

## **Impacts of Sustainable Document Managements on Enterprises**

### **1. Introduction**

End of October 2014, 28 states of the European Union came to the agreement of new climate protection goals by 2030. It was decided to reduce the greenhouse gases within the European Union by 2030 by at least 40 per cent (Focus Online 2014).

In order to reach this goal, European enterprises will need to pay for greenhouse gas certificates. That is why sustainability will become even more important than it is already. A sustainable document management is part of this development.

However, a survey for the Ricoh Governance Index shows clearly that only few enterprises set goals for their document management. Most of them do not think about energy efficiency or recycling.

Seldom, there are holistic solutions for the corporate document management. Employees usually have no guidelines with regard to their printing behavior. The survey shows: 67 per cent of the managers set cost goals for their document management but only 41 per cent of them set environmental goals. Only 60 per cent of the companies check their printer infrastructure (Ricoch 2009:4).

Companies underestimate the impacts of a document management system on the sustainability goals of their organizations. A company without a sustainable document management consumes up to 30 per cent more of the resources it would usually need to (Ricoch 2009:4).

Another problem is that there are no guidelines for responsibilities for the document management. Only 18 per cent of the European companies realized corporation-wide measures for the duplex printing. Almost 50 per cent of the managers do not know the recycling measures of their company (Ricoh 2009:4).

There is still a very high potential for sustainable document management in Europe. The study of Ricoh shows that French companies have the highest standard in sustainable document management. UK and Ireland bring up the rear in Europe with regard to document management (Ricoh 2009:4).

This paper wants to give an overview of sustainable document management. It shows the recent status quo and it shows case studies of companies that have realized sustainable document management systems.

## **2. Definition of Sustainable Document Management**

According to Kampffmeyer / Merkel (1999) document management is used as the generic term of different categories like document imaging, dynamic document management, electronic archiving on digital, optical storage, groupware, workflow, and electronic form handling. All these categories have the common attribute that different documents are administrated and handled. Documents are not only paper documents but also any form of digital information of different origin with different connections and references.

According to BITKOM (2012:22) document management is the generic term for all types of document administrating systems. It implies archiving systems and systems that are able to handle documents during the whole life cycle from the creation over the administration of different versions to the unchangeable storage. Nowadays document management is also called enterprise content management (ECM). But it is more than the classic document management. Enterprise content

management comprises all types of relevant content. It does not matter if they are from non-ECM systems or ECM systems. Relevant content in the ECM context are all types of unstructured documents, files or information having certain requirements for the right storage or administration. Structured data are ECM relevant if they are exported from the original application and imported to an ECM solution in order to be stored (BITKOM 2012:17).

According to Riggert (2014) document management is the organization and coordination of the creating, changing, monitoring and distributing of any document during their whole life cycle from the beginning to the destroying. Between these periods, there are controlling, administration and forwarding features.

That means that a sustainable document management is the handling of documents with the goal of cutting costs and of reducing the ecological footprint. As a document management tries to digitalize all types of document, a company can work more or less without paper documents. This is a step to the right direction in order to reduce the greenhouse gases caused by each company.

### **3. Financial Advantages of Document Management**

First of all, the productivity with a modern document management system is much higher. For example, the manual handling of each paper invoice costs around 20 euro more than the electronic handling with a document management system. The cycle time of a paper document is 23 days longer. As there are a lot of papers handled per day in an average company, the costs are huge. The market research of the Gartner Group found out that the loss of productivity caused by an old-fashioned document management is more than 30 per cent (Toolmaker Advanced Efficiency GmbH).

A document management system is sustainable because human resources are better allocated. According to Toolmaker Advanced Efficiency GmbH, 97 per cent of paper archiving systems are human resource costs. Searching and waiting for information takes 10 to 40 per cent of a working day.

Three per cent of all documents get lost. The recreation of a document costs around 100 euro. The recreation costs in a document management system are zero (Ströbele 2014).

