THE AUTOMATION OF UNIVERSITY LIBRARIES IN ALBANIA
Attitudes of librarians

Masters thesis
With appendixes on CD-ROM

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Abstract:
Information Communication Technology has caused many changes in the libraries. Library automation is developed in different manners in several countries. In Albania, this process has been slower and with a lot of difficulties. Librarians play an important role, so the understanding of their attitudes can help to produce the better strategy for library automation development in university libraries. The aim of this study is to find out whether the age and using ICT for a long time have influenced the attitudes of librarians towards automation process. A survey was carried out among academic librarians in university libraries in Albania. We used questionnaire as a way for collecting the data and interview as a research method. 127 academic librarians were included in this study. The period was from December 2011 till March 2012. SPSS program was used to analyze the data. This study told us that Albanian academic librarians have positive attitudes towards library automation system. The age and using ICT for a long time does not determine the attitudes of librarians towards library automation. Academic librarians have given some useful recommendations and suggestions for the developing of automation process in Albania. This study wants to promote and encourage Albanian librarians in the developing of the automation process in their libraries. It will be helpful for all the persons who will be interested in the developing of automation process in the Albania university libraries. It also will help the Ministry of Education and Science and the administrators of the Higher Education Institutions to improve the situation in Albania. They should prepare a strategy for the implementation of an integrated library system in Albania university libraries and the cooperation between libraries through common system. Academic librarians are waiting for this.
**TABLE OF CONTENT**

- Table of content ....................................................................................................... 3
- Table of tables ......................................................................................................... 4
- Table of pictures .................................................................................................... 5
- Table of appendixes ................................................................................................. 6
- List of abbreviations ................................................................................................. 7

1 INTRODUCTION ............................................................................................................ 9
2 THE LIBRARY AUTOMATION PROCESS ..................................................................... 10
2.1 Automation process in libraries ........................................................................... 10
2.1.1 The importance of library automation ............................................................... 12
2.1.2 Steps of the library automation ....................................................................... 14
2.1.3 The role of the librarians in the library automation ....................................... 16
2.2 Literature Review .................................................................................................. 19
3 LIBRARY AUTOMATION IN DIFFERENT COUNTRIES ........................................... 22
3.1 Brief history of library automation in different country ..................................... 22
3.2 The university libraries in Albania ....................................................................... 29
3.2.1 Library automation projects in Albania ............................................................ 31
4 EMPIRICAL RESEARCH ............................................................................................. 37
4.1 Hypotheses ............................................................................................................ 37
4.2 Population .............................................................................................................. 37
4.3 Research method ................................................................................................... 37
4.4 Methodology ......................................................................................................... 38
5. RESULTS .................................................................................................................. 39
5.1 Demographic variables ....................................................................................... 39
5.2 Albanians librarians’ attitudes toward library automation .................................. 42
5.3 Librarians’ attitudes towards automation process in the library and common system 46
5.4 Testing the hypotheses: Inferential statistics ....................................................... 50
6 DISCUSSION ............................................................................................................. 53
7 CONCLUSION ............................................................................................................ 55
8 BIBLIOGRAPHY ........................................................................................................ 56
9 APPENDIXES ............................................................................................................ 61
TABLE OF TABLES

Table 1 Which is your current position in your library? ........................................ 40
Table 2 Correlation between questions: “Age” and “Does age determine attitudes of librarians towards library automation” Spearman correlation ......................... 50
Table 3 Correlation between questions: “Age” and “Does age determine attitudes of librarians towards library automation” Pearson correlation ........................................ 51
Table 4 Correlation between questions: How long are you using ICT” and “Has the using ICT influenced attitudes of librarians towards library automation? Spearman correlation ........................................................................................................................... 52
Table 5 Correlation between questions: How long are you using ICT” and “Has the using ICT influenced attitudes of librarians towards library automation? Pearson correlation ........................................................................................................................................... 52
TABLE OF PICTURES

Figure 1 The increasing of Private Higher Education Institutions in Albania 2003-2011 ........................................................................................................................................... 30
Figure 2. The internet contracts in Albania 2001-2010 .............................................. 33
Figure 3 Histogram of Age .......................................................................................... 40
Figure 4 Boxplot of Age ............................................................................................ 40
Figure 5 The experience in the library ......................................................................... 41
Figure 6 How long are you using ICT? ....................................................................... 42
Figure 7 Is the work with ICT unhealthy ................................................................... 43
Figure 8 Will ICT reduces the number of library staff? ............................................ 44
Figure 9 Does age determinate the attitudes of librarians towards automation process in the library? ........................................................................................................... 46
Figure 10 Do you have the software package in your library? ................................. 47
Figure 11 Which year was this program installed in? .................................................. 47
Figure 12 Correlation between questions: “Age “ and “Does age determinate attitudes of librarians towards library automation” Scatter/Dot Graphs .............................................. 51
TABLE OF APPENDIXES

Appendixes A  Interview ................................................................. 61
Appendixes B  List of the Public Albanian Universities ......................... 64
Appendixes C  List of the Private Albanian Universities ......................... 66
Appendixes D  Statement of Authorship ...........................................  69
Appendixes E  Statement of Candidate .............................................  70
LIST OF ABBREVIATIONS

CD-ROOM – Compact Disc – Read Only Memory
CEE – Central Eastern Europe
DS – Document Supply
EIFL - Electronic Information Federation for Libraries
EU - Europe United
ICT – Information Communication Technology
ILS – Integrated Library System
INFLIBNET – Information and Library Network
LAN – Local Area Network
MARÇ 21 – Machine Readable Cataloguing Format for Bibliographic Data
MASH – Ministria e Arsimit dhe e Shkences (Ministry of Science and Education)
OCLC - On-line Computerized Library Center
OCLC LS – On-line Computerized Library Center Library System
OPAC – Online Public Catalogue
OSFA – Open Society Foundation of Albania
OSI – Office of Strategic Influence
UNDP – United Nations Developmental Program
UNESCO – United Nations Educational, Scientific and Cultural Organization
UNIMARC – Universal Machine Readable Cataloguing
USAID - United States Agency for International Development
UWL – University of Warsaw Library
Z 39.50 – client - server protocol
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1 INTRODUCTION

In the last decades, library automation has been going through a number of quite fundamental changes. We can identify several key issues that the library automation is focused on in order to complete the process of adaption of library work and services to changes and challenges given by modern information and communication technologies and its transformation. Process of library automation has proceeded unevenly in different countries. Library communities in some countries have been slow in this transformation due to the various obstacles. Albania is one of these countries that is why issues of library automation must be quickly and efficiently resolved if libraries wish to retain their role and importance and catch with the others. Librarians are an important factor, so the understanding of their attitudes can help in producing the best strategy for library automation development.

After a long period of 45 years till the '90s, our country has passed from dictatorship to democracy. Since that time many changes have taken place in our country. The new technologies have been applied in the world for a long time but the first computer in Albania libraries was introduced to the National Library only in 1990. At that time the librarians had little knowledge about computers. Most of them had never worked with computers before. Only a few were trained in ICT (the librarians which have finished the high school in Informatics and etc.). The number of microcomputers was increased after this year. The training of librarians about ICTs began in Albania and abroad. A great progress was made in the connection with internet in the main Institutions in 1996. This opened the way for automation process.

The first projects were made during this period. Software packages were bought for some libraries and they created their electronic catalogue and only a few libraries have circulation module, information retrieval, OPAC, etc.

In 1994, the National Library of Albania installed the first software, but the automation process began in 1998. Later on some other initiatives were taken for the automation process of university libraries. It is the National Library’ duty to get the initiative for the creation of the common catalogue but it has not been established yet. Perhaps it is the time for the Albanian university libraries to create their common catalogue and the infrastructure for the network connection of Albanian libraries. Several librarians in
universities have got the experience abroad and they want to change the situation in Albania.

I have a 15 year experience of work in the library, out of which, 10 years belong to different programs on the automation process. I have shared the experiences with some other colleagues and what I could say is that the automation process is a big concern for the librarians in university libraries. We are worried how this process is being performed. During these years I have been interested to gather some information about this subject and get some of my colleagues’ opinions. Through this theme we intended to learn more about the situation and analyze it. That may be useful to librarians, heads of libraries and administrators of the universities.

This study tried to achieve these goals:

- Find out the attitudes of librarians in the Albania university libraries towards library automation
- Ascertain if age and using ICTs determine the attitudes of librarians in university libraries towards the library automation
- Make recommendations that can facilitate the further automation of university library systems in Albania, especially for possible common system
- Compare private and public universities in Albania.

The librarians have in general a positive attitudes towards library automation, although our hypothesis was that the age and use (previous experience with) Information Communication Technology (ICT) correlates with the attitudes of librarians towards library automation in the university libraries in Albania.

All university libraries were included in this study. There were 11 State Universities, 2 State Higher Institutions and 47 Private Higher Education Institutions (which are called in general Private Universities in Albania). We have performed a survey of all the librarians using the questionnaire which had been tested in advance. We thought that the good method to collect data was through interview because we could get complete opinion.

2 THE LIBRARY AUTOMATION PROCESS

2.1. AUTOMATION PROCESS IN LIBRARIES

Libraries are sources of information that provide generations with the human consciousness. Educational institutions and libraries in particular are playing an important
role in this new millennium. Shafique (2007) states that: “the library is a service-oriented institution and an indispensable part of society which helps to inculcate social virtues, responsibilities and duties among readers” (p. 811).

The development of ICT has caused the radical changes in all the areas of life. The rapid and rattling change which is happening in society today has caused a major challenge to the library. Development of internet has reached the peak by entering and disseminating of WWW which has caused a huge impact on society in general and in the field of library and information science in particular. At this stage the technology development, especially the internet related technology, has brought about substantial changes in the activity of library. Librarians have willingly improved the users’ needs and have tried to include the arrival of the Internet in the library dissemination of information and the needs of users. This brought a lot of changes. As a result of application of information technology, the spread of the Internet and the digitalization of libraries made the libraries pass from traditional to automated, digital, electronic and virtual ones. It is said that “the advent of new technology has brought many changes to the way that the libraries collect, store, retrieve, disseminate information and serve their users” Safahieh & Asemi (2010). Now libraries are handling both print and digital materials.

Automation helps librarians to perform routine work and allow them to work more as experts. It also allows that work can be defined differently, so experts have more time and possibilities to use their expertise and not only to perform routine tasks.

Automation is used to reduce the amount of staff time devoted to repetitive (and often less challenging) activities that must be done in any properly functioning library. Library automation may be defined as “the application of computers to perform traditional library housekeeping activities such as acquisition, circulation, cataloguing, reference and serials control” (Faisal and Surendran, 2008, Chapter 1).

Implementation of ICT made the work more accurate and capable of large scale processing. ICT in this study refers to computer technology, hardware, software, multimedia applications, Internet, Web applications, email, digital materials, electronic databases, virtual collections, remote access, phone, mobile and other communication technologies. ICT helps librarians in day-to-day work processes. It helps them to work more flexible, faster and to do their tasks more effectively. “Library Automation is the general term for ICT’s that is used to replace manual systems in the library” states Santosh
The automation of libraries depends by some factors. Some of them are: financial constraints, shortage of ICT personnel, irregular electric power supply, poor communication facilities, and lack of national policy on ICT (Uwaifo, 2007).

