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Eliminate Paper Usage to Practice Sustainable Business in India

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ABSTRACT: Paper is an arrangement of plant fibers laid down as a flat sheet. It's made from a suspension of plant tissues (pulp) in water that comes mostly from wood, but also from recycled paper and other plant sources such as hemp or bamboo. Paper has many different uses and we used it many times throughout the day maybe without thinking about its impact. From tissues, napkins, toilet paper, books, and notebooks, to magazines or banknotes, it's easy to find a paper in our daily routines. And let's not forget about paperboard that has many uses for the packaging industry and depends on the supply of paper too.

In 2016, around 411 million tons of paper and cardboard were produced. Of these, more than 50% was owed to packaging paper and nearly one third was attributed to photography papers. India is among the main producers of paper – but they're also the top consumers with, respectively, 106 and 71 million metric tons of paper and paperboard consumed annually. In fact, in a time where digitalization and technology are taking over the world and changing the way we live, paper and paperboard production was 28,3 million tonnes higher in 2016 than in 2000

KEYWORDS: paper, elimination, sustainable, business, India, usage, digitalization, consumers, producers

I. INTRODUCTION

In order to make paper we need wood, right? That's exactly where the problem stands – to make a lot of paper we need a lot of wood – and wood meaning taking down trees (when making brand new, not recycled paper). [38]And despite the fact that for the paper industry most of the trees that are taken down are planted afterward, growing them again still needs water and nutrients. In fact, the pulp and paper industry uses over 40% of all industrial wood traded globally to make products such as office paper, tissues and paper-based packaging.[1]

The process of making paper also consumes lots of water per se – specifically, between 2 and 13 liters of water are needed to make an A4 sheet. At the same time, manufacturing pulp and paper from pulping and bleaching processes has big environmental consequences in the water and soils. Besides the consequences that paper has on the environment, it also has a significant impact on companies' finances. Some studies show that an average worker uses 10,000 sheets of paper per year and others estimate that the average American office worker uses a sheet of paper every 12 minutes. While the paper itself may not be expensive, other costs – like printing, signing, copying, archiving and finding the right dossier – are. And they don't only cost money, they are time-consuming too.[2]

It is estimated that a company with a 100 employees spends from €10.000 up to €25.000 euros each year only for its internal consumption of paper and the maintenance of equipment. In total the unnecessary impressions (forgotten, thrown away, lost) would represent a cost of 300 million euros according to an estimate made by the National Union of Image and Information Media.

We have identified 3 main areas to work from in order to move from theory to practice and start 2019 empowering companies to reduce their paper consumption. We'll start with changing printing habits and then go over choosing sustainable paper suppliers and recycling.[3]

1 – Change Staff's Printing Habits To Reduce Paper Consumption In The Office

Think twice if you need that paper before you print. It's too easy to push the print button and print out single line e-mails or unnecessary documents that we'll storage or through away after giving a quick look. Why not give a quick look on a digital screen only? Or use group e-mail lists to communicate important messages efficiently? Or even adopt electronic signatures across the company so that there's no need to print just for signing? And if the question is storage, why not use electronic archive software? Or using electronic data technologies to make sage credit card transfers without the need of printing invoices or transaction records?[37]

Step 2, after consciously choosing to go for a print, is to use paper more efficiently – and select the "duplex" option on the printing menu would be great to start with. This means copying images or text onto both sides of a paper sheet and

represents 50% savings in paper sheets. Considering the paper thickness is also a great idea that impacts both costs and the amount of paper used – choose lighter (around 60g/m2) sheets that use fewer fibers. As well, encouraging the staff to reuse one-side printed papers as drafts or using them to write down memos are good ways to make paper last longer[4]. Remember, all small gestures help to fight paper consumption. If you're really up to changing your organization habits, take a look a WWF's paper reduction complete guide.