Document management systems reduce the costs for paper, printing, archiving, faxing and copying. Also the costs for express mail services will significantly decrease (Toolmaker Advanced Efficiency GmbH).

According to Ströbele (2014) there are also advantages with regard to the liquidity of a company. These advantages are caused by more efficient processes during the accounting. If the processes are more efficient, invoices can be sent faster and distributor discounts can be used more often. This has a positive impact on the liquidity.

Another advantage of a document management system is the reducing of office space. Companies can save a lot of money that they spend for renting rooms to store endless paper documents. If a company has been in business for decades, it has entire rooms with many boxes of files. A sustainable document management can be the solution for these companies (Brown 2014).

#### **4. Non-Financial Advantages of Document Management**

Some advantages of document management systems are hard to measure but still they have a big impact for example on the client service. If documents are digitalized and easy to find, the processes are not only more efficient but the client

service is also improved. If a customer calls and the employee in the customer support can reply directly to the question as he or she can find the relevant documents within seconds, the customer will be happy and satisfied. If the employee needs to call back later, it is not the best sign for a customer support of a company. It is clear what kind of customer support is searched for (Brown 2014).

A document management system with modern technology can also increase the satisfaction of the employees because searching and filing documents are very monotonous activities. The reduction of these office tasks supplies them more time they can use for more creative and challenging tasks.

Another advantage is mobility. Digital documents are more mobile than paper documents. This is very important as the office world changes more and more to mobile, flexible and peripheral working structures. It is important that information is everywhere available – at home, on the way to a meeting or in the office (Ströbele 2014).

A document management system has a lot of non-financial advantages. Except of the satisfaction of customers and employees, these systems lead to a high transparency. Further, the controlling and monitoring is much easier if all documents are fast accessible.

## **5. Valuation of a Document Management**

In order to find out the real value of implementing a new document management system, it is necessary to calculate the return on investment (ROI) of the investment. But how is the ROI on a document management system measured? According to the whitepaper of ITAZ Technologies (2011:2), the following questions are important for calculating the ROI:

- 1) How many employees handle the documents of the company?
- 2) What is their salary per hour?
- 3) How many documents are used per day?
- 4) How many documents are copied per day?
- 5) What is paid for office supplies like stationery every month?
- 6) What is paid for the storage of documents every month?

The whitepaper of ITAZ Technologies (2011:3) shows an example for calculating the ROI of the investment in a document management system. In this example, the company has ten employees who spend most of their time with handling documents. Each employee gets a salary of 15 euro per hour. On average, each employee spends one hour for handling a paper based document. The company spends 150 euro per day just for managing documents. That means that the company spends 39,600 euro per year.

Now the same company invests in multi user document management software which costs around 2,500 euro for a ten user license pack and it buys a scanner for 1,000 euro. After implementing this system, each of the ten employees will spend only 15 minutes per day. The costs will be 825 euro per month and 9,900 euro per year. Now it is necessary to add the costs of 3,500 euro for the document management system. The whole cost per year will be 13,400 euro.

The ROI is calculated as follows:  $(39,600 \text{ euro} - 13,400 \text{ euro}) / 13,400 \text{ euro}$ . This is a ROI of 1.96. This shows the effectiveness of a document management system. For the valuation of a sustainable document management, it is necessary to calculate the value of all the saved papers and how much greenhouse gases are reduced by saving paper.

## **6. Case Study 1: BKK ESSANELLE**

BKK ESSANELLE is the company health insurance fund of ESSANELLE Hair Group AG with 400,000 insurants. There are 800 employees at the headquarters in Dusseldorf and in 19 service centers. The main goal of the implementation of a document management system was the reducing of the handling time of letters in order to give the service employees more time for their main tasks.

In 50 per cent of the cases, it took around 7.5 minutes to handle one single letter. With the new document management system, it takes only five seconds. There are 105,000 incoming letters and 338,200 paper and digital documents per month. That means that the new system requires a monthly digital storage of 16 MB. This is a storage of around 230 GB per year.