Now, when the technology is being developed, library automation refers to the creation and implementation of computer software that allows previously manual tasks to be completed in computer systems, generally referred as integrated library systems. “Integrated library systems use the software that manages holdings including acquisitions, cataloguing, serials, circulation and inventory” (Burke, 2010, para. 1).

2.1.1 The importance of library automation

In the past librarians wasted their time doing the most of their work manually, going from one sector to another. It often happens that people are separated into two categories: the users and librarians who are accustomed to the old traditional methods of job search and information, and the people who are very keen after new technologies and ignore the manual methods. Automation process makes possible faster processes, storing, sending and getting the information.

In the past the librarian was a well-informed person. He was known as scholar, collector, organizer, cataloguer, classifier and custodian of library collection (Shafique, 2007). At the beginning libraries were frequented by a small number of users, especially by scholars. But now libraries are open for a very large number of people. So the roles of librarians have changed. Their duty is to search, organize, control, manage and retrieve information. Thus, the librarians play the role of mediators between the information resources and users. Usually the librarians are experts and professionals with special education and acquired skills.

Library automation is a process that restructures service functions to users. Decades ago, libraries have used manual card catalogues, type writers and any other hand-made materials. Today it helps librarians and users to use not only materials the library owns, but also online information resources available in libraries. Automation has brought a new impact to the field of library. The users and staff of the library are able to make research, which previously could not be realized. This has made the public services receive new dimension and in general the library work is done more efficiently. Automation is used to
reduce the amount of staff time devoted to repetitive (and often less challenging) activities that must be done in any properly functioning library.

We live in the period of increasing information. The number of authors, documents and materials in general, the publishers and the information are growing up. The librarians can do more jobs at the same time. So they can avoid the duplication of work and save their time. New techniques which were not used before are needed to be used in libraries. The librarians can improve the control over collections. The users can retrieve the remote information through internet saving thus their time. Library automation ensures, promotes and accelerates access to comprehensive, current and global information sources at the same time. Library automation enables enormous savings in time and effort, ability to perform tasks which cannot be done by manual systems, rapid communication and helps disseminate the information in users’ defined format (Ademoli & Adepoju, 2009).

A library, whether it is digital, virtual, paperless, hybrid or traditional, must be centred on users, must satisfy users expectations and behaviours, must maintain academic culture (Vaglio & D’Urso, 2008). The necessary prerequisite of library automation is library automation system.

Automated university library can support better teaching, learning, research and helps students and academic staff. Librarians must be prepared for the development of new technologies and what the users expect from them.

The users can get through automation retrieval process in more convenient manner. They search, identify and retrieve information from databases, which describe millions of recorded information items found in libraries or elsewhere and provide useful information for them.

The library management system plays a significant role in the library functioning. It includes modules for circulation, cataloguing, acquisition, serial management, patron management, branch relationships, and must be complied with library standards and protocols (MARC21, UNIMARC, Z39.50, etc.) Rafiq and Ameen (2009). It also supports major industry-standard database type (text, relational database management system) and offers independence in operating system choice to the users.

Automation process is useful to librarians because it:

- Avoids duplicate work
- Eliminates human errors while performing routine library work.
Achieves to administrate better library resources
- Shares the information about resources in different libraries in the world
- Enables librarians to offer more specialized services to their users

Automation process is useful to users because it:
- Increases remote users
- Saves the time
- Gets more information about library collections and services at the same time
- Facilitates wider access of base information to users
- Facilitates the users the range of services available from the libraries.

Automation process must be planned carefully. It should help librarians in their daily work and in organizing the services users expect and need. Library automation allows many new services, which academic librarians need to offer to their users, to keep their role as information experts in academic environment.

2.1.2 Steps of the library automation

When a library takes the decision to make the automation process, it should first of all plan it, which means introduce a new automated system or replace the old one. This initiative can be done by the National Library, the university library or a group of libraries in one region. At the beginning they must think about the Integrated Library System that computerizes a multiplicity of library functions using one common database.

Some of the functions included in automated systems are:

- Cataloguing
- Circulation
- Public catalogue
- Acquisitions
- Serials control
- Access to electronic reference or document files

We should keep in mind the steps to the successful library automation before the automation of the library.

Developing a basic technology plan involves the following five steps:
1. Assessing existing technology and services
2. Assessing the environment and client needs

3. Establishing priorities

4. Developing your mission, goals and objectives for action

5. Developing a preliminary budget proposal to implement the plan (Cohn, 1998, p. 7)

We must develop a technology plan in the first step, which means to describe the existing library services and automated systems.

- What services are we providing in each of the basic functional areas of library service?
- How much are we providing?
- Which technology are we currently using?
- What service functions does it provide?

The next step is to determine automated services, data files, software and hardware. It is very important to appoint the people who will participate in planning the project. These people may be specialist librarians from the different departments of the library which have an idea about library automation. Stakeholders are also very important. They are individuals or organizations that will influence with financial support in the process of library automation. The situation should be well known in which library will apply this process. Have any previous experiences been there? If it is so, it must review the possibility of dumping the records, if they are laid under international standards, from one program to another. The requirements of users should also become familiar.

- What do they expect from their library automation?
- How can we increase service and information that they will receive?

Libraries have their mission; they have to make careful planning of any new developments under the framework of new information technology. A very important element is to determine the cost of this plan including: the purchase of Software, Hardware and also the supplier of training. Later it must pass into the implementation of the system.

The libraries are in front of big challenges in this electronic age. Planning for automation must accomplish these functions: to provide access to the content of local resources that are part of the library’s collection, to offer gateway access to remote resources including the ability to obtain copies in print and electronic format, to facilitate off-site electronic access to local and remote resources from users’ homes offices and schools, to provide access to human assistance in locating information.
Automating a library is only the first step. Keeping up with new trends in information and communication technology is also of paramount importance. If the libraries fail to meet these challenges successfully the tremendous investment that universities have made in their library collections and facilities will be seriously undermined (Dilroshan, 1998, p. 95).

For the successful implementation of an ILS as the basis of library automation, all the key factors must be fulfilled: support from administration, staff competence, consideration of user requirements, presence of the infrastructure (hardware, software, and network), available data and excellent managerial skill from the coordinator of the project.

Furthermore the job becomes very narrow, with very little variety, autonomy, creativity, etc. by automation. ICT does not have the capability to store so much data and they are often coded to ensure that it does not take up more space than is necessary.

The main possible negative effects are the following:

- increased expenditure on systems maintenance
- reduced interpersonal communication
- Increased violation of the Copyright Act (Peyala, 2011, p. 316).

2.1.3 The role of the librarians in the library automation process

New information technologies have brought major changes to libraries. This opens a lot of challenges to the librarians. They must play the role of intermediaries, to transfer the library from traditional library to electronic one. Librarians should be able to find a correct balance between traditional roles and new ones in order to let their professional category survive and continue to be a crucial and vital part in the information society Melchionda (2007).

Now the main role of the librarians is not only to give the materials to the users in the library premises but they must ensure remote information resources for their users. They must have knowledge about new technology and its implementation in the library. Librarians must have knowledge and skill to analyze and evaluate library automation projects and their implementation. The knowledge about standards of automation programs is very important. Librarians, before implementing a program, must have knowledge about the standards of the program. “It is very important for library managers to rely on some
useful measures when they come to the point of selecting a system among some different choices” (Farajpahlou, 2002, para,4).

Sometimes librarians are in doubt about the new technologies applied in the library. They do not have necessary information about new technologies. The training about new technologies is necessary. “Many librarians seem to fall behind with each new ICT development. Librarians are fairly well aware of what should be done, but seem not to be able to prepare in time” Fourie (2004) emphasis.

Libraries are created for people but they do not usually change at revolutionary pace. They like these changes but they want to add new trends to old ones. Thus the librarians would survive even in the electronic age. They would try to keep their users in the centre of all library activities. They must know what their users need, organize them according to their wishes, retrieve and disseminate the information where and when they want. Shafique (2007) stated that future librarians will function as knowledge navigators, cyberspace organizers, instructors and curriculum developers and researchers rather than simply handing out information. They will be in need of advance management skills, which include: understanding the organizational culture, strategic planning, financial management, human resource management, project management, change management, communication skills, marketing skills, vision and creativity, cooperation and negotiating skills and moreover good judgment in advising patrons about the quality and accuracy of information resources they provide.

The development of ICT is evident in every field of life. Many authors have told that ICT has brought many changes in the library development and especially in the automation process.

Implementation of the ICT in the library depends largely on the attitudes of library staff towards information technology. There is no doubt about the fact that significant changes have taken place in libraries in the world due to the application of information communication technology. Knowledge and experience of librarians about ICT are playing an important role towards library automation.

The librarian as a ‘library leader’ and ‘champion of introducing technology-based library resources, services and systems’ (Ramzan, 2004) has an important role in the development process of the libraries. He can help and affect the implementation of new information technologies in the library. The librarian who has good knowledge in the ICT and
Librarianship can influence the developing of automation projects and its implementation. Planning and implementation of a software package of an integrated system depends a lot on the librarians’ attitudes towards it.

It is emphasized that librarians' role in ICT related decision-making and their level of familiarity with the new system and rank of librarian in the hierarchy of the organization and their overall technology orientation are important factors affecting the acceptance or rejection of automation in libraries. “They are responsible people for initiating changes, innovation and planning and implementation of ICT projects in their libraries” Ramzan and Singh (2010) said.

Librarians should have an important role in the information society. “Technology in itself does not bring changes, (Uwaifo, 2007) it is the librarian who uses the technology as a strategic resource to innovate library infrastructure, systems, services and resources and who assists the users in the effective use of technology that makes the difference”. The librarians’ skills at using ICT are important that they influence the implementation of the library automation. “The role and attitude of librarians in this changing process has been central as they are champions of introducing technology-based library resources, services and systems” Ramazan (2004). The level of ICT utilization and the librarians’ level of knowledge in technology are good predictors of librarians’ attitudes toward application of ICT in their libraries.

The most of librarians have used ICT equipment for a long time. We want to know how the experience of using ICTs has influenced the attitudes librarians’ attitudes towards automation process. Melchionda, (2007) found that “long period of ICT use has not necessarily improved computer literacy skills of the library staff. This might be because of the lack of continuous and compulsory training programs or adequate manuals to equip librarians with the essential knowledge of computer and ICT skills”. In this era, when new technologies are introduced almost daily, it is essential for librarians to keep up with ICT development. Training is the first step, which will reduce fear when implementation of ICT begins.

In general, the attitude of each person can be positive, negative or indifferent. It depends on many factors: the personal ability to capture the new technology, the desire of every one to bring these changes in his work, the possibility given to him to put his knowledge to work, different training that he has done etc. Two different generations may have different
attitudes towards library automation. New generation wants to work more with new technology than with manual one. The old generation has more difficulty to observe the developing of new technology. But one thing is very clear to all of us; the importance of automation process and its implementation is inevitable.

2.2 LITERATURE REVIEW
The development of ICT is evident in every field. Implementation of the ICT in the library depends largely on the attitudes of library staff towards information technology. There is no doubt about the fact that significant changes have taken place in libraries in the world due to the application of information communication technology. Knowledge and experience of librarians about ICT are playing an important role in library automation. Planning and implementation of a software package of an integrated system depends a lot of the librarians’ attitudes towards it.

