

# **Automated Information Systems Used In University Libraries Bab Al-Zubair Website At The University Of Basra: From The Point Of View Of Librarians And Information Centers**

**Nidhal Nimaa Abdul Qadir<sup>1</sup> , Assist. Prof. Hala Ghaleb Al-Nahi<sup>2</sup>**

<sup>1,2</sup> Department of Information and Libraries, College of Arts, University of Basra, Iraq.

---

## **Abstract**

The study aims to identify the reality of automated information systems used in libraries and information centers, Bab Al-Zubair site at the University of Basra, their types, components and sub-systems of integrated automated systems, with examples of these systems and their standards. The researcher followed the documentary method in covering the subject of automated systems in terms of explaining its concept, importance, applications and standards in the theoretical aspect, and used the descriptive (survey) approach in the practical aspect. The study population consisted of (5) libraries and information centers used for automated information systems out of a total of (8) of During the analysis of the questionnaire tool distributed to librarians and information centers, which amounted to (5) forms, and the percentage was used to analyze the trustees' questionnaire.

**Keywords:** (automated information systems - university libraries - information technology).

The study reached several results, the most important of which are:

- 1- Libraries and information centers lack ready-made automated systems and rely on local systems, which is represented by the Access system by (100%), except for the central library in which the Koha system is available, as well as the Access system.
- 2- Weak infrastructure, including the lack of internet networks and laptops in libraries and information centers, where the lowest percentage (20%) was recorded for each of them.
- 3- (%80)of libraries and information centers lack in providing training and development courses for workers in automated systems, while we find that the central library provides them by (20%) and within the university and by specialized institutions with the use of the means of actual attendance.

**The study came out with a set of recommendations, the most important of which are:**

- 1- The necessity of working with open source automated systems, including the (koha) system in all libraries and information centers, as it is one of the ready-made, integrated and free automated systems; in addition to that it suits all sizes of libraries and supports many languages, including the Arabic language, and is characterized by ease of updating and modification.
- 2- The necessity of a feasibility study to know the necessary and necessary requirements for the possibility of using automated information systems in libraries and information centers, which is to provide financial, human and technical requirements, to standardize work between libraries and information centers, reduce the efforts made by workers and prevent repetition and duplication.

- 3- The necessity of providing training and development programs for human resources working in automated systems by institutions specialized in the fields of information science, libraries, computer science and software systems inside and outside the university to develop the expertise and skills of human resources and increase their efficiency and performance in office work.

### **First: the general framework of the study**

#### **The problem of the study**

Automated information systems occupy an important and prominent role, especially in libraries and university information centers, in order to improve their performance in terms of the functions they perform and the services they provide. A mechanism in libraries and information centers for data entry, massive processing and information, and its advanced ability to store, save and retrieve in the easiest and fastest way. Clarify the importance of automated information systems and their types, and the administrative and technical services of automated systems in libraries and information centers used and unused for automated systems, with an indication of the means used to provide those electronic services.

#### **The importance of studying**

The great and rapid development of information technology has led to the emergence of a new method of information processing, organization and storage, represented in automated information systems, which are important and advanced topics in libraries and university information centers because of their importance in the development of information. Services and converting them from traditional forms and numbers to electronic ones. Computerized indexes to be used in providing the best electronic services to beneficiaries, saving time and reducing the repetition of efforts made by workers, as well as reducing repetition and duplication in the completion of all functions and office services.

#### **Objectives of the study**

##### **The study aims to find out**

1. Automated information systems in terms of concept, importance, objectives, functions, components and types.
2. Existence of advance plans before and after the application of automated systems and benefit from the experiences of libraries and other information centers.
3. The problems and obstacles facing libraries and information centers before and after the application of automated information systems and how to avoid those problems.
4. Types of automated systems used in libraries and information centers, whether integrated or subsidiary, with an indication of the methods of obtaining the system and the provider of automated systems.
5. The type of equipment used and the degree of efficiency in providing electronic administrative and technical services in relation to the library or the beneficiaries.
6. Training programs offered by libraries and information centers to employees, the methods used in establishing them, and their locations

#### **Study questions**

**Based on what was stated in the objectives of the study, the questions were identified as follows**

1. Have advance plans been developed for the system's mechanism of action and to benefit from the experiences of libraries and other information centers?
2. What are the problems and obstacles facing libraries and information centers before and after the application of automated information systems, and how can these problems be avoided?
3. What are the types of automated systems used in libraries and integrated or sub-information centers with an indication of the methods of obtaining the system and the provider of automated systems?
4. What are the types of devices used to provide electronic administrative and technical services in relation to the library or the beneficiaries?
5. Do libraries and information centers provide training programs for employees and what are the methods used in their residence and places of residence?

### **Study Limits**

- Limits of the goal: The research includes the topic of automated information systems
- Lead Time: Data were collected from libraries and information centers from February 2020 to November 2020.
- Spatial boundaries: Libraries and information centers at the Bab Al-Zubair site at the University of Basra.

### **Study Approach**

The researcher followed the documentary approach in the theoretical study, and the descriptive (survey) approach in the practical aspect.

### **Study community**

The study population in automated information systems in libraries and information centers identified Bab Al-Zubair site at the University of Basra, which amounted to (8) (selected libraries and information centers) 5 (only libraries and information centers used for automated information systems according to Table No.) (5) Of the study community.

### **Data collection tools**

#### **Decision**

The researcher adopted the questionnaire as a tool for data collection, which included the Bab Al-Zubair website at the University of Basra, and the identification of private Albominah libraries and information centers in the libraries included (5) axes represented by (26) questions.

### **Statistical Analysis**

Using the ratio equation to analyze the collected data to analyze the results of the survey of liberals and information centers.

### **Previous Studies**

After reviewing the literature on the subject, many previous studies were identified that dealt with automated information systems in university libraries in terms of their concept, types, components, importance, and functions, and we will review some of them.

Liaquat Ali Rahoo ; Ali Mukhtiar. Design and Development of an Automated Library Management System for Mehran University Library, Jamshoro. Vol.6, No.1, 2016. Available on [https:// www.researchgate.net/publication/303662474\\_Design\\_and\\_Development\\_of\\_an\\_Automated\\_Library\\_Management\\_System\\_for\\_Jamshoro\\_University](https://www.researchgate.net/publication/303662474_Design_and_Development_of_an_Automated_Library_Management_System_for_Jamshoro_University).