2 – Find Sustainably Sourced Paper And Sponsor Responsible Producers

Companies may become more aware and highly decrease the amount of paper they use – but they'll still use it. Therefore, it's important to choose paper sustainably sourced, i.e., made from wood that comes from certified and traceable forests. And how can we know this? They are labeled with FSC or PEFC acronyms! And what's wrong if we buy papers that don't have these labels? Well, it means that there's no guarantee that the wood used to make it didn't come from illegal or controversial sources – and forests, wildlife, and local communities might have been harmed in the process.[36]

Be careful as well if you see a paper with an ECF acronym, as there's no guarantee that it was produced using bleaching processes that don't generate harmful waste – and excessive quantities of chlorine (a polluting chemical) might have been used. To better understand these different labels, you can consult the practical guide developed by Ecolabel.[5]

3 – Recycle And End The Paper's Lifecycle Sustainably

Despite all the efforts that can and should be made, companies will always end up wasting paper up to some degree. In this case, the best way to proceed is to make sure these papers end up their lifecycle in the most sustainable way. This means making paper's lifecycle circular and recycling it. Therefore, it's important that the offices are equipped with sorting bins and that the staff is taught on what can or cannot be recycled. Making sure that the cleaning staff also knows the rules of the recycling game and that the town hall, producer company (if an extended producer responsibility law is applied)[35] or other responsible entity are dealing properly with this waste is also crucial to make sure that the all the effort is worth it.[6]Worldwide consumption of paper has risen by 400% in the past 40 years. Though new trees are being planted around the world, most tree planting is monoculture—the cultivation of a single crop in a given area—which comes with its own set of environmental problems. What's worse, the pulp and paper industry is the fifth largest consumer of energy, accounting for four percent of all the world's energy use.Recycling paper saves energy and reduces pollution caused by the bleaching of the wood pulp (to remove the ink on the paper being recycled)[34]. However, even though virgin paper requires 24,000 gallons of water per ton to create, recycled paper still requires 12,000 gallons of water per ton.UIC uses an enormous amount of paper and cardboard. In the past year, we have recycled an average of 205 tons per month. In Facilities, the 21 networked printers alone use 290 pounds of paper per month. That doesn't include the personal printers in the department. The production of that much paper requires four trees and 1,740 gallons of water.All of this emphasizes the importance of reducing the amount of paper we print. Recycling paper is great, but saving paper by not printing at all will save your office money, use less water, conserve energy, and help preserve adult trees![7]

II. DISCUSSION

Digital alternatives to reduce paper consumption in the office

Having several versions of a printed document, losing it or simply not knowing exactly where we have filed it can have grave consequences for the company. We tell you how to reduce paper consumption in the office through digital tools that will help us overcome the barriers and move towards the paperless model.[8]

Cryptographic digital signature

There are departments that, almost daily, have to sign contracts, tenders, administrative evidence. These functions involve printing, signing, filing and, sometimes, scanning, in order to be able to share these documents with the interlocutor who, in turn, has to print them again to sign them. The digital signature is the technological solution to this endless chain of entrustment by providing the highest level of security to electronic documents through an advanced cryptographic system that proves their authenticity.[33]

Regardless of the means by which the information is processed or shared, digitally signed documents remain intact. Even when they are transferred over the Internet. With the added bonus that the signature endows the documents with legal and evidentiary value.[9]

OCR system

In many cases we can't see the full picture of digital benefits because we're not aware of it. A clear example is the scanning of documents. It's all too common that this advance is only applied to facilitate storage. But the digital transformation goes further and offers the possibility to make this documentation interactive. Optical Character Recognition (OCR) enables the system to recognise characters as part of an alphabet. In this way, the scanned document can be edited with a word processor, as it is not stored as an image.[10]

Artificial Intelligence

Any average Google user knows that the way in which a search query is posed can mean that you find what you are looking for right away, or that you have to waste several minutes to find what you need. Search engines have been learning through Artificial Intelligence to understand our needs. They're moving away from considering words as a single set to understanding intent and context. There are already tools applied to the archiving and search of internal documents in companies that facilitate the process of storing and finding information in a single repository and with the same rules of description, creation, classification and capture. These characteristics result in the efficiency of document and file retrieval and, consequently, in improved response times. Operational efficiency is enhanced and valuable automatisms are generated by anticipating our needs.[11]

Office suites

What are all those icons on our desktop? Little helpers always at our service An office suite or office package is a set of computer programmes that allow you to create, modify, organise, store, send, receive or scan files. They include databases, layout, authoring tools, programs for statistical data analysis, editors (image, presentation, project, web page), e-mail programs, agenda, web browser… Although they are right in front of our eyes, office suites are indeed the great unknowns in the office.[32]