Shafique (2007) told that the application of ICT has caused significant changes in libraries such as: automated cataloguing, circulation, information retrieval, electronic document delivery which let to efficiency, effectiveness and users satisfaction. Uwaifo (2007) made a survey on two university libraries in Costa Rica. The author asserted that “most of the librarians are positive towards technology in general and find that the use of ITs is necessary in their work nowadays”. It is emphases that “Librarians' role in IT related decision-making and their level of familiarity with the new system and rank of librarian in the hierarchy of the organization and their overall technology orientation are important factors affecting the acceptance or rejection of automation in libraries”. The librarians’ skills about ICT, training and using ICT are very important for the librarians and influence the implementation of the library automation.

Melchionda (2007) found out another important reason as an obstacle for automation process “the majority of the librarians do not yet possess a good level of computer skills and their long experience of computer use has not necessarily improved their level of ICT. One reason could be due to insufficient higher education and/or LIS curriculum on meeting the librarians' real need of ICT literacy”. “The level of ICT utilization and the librarians’ level of knowledge in technology are good predictors of librarians’ attitudes toward application of ICT in their libraries” Ramazan (2004).
According to Shafique (2007) the keystone of an information organization is actually librarians. Librarians have an important role in this explosion of electronic age. Uwaifo (2007) underlined that “technology in itself does not bring changes; it is the librarian who uses the technology as a strategic resource to innovate library infrastructure, systems, services and resources and who assists the users in the effective use of technology that makes the difference.” Ramzan and Singh (2010) emphasized that “librarians are the key responsible people for initiating changes, innovations and for planning and implementation of ICT projects in their libraries”.

The most of librarians have used computers and in general ICT equipment for a long time. We are interesting to know how the experience of using ICTs has influenced the attitudes of librarians towards automation process. Melchionda (2007) found that “long period of computer use has not necessarily improved computer literacy skills of the library staff. This might be because of the lack of continuous and compulsory training programs or adequate manuals to equip librarians with the essential knowledge of computer and ICT skills”. Adekunle, Omoba and Tella (2007) said that training and knowledge are the sine qua non of a positive attitudes toward ICT. In this era, when new technologies are introduced almost daily, it is essential for librarians to keep up with ICT development. African librarians who are not yet automated should begin thinking about it now. Training is the first step, which will reduce fear when implementation of ICT begins.

Some of the librarians, who have been using ICT for many years in the library, have no difficulty for developing new technologies in their library. Peyala (2011) found out that “the experience, or number of years of using ICT, has a strong effect on the attitudes and perceptions of people in the success of ICT adoption in libraries”. So, the aged people who have used ICT for a long time know that the introduction of ICT is inevitable. Adedeji (2005) and Uwaifo (2007) found that “the respondents' age, gender and computer experience does not significantly influence librarians' attitudes towards the use of computerized information systems”. Uwaifo (2007) analyzed the correlation between age and using ICT and attitudes of librarians towards library automation. His results showed that the majority of the librarians expressed a high and positive attitude towards library automation. He found that there is no significant relationship between age and the attitudes of the librarians towards library automation. “Exposure to computers does not therefore
determine the librarians’ attitudes towards library automation in Nigerian university libraries.”

Borgman (1996) has found that library automation will reduce the number of library staff required. The older librarians are afraid of the development of new technology. They cannot follow these changes. Fourie (2004) said that librarians (or at least many of them) seem to fall behind with each new ICT development. Librarians are fairly well aware of what should be done, but they seem not to be able to prepare for the changes in time. The ICTs has come later than in development countries and these process is faced with many difficulties. “General librarians in developing countries were prone to implement information technologies, and that librarians in Pakistan were not prepared to embrace the changes forced on them by new technologies” Ramzan (2004).

Some are critical toward the internet because of its chaos, its lack of structure and of knowledge organization. Others are worried about the independence acquired by users, who are encouraged to access freely and use collections and electronic shelves and services without librarians’ intervention. “most of the librarians and specialists who are responsible for some aspects of technology often come with no idea of how to manage, work in, and survive in these altered organizations, let alone lead them” Melchionda (2007) the feeling was that no one could really predict what would happen, creating a sense of uncertainty among professionals. Finlay and Finlay (1996) found that “age, education, job position and location were not significantly correlated with their internet attitude ownership of ICT application in libraries (as cited in Ramzan and Singh (2010).

As we know the older people do not have good ability to master the new technology. So, Juznic et al. (2006) told us some of the reasons that seniors are left behind in information technology because they never learned it in school or later on in their work and when the technology arrived they had already retired.

Fang (2005) described the problems and evaluation work in China's university libraries, and introduce the possible solutions. University libraries enjoy the fastest development and highest level of modernization among libraries in China. However, a gap still exists between what readers expect and what university libraries provide. This is mainly due to the problems arising during the reform of universities and, more seriously, the problems produced in the libraries themselves.
The above studies told us some of the factors which influence the librarians’ attitudes towards the automation process. Many authors are in the same mind about the importance of the ICT and their implementation in the library. They told that age does not determine the attitude of librarians towards automation process. It depends on some other factors. In this study we have been supported by some of these articles and we have been based on them: Uaifo (2007), Ramzan (2004), Ramzan and Singh (2010), Adekunle (2007), Borgman (1996), etc. We have added some other questions which are appropriate in Albania. We shall compare our results with theirs.

3 LIBRARY AUTOMATION IN DIFFERENT COUNTRIES

3.1 BRIEF HISTORY OF LIBRARY AUTOMATION IN DIFFERENT COUNTRIES
The idea for the library automation has begun since 1588 year with the invention of the French “Book Wheel” which allowed scholars to rotate between books by stepping on a pedal that turned a book table. In 1863 Albert Cotgreave invented the “Book Indicator”. It was a miniature book which determined if a book was in, out or overdue (Murthy and Cholin, 2003). So the invention of computers in the 20’ century was more than an idea.
Faisal and Surendran (2008) have written that electronic cards were invented for the first time by Holeri in 1880. He used them into the tables to create the official registration data in America. In the 1930’s the electronic equipment cards were used for the first time for circulation of books in the library. The library of the University of Texas was probably the first one that used the electronic cards in 1936 to control the circulation of the book.
But progress in this field was very slow due to World War II. In 1945 Vannevar Bush introduced an automated system to deposit the information, including books, personal information and articles. Bush wrote about an imaginary system called 'memks' which he described as a mechanical library that should allow the users to view information submitted to various access points and look for issues. He rejected the idea of hypertext.
In 1946 the automation term was established for the first time by Ford Motor Co. Ford, who was an engineer by profession, used this term to replace people and their intelligence with mechanical, electrical or computerized activities. From 1946 to 1961 the computer technology got the rapid development. In 1947 the use of transistors was invented that would boost speed and capacity of information as time passed by. In 1957 the creating of
hypertext base managed the computer language, natural language and the ability to search for a common link of information. This caused the development of library automation in the years 60 and 70. OCLC began in 1967 in Ohio City and facilitated the technical library systems. Cooperation between catalogues began in 1970. The year 1970 brought the invention of the integrated computer and storage services with a lower price that greatly increased the minicomputers and microcomputers, thus also reducing the cost of production.

The 60’s (Spinello, 2004) is the time when the importance to higher education got an explosion and at the same time was increasing the funds to the library collections. Projects for library automation started with the functions of circulation, acquisition, serials, and cataloguing. This is also known as the period of rapid growth of library operations and data sharing between libraries. In the 1980s many schools in America and Europe were automated due to the proliferation and use of computers.

The late ’70s was the period when automation process began to have a significant impact on the library and its functions (Borgman, 1997). Library automation provided the users access to the library resources outside and inside the library, and not only to the materials which were parts of the library collections. The extent of access to resources, through the extension of the network computer system between libraries and users, marked a turning point in library services.

The ’80s brought the birth of a new revolution. Number of computers increased. The price was lowering and became more sensitive, and the computers could preserve a greater capacity of RAM. Use of microcomputer was spread everywhere in America: at home, school, library and office. In the 80s microcomputers were very useful tools in libraries. OPAC began to be widely used in 1980’s. Libraries began to buy their computer systems and associate with established library networks.

The pace of library automation process was different in the countries of the world, but in most of them it had started since 1980’.

The process of computerization in the Oxford University Library has started since 1960. Crawshaw (1991) described how it had passed from the first Catalogue of Bodleian in 1920 to OCLC LS 2000 pilot project. The first computer was installed in the Newcastle university library (UK) in 1965 and then it made possible the replacement of routine work.
(Brindley, 2005). Spending time employment is reduced to 30%. The real automation began in 1996. It made the replacement of manual cards with electronic database.

In Australia, this process has gone through a transition period. Groenewegen (2009) identified five stages of development and adaptation of technology in libraries from 1960 to 1990. This process has passed from the introduction of the automation process in the library to the implementation of new technologies. For this reason the best experience was got from America.

Iran is a society with fast growth in application of computerized tools and techniques and in spread of modern digital facilities (Farajpahlou 2002). In libraries, especially in institutions of higher education, computerized systems and services have been in place since the 1970s. The decade 1975-1985 marked the period of construction of the library system where libraries passed from inside the walls at home to the integrated library system.

Since 1968 the first computer was used in India to find documents Faisal and Surendran (2008). He wrote that "Automation process in India has progressed very slowly in comparison with other countries of Europe and America. This process was developed in 1980". At the beginning this process was initiated by research and technical institutions and later by academic libraries. Some school libraries were automated at the end of 1980. They entered a new phase with the improving of infrastructure and increasing of the budget. In 1996-97 about 142 university libraries began the automation process (p. 3).

INFLIBNET project started under Inter University Centre for Astronomy and Astrophysics (Murthy and Cholin, 2003). But in 1996 it was set out to be a major player in promoting scholarly communication among academicians and researches in India. The implementations of SOUL software in the libraries brought the universities together in the use of uniform software and ensure the quality record creation by libraries for union databases of INFLIBNET and provide access. The automation of university libraries in Sri Lanka began in 1986. CDS/ISIS program was developed by UNESCO available free of cost at the beginning. Many of developing countries have used CDS/ISIS to automate their libraries since the 1980s for their library operations. CDS/ISIS was not a library management system, rather a database management system aimed at bibliographic records which by their very nature have variable length (with for example book titles being of in terminate length) rather than fixed length which is the case for most data processing
systems. It is attractive to small institutions with little funding and to its parentage (UNESCO has attracted a certain kind of institutions, for example those in the developing communities.)

Moi University in Kenya (Ondari-Okemwa, 1999) started automating their library in 1988, but with difficulties. Unfortunately most of the librarians had no knowledge of library automation. Training of staff was not involved in the automation project. The biggest problem was that the infrastructure of telephone lines and the computer was not consistently related. Library automation began actually in 1994. Author stated that “Managing a library automation project in a developing country may pose greater managerial and technical challenges than managing one in a developed country”. One of the main problems during the automation process was the lack of cooperation with foreign partners as they did not properly recognize the technical and financial problems that had the university libraries in Kenya.

The library automation started also in Pakistan in the eighties (Shaifque and Mahmood, 2007). It was the time when Pakistan librarians were afraid of library automation, but now there is a tendency to start the automation. According to the experiences for automation process in developing countries, they must try to get softwares which are the best and at the small prices. Foreign softwares that are providing the best services and the highest user satisfaction, but very high in cost, should be available at low price for developing countries like Pakistan.

