The documentation in support of the museum management and knowledge management

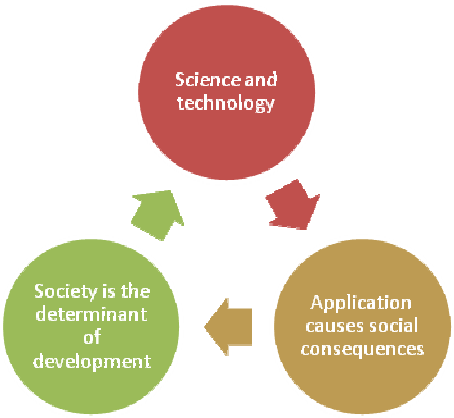
1 INTRODUCTION

1.1 The science, technology and knowledge

The use of new technologies in Latin American countries, has profoundly affected societies.

This effect can be analyzed from two standpoints. On the one hand, we can say that society is the determinant of scientific and technological development, but on the other, the application of science and technology carries a number of social consequences.

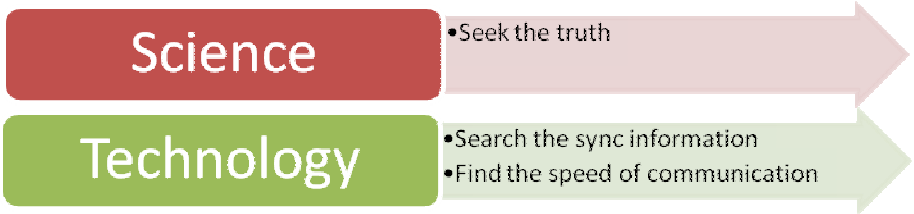
Illustration 1 RELATIONSHIP BETWEEN SCIENCE, TECHNOLOGY AND SOCIETY
Prepared by: Lucy Vega



In our countries, the application of new technologies has caused the globalization of culture and the creation of a cyberspace where cultural organizations are required to interact and exchange free information and knowledge. However, technology just searches effectiveness, which is caracterized by synchronization of information and communication speed, but technology does not search truth as science. For this reason, the technological applications serve to inform better, but they do not guarantee that all information will generate knowledge.

The purpose of the application of technology in museums is that it can be used to increase the speed of the communication which will get the recognition of a dynamic and interactive cultural heritage (DE KERCKHOVE: 2007).

Illustration 2 OBJECTIVES OF SCIENCE AND TECHNOLOGY
Prepared by: Lucy Vega

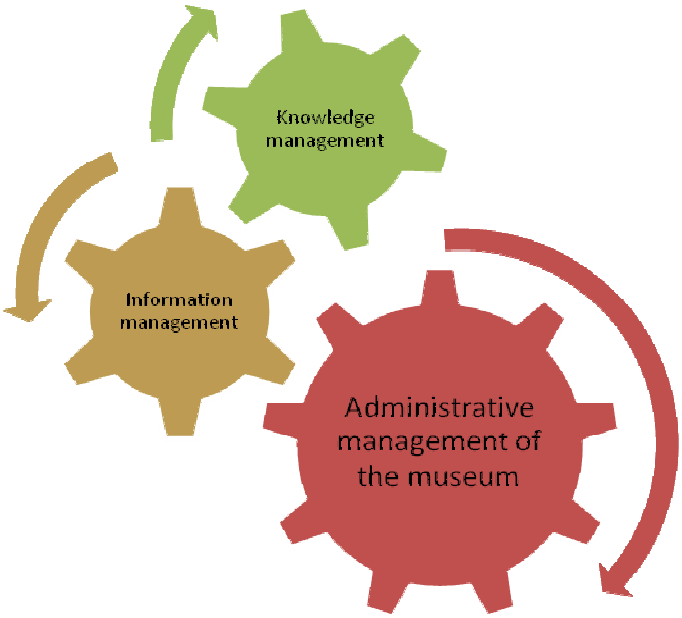


1.1 The management, information and knowledge

The quality of administrative management in a museum determines if the museum reaches its mission. This mission is related to educate and preserve the cultural heritage (ICOM: 2003).

Additionally, the administrative management determines if there are records and documents which serve as testimony or evidence of activities performed into a museum. The records or documents, both digital and physical, collect data that could become important information when they are considered relevant. Therefore, administrative management is crucial in managing information and knowledge management in the museum.

Illustration 3 MANAGEMENT TYPES PERFORMED BY THE MUSEUM
Prepared by: Lucy Vega



Ecuador is a country with two cities: Quito and Cuenca which were declared Cultural Patrimony of Humanity, and a natural place: the Galapagos Islands which was declared Natural Patrimony of Humanity. The museums in Ecuador are many. For example, Quito, the capital, has about 50 museums which include some public museums, municipal museums and private museums. However, the effectiveness of the management is different in every one of them and this affects directly the information management and the knowledge management.