### **Abstract**

This study aims to search for the requirements of the proposed integrated library management system and developed for the library of Mehran University as a step to move to automate the library services. Read materials easily, based on different criteria. The researcher recommended that the integrated library system should be connected to the Internet so that the beneficiaries can access books and lectures via the Internet. It also requires attention to building the system on an ongoing basis to develop library services as well as the service of serials and reservations book, and the use of RFID tags to reduce book thefts.

### **The status of the current study from previous studies**

There are many Arabic and English studies and research that dealt with the subject of automated information systems in university libraries. This study is an extension of the previous studies, but differs from previous studies in covering the subject, place and time, where the descriptive survey method was used to learn about automated information systems and their use in the libraries and information centers of Bab Al-Zubair site at the University of Basra, as well as studying them for the academic year 2019-2020.

### **Second: The theoretical aspect of the study**

1. Definition of an automated information system (automated information systems) It is simply defined as a system that processes information through a series of automated processes to collect and transmit information to the beneficiaries, and requires very little human intervention, setup and maintenance of the system. (1)
2. The concept of automated information systems (automated information systems) Represents a group of human and computer resources that unite together to carry out a series of sequential operations that (collect, process, store, transfer and retrieve) information and use it in library services and functions in accordance with office procedures and an organized workflow mechanism. Helping libraries and information centers to provide their services efficiently and accurately, in the least possible time and in the fastest and easiest way for the beneficiaries.
3. The importance of automated information systems (automated information systems)

### **There is a great importance of automated information systems can be summarized as follows. (2)**

1. Follow-up loans in university libraries and information centers.
2. Availability of bibliographic databases and networks, and linking them to databases designated for the loan and networking system.
3. Computerization of the information services system, in addition to the current briefing service and selective information transfer.
4. Mechanization of electronic supply and technical processing.
5. Automating the periodic monitoring system and following up on subscriptions.
6. Providing programs to run electronic containers that contain a word processor and electronic data.
7. Preparing and preparing computerized indexes for libraries and information centers.

8. Automation of purchasing, supply orders, returns, delivery and claims procedures.

### **Objectives of automated information systems (automated information systems)**

The objectives of automated information systems in university libraries and information centers are as follows: Controlling the holdings of libraries and information centers by reducing the size of paper records and indexes and replacing them with electronic ones.

1. Staying away from repetitive efforts in manual operations, and raising the level of work.
2. Providing the appropriate budget and time for the functions and services performed by those libraries and information centers.
3. Enable libraries to share their collections by working and collaborating with other library systems through library networks at the level of managing one library or with other libraries.
4. Preparing statistical reports, whether with regard to property or beneficiaries.
5. Flexibility in searching for information through the possibility of providing multiple entrances to search in the automatic index records of libraries and making them available on the direct line to the beneficiaries.
6. Unifying the indexing process using automated indexing and reducing traditional indexing processes for information sources as much as possible.
7. Providing accurate, comprehensive and rapid information to the largest number of researchers and beneficiaries.

### **The functions of automated information systems (Automated information systems)**

The automated information system implements a number of functions in libraries and information centers, starting with collecting data and converting it into ready-made information after processing it for use. To achieve this, it is arranged according to a set of steps as follows: (4)

1. Data collection: The function of collecting data from internal and external sources in libraries is the first function in the information system, taking into account costs and complete accuracy.
2. Purify the data and ensure its validity and accuracy.
3. Data preservation: organizing data in a way that facilitates the process of retrieval from databases in terms of executing operations (sorting, scheduling, coding).
4. Data update: Obtaining updated and accurate information through deletion, addition, etc., which will be of greater value to the beneficiaries.
5. Storing data in multiple physical media such as (hard or magnetic disks, magnetic or optical disks...etc).
6. Data processing means performing arithmetic and logical operations on data.
7. Retrieve, display and present information in various form (tables, graphs, printed reports, etc.) and make it available to beneficiaries.

### **Components of the mechanism's information systems (automated information systems).**

Every information system contains a set of basic components that are interrelated and intertwined with each other, which are as follows:

- Computers: includes the physical equipment used in operations (input and output processing)

- Computer Software: Application software is used to control and coordinate hardware components, to analyze and manipulate data to perform specific tasks, and includes a set of instructions and instructions for processing information

### **Programs are categorized into three types**

- System software: It is the operating system that manages the operation of the device, such as the (windows) system.
- Software Application: These are programs that direct end users to use computers.
- Procedures: Operating instructions that people use. (5)

### **Data sources**

It is a set of basic facts and raw materials for information that takes many forms, which may be alphanumeric consisting of numbers and letters, or text consisting of paragraphs and sentences. Data resources must have the following criteria:

- Comprehensiveness: All data related to the topic must be available in the database.
- No redundancy: means that each data item exists only once in the base.
- Appropriate structure: means the method used to store data in a way that reduces cost (expected processing and storage).

### **HR**

They are the people who use the system information and they are the vital and effective component of the system Information system, which includes information systems professionals: people responsible for developing and operating information and includes systems analysts (who design information systems according to information requirements for end uses), computer operators (who work on large computer systems, testers, and programmers (who implement a number of computer programs). (Based on computer specifications and systems analysts).

### **Network Resources**

Network resources refer to communication networks (coaxial cables and optical fibers) and wireless networks (microwaves and radio waves), while the types of networks are intranets, external networks and the Internet, which have become very important in all libraries and information centers to accomplish operations and functions. (6)

### **Reasons for interest in automated information systems in university libraries.**

There are many reasons for the interest of libraries and information centers in automated information systems, and they are as follows:

1. The size of libraries and information centers doubled, the number of their units and sections increased, and the traditional systems were unable to provide the necessary information (quantitatively and qualitatively). Right on time.
2. Intense competition between libraries and information centers in many areas such as diversifying and marketing services and products, as well as developing the types of technologies used, and attracting beneficiaries.