The automation of university libraries in Greece began through local network of university libraries (Madaus, 2009). There were about 615 libraries in 1986 which had done the automation of local catalogues. Patras University Library implemented Ola’s program. It contained circulation control, orders of new books and produces a union catalogue for all libraries of Crete. This process was faced with two major difficulties: the use of the Greek alphabet and the existence of many small libraries whose employees had limited financial capabilities and so that resulting systems could be readable, communicate and exchange data in a straightforward way. Some problems had happened because of telecommunication line. Many problems had appeared during the financial resources management. The state did not care a lot about the automation system. The most of the librarians who had studied or taken post graduated courses abroad tried to manage resources (programs, hardware and operators) in order to make their own automated
systems. Many problems were presented with the use of CD-ROOM because most of users did not use the good one before. Their knowledge of computers was very scarce. But the advantages were evident soon because the users were provided full text materials on CD-ROOM.

Automation process has come later to the Italian libraries in comparison with European countries and particularly with the United States. Librarians have played a very important role in Italy. The automation project began in late 1980’s (Spinello, 2004) supported by Servicio Bibliotecario Nazionale, commission of librarians information scientists by the Instituto Centrale per il Catalogo Unico within the National Library of Roma. From 600 libraries only 10% of them were automated in 1989. At the end of 1992, 24 % of academic libraries managed the automated systems. The National Index started acting as a clearing house for bibliographic records with collaborations of Roma and Florence in 1992. Personal computer systems for catalogue creation and management had proliferated in the early 1990s years in the smaller and mid size libraries. In that year the internet had an explosion.

Vaglio and D'Urso (2008) described changes that had taken place at Bocconi Private University in Milan, Italy, (founded in 1902) after the introduction of a new automated system, and to propose the integration of the work of the Document Supply (DS) and the Circulation Departments with radical changes. In 2005, the Library purchased a new automation system. The new system had a very complex circulation module that determined loan rules, matching users' privileges and materials' characteristics.

Portugal emerged from a long period of monarchy and dictatorship, profited from being EU member (Soares, 2010). The national bibliographical database PORBASE was launched by the BNP In 1986. CDS-ISIS software was implemented and distributed by UNESCO, whose aim was to encourage the automation process of Portuguese libraries. The managers of the project stated the objective to promote interlibrary loan and acquisitions policies in 1993. Today, most of the university libraries have digital libraries and repositories. In the second half of the 1990s, the internet, with its logic of decentralization together with the emerging OSI systems, provided a solution for the bigger universities to organize themselves, creating their own collective catalogues describing the collections of each university's several libraries and documentation centres. The document supply links between Portuguese libraries were growing from 2000 to 2006.
Former European socialist countries have also had different experiences. Borgman (1996) studied the progress and prospects for central and Eastern European Libraries. Many countries in the Balkans (Including Albania) and in CEE have had a large influence during the 40 years of different extent of isolation and division of Europe. During these years information technology was unavailable in these countries. In Central and Eastern Europe the political changes occurred in 1989 and their government understood that information technology was “essential for economic development and domestic”. So Central and Eastern Europe, the former Soviet Union and the former Yugoslavia republics adopted modern information technologies in everyday life. Information technology was applied in different manner and in different kind of libraries and countries. “Thus it is not surprising that CEE libraries employed automation not only on a small scale in the 1970s and 1980s, and with a few notable exceptions did not implement large-scale integrated systems until the 1990s”. According to Christine: “CEE countries often established scientific and technical information in strategies areas...however Western libraries undertook automation in a much different social, political and economic environment from what was presently existed in CEE”.

In Slovenia, part of Yugoslavia at the former time, library automation started early and process was finished quickly without great difficulties. IZUM was created to be responsible for the development and maintenance of the COBISS system, services and software (Seljak, 2002). COBISS system started to develop library applications in 1982 in order to meet the requirements of the university Library Maribor, while the shared cataloguing system was launched in 1987 in the former Yugoslavia. When the former Yugoslavia disintegrated in 1991, 55 libraries were participating in the system from Croatia, Bosnia and Herzegovina, Serbia, Montenegro and Macedonia.

In 1996 IZUM first restored its co-operation with libraries in Macedonia in 1998, COBISS/BiH was established in Bosnia and Herzegovina in 1997 and then in 2001 in Serbia with the project of “Virtual Library of Serbia”, with COBISS/CG system in Montenegro and the National and University library in Pula in Croatia. Training and education has an important place in IZUM’s activities. From 2001 IZUM have organized many specialized courses for 1 154 librarians and other COBISS users.
Now in COBISS system are included 428 libraries in Slovenia, 146 libraries in Serbia, 45 libraries in Bosnia and Herzegovina 43 libraries in Macedonia, in Montenegro 26 libraries and one library in Bulgaria (COBBISS, 2012).

The Polish academic libraries made a big transformation since the fall of communism in 1989. The first step was made by the University of Warsaw Library that was followed by many academic libraries. Most academic libraries began to present their own original cataloguing and constantly updated their incomplete cards catalogues. General Standards of bibliographic description followed loosely, adjusted freely to locally developed practices. In 1991 four large academic libraries selected an ILS called Virtua. They created the first library consortium in Poland. Later many libraries joined this ad hoc organization. They started to create their consortia. The most of librarians were trained and some of the libraries made available OPAC soon. In 1999 the Andrew W. Mellon Foundation helped the Warsaw University for the purpose of planning and implementing the union catalogue. It was inaugurated in 2002. In 2009 UWL obtained a grant from the European Union for strictly controlled uploading of bibliographic records from local catalogues into NUKAT. There were about 600 000 new bibliographic records added to the NUKAT database and the number of library symbols in NUKAT records showing the libraries holding the titles to rise approximately to 6 million (Dzurak and Kasprzyk, 2010).

Some countries of the Balkan region were more interested in library automation especially national libraries.

The National Library of Croatia decided to select an international company Endeavor Information Systems’ Voyager for Integrated Library Solution (Schwartz, 2006). The primary objectives of the Endeavor technology deployment in Croatia was to create a library automation system that managed complex resource sharing needs of multiple sites, assisted scholars in discovering and accessing research materials, allowed staff members to automate a number of internal processes and maintained the overall quality of library databases and repositories. In 2005 Endeavor signed agreements to provide electronic resource management systems to both the State and University Library of Denmark and the National Library of Finland. In total, eleven national libraries were using Endeavor software for managing their physical and digital collections.
3.2 THE UNIVERSITY LIBRARIES IN ALBANIA

Let’s have a short and quick view over the way university libraries have been organized in our country. Higher education in Albania had its beginning with the 2-year Institute of Pedagogy in 1946. The first university was the University of Tirana, which was opened in 1957. It included the Institute of Pedagogy, Polytechnic, Economy, Medicine, Law, and Natural Science. Almost every faculty had its own library. The number of faculties was gradually increasing. It became necessary to make a re-organization of the universities’ structure. Higher Education in Albania caused an important transformation after 1991. Two time periods can be identified: 1991-2003 and 2003-2012. Let us consider the first period 1991-2003. In 1991 Tirana’s University was divided into two parts; the first one was the University of Tirana and the second one was the Polytechnic University. Meanwhile the faculties in other districts were transmitted into independent universities from the organizing aspect, comparing to Tirana’s university. All the universities depend on the Ministry of Science and Education. Today there are 11 State Universities and 2 Higher Institutions. The changes in universities organization are also reflected in the organization of the university libraries.

When the Tirana’s University was opened, the Science Library in Tirana began its work too. This library and its respective sectors were in the service of other faculties libraries in Tirana. When the Tirana’s University was divided, the Science Library was taken under the Polytechnic University. Now, it includes the libraries of: Electric - Mechanic Engineering Faculty, Civil Engineering Faculty, Geology - Mine Faculty, Physic and Mathematic Engineering Faculty. This library, nowadays, is headed by the Polytechnic Tirana’s University Rector.

The period 2003-2011 was characterized by:

- the growing of the number of students in each university
- the opening of private universities.

After a long period of isolation and dictatorship the great demand for higher education and the inability of public universities to accommodate all requests, it was created the necessity for private universities. The first private university was opened in 2003. Then their number increased. Many people could continue the branches they were interested in through the private universities. Till 2011, according to (MASH, 2011) 38 private higher education institutions were licensed in Albania (Figure 1).
The last days (2012) the Minister of Education declared that there are 47 Private Higher Education Institutions from which only 3 are universities. According to the list presented by MASH 17 of them are accredited. Some of the private institutions had a library with one or two librarians.

According to the law Nr.8576, dated 3.2.2000 "For Libraries in the Republic of Albania" Chapter 6 Article 26 (2), the libraries are:

1. State (Public) libraries
2. Private (non Public) libraries

The state public libraries are classified in the following types:

1. National Library
2. Public library
3. Special library
4. University library of high school
5. School library

Chapter IV gives “The duties of the library” Article 18 is written that libraries should provide information to readers through catalogues, bibliographies, tools, electronics etc.

The Ministry of Education and Science issued the law Nr. 126, date 17.03.2011 for “The Quality State Standards for the evaluation and accreditation of the Higher Education Institutions”. Standard III Article 8 gives some critters’ about the libraries in the Higher Education Institutions.
Criterion 3 Institution has a library which offer literature for the students
Criterion 4 Institution enriches the library literature
Criterion 5 Institution forecasts funds for specialize literature purchase in empirical research
Criterion 6 Institution offers much literature in many disciplines through library
Criterion 9 Library insures the electronic resources (MASH, 2011)

Albania has neither library school, nor any library science program at the university level. In these conditions, the National Library is charged with the task of training of the librarians on the national scale. Two year-courses about librarianship are attended by librarians at part time. In 2009 the master degree in Librarianship was opened for the librarians. About 40 librarians have finished this course. The program had fewer programs for library and the other terms were for general culture. Besides, systematic work for the technical and vocational training of librarians is done.

The National Library is a bibliographic centre which prepares "National Bibliography of the Albanian Book"; its aim is to inform the public about all the books that are published in Albania, and the monthly "National Bibliography of the Albanian Periodicals". Albania National Library has the responsibility to do the union catalogue.

Every city or district has its library which is under the local central administration. Special libraries in Albania are: the library of the Academy of Science, the Parliamentary (government) Library and several libraries of scientific study research centres (like Institute of history, geology, etc.). Albanian high school libraries and university libraries are not called academic libraries as they are called in the world. This is because we have an Academic Library which is placed inside the premises of the Academy of Science. In Albania the libraries which serve the universities are called university libraries. In the world university libraries are called academic libraries and sometimes university libraries. For this reason we will use the university library term instead of academic library.

### 3.2.1 Library automation projects in Albania

In our country every university, or in some special cases each faculty, has its own library. University libraries assure completely the learning and educational process, scientific training of students, professors and their helping staff, in addition to the professional growth of academic staff. The service that these libraries should offer has to be as much
contemporary as possible and always in accordance with the users’ needs. They offer various services; readers’ services, informing services, library materials borrowing, reading halls, internet services, etc. Coordination between libraries is a very essential element. Librarians and other assistants must be well specialized, and should have good knowledge of recent and modern technological developments. Librarians take necessary information about the information technology in the world. The technology changes day by day and the librarians need more training.

