STRATEGIC RELEVANCE IN INTEGRATION OF MANAGED DOCUMENT SOLUTIONS (MDS) AND OFFICE AUTOMATION IN INDIA – A DESCRIPTIVE ANALYSIS

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ABSTRACT

The paper gives an insight in to the necessity of integration of software solutions in the Office Automation devices. It describes the pros and cons of MDS integration. This paper also helps us in deciding whether to implement MDS, its limitations and minimum prerequisite for its integration. It promotes 'E-governance' by integration of software solutions into the Office Automation devices. It strongly supports the 'Go-green' philosophy and also contains the initiative to be taken by the key players on the Office Automation.

Keywords: Strategic Relevance, MDS, MFD, Office Automation, OEM, Go-green

INTRODUCTION

Innovation, combined with respect for the environment and the quality of life to increase, is today's demand all across the globe and so do in India as well. When it comes to reliable, high quality, technology driven, customer delight and sustainable development supporting Go-green concept, office Automation industry looks for the integration of software solutions and MDS into its products. It makes documentation efficient, cost effective and stress free. For creating new values at the interface of people and information, developing new technologies and for evaluating products from the customer's perspective, industry needs more and more research and development centers. It will create a strong edifice of excellence too.

Simplifying knowledge creation, thinking about solutions that best fit and harmonize with the environment are the three prerequisites with which this concept evolved.

CONCEPTUAL FRAMEWORK

Source: Changing environment of the Earth

CO_2- An Integral Part of the Globe – A Critical Analysis

- ✓ Carbon dioxide (CO_2) is a colorless, odorless gas that is an integral part of the atmosphere. Of the 6 greenhouse gases (GHGs), CO_2 contributes the most to human-induced global warming. Human activities such as fossil fuel combustion and deforestation have increased atmospheric concentrations of CO_2 by approximately 12% [1] between 1990 to 2010

- ✓ CO_2 is not poisonous. The atmosphere contains approximately 0.039% [2] CO_2, making it one of the 5 main components of the atmosphere, alongside oxygen, nitrogen, hydrogen, and argon.

- ✓ CO_2 is used by the food, oil, and chemical industries. You will find it in many consumer products that require pressurized gas, because it is inexpensive and non-inflammable. During the fire-fighting work, life jackets often contain canisters of pressurized CO_2 for quick inflation. Supplies of compressed gas in aluminum capsules are sold for air guns, paintball markers, and for inflating bicycle tires. CO_2 is also used to produce carbonated soft drinks and sparkling water.

- ✓ Due to human activities such as the combustion of fossil fuels and deforestation, and the increased release of CO_2 from the oceans, the [3] concentration of atmospheric CO_2 has increased drastically. Global warming refers to the warming of the Earth's atmosphere as a result of a build-up of CO_2 and other trace gases. Many scientists believe that this build-up allows light from the Sun's rays to heat the Earth, but prevents a counterbalancing loss of heat. The process is known as the 'greenhouse effect'.

REVIEW OF LITERATURE

"The Ricoh Group will intensify and accelerate its sustainable environmental management, whereby it will continue developing environmental technologies that help reduce society's overall environmental impact, and it will strive to make our business model admired in a new society."

Mr Shiro Kondo,

CEO- Ricoh Group

The changing global environment is posing a great threat to human society. Damages caused by climate change have been occurring frequently and at many locations around the globe. Natural resources have been depleted at an increasing pace. It is the need hour to change our social paradigm. Departing from the traditional society driven by mass production, mass consumption, and mass disposal, we must create a new low-carbon, resource-re-circulating society where ecosystems—the source of the Earth's self-recovery capabilities—are properly conserved. In this positive transformational process, business communities have a large role to play. They are expected not only to reduce the environmental impact of their own business activities, but also to help reduce that of consumers and society as a whole. With this planet

facing a critical situation, companies should get committed to becoming a business leader in promoting such a societal sea change.

It is increasingly important to pay close attention to the environment, because the Earth is subjected to environmental impacts that exceed its ability to recover. Corporate activities have a huge impact on the environment. Hence the environmental responsibilities on companies are heavy.