It is therefore a good idea to involve the IT department and receive appropriate training to extend knowledge to other functionalities, since all of them can interact with each other via a uniform user interface. In this way, graphs can be generated in a spreadsheet and integrated into a presentation. Thus, when updating the data, the changes are immediately effective in both programmes. This is just a sample of the many functionalities that we can access and that we miss out on when we ignore these applications in our day-to-day work.[12]

QR code

We close our eyes, visualise the warehouse, remember the date and time when the contract our client wants to modify was filed, and go to the archive to look for it. But the room is not as we left it. Since that day there's been a lot of incoming and outgoing documents. It takes us two minutes to locate the box, but now we have to go through all the sheets one by one until we find the desired document[31]. In total, more than 10 minutes have already passed. And so on, every day, and with every employee. Can't the times be improved? It's enough to focus efforts on a single review process that classifies the physical files using QR nomenclature so that the next search is quicker and we can rapidly locate in which box is the document we are looking for.

Cloud storage

To be clear, where the risk lies is in printed documents. Losing or simply not finding a document can have grave consequences for the company. The employees must internalise that the company's documents must serve the general interest and not their own. This is why digital tools are so important, because with paper documents the traceability of part of the process can be lost. This can be fatal if the final version is not supervised.[13]

Online work

The integrity and reliability of documents is guaranteed with online work. Any manipulation of documents is recorded and it's just as easy to detect the changes – and the author of the changes – as it is to revert to a previous version. This is not the case with physical documentation where it's more complex to certify the correctness of the process, however much we may think that our desk drawer is the safest place in the world[30].

Paperless not only brings significant economic and ecological benefits by reducing paper consumption in the office, but also has a direct impact on workflow efficiency and storage security. It promotes the accessibility of the entire company

staff- and not just one employee – to all documents and offers a proven solution for any of the processes to be modified.

Reducing paper helps save departments money and helps the environment - and it's the law! The Washington state legislature has directed all state agencies, including the University of Washington, to reduce paper consumption by 30% and to purchase 100% recycled paper for copiers and printers.[14]

III. RESULTS

Managed print services is a sustainable service offered by an external supplier, Ricoh, to improve the way we copy and print documents, resulting in a reduction of paper consumption and can save departments up to 25% over current costs. [29] Ricoh owns and manages the equipment and provides the supplies, eliminating the need for the University to purchase or lease printers and copiers.The MPS Program advances UW's environmental and sustainability initiatives through the elimination of equipment that consumes high levels of energy, better management of toner cartridges and their disposal, and reduction of paper consumption.Paper use reduction allows for minimizing the negative environmental impact caused by cutting down trees and filling landfills with millions of tons of waste. With American workers using approximately 10,000 sheets of paper each year, about 300 million tons of paper are used each year, just in the USA. How many acres of forests must be destroyed to supply the needed resources for that amount of paper? Approximately 300 million acres.There is a limited source of forests available on the planet, so the heavy use of paper by businesses is not a sustainable practice.[28] Luckily, we have developed technology that allows for an easy transition into a paperless work culture. While being more eco-friendly, paper use reduction implementation can also be more convenient. Think about the logistics included with the use of paper. Corporations must purchase the paper, printer, ink, shredders, trash cans, trash bags and the list goes on.Your corporation can look into electronic solutions to reduce paper use, cut costs, increase efficiency and reduce your eco-foot print.[15]

Steps you can take to reduce paper use:

- Use e-mail whenever possible
- Make presentations on PowerPoint on other computer software
- Create e-books instead of paper manuals
- Keep your mailing lists current and make sure that the people who you are sending paper mailings to actually will be getting them and opening them
- Use scrap paper for notes and sketches
- Email customers receipts
- Reduce use of paper plates, cups, etc. and stock the break room with ceramic mugs, plates, silverware and more.[16]