We live in an era of a rapid development in high education institutions and in its professional growth. But, unfortunately, in Albania, there is not a faculty for Librarianship yet. All librarians here have completed their studies in different science branches (there is no specific preference in the university they have graduated). For these reason in the National Library was established a qualification department which created the possibilities for Albanian librarians to continue their education by offering contemporary knowledge and skills in librarianship. This centre will help the librarians especially in the field of information technologies' application in library through computer teaching classes, development of computerized process of the library (new entries, catalogues, information etc.), introduction to LAN etc. The most of librarians have attended the two-year course in National Library, established in 1969 supported by Soros Foundation (Biblioteka, 2002). After this, some of the librarians have continued a one-year course in the National Library, known as “Professional Training Centre”, established in 1999.

The Albanian Library Association was founded in 1993 at the beginning of the transition period. It aimed to play an important role in the qualification of the librarians and in the development of library system in Albania, but till now its efforts to promote professional education and to stimulate the development of librarianship, information theory and practice have been insufficient (IFLA/FAIFE, 2000). The impact of the introduction of new technologies caused big challenges to Albania. The experience of librarians gained outside, has grown up the desire for the improvement of library services. Libraries have passed to the important period of transition from deposit funds to closed ones in the library without walls, electronic, digital and virtual.

The automation process has been developed in different ways in many libraries of Albania. First and the most important step have been made by the National Library of Albania. Usually, in the world, this step is taken by the National Library or in some cases by the
University and National Library, when they were given the task of creating the National Bibliography. One example is the Library of Kosovo and Croatia which function as both the National and University Library.

The concept of library automation began to develop in Albania after 1990 (Luga, 2006). In 1994 CDS/ISIS program was installed in National Library. It was free of charge by UNESCO. National Library of Albania began the project on automation of library in 1997. This project was financed by UNDP, Open Society Institute (Budapest), Open Society Foundation of Albania (OSFA), SOROS foundation and Albanian Government. The managing of the project was made by National Library specialists. In 1998 internet was presented to this library and LAN Network with 65 computers was established this year. ADLiB Integrated Library System was installed in 1999 (IFLA, 2000). It works with MARC format and Z 39.50 protocol. The selected integrated system ADLiB will make possible the connection of National Library with its homologues abroad and creation of the conditions for reciprocal profits by the information, especially concerning the unique work. WIN/ISIS data was converted to ADLiB system in 2000. Its main task is to collect and preserve all written cultural heritage of the Albanian people. The National Library of Albania made possible OPAC for the users in 2006. Digital project began in 2007. It would do the digitalization of manual file box of index cards and rare documents. Now it is working with ALBANICA project. The National Library would also be the centre for new technological developments in other libraries for the country.

Figure 2. The internet contracts in Albania 2001-2010
The developing of ICT and entering of internet in every field have caused the transformation of institutions too. Let see the number of Internet contracts in Albania during the period 2001-2010 (Figure 2). In 2010 the number of contracts was 111,717, which is very high compare to the number of population. In 2001, between 10,000 habitants 16 of them had Internet contracts. In 2010, between 100 people 3 of them had an internet contract. Now this number is increased.

After the National Library Internet began to connect in other libraries in Albania. Now the most of the university libraries have internet in their permisses.

“WIN/ISIS” software was given free by National Library to some other libraries in Albania in 1994 (Luga, 2006). It was installed in many libraries such as: library of Law Faculty, library of Economic Faculty, Library of Medical Faculty, library of Agriculture University of Kamza, library of “Ismail Qemali” University Vlora, library of Academy of Arts etc.

“Library for Windows” was introduced in some other university libraries in 1999. It was a project by Siegen University in Germany. It was installed in: library of Electric and Mechanic Engineering Faculty, library of Civil Engineering, (the both branch of Science Library, Polytechnic University of Tirana), Library of History and Philosophy Faculty, Natural Science Faculty, etc. Some of the librarians were trained inside the library and the others abroad.

“Abekt 5.5” software was another program that was given to Science Library. Abekt 5.5 software, which was used in Greece, was adapted by the Albanet partners in the university libraries in Albania (Tammaro, 2000). The catalogue module was free but the other modules were not developed. Abekt 5.5 was installed in 2001 in some university libraries in Albania: library of Geology - Mine Faculty, library of Agriculture University of Kamza, library of “Aleksandër Xhuvani” University in Elbasan, library of “Eqerem Cabej” University in Gjirokastër. These libraries were included in the Union European Project (Temphus & Phare Program). It aims to streamline them through an administrative reform and technological one. This program was made possible by Albanet Project and it has as the partners Ionian University in Corfuz of Greece, Firenze University in Italy and Albanian National Library. Software ABEKT 5.5 was donated by National Centre of Documentation in Athena. Seminars and training were designed in Firenze and in Corfuz in 2000. University Library of Corfuz took over the installation of software, construction of infrastructure and training staff. The purpose of ALBANET project was cooperation
between libraries. National library has the responsibility for the training of the librarians (Domi and Vozga, 2000). This program works with UNIMARC format but it is out of work in some of these libraries, because of the lack of founding to continue with this project in the future, the lack of specialists IT, the lack of good infrastructure and the lack of a well training of all the librarians who will work with it. This situation has made a lot of librarians to be pessimists with the sporadic programs in there libraries. The national strategy is necessary for the continuation of this process.

Follet Software 6.0 was installed in the library of Economic Faculty in 2002. It was a project of American Bank, USAID, SOROS and American Embassy. This program worked according to MARC format and it can be connected with some other systems with COMARC, USMARC formats.

The (department) library of Electric Engineering Faculty ‘Multimedia Library’ was installed in 2003 (Kasapi, 2005). The application of new technologies was inaugurated in 2004. At the beginning it worked with WIN/ISIS program for the creation of electronic catalogue. Then, Wireless LAN was installed in the premises of this library. Because of the fund library was closed one, it was thought to install a program for preservation of the materials in this library. For this reason the control system (check-point) was installed that functions according to magnetic plate in the book and acoustic signal in the gate of the library. Resource Mate 2.0 software was installed to manage the library collections. Thus it was possible to automate the most of the functions in the library. Every person can have possibility to get a Library Card. According to LH5 program (Librarian’s helper) it was realized the printing of cards and pocked cards.

According to my experience “ProCite 4.0” software was installed in the library of Electric & Mechanic Engineering Faculty and Civil Engineering Faculty in 2006. It was donated by the Government Library. Today this program was installed even in the library of History and Philology Faculty and in the “Luarasi” private university library. It makes possible electronic catalogue, bibliographic lists, print sizes (files) and some other duplication works.

Academy of Arts was created in 1966 (Bakiasi, 2006). At the beginning the ProCite software was installed with its aim to automate the library. The database was created and was begun with the creation of the electronic catalogue. This effort was not successful, so later on CDS/ISIS was installed there. The librarians began to work with the entering of the
data in this program. During their work the librarians understood that this program could not fulfil the needs of the library and did not have the international standards. This year KOHA program was installed in the library of Arts Academy. The library of Military Academy is trying to install it too. It is given free of charge by UNESCO for developing countries. Koha is a Library Management Software. It is fully integrated and multilingual (Unicode enable) software that provides multi-user support.

Some of the state and private libraries have created their programs in collaboration with IT specialists and experienced librarians. In any case, the program should be according to MARC format and Z 39.50 protocol.

Since 1990 many librarians have visited some developed libraries. Some of them have been trained inside and outside the country. “They understood that they live in the information society and that the most important duty is to provide resources and free access to information to meet the needs of the users” (Xhaja, 2001). The librarians who work in Tirana and big towns have good ICT knowledge. It happens, because the librarians in these towns have the possibility to be trained, to participate in seminars, workshops etc. and to be informed about new technologies. Librarians in small towns do not have these advantages. Sometimes the training about softwares has been superficial. Librarians have got less knowledge about the program but they do not know how to preserve their data. The presence of an IT specialist has been very important to take care about the installation and maintenance of these programs. So a lot of records have been lost and the work of the librarians has gone in vain.

As we can see some of the libraries have more than one program installed in them. Sometimes the librarians have taken the initiatives to install new programs. But it has no future. The technology is developing and they are afraid if this program will resist the time. Especially the older librarians are skeptic and afraid of change. So, a few librarians participate in the decision making and in the implementation of new software programs.

The government cannot buy the packages of electronic resources which are very important for academic staff. At last, the Government of Slovenia, EIFL and supported by Science Academy, through ERA project 2011 made available the access of the best electronic resources for one year (2012-2013). This is an investment of the government of Slovenia for about 100000 Euro (COBBISS, 2012).
4 EMPIRICAL RESEARCH

4.1 HYPOTHESES
Due to late start of library automation in Albania and the absence of straightforward policy on the issue (compared with other European, but even non-European countries) as presented in previous chapter we expected that the age and use (previous experience with) of the information communication technology correlate with the librarians’ attitudes towards library automation in the university libraries in Albania.

4.2 POPULATION
Our survey was done among academic librarians working in Higher Education Institutions, universities and Academic Libraries. All the university libraries were included in this study. There were 60 Higher Education Institutions in Albania, from which 11 were state (public) universities & 2 state higher education institutions and 47 were private Higher Education Institutions of which some are called private universities in daily work. Some of the private universities did not have a real library (sometimes only some books). The librarians who worked in 21 private university libraries were included in this study. State universities had 33 public faculty libraries. All the public universities had the library in the premises of the universities (except the Science Library). The most of the private university libraries had a real library. Some of them had a software program the others did not.

We have interviewed all the assistant librarians, librarians, heads of libraries and library directors. Some of the university libraries had applied the theory ‘work and learn’. Some library employees worked part time or full time. Some of the universities had the department libraries and they had an assistant librarian who was not a librarian by profession. We have interviewed all the people who worked in those libraries.

4.3 RESEARCH METHOD
We used a questionnaire as a way for collecting the data and interview as a research method. We didn’t have a sample because we wanted to include the whole population.

If most of the respondents give the same solution or recommendation the matter should be taken into consideration and resolved immediately.
Interviews were done personally by me. Some of the universities were not from Tirana. The interviews with them were conducted via phone, telephone or Skype. Each interview lasted no more than 30 minutes.

Analysis of the questionnaires was done with SPSS program. This is a program that can determine the correlation between the age and use of ICT and librarians’ attitudes towards library automation.

4.4 METHODOLOGY

The data used in my study was collected with a questionnaire through the interview. We made 127 interviews. We gathered data about the ICT knowledge of librarians in university libraries, their attitudes towards automation system and some demographic variables. We also asked the librarians if they had an automation process in their library, which modules were in use and who used the electronic catalogue. We were interested to know their opinion about ILS and union catalogue. Were the librarians able to influence the automation system in their libraries? Did they have an IT specialist in their library? Was infrastructure of their library convenient?

The questionnaire was divided in three sections:

- Albanian’s librarian attitudes towards library automation
- The librarians’ attitudes towards automation process in the library and common system
- Demographic variables

The respondents of the first part answered in five alternatives. They could answer: strongly agree and agree - “Yes” and strongly disagree and disagree - “No”. If they did not decide to answer between these four alternatives they could give “Indecisive” option. The first section contained fourteen questions. The second part had twelve questions. Only one question was let open for the librarians to give their recommendations about the LIS and common system. The second part consisted of twelve questions. Their “age” and “how long they had been using ICT” were two different variables that we intended to correlate with the two questions in the first section.