3. The continuous and accelerating development of information and communication technology and its comprehensive use in libraries and information centers, as this technology is one of the basic components of the automated information system. (7)
4. The increasing importance and value of information in libraries and university information centers, as it is a strategic resource because it is the basis of development, progress, continuity, continuity and survival.
5. Increasing the complexity and difficulty of tasks and functions in the management of libraries and information centers, as they are affected by factors and variables (technological, economic, legal, etc.) and other effects of the external environment at the local and international levels. Levels. (8)

### **Types of automated information systems Automated information systems**

There are types of information systems that are divided according to the relationship between the system and its surroundings, which are as follows.

#### **Open Systems (Open System )**

Systems that constantly interact with the external environment and are affected by (9), by receiving inputs from the surrounding environment and after processing information, services or goods are placed in the same environment, that is, there is a reciprocal relationship between the external environment and the environment of automated systems (10) and the most important characteristic of these Systems lack of complete control over their inputs as some of their inputs are known and others are unknown because there is no control process which makes them live in a state of permanent imbalance and turmoil like computers connected to the internet that do not check raw materials before manufacturing processes. (11)

#### **Closed systems**

They are those systems that are veiled from the surrounding environment that are not affected or affected by it, and do not take their inputs from the external environment and do not give their outputs to the environment either. Their work is limited to the environment only (12) they lack mobility, are completely independent and are distinguished by their ability to work on the basis of one because they have all the energies you need. (13)

#### **Semi-closed systems (semi-closed system)**

They are systems with defined inputs and outputs that are known in advance by the external environment, due to the presence of control and process control, which makes them more stable and live in a state of equilibrium faster than open systems if the process encounters a disturbance, such as a computer virus protection system (14)

### **The difference between open source software and commercial software**

Table (1 )There are many differences between free, open source software and commercial software.

commercial software	open source software	The differences	No
Closed source software refers to computer programs in which the source code is closed, preventing public access to the source code.	Open source software refers to computer programs that are open source and can be accessed and used by the public.	the definition	1

The cost of closed software varies from moderate to exorbitant.	Free	the cost	2
Available at high licensing costs.	Available with a free license.	Availability	3
Closed programs offer guaranteed technical support.	Open Software provides limited technical support.	Technical support	4
The source code of closed source software is protected <sup>(15)</sup> .	The source code for open programs is public.	code	5
The source of financing is in closed software on the sale of software	Funding source in open source software for support and donations	Funding source	6
The level of security is high with some cost, but security updates take a relatively long time.	It has a high degree of security and very rapid developments, sometimes up to a few hours	Safety	7
The quality is high.	high quality	the quality	8
Development is average and takes longer time and is only done by the producing company, and it is not possible to add or modify the program used and adhere to the version produced by the company.	Very fast, where thousands of people participate in the development of software, in addition to the fact that sometimes the development is private if the need arises to add specialized features.	development speed	9
Modification in closed programs is restricted.	The modification is available in open software.	Edit	10
For those who created the programs.	For the developer.	Property rights	11
Available from the producing company( 16 ) .	Available by the developer or the user, sometimes it is difficult	User guides	12

Functionally, automated systems in libraries and information centers can be divided into two types:

### **Integrated systems**

Systems in which all functional subsystems share a common bibliographic database of the system. They may also be called integrated systems if they include two or more subsystems that exchange information with other systems outside of libraries through networks. (17)

### **Non-integrated systems Non-integrated systems d**

These are systems in which one database is specifically designed and built for each subsystem. There is a sub-system for indexing, acquisition, journals...etc. Sometimes, the subsystem is divided into a database of books, a database of letters, another system of references, etc. (18)

### Sub-systems in the integrated automated system.

Integrated automated systems consist of multiple and different subsystems, each with a special activity to perform a specific function, which are linked to each other in a sequential relational way, so the outputs of some of them, are considered inputs to another system. They are as follows:

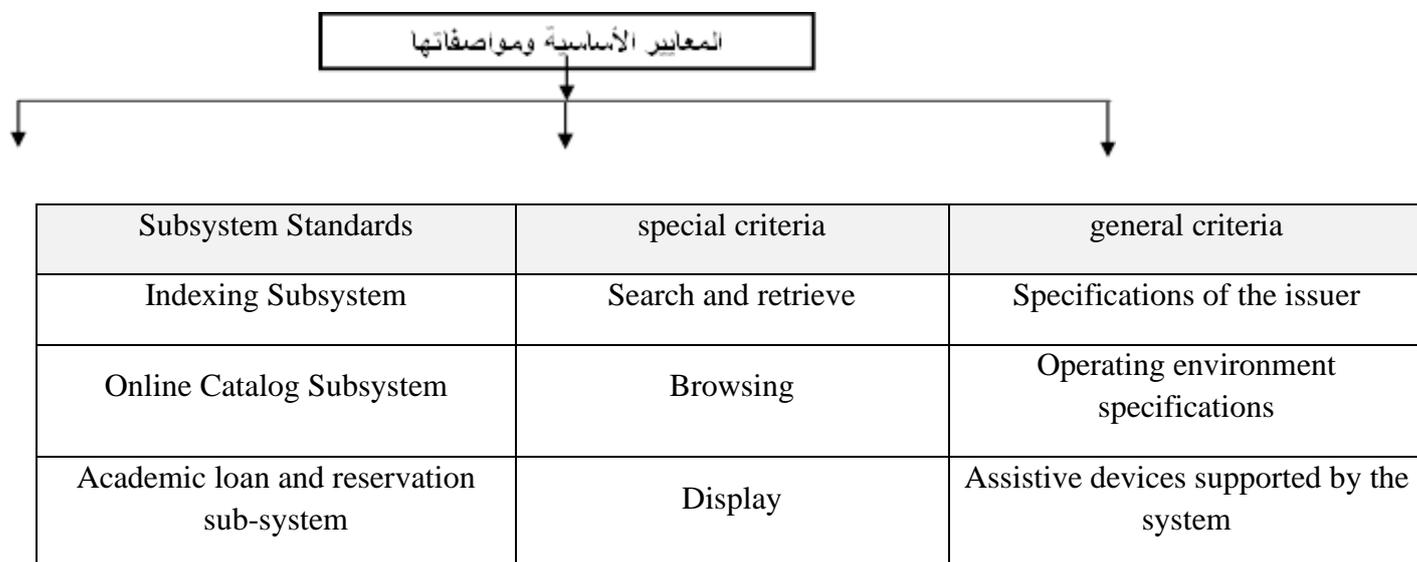
1. Sub-acquisition system (Sub-acquisition system)
2. Serial control subsystem (Serial control subsystem)
3. Sub-System Loan (Sub-Trading System)
4. The current sub-system of selective briefing and information transfer. (19)
5. Continuous briefing and selective transmission of information (subsystem of)
6. Sub-system of reports (sub-inventory system)
7. Sub-search system (sub-search system). (20)
8. A sub-system for monitoring the authority (automation of the authority's control system). (21)
9. Models of automated information systems in university libraries