2 OBJECTIVES AND CONTENT

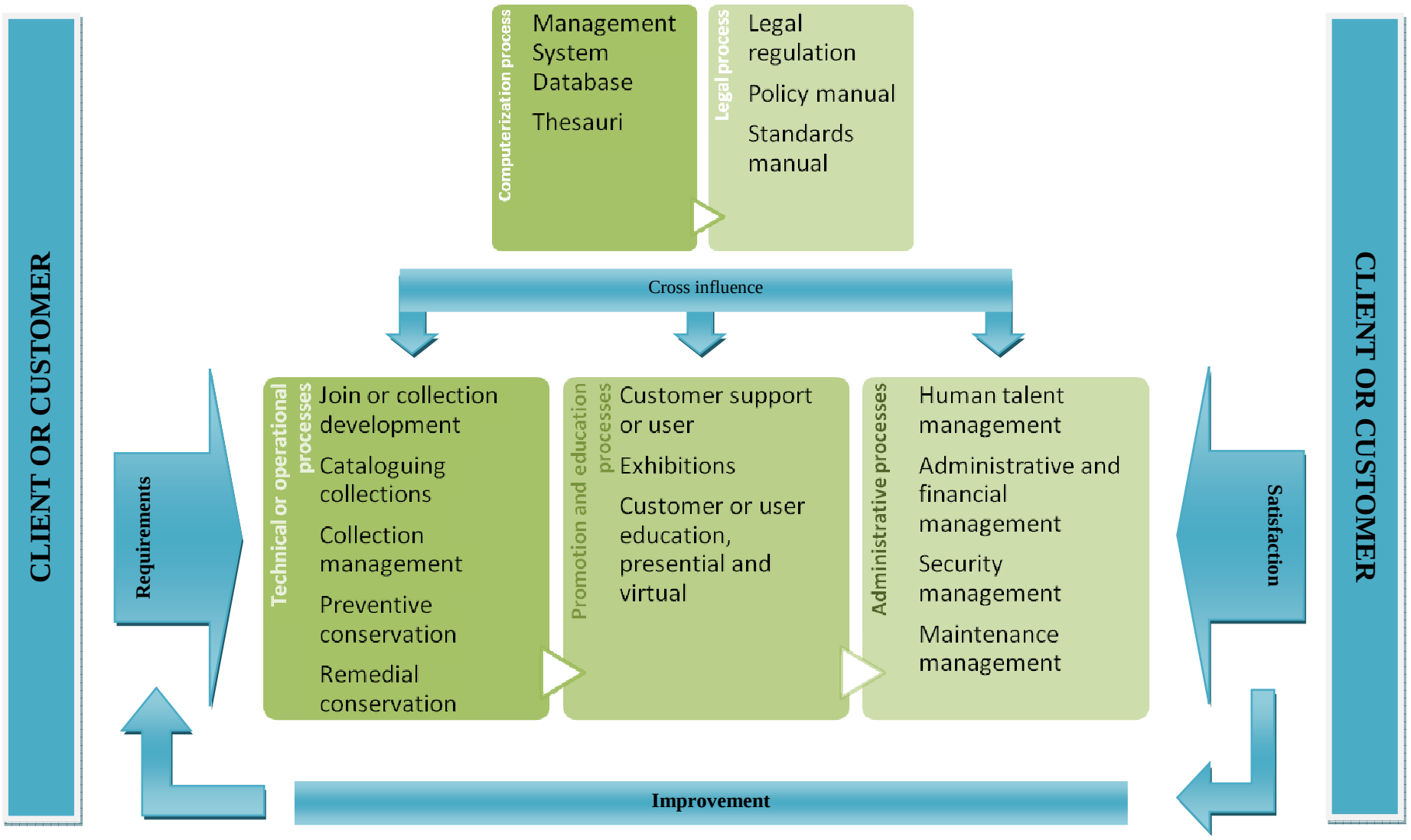
2.1 The administrative management

According to the Council of Museums ICOM, there are two main functions that must have a museum: education and conservation. To fulfill these functions a museum develops a management of the *collections*, which is produced by a number of identified *processes*. The *process* is the transformation of inputs into services through the use of physical, technological, human and others.

Illustration 4 PROCESS DIAGRAM
Prepared by: Lucy Vega

The museums as an organization should implement a management approach based on processes that ensures the effective achievement of its functions and objectives. This approach identifies three groups of processes: 1) conservation, 2) education and 3) administration. They try to satisfy the needs and achieve the customer satisfaction within a quality system. The model of management based on process approach can be seen in illustration 5.