We used the survey research methodology in this study because the population who were all the librarians in the university libraries would be asked in this study. The main instrument used for data collection was the questionnaire. In the majority of cases we used personal interview method to support the questionnaire with my colleagues.
The interviews in the state university libraries were not problematic. The librarians were friendly and ready to give us suggestions and recommendations. The situation in private university libraries were not quite the same as in the previous ones. Some of the employees who worked in private libraries needed the permission of their administrators. Even though we had the permission by the Department of Library and Information Science and Book Studies, in two private universities we were not allowed to have the interviews. In other cases we had left the printed questionnaire and the paper where the reason why we were making these interviews had been explained. After some days we were invited to get the interview. A few library employees in private university libraries did not work full time. Doing other jobs they were not available and we had to wait until another time to meet them. Some of these libraries worked in two shifts and we had to go again. It was an advantage that we did not have to leave Tirana to interview the librarians of private university libraries since they were all located in the city. Their branches outside Tirana did not have a library.

Most of the public universities were far away from Tirana. The distance was a disadvantage because of the transportation and not all the librarians were available at the same time. Sometimes the interviews were made by phone. Thus we had lost a lot of time during the interviews. For these reasons interviews were took place from December 2011 till March 2012.

We analyzed different factors which could influence the automation process and common system. The aim of our study was to find out if age determined librarians’ attitude towards the automation process. According to my hypotheses we had two different independent variables (age and using ICT) in the correlation with the librarians’ attitudes towards the automation process. So the Statistical Package for Social Sciences (SPSS) was used to do the computation of the data and all appropriate analysis. Spearman and Pearson correlation coefficient would be used to understand the hypotheses.

5 RESULTS

5.1 DEMOGRAPHIC VARIABLES

The respondents were the following: 27 were from private university libraries and 100 were from state academic libraries; respectively 21.3 per cent were from private university
libraries and 78.7 per cent from state academic library. 19 were males and 108 females because being a librarian is considered to be a good and suitable job more for women than men.

The age of the respondents was from 22 to 70. According to the histogram the middle age of the respondents was 44 (Figure 3). The histogram tells us that the distribution of the variables is normal. Most of the respondents were from 35 to 55 years old (Figure 4).

![Figure 3. Histogram of Age](image1.png)

![Figure 4. Boxplot of Age](image2.png)

The respondents were asked about their education. 11 were getting higher education or other qualifications. The majority of the respondents, 121 librarians (95 per cent) had higher education (Table 1).

<table>
<thead>
<tr>
<th>Education (a)</th>
<th>Responses</th>
<th>Percent</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Degree in Librarianship</td>
<td>10</td>
<td>4.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Studying for Master Degree in librarians</td>
<td>7</td>
<td>3.2%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Two years study in National Library</td>
<td>69</td>
<td>31.7%</td>
<td>54.3%</td>
</tr>
<tr>
<td>Higher Education</td>
<td>121</td>
<td>55.5%</td>
<td>95.3%</td>
</tr>
<tr>
<td>Others</td>
<td>11</td>
<td>5.0%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total</td>
<td>218</td>
<td>100.0%</td>
<td>171.7%</td>
</tr>
</tbody>
</table>

*Table 1. Which is your current position in your library?*
Out of the respondents who had graduated from university, 69 (31.7 per cent) had finished the two years course in the National Library. This is the only course that prepares librarians as professionals, 7 (3.2 per cent) were studying for a master degree in Librarianship (they were studying in the Faculty of Arts, Department of Library and Information Science and Book Studies) and 10 (4.6 per cent) had finished the Master Degree in Librarianship in Albania (Tirana University, Philology – History Faculty, Albanian Literacy Department – initiative and supported by National Library of Albania).

The librarians were asked about the current position in their library. An employee was usually taking care of everything in the private university library. She/he worked full or part time. Sometimes she/he did other jobs besides being a librarian. So there were 18 library employees. Most of the respondents were librarians (45), 22 of them had the title of Classificatory, 6 were Bibliographers, 30 were heads of library (some library had only one librarian who was responsible for everything in the library) and 6 directors.

They had been working in libraries for a period from 6 month to 45 years, thus having a 12 years experience averagely (Figure 5).

This study showed that almost half of them (43.3 per cent) considered themselves adequate according to the quality of their training about the ICT; 29.9 per cent were extensive and 26.8 per cent were inadequate. They thought that the training and qualification of librarians...
had not finished yet but would continue as Life Long Learning. Most of the librarians had
used ICT for more than 10 years (Figure 6).

![Figure 6. How long are you using ICT?](image)

The majority of the librarians, 93.7 per cent, answered that they needed training in the new
technologies implemented in the libraries. The others did not need to. It was good news
that 60.6 per cent of (77) librarians had taken part in the conferences, seminars or
workshops where it was spoken about library automation. But a considerable number of
them 39.4 per cent (50 librarians) had not taken part yet.

5.2 ALBANIAN’S LIBRARIAN ATTITUDES TOWARDS LIBRARY AUTOMATION
This part of the questionnaire consisted of 14 questions which had five alternatives of
answers: strongly disagree, disagree, indecisive, agree and strongly agree. The respondents
had to choose only one alternative. If the respondents wanted to answer “Yes” they could
choose between two options: strongly agree or agree. Otherwise, if the respondents wanted
to answer “no” they could choose between two options: disagree or strongly disagree. The
respondents had also another choice which was “indecisive”.

Almost all the respondents (126 librarians) thought that “ICT knowledge of librarians is
necessary in automation process”. 72.4 per cent of the answers were strongly agreed, 26.8
per cent were agreed and 0.8 per cent of librarians were indecisive (only one person).

Overwhelming majority of the librarians 86.7 per cent were very optimistic that “ICT
knowledge helps the librarians to put in the data in the electronic catalogue (OPAC)” (46.5
per cent strongly agreed, 40.2 per cent agreed). The others answered: indecisive (9.4 per
cent), disagree (1.5 per cent) and strongly disagree (2.4 per cent).
It was very interesting to ask them: “Can the librarians control the changes that occur in ICT (in the libraries of the world)?” 15.8 per cent strongly agreed and 29.9 per cent of the respondents agreed. So, 45.7 per cent of the respondents answered “yes” to this question because they thought that it is very easy today to know what is happening in the libraries of the world and what new technologies are being applied. A considerable number of the respondents, 32.3 per cent were indecisive because they thought that this depended on the knowledge of each person and how possible it could be. Only a few were sceptic about this question (15.7 per cent disagreed and 6.3 per cent strongly disagreed).

Very polemic was the question: “Is the work with ICT unhealthy?” 40.1 per cent answered “yes” to this question; (17.3 per cent strongly agreed and 22.8 per cent agreed). Using ICT technologies for a long time during a day and for many years can damage the eyes, neck, backbone, memory and hand. The considerable number, one fourth (24.4 per cent), was indecisive. They were in doubt because besides the positive aspects of the ICT there are also negative ones. 35.5 % answered “no” (22.1 per cent disagreed and 13.4 per cent strongly disagreed) (Figure 7).

![Figure 7. Is the work with ICT unhealthy?](image)

On the question “Will ICT reduce the number of library staff?” 43.3 per cent answered that ICT will not reduce the number of library staff (7.1 per cent strongly disagreed and 36.2 per cent disagreed). In the epoch of new technology the librarians’ role would change. They would be replaced by system librarians. Other jobs would be opened in new
technologies instead of manual system. Some of the librarians answered in such a way because there were one or two librarians employed in the library.

So ICT equipment could not reduce the staff but will open new jobs. 38.6 % answered “yes” (26.8 per cent agreed and 11.8 per cent strongly agreed) because in many cases the arrival of the new technology has caused the reduction of staff and this can happen in the applications of ICT in the library too. Only 18.1 per cent were indecisive about this question (Figure 8).

Figure 8. Will ICT reduce the number of library staff?

More than half of the respondents, 69.3 per cent agreed that “the future of Albanian university libraries depends on the advancement of ICT” (35.4 per cent agreed and 33.9 per cent strongly agreed). The Albanian libraries must be supplied with the new technology otherwise the users will not come to the library. A few of the librarians had the opinion that the libraries have existed and will continue to. This does not depend on the new technology. Thus 10.2 per cent were indecisive, 11.8 per cent disagreed and 8.7 per cent strongly disagreed.

As it was expected the librarians agreed that “Library automation is prior according to manual system”. 60.6 per cent strongly agreed and 31.5 per cent agreed. Only a few of them were indecisive (4.7 per cent) and disagreed (3.1 per cent) because the new technology is without control in our libraries and they insist that manual catalogue will be kept in any case.

The majority of the respondents thought that “library automation will reduce the operations and routine tasks in their jobs”. 47.2 per cent answered strongly agreed and 37 per cent
agreed. This means that almost all the respondents (84.2 per cent) agreed that automation process is very important and useful for their work. The librarians wish that the Albanian academic libraries would be as the other libraries of the world.

The importance of library automation emphasizes the fact that “the library automation will increase the users of the library”; 53.5 per cent strongly agreed and 29.1 per cent agreed. A few of them thought that the users need to come to the library for the books. Another reason is that if somebody wants to work with books or need some information he will come to the library it is automated or not.

Another reason for the importance of library automation is that “Library automation will bring new services to the library”. Almost all the respondents, 96.8 per cent, answered positively to this question.

For these reasons 124 of the respondents (84 strongly agreed and 40 agreed) had a “positive attitude towards the library automation”. A few of them (3) did not like and were skeptic about the application of new technology in the Albanian libraries. The implementation of ICT requires the presence of IT specialist in the library. For this reason a considerable numbers of the librarians thought that “The librarians cannot implement the automation process by themselves”. In such a way 29.1 per cent disagreed and 18.1 per cent strongly disagreed. This is impossible to be done by the librarians themselves because the automation process needs the IT specialist who must collaborate with the librarians. Some of the respondents were indecisive (33.1 per cent). The others thought that librarians can implement the automation process by themselves (15.0 per cent agreed and 4.7 per cent strongly agreed).

The librarians were asked: “Does age determine the librarians’ attitudes towards automation process in the library?” Less than half (46.5 per cent) thought that age does not determine the attitudes of librarians towards library automation (33.9 per cent disagreed, 12.6 per cent strongly disagreed). They thought that this gap has passed now. New technology has been presented in every field of life. So the establishment of new technology in the library is inevitable. One person pointed out that the middle age librarians (from 35 to 55 years old) are able to learn quickly the new technology and are more responsible for the work (Figure 9). The young people are able to master the new technology more easily but they do not have the responsibility for the work as the previous ones. They consider the new technology as an entertainment. Some of the older librarians
are retired, they have only the responsibility for the job but they cannot muster the new technology.

**Figure 9.** Does age determine the librarians’ attitudes towards automation process in the library?

But a considerable number of the respondents 40.9 per cent (24.4 per cent agreed and 16.5 per cent strongly agreed) answered that age *does* determine the attitudes of librarians towards library automation. The difference *between* two answers “no” and “yes” is little (5.6 per cent). 12.6 per cent were indecisive. They thought that age was not so important in the attitudes of librarians towards library automation. Perhaps age is of no importance but the experience in the library and some other reasons can influence their attitudes. The librarians’ attitudes towards library automation depend on the personal ability and desire to work.