Some models of ready-made, free and commercial integrated automated systems applied in libraries and information centers, which are distinguished from each other in terms of the possibilities available in the design and their suitability to the needs of the beneficiaries. As a technical support they provide, which is as follows:

1. System (Symphony) (2 - system) Unicorn (3- System) Horizon (4: System) (MIN / ISIS)
2. Koha System (Koha (6- system) CDS / ISIS (7 - n) (WIN / ISIS)
3. Basic standards and their sections in automated information systems.

There is a set of basic criteria that must be provided for the proposed automated systems in university libraries and information centers, due to the time, effort, human capabilities and resources that they save, which have been divided as follows: (22)

Table (2 )Explains the basic parameters and their parts in automated systems



Provisioning Subsystem	Printing and downloading downward	System security standards
Sub-system for controlling patrols	Facades and gates	Economic criteria
Inventory Subsystem	Functions of the beneficiary	international standards and protocols that are supported by a system
Sub-system for services ,community service and reference inquiries	Help and artificial intelligence	Arabization standards and Arabic language support
System Reports	Integration with other subsystems	
	Arabic language support	
	Full support for the application of library policies	

### Third: The practical aspect of the study

Libraries and information centers Bab Al-Zubair website at the University of Basra (study community)

Table No. (3) Shows the used and unused libraries and information centers for automated information systems

Do not use information systems	Information systems are used	The name of the library and information center	No
	√	Faculty of Arts Library	1
	√	Law College Library	2
	√	the central Library	3
	√	Library of Basra and Arabian Gulf Studies Center	4
	√	Girls Education College Library	5
√		College of Business and Economics Library	6
√		College of Fine Arts Library	7

Do not use information systems	Information systems are used	The name of the library and information center	No
√		Al-Zahra College of Medicine Library	8
8		Libraries and information centers group	
	5	Libraries and information centers used for information systems	
	%62.5	The ratio%	
3		Libraries and information centers unused for information systems	
%37.5		The ratio%	
	100	sum%	

It is clear from Table No. (3) That the total number of libraries and information centers in the Bab Al-Zubair site at the University of Basra is (8) libraries of the study community, and that the libraries and information centers are used. For automation. Information systems amounted to (5) (62.5%), which are (College of Arts Library, College of Law Library, Central Library, Basra Center and Arabian Gulf Studies Library, College of Arts Library, College of Law Library, Basra Center and Arabian Gulf Studies Library, College of Law, Girls Education ). While the libraries and information centers that are not used for the automated system (3) got (37.5%), which is (the Library of the College of Administration and Economics, the Library of the College of Fine Arts, Al-Zahra Library. College of Medicine).

An overview of the libraries and information centers used for automated information systems, Bab Al-Zubair website at the University of Basra.

In light of Table No. (3), the study population was selected, consisting of (5) libraries and an information center used for automated systems.

Table (4) about libraries and information centers used for automated information systems at the University of Basra

base availability	Year of work in the automated system	number of fields		Base type		Total Recordings	College founding year	The name of the library or information center	No
		periodicals	Books and other sources of	full text	bibliographic				

			informat ion						
Availab le	2015	–	16	-	√	17039	1964	Faculty of Arts Library	1
Availab le	2007	16	16	-	√	23792	1964	Law College Li brary	2
availabl e	2010 databases Acc ess	16	26	√	√	96884	1964	the central Library	3
unavail able	Koha has started working2/4/4 018so far					10000 book only			
availabl e	2013	17	25	-	√	18174	1974	Library of Basra and Arabian Gulf Studies Center	4
availabl e	2013	16	24	-	√	13904	2011	Girls Education College Library	5

Librarians and information centers - by degree/specialty.

Table (5) Distribution of librarians and information centers showing the location of Bab Al-Zubair at the University of Basra - by degree and specialization

Certificate														
middle school		BA				Higher Diploma				Master's				
%	middle school	%	Specialties Other	%	libraries	%	Other specialties	%	Libraries	%	Other specialties	%	libraries	%
								20	1					
				20	1									
														20
				20	1									
		20	1											
		20	1	40	2			20	1					20
%100														

It is clear from Table No. (5) That the percentage of PhD holders in the field of philosophy reached (20%) with an average of (1) in the (Central Library) while the (College of Arts) obtained the Library. A higher diploma in the field of information and library science (1) with a percentage of (20%), and the highest percentage of qualifications for a bachelor's degree was in information and library sciences in (2) libraries. And information centers (the Library of the College of Law, the Library of Basra and the Center for Arab Gulf Studies) with a percentage of (40%), and qualification for a bachelor's degree in other disciplines (History) No. (1) And in a. By (20%) in the (Library of the College of Education for Girls)

Librarians and information centers by years of service / gender.

Table (6) Distribution of librarians and information centers, explaining the location of Bab Al-Zubair at the University of Basra by years of service and gender

Years of service / gender																	The name of the library or information center	No						
%	35-31		%	30-26		%	25-21		%	-16 20		%	15-11		%	10-6			%	5-1				
	a	N S		a	N S		a	N S		a	N S		a	N S		A				N S	a	NS		
						20		1														Faculty of Arts Library	1	
									20		1												Law College Library	2
									20		1												the central Library	3
						20		1															Library of Basra and Arabian Gulf Studies Center	4
										20			1										Girls Education College Library	5
						40	1	1	40	1	1	20		1									the total	
%100																					sum%			
The percentage of females is% 40											2										Total female total and percentage			
% 60male											3										Male total and percentage			
%100																					The sum of the total ratios of males and females			

It is clear from Table (6) that males got the highest percentage (60%) of librarians and information centers, represented by (3) libraries (College of Arts Library, Central Library, College Library, Education for Girls), and their libraries. The year of service was in categories (21). -.25) and (20%) in the Library of the College of Arts, followed by the category (16-20) with (20%) in the (Central Library), while the category was (11-15). It was registered (20%) for the library of the College of Education for Girls. As for the number of females, the lowest percentage of males was recorded, as it reached (2) distributed in (the Library of the Faculty of Law). And the Basra Library and the Center for Arab Gulf Studies) by (40%), and its years of service were represented in the categories (16-20) number (1). by (20%) in (College of Law Library), followed by category (21-25) with (1) and (20%) in (Basrah and Gulf Studies Center Library)

Planning and studying automated information systems.