Illustration 5 PROCESSES OF THE MUSEUM BASED ON QUALITY MANAGEMENT AND PROCESS APPROACH
Prepared by: Lucy Vega



Some previous studies in the museums located exclusively in the historical center of Quito indicate that the management there is not performing efficiently (ORTIZ CRESPO: 2002). Some of the data that reveal this situation are:

- 62.5% of museums have between 1 and 5 fulltime employees. This staff does not have museology studies. The human resources, a key aspect in any organization, are not adequate in most museums in the historic center because they are poor in quality and quantity. This kind of museums, keep the most important cultural heritage, about 10,000 cultural assets.
- 75% of museums share facilities with other activities within the same museums, as in the case of religious activities. Therefore, the activities are neglected or relegated, so it is not done minimum planning.
- 44% of museums have an annual budget which is insufficient.
- 87.5% of museums give an informal attention to the tourist. This attention is developed by trainees and students who do not take control of records and statistics. Only 12.5% of museums have access to disabled people.
- 75% of the museums claims to have made some kind of conservation, but in the reality the National Institute of Cultural Heritage is the only institution that has made this kind of activities. In fact, very few museums have a conservation and restoration workshop in the hands of competent and experienced professionals.

2.2 Management of information or documentation

Only when you have defined a process structure and the organization complies fully with the activities for which it was created, is that you can set the data generated and the information that must be processed and stored through information systems. You can not document what is not done.

The data can be a number, word or image. Information are the data set that have a meaning for someone within a given context. The information system is the mechanism by which information is generated.

Illustration 6 PROCESS INFORMATION CHART

Prepared by: Lucy Vega

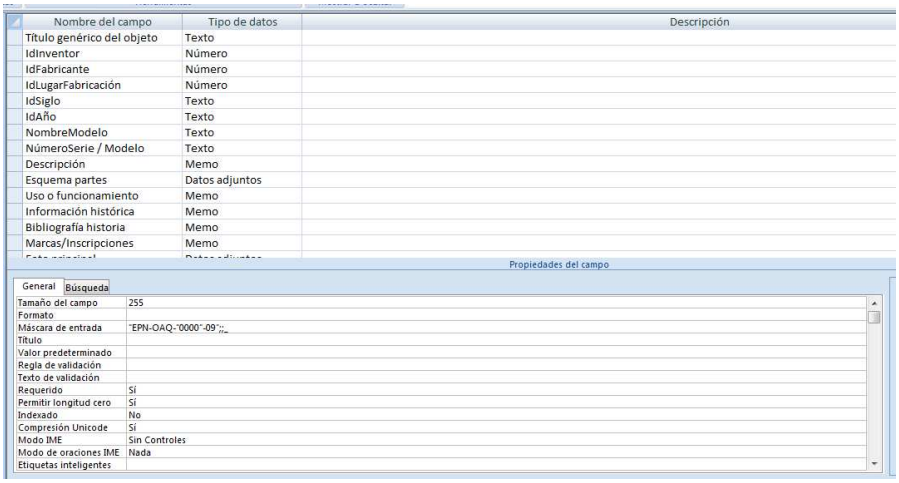
The documentation becomes the only evidence to measure the achievement of quality in any organization (TABLA GUEVARA: 1998).

Given the administrative conditions that have most of the museums located in the historical center of Quito, is expected to not meet the information management and documentation. Although 87.5% of the museum claims to have stocks of their collections, these have been done by the National Institute of Cultural Heritage for over 20 years and these records are not computerized, nor are updated periodically.

Furthermore, there is the widespread tendency to conceptualize the documentation as a synonym for cataloging, registration or identification, when it is a part of the whole. For example, it is not surprising that most museums do not have records on their collections restorations.

In cases where museums have information on cataloging, these are systems that focus on designing a database, comprising a list of fields in non-relational.

Illustration 7 LIST OF FIELDS IN A DATABASE
Prepared by: Lucy Vega



The information system that allows the management of knowledge through intelligent management of data is conceived by the managing multiple databases.

The management systems of databases are developed according to the administrative function based on the process approach. For example, we have the following processes: collection management, study and research, conservation, exhibition and documentation of collections, as shown in illustration 8.

In recent years, there has been greater emphasis on cultural heritage documentation projects in the nation with record collections nationwide, where students and graduates of the University of Technology Equator have been part of almost 100% of staff hired.

However, the administrative development of the museum is still a plan for the medium and long time which is developed by the Ministry of Culture of Ecuador. The achievement of this plan requires the involvement of private and public institutions. Hence, the main purpose of the University of Technology is to collaborate through a teaching program related to the management and documentation to students of Restoration and Museology, school unique in the country

The mission of the university is that its students achieve the skills to generate knowledge which implies the management based on principles of quality and a good management of information. Similarly, the university is willing to transfer their knowledge to the museum sector through training and bonding in coordination with national and international.

3 CONCLUSION

Ecuador, like most Latin American countries, is affected by the application of technology.