By implementing these steps and other paper reducing measures, each business and person can help to reduce the destruction of forests and stop the creation of new landfills. While the transition can seem overwhelming, keep in mind that electronic storage of data can also result in improved reporting and increased quality of work.April is Earth Month around the world... and a great time to reduce paper consumption in the office.Despite all the paperless office predictions, the Paperless Project coalition reports that 85% of business documents are in paper form and up to 80% of an organization's processes are still being managed on paper[27].It's also been estimated that every employee uses about 10,000 sheets of copy paper per year.Want to reduce your ecological footprint, but not sure how to reduce paper waste in the workplace? Here are 5 effective strategies to reduce paper waste and securely recycle paper that is used. Efficiency: According to one online blog, a U.S. bank cut its paper consumption by 25% in two years by being more efficient with paper. Efficiency can be as simple as printing on both sides of paper when possible. You can also use thinner margins to allow for more text on each page – and fewer overall printed pages.[17] Rather than having a printer at every desk, set up a centrally-located printer so printing is less convenient and has to be a conscious decision. Use the "print selected page" function to print specific pages rather than entire documents. You can also cut down on re-printing by requiring passcodes to release prints, so old printed pages don't end up sitting in printer trays. Switch to digital:[26] While your office may not be totally paperless, digitizing some documents can help reduce waste. Don't make hard copies of every document and email. Use electronic data storage instead of printing documents and filing them. Ask suppliers, service providers, financial institutions, and other third parties to send information digitally. Save invoices and other data to a file, and pay online. Instead of faxing documents, send PDFs by email. [18]Use digital signature software and eliminate the need to print documents to sign. Switch to online versions of magazine, newspaper

and other subscriptions. Move all employee communications to digital formats.Provide officer reminders: Keep paper reduction top of mind by posting 'think before you print' reminders near the copy machine (according to the Paperless Project, the average document is printed 5 times) and throughout the workplace. Fun paperless events are motivating; for example, have an in-house competition with a 'Best Paper Saving Champion'.Conduct paperless meetings: Encourage everyone to bring tablets or laptops to meetings and use them for note-taking. Share reports and other information in electronic format, and display presentations on a screen rather than printing copies and distributing.Recycle the paper you use:[19] Purchase recycled paper for office use, and securely recycle paper when it is no longer needed. Recycling paper helps the environment by reducing carbon emissions, saving trees, and cutting down on water use. Partner with a trusted document destruction company that has a comprehensive chain-of-custody and places locked consoles for documents around the workplace. Implement a Shred-it All Policy too, so that all paper documents go into the locked consoles for regularly scheduled secure shredding. Be sure the supplier bundles up all the shredded confetti-like pieces and sends the paper to a recycling organization. According to document destruction leader, Shred-it, for every two consoles shredded and recycled, one tree is saved. Customers receive a certificate detailing the number of trees they have saved every year.[20]

IV. CONCLUSIONS

Have you ever received a contract or proposal that you needed to sign, and had to first print, then scan, and then send it? And only then for you to throw the scanned paper copy in the bin! Not only is it a waste of time, but of resources too, and it goes without saying that it's bad for the environment. In today's modern age, the usage of electronic signatures is a priority for businesses who look to become efficient, and save both time and resources. Digital signatures are a simple and effective solution that any business can implement to both secure and simplify the document workflow of any organisation. DocuWare Signature Service ensures that your documents are digitally signed by a verified service provider, whilst offering both maximum speed and flexibility[21]. By integrating external signature providers such as Validated ID or DocuSign seamlessly into a DocuWare workflow, documents are automatically transferred between DocuWare and the Trust Provider.[25] Signer is notified when documents are ready for signing.There are four major benefits of using electronic signatures in your business documents.

Collect electronic signatures for any document from all relevant employees in one place.Select advanced or qualified security levels for the signature according to your requirements.Store signatures centrally with the service provider so that they can be retrieved at any time.Audit trail tracking so you can easily adhere to state,[22] federal and international compliance standards

DocuWare consists of three different security levels to ensure your business always stays safe and protected.Electronic signatures to be used in any type of documentation you may need (contracts, proposals, forms etc).[24]Easily implemented into your business systems – the only requirement is internet.DocuWare can be used on all devices, laptops, smartphones, tablets etc.To summarise, DocuWare is one of the world's leading document management software providers. The organisation has products that are available to more than 90 countries in 18 different languages, and has already helped thousands of businesses just like yours to save time, money, and resources.[23]

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