Has the library developed a plan before starting the implementation of the automated information system?

Has the library hired specialists to study the experiences of other libraries with automated information systems?

Table No. (7) Shows the frequencies and percentages of the system's working mechanism and a review of the experiences of other libraries

the total	%	Both	%	Yes	Paragraph name	No
100	20	1	80	4	Has the library developed a plan before starting the implementation of the automated information system?	1
100	-	0	100	5	Has the library used specialists to study the experiences of other libraries with automated information systems?	2

We note from Table No. (7) that the first paragraph that states "Has the library developed a plan before starting the implementation of the automated information system" reached the highest response rate for librarians and information centers (80%) by (4). Libraries, as it is clear that librarians developed a prior plan before starting to implement the automated information system, and the answer was (1) (20%), as we note that only one library did not. Have a pre-study by making a plan before implementing an automated information system in its library. As for the second paragraph, which states: "Did the library use specialists to study the experiences of other libraries with automated information systems?" It was found that the answers of librarians and information centers were (100%) about their use of specialists to benefit from the experiences of other libraries.

### What problems did the library face before implementing the automated information system?

There are many problems that libraries and information centers faced before implementing the automated information system in libraries and information centers, including:

1. Lack of computers available in libraries and information centers.

2. The lack of completeness of the cards in the traditional indexes with the bibliographic information used in entering data into the automated information system.
3. The lack of financial specializations for libraries and information centers to be able to implement the automated information system in an appropriate manner.
4. Some people suffer from the lack of space for the automated index to add more computers so that the beneficiary can search for and retrieve the required information easily.
5. Weak experience of human resources working in libraries and information centers from specialists, whether in computer science or in information science and libraries.

### **What are the problems that the library faced after implementing the automated information system?**

Libraries and information centers faced many problems and obstacles after implementing the automated information system.

1. The absence of computers and their use for more than one purpose, as this was observed in some libraries where one computer was used to enter the data of books and CDs into the automated system, in addition to being used by the employee in research. The sources of information that the beneficiary is looking for for information.
2. Recurring computer malfunctions continuously in most of the libraries and information centers in the Bab Al-Zubair site at the University of Basra.
3. Lack of specialists working in the use of computers, as well as specialists in information science and libraries.
4. The central library suffers from old computers that are not qualified to connect to the network.
5. Continuous energy outputs that hinder the use of communications and information technology devices in most libraries and information centers.
6. The difficulty of updating and modifying the automated information system by those on the systems except by referring to the system designer in some information centers.
7. Not using the automatic index by the beneficiaries in some libraries.
8. Operating and maintaining systems software should be performed by computer science and software engineering professionals.

### **How does the library deal in the event of problems in the automated information system?**

University libraries and information centers at the University of Basra deal in the event of problems in the automated information system used in their libraries in the following cases.

1. Addressing the problems that occur in the automated information system is done with reference to the entity that designed and provided the system, which is (the Central Library), which is represented in (3) libraries (Basra Library and Arabian Gulf Studies). . Center, Library of the College of Arts, Library of the College of Education for Girls)
2. The assistance of specialists in computer engineering to address the problems that occur in the automated system of (Library Law School)
3. The devices should be self-treatment for the (Central Library) at the University of Basra, as it is designed for the local system.

### **Automated systems and their uses in university libraries.**

What type of automated information system is available in the library?

Table (8) It shows the type of automated information system available in libraries and information centers

System type								The name of the library or information center	No
Databases Access	System Symphony	System Unicorn	System koha Koha	System WINISIS	System SDS/ISIS	System MINISIS	Horizon System Horizon		
√								Faculty of Arts Library	1
√								Law College Library	2
√			√					the central Library	3
√								Library of Basra and Arabian Gulf Studies Center	4
√								Girls Education College Library	5
5								the total	
%100								sum%	

It is clear from Table No. (8) that the percentage of libraries and information centers' dependence on databases (Access as a locally designed information system whose data has been entered by (100%), that is, all libraries and information. The centers use the database system. Access), while the central library uses the Access system. Database. Only the (Access) system in addition to the Koha system referred to in Table No. (4) And it is still continuing until now to enter books only.

The library obtains the automated system referred to above through.

Table No. (9) Shows how libraries and information centers obtain an automated information system

How to get order				The name of the library or information center	No
other remember	Subscribe to purchase	the purchase	Free purchase		
			√	Faculty of Arts Library	1
			√	Law College Library	2
			√	the central Library	3
			√	Library of Basra and Arabian Gulf Studies Center	4
			√	Girls Education College Library	5
			5	the total	
			100	grand total	

It is clear from Table No. (9) That the acquisition of automated systems in all libraries and information centers is free, as it amounts to (5) libraries, i.e. at a rate of (100%)

#### **In the case of the automated information system library, who is the provider of the system?**

It is noteworthy that most of the libraries and information centers in the Bab Al-Zubair site at the University of Basra, which number (4) libraries and information centers (Library of the College of Arts, Central Library, University of Basra). Library The Center for the Studies of Basra and the Arabian Gulf, the Library of the College of Education for Girls, obtained an information system that they use in their libraries to enter data related to the information sources available there and provided by the (Central Library). The University of Basra, where the local system was designed by some of its employees specialized in (computer science) and works in the Electronic Indexes Unit in cooperation with a group of designers and programmers specialized in (engineering) from outside the university. With a percentage of (80%) for the Koha (Koha) system, we note that the central library has only started to use it.

As for the Library of the Faculty of Law, it obtained an automated information system from the Electronic Calculator Center at the University of Basra, which was designed in cooperation between the Electronic Calculator Center and the Deanship of the Faculty of Law with an average of. Out (20%)

#### **Does the library adopt an automated information system?**

Table (10) Explains the information system adopted in the library

The information system used by the library	The name of the library or information center	No
--	---	----

other remember	subsystem	integrated system		
	√		Faculty of Arts Library	1
	√		Law College Library	2
	√		the central Library	3
	√		Library of Basra and Arabian Gulf Studies Center	4
	√		Girls Education College Library	5
	5		the total	
100			the total%	

It is clear from Table No. (10) That all the libraries and information centers in the Bab Al-Zubair site at the University of Basra, which are (5) libraries and information centers, depend on the sub-system in their libraries only, that is, by (100%) and that the sub-system approved in the library performs Only one service.

What devices are available in the library to implement the automated information system?

Table (11) the devices available in the library to implement the automated information system

Devices available in the library for the application of the information system						The name of the library or information center	No
%	laptop	%	Computers and an internal network	%	computers		
				20	1	Faculty of Arts Library	1
				20	1	Law College Library	2
		20	1			the central Library	3
20	1					Library of Basra and Arabian Gulf Studies Center	4
				20	1	Girls Education College Library	5
20	1	20	1	60	3	the total	
% 100						the total%	

We note from Table No. 11 that some libraries and information centers depend on the computers available in the libraries to implement the automated information system and were represented in (3) libraries (College of Arts Library, College Library). The Law of the College of Education Library for Girls by 60%, while the (Central Library) depends on computers, in addition to the internal network for implementing the system by 20%. As for the library of the Basra and Arabian Gulf Studies Center, it uses a laptop computer to implement the automated information system (20%)

Services provided by automated systems to the library and beneficiaries.

What are the electronic administrative services provided by the library's automated information system?

Table No. (12) Shows the electronic administrative services provided by the library's automated information system

other remember	Personnel management service	Financial Services	Reporting and Statistics Services	The name of the library or information center	No
				Faculty of Arts Library	1
				Law College Library	2
			√	the central Library	3
				Library of Basra and Arabian Gulf Studies Center	4
				Girls Education College Library	5
			1	the total	
%20				Total%	

It is clear from Table No. (12) that (4) of the libraries and information centers in the Bab Al-Zubair site at the University of Basra are (the Library of the College of Arts, the Library of the College of Law, the Library of the Center for Basra and Arabian Gulf Studies, and the Library of the College of Education for Girls), where reporting services are not available. And statistics by (80%) while it was one (central) library. The library (20%) has electronic administrative services represented in the monthly reports and statistics service.

What are the electronic technical services provided by the library's automated information system?

Table No. (13) Shows the electronic technical services provided by the library's automated information system

other remember	inventory service	provisioning service	Cataloging and Classification Service	The name of the library or information center	No
----------------	-------------------	----------------------	---------------------------------------	---	----

			√	Faculty of Arts Library	1
			√	Law College Library	2
			√	the central Library	3
			√	Library of Basra and Arabian Gulf Studies Center	4
			√	Girls Education College Library	5
			5	the total	
			100	Total%	

We note from Table No. (13) That all libraries and information centers in the Bab Al-Zubair site at the University of Basra, which amount to (5) libraries and information centers, are limited to the automated information system used in their libraries. . Provide indexing and classification service (100%)

What are the electronic services provided by the automated information system to the beneficiaries?

Table No. (14) Shows the electronic services provided by the automated information system to beneficiaries

other remember	Ongoing briefing service	reference service	loan service	The name of the library or information center	No
			√	Faculty of Arts Library	1
			√	Law College Library	2
			√	the central Library	3
			√	Library of Basra and Arabian Gulf Studies Center	4
			√	Girls Education College Library	5
			5	the total	
			100	Total%	

It is clear from the above table that the highest percentage of the electronic services provided by the information system to the beneficiaries was the borrowing service (100%), that is, all libraries and information centers agree to provide this service to their beneficiaries.

What are the means by which the automated information system provides electronic services to beneficiaries?

We note the answers of librarians and information centers about the paragraph that states "What are the means by which the automated information system provides electronic services to beneficiaries?" The answer was (100% electronic catalog), meaning that all libraries and information centers provide electronic services to beneficiaries through electronic catalogs only.

Training of employees and beneficiaries of university libraries.

Does the library provide training courses for employees of automated information systems?

Table (15) the library provides training courses for employees on automated information systems

the total	%	Both	%	Yes	Paragraph name	No
100	80	4	20	1	Does the library provide training courses for employees on automated information systems?	1

We note from the above table that the percentage of the answer is yes about providing training courses for workers on automated information systems in libraries and information centers at a rate of 1 (20%) in the (Central Library) only, while the answer rate was. Both are in (4) libraries with a percentage of (80%). This indicates that most of the libraries and information centers on the Bab Al-Zubair website did not provide training courses for human cadres working on the systems to develop their skills and capabilities and train them on office work.

Are training courses conducted for university library workers?

Table (16) shows the locations of the training courses

outside the university	inside the university	The name of the library or information center	No
-	-	Faculty of Arts Library	1
-	-	Law College Library	2
-	√	the central Library	3
-	-	Library of Basra and Arabian Gulf Studies Center	4
-	-	Girls Education College Library	5
	1	the total	
	%20	the total%	

Through Table No. (16), it becomes clear to us that (1) a library is the (Central Library) at a rate of (20%) that holds training courses for library workers within the university only, while we find that (4) libraries and

information centers at a rate of (80). %) Training courses are not available within the university. As for the courses held outside the university, we note that all libraries and information centers amounting to (5) do not offer training courses outside the university.

Are the courses held by specialized institutions?

Table (17) shows the holding of training courses by specialized institutions

the total	%	Both	%	Yes	Paragraph name	No
100	80	4	20	1	Are the courses held by specialized institutions?	1

It is clear from Table No. (17) that the rate of answering yes to holding training courses for employees by specialized institutions amounted to (20%) by (1) (the central library), and the answer by both rates (80%) by (4) libraries and information centers.

What is the method used in automated training courses for information systems workers?

Table No. (18) Shows the method used to hold training courses for workers on automated information systems

Others remember	Actual attendance	distance learning	The name of the library or information center	No
	—		Faculty of Arts Library	1
	—		Law College Library	2
	√		the central Library	3
	—		Library of Basra and Arabian Gulf Studies Center	4
	—		Girls Education College Library	5
	1		the total	
	% 20		the total%	

It is clear from Table No. (18) that (20%) and by (1) one library (the central library) uses the means of actual attendance when holding training courses for employees, as the library is the only one in holding training courses.

Does the library provide a guidance service and guide users on the use of automated information systems?

Table (19) the provision of the library illustrates the service of guiding and guiding the beneficiaries on the use of automated information systems

the total	%	Both	%	Yes	Paragraph name	No
-----------	---	------	---	-----	----------------	----

100	–	–	100	5	Does the library provide a service of guiding and guiding users to use automated information systems?	1
-----	---	---	-----	---	---	---

It was noted from Table No. (19) that (100%) was (5) data center data office for the study of the information society, the answer of librarians and information centers was to provide a guidance and counseling service for the beneficiaries to use the automated information. This illustrates the cooperation of libraries and centers with the beneficiaries by guiding them when they use the automated catalogs by providing instructions and instructions on how to obtain the information resources available in the library.

What is the method used by the library to train and guide users on the use of automated information systems?

Table (20) shows the method used by the library in training and guiding users to use automated information systems.

other remember	Through the library staff	Issuing evidence of not Guidance	Library bulletin board	The name of the library or information center	No
	√			Faculty of Arts Library	1
	√			Law College Library	2
	√			the central Library	3
	√			Library of Basra and Arabian Gulf Studies Center	4
	√			Girls Education College Library	5
	5			the total	
	%100			Total%	

It is evident from Table No. (20) that all libraries and information centers agree to train and direct users to use automated information systems by assisting library staff to assist beneficiaries in how to deal and use the system in an optimal and appropriate manner amended from (100%)

#### Fourth: Findings and Recommendations

##### Archaeology

It was found that the highest percentage of librarians and information centers holders of Bachelor of Information and Library Science holders was (40%), while the qualifications of doctorate, higher diplomas and bachelor's degrees in other disciplines were equal (20%) for each. They are represented in different specialties.

It was found that the percentage of males was higher than females, as they represented (60%) of librarians and information centers, while females were the lowest (40%) of both sexes. While her years of service were balanced in categories

(25-21) ,(20-16) ,(15-11)at a rate of (20%) for each category, while females were represented in the category (16-20) and category (21-25) by (20%) for each category.

(%80) of librarians and information centers made plans before implementing the automated system in their libraries, while we find that (20%) lack a prior plan before implementing the system. We find that all librarians and information centers (100%) studied the experiences of other libraries with the help of specialists.

All libraries and information centers lack sufficient financial specializations and a lack of qualified human cadres specialized in information sciences, libraries, computer sciences and software engineering, in addition to the limited space for libraries and information centers, and fixed power outputs.

Libraries and information centers vary in addressing the problems they face in their automated system, including referring to the entity that designed the system to carry out modification and update and avoid some problems that are difficult for libraries to address, and the highest percentage (60%) in addition to the availability of maintenance workshops. Computers manage and solve problems in some libraries and information centers specialized in software engineering (20%), and self-processing for (the central library). At the Bab al-Zubair site at the University of Basra, he is the local system designer.

Libraries and information centers lack ready-made and free automated systems, and depend on local systems, which are represented by ((Access By (100%), except for the central library in which there is a system ()). Koha)), in addition to the (Access) system and all libraries and information centers get these systems for free (100%), and (Central Library) is the provider of the local system used in most libraries and information centers, as it represents the highest percentage (80%) to equip the system The local system, and I got (Access)) on the local system from the Calculator Center at the University of Basra, which amounted to (20%)

All libraries and information centers lack an integrated automated system and provide only the subsystem (100%)

Libraries and information centers vary in the types of devices available for the application of the system, as we find that the available computers scored the highest (60%), while the internal network recorded the lowest (20%) and the registered laptop computers (20.%)

Unavailability of libraries and information centers that provide electronic administrative services provided by the automated system to the library and beneficiaries by (80%), while the central library provides (reports and statistics service) only (20%), while for technical electronic services where all libraries provide and information centers (indexing and classification service) at (100%), and all libraries and information centers provide electronic services to beneficiaries (lending service) at (100 )

All libraries and information centers (100%) provide electronic catalogs as a means of providing electronic services to beneficiaries.

Few (80%) of libraries and information centers provide training programs for workers in automated systems that are carried out within the university and by specialized institutions, while we find that the central library is provided with (20%) inside the university and through institutions Specialized in the use of personal attendance methods.

All libraries and information centers provide guidance and counseling services to beneficiaries on how to use automated information systems by (100%), and (100%) were registered for the use of workers for help and guidance. Beneficiaries must use the automated system.

## **Recommendations**

### **Based on the results of the study, the following recommendations were made**

The necessity of a feasibility study to know the necessary and necessary requirements for the possibility of using automated information systems in libraries and information centers, which is to provide the financial requirements by allocating an adequate budget, and human requirements qualified to work with the system. we will. In terms of its ability to solve software and technical problems and technical requirements by providing adequate preparations for computers necessary for the process of entering the local system, in addition to searching in the automated index, as well as providing internal networks, to unify work between libraries and information centers, reduce the efforts of workers and prevent redundancy and duplication.

It is necessary to develop a prior plan and feasibility study by libraries and information centers before choosing and implementing the system.

Providing the right and appropriate place because most libraries lack large spaces in their buildings to provide library services, as well as getting rid of duplicate index cards that are issued to enter data in the automated system.

It is necessary to work with automated open source systems including (koha) in all libraries and information centers, they are ready-made, integrated and free automated systems, in addition, they are suitable for all sizes of libraries and libraries. It also supports many languages, including Arabic.

The necessity of providing the electronic administrative and technical services provided by the automated system to the library and the beneficiaries, which is one of the important and basic services that reflect the activity of the library, as well as the provision of the Internet as a means of providing electronic services to the beneficiaries and introducing the available and modern information sources in the libraries and information centers and the new electronic services provided by the libraries that allow searching and browsing.