There are many players who have already started working on the new business opportunity. Leading players are Ricoh, Canon, Xerox, HP, Toshiba, and Sharp. In an increasing complex world these players are committed to revolutionize the Office Automation industry through the integration of solutions into their products which would simplify how people work.

➢ **A Case of 'Ricoh India' winning trust of 'Siemens India' by offering Multi-Function Printers and software solutions:**

"The pressure was on for Ricoh India to prove their worth and remain the preferred vendor for Siemens India."

The site analysis, survey, and Ricoh's SLA adherence proved beyond a doubt that Ricoh devices were reliable, cost effective and energy efficient. Conversely, it showed that competitor devices were cost and energy intensive, unreliable, and SLA performance was inconsistent. However, the gaps in the existing printing solution still need to be addressed further.

➢ **Ricoh :**

1. A Brief profile. Ricoh is the leading "Global OEM(Original Equipment Manufacturers)" of Digital Office Automation Equipments, with 128 consolidated subsidiaries and affiliates in Japan and 232 subsidiaries overseas. RICOH is proud to have more than 107000 employees across the globe. Ricoh is honored to be included in the top 100 listing of the most admired companies worldwide by "Fortune Magazine". Ricoh is the worldwide leader in Digital Multifunctional Imaging Systems.

The prestigious awards received by Ricoh includes

- The Deming Award-twice
- (JQA) Japan quality award
- ISO 14001
- Blue Angel Mark

- Energy Star
- MET prize.

Ricoh India strives for excellence in all areas of its business and has been recognized for outstanding products and customer service, protecting the environment and its manufacturing processes. It is having 15 branch offices and more than 300 dealer support network across the country.

Customization: Ricoh India took a unique approach to keeping and expanding their current rate contract. They initiated a site analysis and a national user satisfaction survey, to give the customer a real understanding of their current printing environment. Based on the results, they recommended a cost effective and environmentally friendly solution, customized to meet Siemens India's requirements.

2. Ricoh India Business Portfolio

- Ricoh Consultance Service
- Ricoh Production Printing
- Ricoh Digital Copier (M F P)
- Ricoh Color Printers
- Ricoh Color Multifunction Device
- Ricoh A0 Multifunction Device

3. Ricoh Digital Copier (MFP):

a- Role of Ricoh in context with the research work:

1- Ricoh's Document Solutions and Services leverage its software development program, technology alliances, professional consulting expertise and industry-leading hardware to enhance the productivity and optimize the costs.

2- Ricoh's fully integrated hardware and software products help in sharing information efficiently and effectively by putting firm control on input, management and output of all documents.

3- Ricoh has identified four key concerns in office automation

1- Document Solutions
2- TCO
3- Security
4- Environment

b- Steps taken by the leading players:

Corporations have realized this fact and evolved with multiple software solutions integration, into the device, after intensive Research and Developments.

c- Effect of software integration:

The researcher has discussed about the strategic relevance of this software integration; as such integration will reduce the uses of paper and will support the concept of **paperless office.** This will hamper the growth prospects of the OA companies as it could result into negative marketing.

RATIONALE OF THE STUDY

PROBLEM DEFINITION

It is the fact that there are wastages in printing & copying just because of lack of care of handling of the printing, copying, and scanning and facsimile devices. These wastages, at one hand, are reducing the output of the company and on the other hand reducing value for money for the customer. Over and above it is also spoiling our environment.

OBJECTIVES

1. To find out the software solution as a mean to minimize the printing wastage.

2. To promote MDS as a solution to meet the current and future demand of OA Industry.

3. To verify whether this integration is meeting corporate social responsibility?

HYPOTHESIS

Null hypothesis: (H_0)

1. Software solutions in office automation cannot be the mean to minimize the printing wastage.

2. MDS cannot be promoted as a solution to meet the current and future demand of office automation industry.

3. It has not served the societal and environmental responsibilities of an organization.

Alternate Hypothesis: (H_1)

1. Software solutions in office automation can be the mean to minimize the printing wastage.

2. MDS can be promoted as a solution to meet the current and future demand of office automation industry.

3. It has served the societal and environmental responsibilities of an organization.

SAMPLE DESIGN

The researcher has fixed-up appointments with the regional managers and C- level people of some of the leading players; like Ricoh India, HCL , Canon India, of the OA industry. He has also met with the technical heads of some of the leading brands (Shoppers Stop, Kotak Mahindra etc.) in India. For this he has visited to Mumbai and Delhi area.