Since the launch of the document management system, BKK ESSANELLE has had a central in-box in Dusseldorf for all letters. The incoming letters will be prescreened by employees who decide which documents will be scanned and which will be classically distributed. After the prescreening the documents will be archived and sent to the right in-box what is done by a database.

The new document management leads to a lot of advantages for the health insurance. First of all, there will be a reduced office space necessary. Existing paper archives can be reduced step by step. It is also possible that costs for paper, files, printer, copiers and scanners will drop. Human resources will be used more efficiently and the work results can be significantly improved. The better flow of information increases the productivity as the availability of all documents is higher, the time for handling and for searching documents is shorter. The productivity is five per cent to 50 per cent higher. The faster distribution of all documents shortens the waiting time of the insurants.

This case study shows that document management systems can significantly increase the productivity of a company (Pentadoc 2014).

## **7. Case Study 2: EP-Logistik GmbH**

The EP-Group is a German logistics company with eleven offices in Germany, as well as own offices in Austria, Poland, Czech Republic and Russia. The company does overland transportations in all Western European countries and offers storage, logistics, outsourcing projects and the whole supply chain management. The company is focused on the consignment of goods of the paper, woodworking and steel industry.

The logistics industry is determined by a continuous deadline pressure. Goods have to be transported without any delay to their destination point. In order to improve the processes of the whole supply chain, logistics companies like EP-Logistik GmbH have to optimize their document management because there are a lot of documents in this industry.

The main goal of EP-Logistik GmbH was the reducing of working costs. In the logistics industry, it is not seldom that there is a need to have a look on two or three years old documents in order to make a decision. If it takes very long to get these documents, the decision period is longer than necessary.

After the implementation of the document management system, all documents of the daily business are scanned, filed in the system and are ready for the research. These are for example invoices, bills of landing, bills of delivery, clearance papers, letters of inquiry or letters of confirmation. There are 200 documents per day in total. EP-Logistik GmbH has ten research desktops and one desktop for scanning. The result of the new document management system is convincing: most of the working processes were accelerated by up to 80 per cent. On average, each

employee was released by 30 per cent. These 30 per cent of the time can now be used for a better performance and a higher quality. The handling of a complaint is around 70 per cent faster with the document management system. The company can support the clients faster what increases their satisfaction.

Another advantage of the document management system is the aspect of sustainability: if all logistics companies would work nearly paperless, the reducing of greenhouse gases would be great. Document management systems cut administration costs and protect the environment (DMS Factory 2014).

## **8. Discussion**

As mentioned before, a sustainable document management is the handling of documents with the goal of cutting costs and of reducing the ecological footprint. However, in daily business only few companies focus on the aspect of sustainability if they introduce a document management system. So far, enterprises have used document management systems for cutting costs in their administration and to optimize their working processes in order to become more efficient. Very seldom, the sustainability factor plays any role if manager make the decision to implement a document management system. The survey mentioned in this paper showed that almost 70 per cent of the managers in European companies set cost goals but only around 40 per cent of them set also environmental goals. However, sustainability becomes more and more a competitive advantage. A company that cares about our environment has a better image in public and in front of the potential clients than a company that does not care at all. As the European Union has high goals to reduce greenhouse gases by 2030, companies that do not care about sustainability will have to pay a lot for greenhouse gas certificates.

## **9. Conclusion**

The two case studies in this paper show that document management systems have a huge impact on enterprises and their processes. First of all, the return on investment can be very high. This should be the necessary incentive to introduce a sustainable document management. It is a pity, that politics does not have realized so far that the state should also give a financial support for companies to implement a document management system. In Germany, the government support real estate owners to modernize their buildings in order to reduce greenhouse gases. It could be an idea to support companies that implement a sustainable document management system on the way to a paperless organization. If all enterprises in the European Union would have nearly paperless processes, the reduction of the greenhouse gases would be great. On the other hand, it is already quite attractive to install such a document management system. The return on investment is very good and the non-financial advantages like a higher customer satisfaction should be enough to convince the management of a sustainable document management.

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