It is necessary to provide training and development programs for human resources working in automated systems by institutions specialized in the fields of information science, library, computer science and software systems inside and outside the university to develop the expertise and skills of human resources and increase their capabilities. Capabilities. Efficiency and performance at work.

The necessity of developing a training program for the beneficiaries that shows how to deal with the system and its services.

## **References**

- Ken Black. What is an automated information system? 2021 available on
- <https://www.easytechjunkie.com/what-is-an-automated-information-system.htm>. On 15/1/2020. It's 10:15 pm.
- Abdul Karim bin Amira. Obstacles to applying electronic computers in information processing in university libraries. Journal of Studies and Research in Information and Scientific and Technological Documentation. January . . 2013 Constantine. NS. 225, 2006. It was mentioned in the letter of Fatima Khaddour, Roquia Belkarmat. Automated lending in university libraries: a field study in the library of Dr. Ahmed Erwa, Prince Abdelkader University of Islamic Sciences and the Central Library of Mentouri University Constantine 01. - University of Constantine 2, 2016. p. 15 Available at <http://www.maxibiblionet.com/2019/02/prime-automatise.html>
- Retrieved on 01/18/2020. It's 11:00 am.
- Iqbal Muhammad Saleh Nasser. Information technology applications in the libraries of Sudan University of Science and Technology. - Journal of Human Sciences Vol. 15, vol. 4, 2014. p. 26 available on site
- <http://repository.sustech.edu/handle/123456789/18037>. Retrieved on 1/19/2020. It's 9:00 am.
- Farid Fahmy's visit. Introduction to systems analysis and design. Amman: Al-Yasuri House, 2019. p. 26. Available on the website. <https://books.google.iq/books?id=BDqmDwAAQBAJ> & printse. Back to history
- 2020/1/20It's 10:00.
- 5Components of Information Systems 2021. Available at
- <https://www.geeksforgeeks.org/components-of-information-system>. On January 22, 2021 at 9:30 a.m.
- Management Information Systems 2011/2012. pp. 26 - 29. Available at [https://www.uotechnology.edu.iq/ce/Lectures/SarmadFuad-MIS/MIS\\_Lecture\\_3.pdf](https://www.uotechnology.edu.iq/ce/Lectures/SarmadFuad-MIS/MIS_Lecture_3.pdf) on 22/1/2020. It's 9:30 am.
- Jamal Ahmad Abbas Al-Aqili. Computer systems in university libraries. - Amman: Dar Amjad, 2016. p. 139.
- Ayman Refaat Muhammad. Information Technology in University Libraries, 2011. Available at <https://www.facebook.com/notes/%D8%B1%D8%A7%D8%A8%D8%B7%D8%A9>. Retrieved January 25, 2020. 12:00 pm.
- Riyadh Sultan Ali. Management information systems and their applications in industry (organization and technology between theory and practice). - Amman: Zahran House, 2012. p. 51.
- Jamal Abdullah Muhammad. Management information systems. Amman: Moataz House, 15-20. p. 21`. Available at <https://books.google.iq/books>. Retrieved on 01/26/2020. It's 8:00 pm.
- Atta Ahmed Al-Hasban. Accounting Information Systems. Amman: Al-Aizuri, 2020. p. 34. Available at <https://books.google.iq/books> Retrieved on 01/26/2020. It's 8:00 pm.
- Ahmed Youssef Doudin. Modern Business Administration (Organizational Functions). - Amman: Al-Yazuri Scientific House, 2020. 28. Available at <https://books.google.iq/books>. Retrieved on 01/27/2020. It's 1:30 pm.
- Muayyad Al-Salem. Organization design and analysis. Cairo: Dar Al-Humaithra, 2018. p. 34. Available at <https://books.google.iq/books>. Retrieved on 01/28/2020. 10:00 am.
- Abdullah Hassan Muslim. Knowledge management and information technology. Amman: Dar Al Moataz, 2015. p. 150.
- The difference between -15 free open source software and closed source software. 2020. Available at <https://www.geeksforgeeks.org/difference-between-open-source-source-Software>. On 10/20/2020.

- Muhammad Mustafa Muhammad Ali's open source systems for managing digital libraries: what they are and their future. - The Fifth Scientific Conference of the Sudanese Library Association, Sudan: Imam Al-Mahdi University, 2015. Available at <http://scholar.google.com/scholar?hl=ar&as>. Retrieved on 10/20/2020. 12:30 am.
- Evelyn Shafeeq the Titans. The automated system in the library of the Arab International University in Syria: a case study. *JournalCybrarians Journal* 35, 2014 Available at [http://journal.cybrarians.info/index.php?option=com\\_content&view=article&id=669:2014-10](http://journal.cybrarians.info/index.php?option=com_content&view=article&id=669:2014-10) Retrieved on 5/2/2020. 4:00 pm.
- Features of the development of the future system for library management - Benha University. NS. 37 Available on site
- [fart.stafpu.bu.edu.eg](http://fart.stafpu.bu.edu.eg) ›Publications › Adel Nablus <http://>. Retrieved on 5/2/2020. 4:30 pm.
- Shatha Hamdallah Mahjoub Hamdallah. An integrated automated system for information and library services (PhD thesis). Neelain University, 2017. Available at <http://repository.neelain.edu.sd:8080/xmlui/handle/123456789/11538>
- Retrieved on 6/2/2020. 3:00 am.
- 20desktop. Librarian management software. Available at <http://www.acml-egypt.com/Libraian/librarian-ar.htm>. Retrieved February 8, 2020. 1:00 pm.
- Rania Reda El-Sayed Ibrahim. The authority file for the Consolidated Catalog of the Federation of Egyptian Universities Libraries, an applied study. *Journal of Cybrarians* 48, 2017. Available at [http://journal.cybrarians.info/index.php?option=com\\_content&id=816](http://journal.cybrarians.info/index.php?option=com_content&id=816): Ibrahim
- Retrieved on 8/2/2020. until 2:00 pm.
- Randa Ibrahim Ibrahim. Criteria for selecting integrated automated systems in university libraries. Riyadh: King Fahd National Library, 2009. p. 216- Available at <https://www.researchgate.net/publication/257652449>. Retrieved February 22, 2020. At 3:53 pm