The majority of librarians (81.1 per cent) answered that “using ICT has influenced their attitudes towards library automation”; 44.1 per cent agreed and 37.0 per cent strongly agreed. Computers have become part of their work for years. The others thought that even though they do not have enough experience in the using ICT, they have a positive attitude towards library automation (14.2 per cent were indecisive, 3.9 per cent disagreed, 0.8 per cent strongly disagreed).

5.3 LIBRARIAN’S ATTITUDES TOWARDS AUTOMATION PROCESS IN THE LIBRARY AND COMMON SYSTEM

In this part of the questionnaire respondents had dichotomy group answers (“yes” or “no”). Some of the questions were with alternatives. They could choose one alternative or more if necessary.
79 librarians (62.2 per cent) said that they have a software package and 48 librarians (37.8 per cent) answered that they do not have any in their library (Figure 10).

![Pie chart showing 79 librarians have a software package and 48 do not.]

**Figure 10.** Do you have the software package in your library?

The librarians were asked about “the year of installation of the software package in their library” and some other important elements. Since 1999 the software programs have started to be installed in the university libraries in Albania (Figure 11). Year after year software programs have been and are still being installed in the university libraries. In some libraries more than one program has been installed because the previous one did not have the standards of the automation process. In some other cases the records in the program have been destroyed by the blackouts. Since 2011 some libraries have tried to find an automated program for them. One of them is KOHA which is given free by UNESCO.

![Bar chart showing the year of installation of software programs in libraries.]

**Figure 11.** Which year was this program installed in?
Librarians who had a software package were asked about some other details. 98.7 per cent of the respondents answered that this program is used only by the librarians and only 36.7 per cent of them answered that this program is sometimes used by all the users at home. 27.8 per cent of the respondents said that except librarians this program is used by the professors and 32.9 per cent by the students. The librarians answered that most of the programs had come from the projects (34.2 per cent), 29.1 per cent were installed by an IT specialist, 24.1 per cent were given by a donation, only 5.1 per cent were installed by librarians and 7.6 had been purchased by their administrators. We have seen that private libraries which had an automation process had an IT specialist, as well. Sometimes he had collaborated with the librarian for the kind of program and had adapted it according to the library and users’ needs. 79 librarians who had a software program were asked the question “Does it have the standard format (MARC, UNIMARC and COMARC)?” In the majority of cases (74.7 per cent) the respondents knew that their programs had the standard formats. But they did not know if the records were preserved or not. They did not have any control of their records or the installation of the program. 11.4 per cent did not know the standard format and 13.9 per cent declared that their program did not have the standards formats. All the librarians who had a software package had cataloguing module. In some cases, 27.3 per cent of libraries, except cataloguing module had the circulation module as well (45.6 per cent). A few of them declared that they had acquisition module and other modules in their library.

All the respondents, 127 librarians, were asked the question “Who is responsible for ICT in your library?” 80 librarians responded that they had an ICT specialist who took care of the computers and infrastructure in the library. This is very good news because some years ago this did not happen. But a considerable number (47) said that they do not have an IT specialist. Sometime this is done by a librarian or nobody.

Unfortunately the infrastructure for automation process in the university libraries has not been prepared yet. 68. 5 per cent of the librarians declared that they had a good infrastructure in their library, this especially in the private libraries. 31.5 per cent declared that they did not have an appropriate infrastructure in their libraries, this especially in the state university libraries.
A great majority (123 librarians or 96.9 per cent) agreed that “all the libraries in Albania would be in an integrated library automation system”. Only a few numbers did not agree because they thought that each library must create its electronic catalogue for their users. The National Library in Albania has created OPAC for its library. It is its duty to create the union catalogue because it makes possible the creation of the union bibliographic catalogue. Usually the National Library should take the initiative to create the common system. The National Library is not doing this. For this reason university libraries should organize the creation of a common system. It can be supported by the creation of a Library Information Centre or Academy of Science in Albania. We found out that all the librarians agreed about “the creation of the common system and an integrated library system”. 88.2 per cent were positive. Only 11.8 per cent thought that it was impossible for the moment to create the common system and they were sceptic.

In such a way librarians answered that “They can influence the implementation of the integrated library system and then the common system”. More than half, 60.6 per cent answered that librarians can influence it but a considerable number, 39.4 per cent thought that librarians could not do it. The voice of librarians is not heard by anybody. The leaders do not listen to their opinions. The automation process does not depend on the librarians but on the highest institutions.

Almost all of the respondents (123 librarians 96.9 per cent) answered that “a national strategy is needed for the common system in Albania”. And then they were asked to give their opinions about the ILS and common system. Three fourths (94) accepted to give us “recommendations and solutions to the integrated library system and the common system”.

Here are some recommendations:

- Recognition of the situation of the higher institutions about the library and what we want to achieve.
- Training of librarians for the ICT and automation process.
- Every library will try to create its electronic catalogue, insuring a good program with MARC, UNIMARC standards.
- Financial investment for purchasing software packages which the library needs.
- Cooperation between libraries for the automation process.
• The creation of the information centre with its obligation to create the common system for the university libraries.
• National Library will try to put all the libraries in a national united system.
• Education Ministry, Cultural Ministry, Rector and Dean of Faculties should be positive about the library automation.
• Automation process in the library should be on the bases of the accreditation of the universities.
• A national strategy is needed for an automation process.
• The Albanian Library Association should be more organized and must encourage the librarians to do the automation process.
• IT specialist must cooperate with librarians for automation process.

5.4 TESTING THE HYPOTHESES: INFERENTIAL STATISTICS

SPSS program made possible to do the correlation between two or more variables. The old fashioned programs could not make this correlation possible.

- Let us analyze the correlation between variables “Age” and “Does age determine the attitudes of librarians toward automation process?”

“Age” is a quantitative or independent variable and the question “Does the age determine the attitudes of librarians toward automation process?” is a qualitative dependent variable, Spearman’s coefficient was computed for assessing the relationship (Table 2).

Table 2: Correlation between questions: “Age” and “Does age determine the librarians’ attitudes towards library automation”. Spearman’s correlation
According to Spearman the coefficient of the correlation was -0.089 with a significant at 0.320 (>0.05) it was not found significant at 0.05 level of confidence. There were certain stereotypes which were conformed to my hypotheses but we also found out that in fact this attitude is not influenced by the age.

Since the answer to the question “Does the age determine librarians’ attitudes towards automation process?” was given in a five-point scale we saw this correlation with Pearson’s coefficient of correlation as well (Table 3). Pearson correlation told us -0.097 coefficient.

**Table 3.** Correlation between questions: “Age” and “Does age determine attitudes of librarians towards library automation”. Pearson’s correlation.

<table>
<thead>
<tr>
<th></th>
<th>Does age determine the attitudes of librarians toward automation process in the library?</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>-0.097</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>1.278</td>
<td>0.278</td>
</tr>
<tr>
<td>N</td>
<td>127</td>
<td>127</td>
</tr>
</tbody>
</table>

The number of significance (0.278) emphasized the result that attitudes of librarians towards library automation is not influenced by age. The negative coefficient told us that if the age of librarians grows up they could give negative answer.

**Figure 12.** Correlation between questions: “Age” and “Does age determine the librarians’ attitude towards library automation”. Scatter/Dot Graphs
According to Scatter/Dot (Figure 12) there is no relationship between age and attitudes of librarians towards library automation. The separation of values told us that we could not understand who the people that answered “yes” or “no” to the question “Does age determine attitudes of librarians towards library automation?” were.

- Let us see the correlation between questions “How many years have you used the ICT?” and “Has the using ICT influence the librarians’ attitudes towards automation process in their library?”

Spearman coefficient was used for this correlation because the previous question is quantitative variable (independent) and the other is qualitative variable (dependent). The Spearman’s coefficient of correlation is 0.097 (>0.05) (Table 4). We could say that the attitudes of librarians toward automation was not influenced by the years of using ICT.

**Table 4.** Correlation: “How long are you using ICT?” and “Has the using ICT influenced the librarians’ attitudes towards library automation?” Spearman correlation

<table>
<thead>
<tr>
<th>Spearman’s rho</th>
<th>Correlation Coefficient</th>
<th>How long are you using ICT?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Has the using ICT influenced attitudes of librarians towards automation process in your library?</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Has the using ICT influenced attitudes of librarians towards automation process in your library?</td>
<td>.097</td>
<td>.097</td>
</tr>
<tr>
<td>How long are you using ICT?</td>
<td>.278</td>
<td>.278</td>
</tr>
<tr>
<td>How long are you using ICT?</td>
<td>.127</td>
<td>.127</td>
</tr>
<tr>
<td>How long are you using ICT?</td>
<td>.126</td>
<td>.126</td>
</tr>
</tbody>
</table>

This relationship was analyzed by Pearson correlation as well.

**Table 5.** Correlation: “How long are you using ICT?” and “Has the using ICT influenced librarians’ attitudes towards library automation?” Pearson Correlation

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Has the using ICT influenced attitudes of librarians towards automation process in your library?</th>
<th>How long are you using ICT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has the using ICT influenced attitudes of librarians towards automation process in your library?</td>
<td>Pearson Correlation</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>1</td>
<td>1.110</td>
</tr>
<tr>
<td>N</td>
<td>127</td>
<td>126</td>
</tr>
<tr>
<td>Has the using ICT influenced attitudes of librarians towards automation process in your library?</td>
<td>Pearson Correlation</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.110</td>
<td>.219</td>
</tr>
<tr>
<td>N</td>
<td>127</td>
<td>126</td>
</tr>
<tr>
<td>How long are you using ICT?</td>
<td>Pearson Correlation</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.219</td>
<td>.110</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>126</td>
</tr>
<tr>
<td>How long are you using ICT?</td>
<td>Pearson Correlation</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.126</td>
<td>.126</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>126</td>
</tr>
</tbody>
</table>
It was found out that the coefficient is 0.110 with significant at 0.219 (Table 5). The significant number at 0.219 (>0.05) showed us that using ICT had not influenced the attitudes of the librarians towards library automation.

The most of respondents answered positive that using ICT had influenced the attitudes of librarians towards library automation. Both correlations told us that it could happen that the people who had used few or many years ICT had been positive in connection with this question.

Another relationship was used to see the correlation between “age” and the question “Have you the positive attitudes towards library automation?” Spearman’s coefficient correlation was -0.066 and Sig. 0.461 and Pearson’s coefficient correlation was -0.90 and Sig. 0.315. So no relationship between two variables was found. Also we have seen the relationship between “the experience in the library” and “the positive attitudes toward library automation”. Spearman coefficient of correlation was 0.069 and Sig. 0.444 and Pearson’s coefficient of correlation was -0.010 and Sig. 0.910. So, no relationship between these variables was found. Also education, job position and location as significance for correlation with the attitudes of librarians towards automation process were neither found.

6 DISCUSSION

This study told us that academic librarians in Albania were very positive about the implementation of new technologies in the library and automation process. The future of Albanian university libraries depends on the advance of the ICT as Shafique, (2007) told us that the application of ICT has caused significant changes in the libraries.

All the librarians emphasized that library automation is very important for the development of the Albanian libraries in the future because it will increase the users of the library and will bring new services. So the majority of the librarians were positive towards automation process as Uaifo (2007) said. On the other side this study told us that less than 50 per cent (43.3 per cent) answered that ICT and library automation would not reduce the number of library staff which did not correspond to the opinion of librarians in Borgman (1996) (N=4.1) who wrote this more than 15 years ago.

