et al, 2021, 15).

The importance of hard skills for human resources

a)      Hard skills are used in the field of management such as processes, procedures, tools and techniques.

b)      Describes explicit behaviors and skills.

c)      Hard skills can produce something visual and direct.

d)      The components of hard skills can be seen from IQ thinking which has indicators which are counting, analysis, design, comprehensive knowledge, modeling and critical thinking.

e)      Hard skills are related to mastering science, technology, and technical skills.

f)      It is one of the skills that can be easily measured (Sope, Ardian…et al, 2020, 156)

Forms of hard skills for human resources

Hard skills take several forms, the most important of which is: (Al-Baqmi, 2022, 62-93).

1)      Computer programming skills.

2)      The skill of mastering the operation of machines and machines.

3)      Skill in preparing financial reports and budgets.

4)       Database management skill.

5)      Skill in developing programs.

✓      Knowledge sharing

The concept of knowledge sharing

The process of exchanging knowledge between the organization's units in order to reach current and future benefits. (Jassem and Al-Yasiri, 2016, 68). According to what was stated in (Eldahshan, 1999, 94), knowledge sharing is a process related to the subject of knowledge to learn something from another person, that is, to share knowledge. Therefore, knowledge exchange requires the existence of a relationship between more

than one party (two parties), one of which possesses the knowledge, as this must The party must transfer his knowledge consciously and voluntarily, not by force, and the other party acquires the knowledge.

Reasons for knowledge sharing

Researchers, books, and thinkers have been interested in determining the importance of knowledge or sharing knowledge, and they have made it clear that this process is not a new thing in administrative thought, as several writings, including Barnard's writings in 1038 and Simon's writings in 1945, pointed to the importance of sharing knowledge to fill the gaps that obstruct institutions. Both Foss and Mikhailovic explained (2008, 4-6) Reasons that motivate knowledge sharing among employees within institutions are:

1. Converting individual knowledge into organizational knowledge.
2. Improve absorptive capacity and improve innovation ability.
3. Although not all organizations participate in creating new knowledge, it is difficult to imagine modern organizational life without knowledge exchange processes.

Dimensions of knowledge sharing

1. Trust: In Arabic dictionaries, trust comes in the sense of credit, which is the positive feeling that an individual has toward the other party in terms of his trust in him to carry out the agreed-upon actions and deeds (Bin Makram, 2003, 211), but idiomatically (Al-Thabet, 2020, 314) defined it as an effective process. In improving social interaction between individuals through mutual trust between them, trust in the partner also has a positive effect on knowledge sharing. (Al-Mawla and Ibrahim, 2021, 8) defined trust as positive expectations, beliefs, and feelings that individuals hold toward the organization to which they belong, which are linked to behaviors and practices. The applied administrative approach takes into account adherence to public and private administrative ethical values and avoiding anything that harms the common interests of individuals, as trust is a vital feature for effective organizations and exchanges via the Internet.
2. Information and communications technology: He defined it (Lamini, 2021) as the process of exchanging and sharing knowledge through it, accessing and retrieving information and knowledge, and within the framework of knowledge sharing, the use of information and communications technology leads to the development of new methods such as (groups on the Internet, databases, the internal network, and virtual communities). ...etc.), and (Hammadi, 2019, 89) indicated that they are computer-based technologies that individuals use to support and operate data and support the organization's information needs.
3. Organizational culture: Organizational culture affects the success or failure of the organization, which is mainly determined by the efficiency of the performance of the qualified human resource integrated into the organization, which is affected by the prevailing organizational culture and the thinking style of individuals and through their enjoyment of a set of values, beliefs and ideas. Organizational culture is known as a set of values. The beliefs and feelings that exist within the organization and prevail among employees, and the application of knowledge management in any organization requires that the prevailing cultural values be appropriate and compatible with the principle of learning and knowledge management, and that the organizational culture be encouraging team spirit at work. (Nasr El-Din, 2020, 32).
4. Personal interactions: The knowledge sharing process takes place in many ways through interaction between employees within the organization and interaction and communication between the employee and the beneficiary, each according to its characteristics. Direct communication between the employee and the beneficiary takes place through the phone or e-mail, and the interactions and communications that take place between employees affect the knowledge sharing process in particular. In our globalized world today, information is transmitted all over the world within a few seconds, which allows customers to intervene and express their different opinions,

viewpoints, and ideas about service products, and thus gives an opportunity to obtain useful information to understand and understand everything that is going on and surrounding the organization. (Al-Thabet, 2020, 315), as well as It is the way in which an organization organizes its human resources into relatively stable relationships that are largely patterns of interaction, coordination, and behavior directed toward achieving the organization's goals. (Muhammad, 2020, 6).

The third axis

The practical side

✓ Describe and diagnose the research variables

First: Description and diagnosis of marketing information systems and their dimensions

Table (1) results of the description and diagnosis of the dimensions of the independent variable (marketing information systems) and its sub-dimensions

| Dimensions of marketing information systems | Arithmetic mean | standard deviation | Coefficient of variation | Relative importance |
|---|---|---|---|---|
| Physical components | 3.920 | 0.598 | 15.25% | 0.784 |
| Software | 4.030 | 0.721 | 17.89% | 0.806 |
| Networks | 4.013 | 0.658 | 16.39% | 0.802 |
| Knowledge workers | 4.113 | 0.639 | 15.53% | 0.822 |
| Databases | 3.906 | 0.746 | 23.20% | 0.781 |
| Total | 3.997 | 0.557 | 13.93% | 0.799 |

It is clear from the percentages, arithmetic means, and standard deviations in Table (1) regarding the opinions of the members of the researched study sample about the practice of marketing information systems that the hypothesized mean is equal to (3) on the area of the scale, as the results indicate that marketing information systems at the macro level have achieved a mean Mathematically, it was estimated at (3.997) at a significance level of (0.799), and this indicates a good level in confirming the necessity for workers in public libraries at the university under investigation to have an idea about marketing information systems. Therefore, we note that the standard deviation amounting to (0.557) in terms of the coefficient of variation, which came in the percentage (13.93%), which indicates that there is a slight dispersion in the answers of the study sample, which means that library workers have a clear perception of the meaning of the required marketing information systems, and what supports these percentages of agreement, neutrality, and disagreement, which amount to (78.52; 13.19; 7.49), respectively, Among the most prominent dimensions that contributed to enriching the marketing information systems variable is the knowledge workers dimension, with an agreement of (85.25), an arithmetic mean of (4.113), and a standard deviation of (0.639) at a significance level of (0.822) as a function of the coefficient of variation, which reached a value of (15.53%).

Second: Describing and diagnosing the professional skills of human resources

Table (2) Description and diagnosis results for the dimensions of the variable (professional skills for human resources)

| Dimensions of professional skills | Arithmetic mean | standard deviation | Coefficient of variation | Relative importance |
|---|---|---|---|---|
| Soft skills | 3.836 | 0.838 | 21.84% | 0.767 |
| Hard skills | 4.022 | 0.783 | 19.46% | 0.804 |

| | | | | |
|---|---|---|---|---|
| Total | 3.929 | 0.761 | 19.36% | 0.785 |

It is clear from the percentages, arithmetic means, and standard deviations in Table (2) of the positions of the researched study sample regarding the professional skills of human resources that the hypothesized mean is equal to (3) on the area of the scale, as the results indicate that the professional skills of human resources at the overall level have achieved a mean. Mathematically, it was estimated at (3.929) at a significance level of (0.785), and this indicates a good level, which confirms the necessity for library workers to have professional skills. Therefore, we note that the standard deviation of (0.791) in terms of the coefficient of variation, which came at (19.36%), indicates that There is a slight dispersion in the answers of the study sample members, which means that the workers in the studied libraries have a clear perception of what it means to have professional skills for human resources, and what supports these percentages of agreement, neutrality, and disagreement, which are in the order (78.11; 12.25; 7.50), and among the most prominent dimensions that The hard skills dimension contributed to enriching the professional skills variable with an agreement rate of (81.96%), with an arithmetic mean of (4.022) and a standard deviation of (0.783) as a function of the coefficient of variation, which reached a value of (19.46%).

Third: Describing and diagnosing knowledge sharing and its dimensions

Table (3) Description and diagnosis results for the dimensions of the dependent variable (knowledge sharing) and its sub-dimensions

| Dimensions of knowledge sharing | Arithmetic mean | standard deviation | Coefficient of variation | Relative importance |
|---|---|---|---|---|
| trust | 4.080 | 0.598 | 14.65% | 0.816 |
| Information and communications technology | 4.108 | 0.720 | 17.52% | 0.821 |
| Organizational culture | 4.066 | 0.633 | 15,56% | 0.813 |
| Organizational interactions | 3.978 | 0.528 | 13.27% | 0.795 |
| Total | 4.058 | 0.529 | 13.03% | 0.811 |

It is clear from the percentages, arithmetic means, and standard deviations in Table (3) regarding the positions of the researched study sample regarding knowledge sharing that the hypothesized mean is equal to (3) on the area of the scale, as the results indicate that knowledge sharing at the overall level has achieved an arithmetic mean of (4.058). ) at the level of significance (0.811), and this indicates a good level in confirming the necessity for library workers to enjoy knowledge sharing. Therefore, we note that the standard deviation of (0.529) in terms of the coefficient of variation came in at (13.03%), which indicates that there is a small percentage of dispersion. In the answers of the study sample, this means that library workers have a clear conception of the meaning of required knowledge sharing, and what supports these percentages of agreement, neutrality, and disagreement, amounting to (83.65; 11.71; 4.43), respectively. Among the most prominent dimensions that contributed to enriching the knowledge sharing variable is The information and communications technology dimension with an agreement rate of (84.64%).

✓　　　Hypothesis testing

First: Testing the first hypothesis: There are no significant correlations between marketing information systems and the mediating variable represented by the professional skills of human resources and the dependent variable represented by knowledge sharing.

Table (4) Results of correlations between marketing information systems, professional skills, and knowledge sharing with the statistical laboratory value (α) calculated

| Independent variable<br><br>Mediator and accredited | Marketing information systems | Calculated α value |
|---|---|---|
| Professional skills for human resources | 0.777 | 0.000 |
| Knowledge sharing | 0.798 | 0.000 |
| Type and direction of the relationship | There is a significant correlation between marketing information systems, professional skills, and knowledge sharing at the aggregate level | |

Determined α value (0.05)   Confidence score (0.95)   N=120

From Table 4, it is clear that there is a statistically significant correlation between marketing information systems, professional skills, and knowledge sharing. The correlation coefficient reached (0.777) for professional skills and (0.798) for knowledge sharing. This indicates that there is a direct correlation between the two variables, with a level of statistical significance (0.000) that is less than the level of moral significance (0.01), and therefore marketing information systems are significantly related to professional skills and knowledge sharing. This supports the theoretical trend when it is said: The practice of marketing information systems by employees would lead to enhancing the level of professional skills and knowledge sharing. Therefore, the first main hypothesis is rejected in the negative and the alternative hypothesis is accepted, which says: There are significant correlations between the independent dimension represented by marketing information systems and the mediating variable represented by the professional skills of human resources and the dependent variable represented by knowledge sharing.

Second: Testing the second hypothesis: There is no positive significant effect of marketing information systems on the success of knowledge sharing in the presence of professional skills.

To measure the indirect effect of marketing information systems on knowledge sharing when mediating the professional skills of human resources, the researcher worked to test this hypothesis according to the use of path analysis using the (Amos v21) program supported by the Statistical Package for the Social Sciences (SPSS) program in order to measure the direct and indirect effect. Direct marketing information systems in knowledge sharing.

Table (5) Results of the analysis of the direct, indirect, and total effects of inclusive leadership on knowledge sharing when mediating the professional skills of human resources

| Variables | | | The value of the direct path coefficient | The value of the indirect path coefficient | The value of the overall path coefficient |
|---|---|---|---|---|---|
| Independent | Mediator | Subordinate | | | |
| Marketing information systems | Professional skills for human resources | Knowledge sharing | 0.798 | 0.260 | 0.538 |

It is clear from Table (5) that there is an increase in the moral effect of marketing information systems on knowledge sharing when mediating the professional skills of human resources in libraries at the universities studied, as the value of the increase reached (0.260), which is the value of the indirect effect. This result indicates that the

fifth main hypothesis in its form is not accepted. Negation and acceptance of the alternative hypothesis that says: There is a positive significant effect of marketing information systems on the success of knowledge sharing in the presence of professional skills.

Fourth Axis
Conclusions and recommendations

Conclusions:

1.      The perception of the study sample members about the marketing information systems used in the libraries of the selected Iraqi universities under study came with a high level of importance for the variable as a whole, as well as for the sub-dimensions. The researcher interprets this result to mean that workers in the libraries studied are clearly interested in marketing information systems that enhance... From their awareness of the importance of workers and industry knowledge and perception about software that benefits marketing information systems.

2.      The perception of the study sample members regarding knowledge sharing was at a high level of importance for the variable as a whole, as well as for the sub-dimensions that make up the dependent variable. The researcher interprets this result by saying that the administration of the investigated libraries seeks to share knowledge more broadly and is interested in enhancing its sharing among all parties in the libraries and transferring their knowledge. Among them is a voluntary reason to acquire knowledge, and with regard to the sub-dimensions of knowledge sharing.

3.      There is a significant relationship between marketing information systems and the professional skills of human resources and knowledge sharing in the selected Iraqi libraries. These results are explained by the fact that the more the researched library management clearly cares about employees' practice of marketing information systems, the more it leads to the success and enhancement of their level of knowledge sharing.

4.      There is an increase in the impact of marketing information systems on knowledge sharing when mediating the professional skills of human resources in the libraries of the researched universities. This result indicates the importance of the professional skills of human resources that contribute to enhancing knowledge sharing among workers in the library management practice of marketing information systems.

Recommendations:

1.      The need to emphasize employees' use of marketing information systems as a modern philosophy that leads to a computerized system in different and clearly defined forms.

2.      The necessity of directing the management of the investigated libraries to adopt the foundations of communication networks by providing an electronic website for libraries that works to link the library with libraries of the external environment to activate the exchange of competencies and information between individuals in libraries.

3.      Working to exploit the correlations between marketing information systems and professional human resources resources and knowledge sharing in a way that contributes to improving the high performance of the researched libraries through sharing a variety of skills that work to market the services provided by libraries to increase broad experience and inspiration through cooperative behaviors and openness to Knowledge workers to achieve current performance and achieve future progress.

4.      The researched libraries should exploit the positive impact of marketing information systems on knowledge sharing through the professional skills of human resources, enabling them to provide luxurious educational services of high value to achieve the expected benefit from data that is related to the costs that cover the needs of beneficiaries when needed.

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