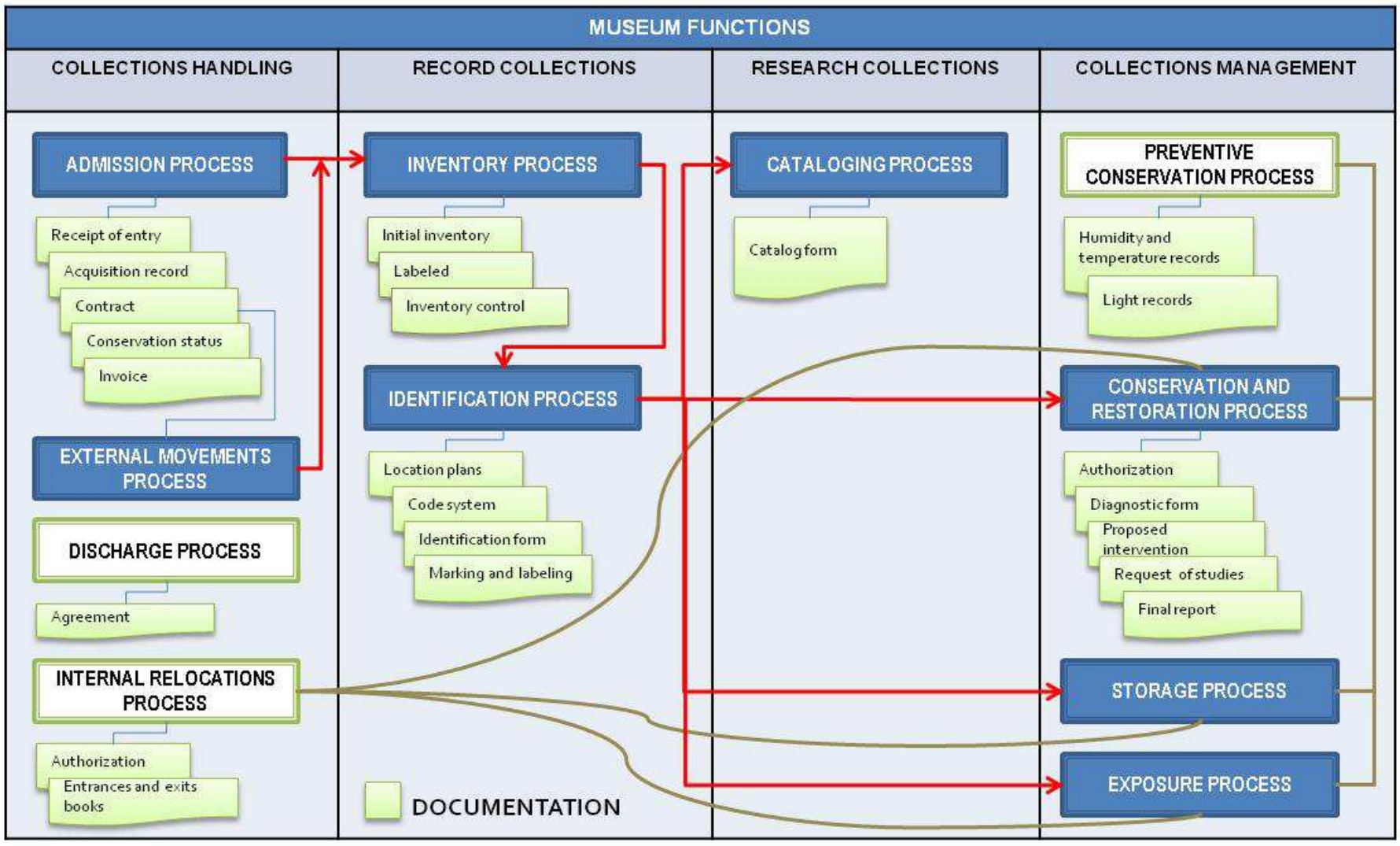
Technology has led to the globalization of culture and the creation of a cyberspace, where its cultural institutions are been forced to interact and exchange information and knowledge freely.

Cultural organizations have used technology applications to better information, but this is no guarantee that this information will generate knowledge. The mainly cause is the low effectiveness of the administrative management of most museums. It is important to remember that the administrative management influences on the effectiveness of the information management and the knowledge management.

An effective information management is formed by a system of multiple databases, which correspond to the processes that run the museum. Currently, the management of information is limited to one database, one that contains the documentation, identification or record collections.

That is the reason why the University of Technology Equator wants to transfer this knowledge to society, through its students and training programs and links, so that the technology applied to a museum could become an “accelerator cultural” and that society can recognize their heritage in a dynamic and interactive way.

Illustration 8 FUNCTIONS AND PROCESSES OF A MUSEUM TO BE CONSIDERED FOR DESIGN MANAGEMENT SYSTEM DATABASE
Prepared by: Lucy Vega



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