Using ICT for a long time had helped librarians in their attitudes towards library automation. All the librarians, old and young, had been using ICTs for a long time. The
Albanian librarians were positive for the new technologies and the automation process. They thought that all the libraries would be in the LIS and common catalogue.

But using ICTs for a long time had not brought radical changes in university libraries in Albania but only some sporadic projects which had not been organized well. The university libraries in Albania had passed and continue to have a very long and difficult period during their automation process. A lot of factors have caused this: the policy about the libraries in general the lack of funds, irregular electric power supply, lack of support by the higher institutions, not a good training of the librarians, lack of IT specialists, lack of national policy etc. These factors have caused the slow automation process in many libraries as Uwaifo (2007) explains. This had happened in Albania too.

Most of the librarians were trained and they knew the importance of the automation process. So the academic librarians thought that they could influence the automation process in Albania through seminars, conferences etc. They had to inform the higher institutions about the situation. Academic librarians should try to do projects for their library automation. Some people (60.6 per cent of librarians) thought that librarians could influence the implementation of ICT, Integrated Library System and common system later on. Our conclusion was similar to Ramzan (2010) who said that librarians were the responsible people for initiating changes, innovations and for planning and implementation of ICT projects in their libraries. In our study we did not find any strong relationship between age, level of education, knowledge of ICT and work experience in the library with the attitudes of librarians towards library automation.

The result of this study told us that “age” and “using ICT” did not determine librarians’ attitudes toward library automation. These conclusions are equal to the results of the articles of Finlay and Finlay (1996) … cited in Ramzan and Singh (2010), Adedeji (2005) and Uwaifo (2007) results. Age and using ICT for the long time does not therefore determine the librarians’ attitudes towards library automation in Albanian university libraries. Though the librarians had a positive attitude towards library automation this variable has not influenced the result. Some other reasons analyzed or not in this study could influence librarians’ attitudes towards the automation process. In spite of the opinions about the influence of age and librarians’ attitudes towards library automation, it was not found it was not found any relationship between them. These results meant that our hypothesis was not supported.
7 CONCLUSION

The most of the university libraries in Albania are in the first step of automated process. The librarians are very positive towards the automation process. During these years they tried to create their electronic catalogues in their libraries. In some cases this process was faced with a lot of difficulties. The infrastructure in the most of libraries is not prepared yet and the IT specialist is absent. The librarians wish to continue to work in this direction. They are trying to find software packages with library standards and to put the records in it. They should establish their on-line catalogue. These records must be done according to the library standards and to be ready to integrate in an ILS. This study told us that age and using ICT for a long time does not determine librarians’ attitudes towards library automation. The librarians said that the middle age which is the most of population in the study are able to master the new technology and have the responsibility for the work. The librarians must cooperate more with each other and Albanian Librarians Association must be more organized. The librarians should raise their voice before the responsible institutions. A national strategy must be done as soon as possible. Academic librarians are waiting for this.

The automation of university libraries is not in the spotlight in Albania. Lately it was said that the government would try to install the internet in every school and university. This has not brought any changes to the automation process. Some of the libraries are facing large financial difficulties. The difficulties are caused because of the lack of a national strategy for the developing of libraries in Albania, especially for their automation in this electronic age. The Education Ministry does not pay attention to the university libraries. Albanian politicians do not realize the important role that libraries play in society. They tend to regard libraries as costs and not as an investment. The libraries must face the challenges and reconsider their role in the Albanian society. The Ministry of Culture, Ministry of Science and Education and the politicians must take initiatives to make changes on the national level. And the librarians themselves should change the attitudes of politicians, administrators and funding bodies towards them.

There is an apparent need for university libraries here to redefine their role if they would like to survive and play an important role in the new conditions of Information Society. To achieve this, the existing library infrastructure will be used to establish centres, which will use new information and communication technologies to provide access to information.
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### A. Albanian’s librarian attitude towards library automation

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Questions</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Indecisive</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is the ICT knowledge of librarians necessary for automation process?</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Does the knowledge of ICT help the librarians to put in the data in the electronic catalogue (OPAC)?</td>
<td></td>
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<tr>
<td>3</td>
<td>Can the librarians control the changes that occur in ICT (in the libraries of the world)?</td>
<td></td>
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<tr>
<td>4</td>
<td>Is the work with ICT unhealthy?</td>
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<tr>
<td>5</td>
<td>Will ICT reduce the number of library staff?</td>
<td></td>
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<tr>
<td>6</td>
<td>Does the future of Albanian university libraries depend on the advancement of ICT?</td>
<td></td>
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<tr>
<td>7</td>
<td>Is library automation prior according to manual system?</td>
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<tr>
<td>8</td>
<td>Will library automation reduce the operations and routine tasks in your job?</td>
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<tr>
<td>9</td>
<td>Will library automation increase the users of the library?</td>
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<tr>
<td>10</td>
<td>Will library automation bring new services in the library?</td>
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<tr>
<td>11</td>
<td>Have you the positive attitude towards library automation?</td>
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<tr>
<td>12</td>
<td>Can librarians implement the automation process by themselves?</td>
<td></td>
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<tr>
<td>13</td>
<td>Does age determine the attitude of librarians toward the automation process in the library?</td>
<td></td>
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<tr>
<td>14</td>
<td>Has the using ICT influenced librarians’ attitudes towards the automation process in your library?</td>
<td></td>
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</tr>
</tbody>
</table>
B. The librarians’ attitudes towards automation process in the library and common system

1. Do you have the software package (program about automation process) in your library?
   □ Yes □ No

2. Which year was this program installed in? ------

3. Who is using the software program?
   □ Librarians □ Professors □ Students □ All users

4. It is initiative of:
   □ The project □ Donator □ Librarian □ Purchase □ IT specialist

5. Does it have the standard format (MARC, UNIMARC and COMARC)?
   □ Yes □ I do not know □ No

6. Which are the modules of automation in your library?
   □ Cataloguing □ Acquisition □ Circulation □ Others

7. Who is responsible for IT in your library?
   □ IT specialist □ Librarian □ By yourself □ Nobody

8. Is the infrastructure suitable for the automation process?
   □ Yes □ No

9.a Should all the libraries of Albania be in an integrated library automation system?
   □ Yes □ No

9.b Should the creation of union databases (catalogues) be available for academic libraries?
   □ Yes □ It is impossible □ No

10. Can the librarians influence the implementation of integrated system and then the common system?
    □ Yes □ No

11. Do we need a national strategy for the common system in Albania?
    □ Yes □ It is not necessary □ No

12. Give your recommendations and solutions to the integrated automation system and the common system. ________________________________
C. Demographic variable

1. Which kind is your library?
   - State (Public) Academic library
   - Private (no public) Academic library

2. Gender
   - Female
   - Male

3. Age
   
   ___________

4. Education
   - Others
   - Higher Education
   - Two years study in National Library
   - Studying for Master Degree in Librarianship
   - Master Degree in Librarianship

5. Which is your current position in your library?
   - Library employment
   - Librarian
   - Classification
   - Bibliography
   - Head of library (sector)
   - Director

6. Your experience in the library.  ___________

7. What is the quality of your training about the ICT?
   - Extensive
   - Adequate
   - Inadequate

8. How long are you using ICT?  ___________

9. Do you have the need for training about the new technologies implementation in the libraries?
   - Yes
   - No

10. Have you taken part in the conferences, seminars or workshops where it was spoken about library automation?
   - Yes
   - No
APPENDIXES B The list of Public Universities and their libraries in Albania (their libraries)

1. Tirana University
   - Library of Natural Science Faculty
   - Library of Social Science Faculty
   - Library of Philology – History Faculty
   - Library of Justice Faculty
   - Library of Economic Faculty
   - Library of Medical Faculty
   - Library of Nurse Faculty
   - Library of Kukes Faculty

2. Polytechnic University of Tirana
   Science Library:
   - Civil Engineering Faculty Library
   - Electric - Engineering Faculty Library
   - Mine – Geology Faculty Library
   - Mathematic Engineering Faculty Library
   - Department of Civil Engineering Faculty “Multimedia” Library
   - Department of Architecture of Civil Engineering Faculty Library

3. Academy of Art Library

4. Sports Academy “Vojo Kushi” Library, Tirana

5. Agricultural University Library of Kamza, Tirana
   - Agricultural University of Lushnja Branch of Agricultural University Kamza, Tirana

6. “Aleksandër Xhuvani” University, Elbasan
- Center University Library
- Economic Faculty Library
- Pre – School Educauion Faculty Library

7. “Aleksandër Moisiu" University of Durres

- Center Library of Durres University Library
- The Faculty of Studies Integrated with Practice Library

8. “ Fan S. Noli” University Library, Korcha

- Economic Faculty Library
- Agricultural Faculty Library
- Teaching Faculty Library
- Nurse Department Library

9. “Ismail Qemali” University, Vlora

- No. 1 “Nermin Vlora Falaschi” Center library
- No. 2 Building of “Nermin Vlora Falaschi” library

10. ”“Luigj Gurakuqi” University Library, Shcodra - Library

11. “Eqerem Çabej” University Library, Girokstra - Library

   Defence Military Academy
   - Defence Academy Library Library
   - “Scenderbeg” United school Library
   - Departament of Foreign Languages Library

Higher Institutions

Albanological Study Center

Historical Study Institution
APPENDIXES C The list of Private Higher Education Institutions in Albania (some of them have not libraries yet)

1 New York University-Tirana
2 Luarasi University
3 Albanian University
4 Catholic University “Zonja e Keshillit te Mire”
5 Academy of Film and Multimedia “Marubi”
6 “Marin Barleti” University
7 “Kristal” University
8 “Justiniani I I”
9 “Sevast & Parashqevi Qiriazi”
10 European University of Tirana
11 “Justicia”
12 “Aldent”
13 “Medikadent”
14 “Wisdom University”
15 “Polis” University
16 American Higher School of Tirana
17 Epoka University
18 “Luigi Benusi”
19 “ISSAT”
20 Higher Education “Nehemia”
21 European Higher Education for Turizem
22 Higher Education “Queen Mother, Geraldine”

23 Higher Education “Illyria”

24 Private Professional College “Dentarium – Al”

25 Private Higher Education of Albania “Mediterranean”

26 Private Professional College “Ivoclar-Vivadent&Partners”

27 “Indipendent” - in Vlora

28 International Higher Education of Tirana

29 “Vitrina”

30 Private Professional College “New Generation”

31 Private Professional College “Medicom”

32 Private Higher School of Education

33 “Logos”

34 “Planetar” University of Tirana

35 “Metropolitan University of Tiana

36 “Gjon Buzuku”

37 “Elite University”

38 “Tirana Business University”

39 “Beder – Hena e plote”

40 Professional Academy of Busness

41 “Reald”

42 Application Stding Academy

43 Academy of Construction in Tirana

44 Kanadez Institutions Of Technology
45 Pedagogy Academy

46 Professional College “Argent”
Statement of authorship

I hereby declare that the proposed masters thesis is in its entirety my own author work and that the used sources and literature are referenced in accordance with international standards and valid legislation.

Ljubljana, 10th June 2012

Monika Luarasi
Statement of the candidate

With my signature I MONIKA LUARASI declare that the content of the master’s thesis in printed and electronic form is identical and that it can be published on faculty’s website.

Date: 10th June 2012-06-10

Candidate’s signature: