

# Flow of Information and Content Manipulation in Libyan Organisations: Case Study of MFZ Company

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## ABSTRACT

Organizations all around the world invest much money and other resources in adoption and development of technologies for improving the flow of information and content management manipulating. The selection and implementation process of a content management system (CMS) represents the main problem which has been faced by many organizations specially those which have a huge volume of data. These data have to be managed well. Today a successful organisation needs more than just archive for documents and retrieve electronic information. It needs to maximize the benefits of the decision-making process to get through the correct content which might be on paper or electronic such as audio, video, image or an e-mail in the hands of the right person at the right time which is important to the success of its business. In this paper, MFZC " Misurata Free Zone Company" was chosen as a case study to investigate the flow of information and content manipulating, detecting problems and suggesting proper solutions to tackle the issue of information availability to the decision makers in the Libyan organizations.

**Keywords:** *Information, XML, MFZC*

## 1. INTRODUCTION

Using a traditional system to extract information and content manipulating throughout an organization is a really tedious job due to the effort and time needed to meet the requirements of top management.

The process of the flow of information and integration of organization's data are of great importance to the life and work of the organization, where there is a need in the modern world to obtain accurate information of the organization in appropriate time. The integration of data, application and corporate information are main factors for organization success in its business. Integration of information facilitates top managements to make right decisions at right time. In addition, it helps in proposing suitable solutions for expected problems. Organization can also develop business and security policies allowing documents to be shared throughout a department or between departments. As stated by JoAnn Hackos [1], content management plays an important role in the organization, classification and formation of informative re-sources, so that they can be stored, taken over, published and recycled, depending on users' needs.

## 2. WHAT IS A CONTENT MANAGEMENT?

It is a content of the information which may be in the form of paper documents such as files or reports or in electronic form. Electronic information can be in form of files, databases on servers, electronic tapes or disks. All these forms will fall under the definition of the content. As maintained by [2], Content can fall in two categories passive or active . The first one deals with content that is static in nature such as closed purchase orders, paid invoices, e-mails, etc. The second one is content that is dynamic such as web sites. Organizations producing a various forms and kinds of content in the context of its

operations. The content management is an infrastructure for utilizing information technology in any organization.

It is an important factor for improving economic, scientific and social development in different parts of the organization.

### 2.1 Importance of Content Management system

Massive amounts of available information lead to sink an organization in documents, application forms, staff records, human resources forms and digital content such as e-mail inboxes. This information assists in the completion of organization business, but often this information is buried in archives or independent systems. In worst case this information is kept in boxes or on shelves. The staff finds it hard to find documents, keep track of information and manage. Paper is strewn across desks and stuffed in file cabinets, while electronic content is housed in staff members' hard drives, e-mail inboxes or network drives.

The main issue which has been faced by organizations to find a solution, which is how an organization can deal with the enormous amount of data collected in a way which can be easily usable. According to [3], the content, in order to be valuable and satisfy the needs of the different kinds of users, should acquire the following characteristics:

- Effortless to find.
- Truthful and up-to-date
- Contains sufficient details to satisfy the needs of the users.
- Well structured to be fast to seek
- Associated to other related content.
- Take in account equally at each person's need and his/her level of knowledge.

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The solution of this problem is to select a good content management system that can help organization to organize and manage its content throughout its lifecycle. The CMS system manages operations, documents, electronic storage, shares and retrieval of electronic information. It is a practical solution to help the various functions of organization to reduce the risk and cost of services as well as improvement of the service process in an organization. CMS allows organization to digitize their paper documents and organize them with their existing electronic documents into one central computerized system. So users can easily search and retrieve the documents. The CMS allows staff to manage document work flow and automatically route files to the appropriate places, making processes more efficient.

Developing and implementing of CMS has a great influence on organization development. the CMS has a top priority, which would facilitate organization work and delivery of public service. It also helps to provide the data and information needed by the decision-makers and government officials at any time when they are required. The staff will benefit from the CMS too, as the effective management of digital content provides information for them that are in dire need of certain results in real time.

### 3. CURRENT STATE OF MFZC

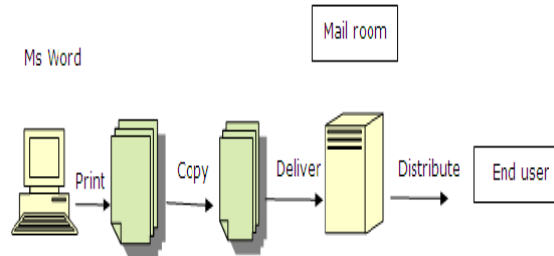
MFZ is a large company consists of 15 divisions and employs more than 1700 persons. Although the number of personal computers touches 300 devices, the company still utilizes a semi paper-based back office system. The existing computer applications is very few and they are operated independently. Furthermore, the web-based application is very basic consisting of a couple of static pages with no mean of any interaction between the system and end users [4].

The MFZC has different experiences, and faces several issues related to the current system. It depends heavily on a semi-manual approach including collecting and transferring data among the company divisions via tradition mail service and emails. As a result, the following problems are raised:

- Shortage of the required information at right time, due to the late spread of date among management systems. The issue leads to poor or inadequate decision making.
- Processing data is an error prone.
- High cost of extracting required information

As an example, the employees create a document using a computer application like Microsoft word, save it to a disk, print document, make copies of it, deliver it to the mail room for distribution as in (Figure 1). The document goes through many processes, and it still needs handling. Another example would be, the employee who works at mail room must prepare address for each copy and deliver it to each department manually. This system

takes time, effort and it is costly to distribute documents within internal department. Furthermore, the documents are subject to be lost.



**Fig 1:** current system of information flow within MFZC

## 4. METHODOLOGY

Questionnaire approach was used to obtain required information about the current CMS in MFZC. The collected data was interpreted and analyzed for sake of proposing a suitable solution.

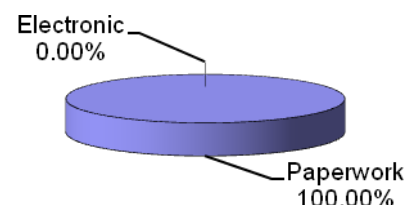
### 4.1 Data Gathering

Evaluating and understanding the nature and mechanism of the existing system is very important in order to provide a good solution. A questionnaire was created and handed out to a random set of staff who deal with data collection and information extraction. The questionnaire was distributed to obtain their views, feedback, and opinions for improvement of the current system to meet their requirements.

The questionnaire was classified into several groups varies from basic information to a very technical ones. Thirty employees were targeted in this study and their responses are clarified as shown in Section 4.2.

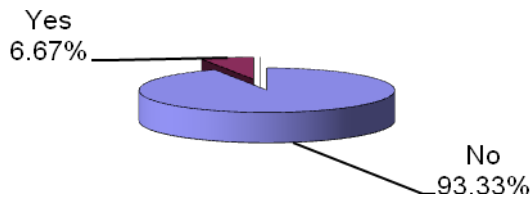
### 4.2 Data Analysis and Interpretation

Figure 2 shows the response of targeted staff who believe that all data exchanged among departments is in the paper form.



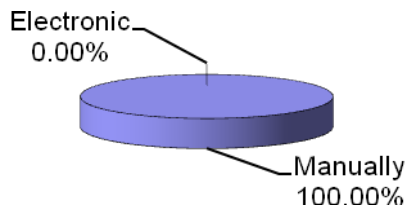
**Fig 2:** The exchange of letters interdepartmental is electronic or paper work.

The majority of asked employees expressed their dissatisfaction about the needed time for delivering required information as in Figure 3.



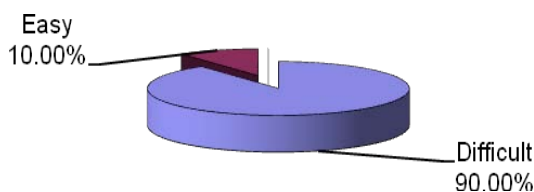
**Fig 3:** The letters, statistics, reports reach in appropriate time.

Based on gathered data, Figure 4 illustrates that, even in very few cases e-mail is used to transform data internally. The manipulation of collected data is totally performed in a manual manner.



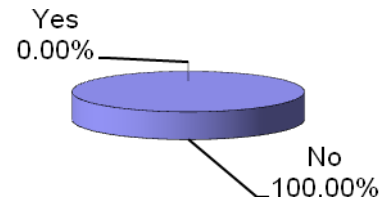
**Fig 4:** manipulating of collected data

Figure 5 tells that greater part of MFZC staff think that it is very hard to access the desired information whether was stored on database application or paper-based system. This leads to undesired delay of decision making.



**Fig 5:** Ease of getting information

According to surveyed employees of MFZC, all persons strongly believe that the company lacks computer-based information systems. Also the efficiency of current computer-based applications do not meet the minimum requirements of company's business, as shown in Figure 6.



**Fig 6:** satisfaction of MFZC staff about existing computer applications

## 5. POSSIBLE SOLUTIONS

MZFC is a very large company, employs several hundreds of employees and its offices are spread over different sites. As a result, the volume of needed, transferred and processed data is a very massive. The availability of right information at right time is a very crucial factor for a good decision making. Based on gathered data, MZFC lacks good communication infrastructure and information systems. To tackle this problem, following solutions are suggested. The optimal solution for such company is adopting an integrated system which requires establishing a reliable networking system whether it is wired or wireless. A database system will be part of the integrated system. The centralized model operates efficiently and reduces the overhead issues which arise in case of adopting distributed database system. Definitely, the above solution is the best choice since it manages and brings all company data into one system which makes the integration of data in a superior state. However, such a system requires plenty of time to be analyzed, designed, implemented, tested and a considerable budget is concerned. An alternative solution which can be established and implemented in a very short time though it works for a short plan and it is not a substitution for the former one. It suggests formatting all the company's relevant data in the form of XML documents. This solution allows the gathered data to be stored, transferred, searched and processed in XML environment. Based on gathered data, MZFC depends heavily on Microsoft products including operating systems and other computer applications. Therefore, making use of InfoPath system for gathering data from several locations in form of XML documents will be desired and make difference for the second solution.

## 6. CONCLUSION

The present study has focused on the flow of information in MFZC. A massive investment in adopting information technology systems is very crucial and urgent for MFZC and most of Libyan companies in order to improve their performance, productivity and survival in business. The investment should include the physical communication infrastructure as well as computer applications which run on networks or operated independently. Concentrating on developing of the human resources is the de-facto factor for MFZC to be competitive and grow rapidly in business.

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