LIMITATIONS

Getting the appointments for the interview of top level executives was one of the greatest constraints.

DATA COLLECTION

The primary data collected are Qualitative in nature. It was collected by interviewing the technical experts and top management personnel.

Each point is extracted after the observation on the responses during the interview.

ANALYSIS AND INTERPRETATION

1. A multifunction product (MFP) uses less than 50% energy than a separate printer, scanner, and copier.

2. Conducting a TCO audit of customer's copying and printing fleet will help uncover wasted energy and papers costs, as well as provide the customer with a lower TCO for their entire fleet.

3. Product lines of these players includes the Multifunction devices that combine printing, copying, scanning and fax capabilities in a single device making workflow efficient and streamlined. Their immerging solutions consist of digital black and white, color plain paper Multifunction devices and digital copy printers.

4. Based on the appliance-like ease concept, technologies like RPCS (Refine Printing Command Stream – Ricoh) make these sophisticated machines easy to use. Other software like Desktop binders and Smart Device Monitors make them reliable, cost effective and future ready.

5. Developed eco-friendly products that reduce emissions and pollution at the customers end as well, these solutions promote Green Procurement of components, Zero Waste-to-landfill activities and many eco-rejuvenation projects in India. With these all activities the carports are making all effort to maintain balance amongst the People, Profit and Planet.

6. Integrating software and promoting MDS will add extra technical orientation in the customers place. Many a time departmental conflicts resists into the implementation despite huge benefits of MDS.

7. **Canon MDS Enhancements -** Several announcements were made to help support dealers with Canon's MDS programs-

    1. Canon's Major Account Program (CMAP) for Canon Dealers will support service dispatch, billing and helpdesk support for customers with multiple locations throughout the country in 2010. Canon is providing a new cost calculator that will help dealers come up with cost-analysis data across a fleet of Canon brand devices.

    2. In order to enable dealers to provide consistent support in service, Canon will provide the Remote Diagnostic System (RDS) Plug-in for image WARE Enterprise Management Console. The RDS Plug-in facilitates automated meter

collection and pre-emptive service alerts as well as electronic billing from dealerships utilizing image WARE Remote.

3. Canon displayed a new Ecology Plug-in for image WARE Enterprise Management Console that will analyze CO_2 emissions based on power consumption and paper volume usage. It utilizes a 3-D graphical display.

Hence, with the above analysis the researchers interprets as the acceptance of the alternate hypothesis, that:

1. Software solutions in office automation can be the mean to minimize the printing wastage.

2. MDS can be promoted as a solution to meet the current and future demand of office automation industry.

3. It has served the societal and environmental responsibilities of an organization.

FINDINGS

The researchers learnt about the importance to take care and the action to be taken to save the environment, because the Earth is subjected to environmental impacts that exceed its ability to recover. Corporate and commercial activities have a huge impact on the environment —that's why companies bear heavy environmental responsibility.

Finding from the data analysis

1. Setting documents to print double-sided as a default can save customers up to 30% in paper and copying costs.

2. Encouraging customers to use 'sample copy' saves wasted paper. It allows the customer to check the document before printing large quantities.

3. Customers save paper and costs by making paperless faxing. Faxes are routed through PC networks, instead of producing paper prints for distribution.

4. Approximately 17% of printed documents are wasted. Enhanced Locked Print (Ricoh) is a great solution for customers, to ensure security of printed documents and to save wasted paper where copies are printed but not collected. This solution requires the user to authenticate with an ID and password or a secure access card, before documents are released for printing.

5. An MFP can consume as much as 90% power even while in standby mode. Whereas the devices use very little power in Energy Saver mode. To encourage the use of Energy Saver mode,

6. Ricoh's PxP™ toner not only uses less energy in the fusing process, but it uses 35% less energy than traditional toners to manufacture.

7. With the help of various software, remote monitoring & remote controlling is also possible; which gives the possibility of better E-governance.

Findings by Ricoh

a. It includes the new energy efficient MFPs with higher productivity and lower operating costs. Standard features included scan, print, and duplex printing. Locked print was introduced to improve security and reduce paper waste, and EZ Accounting was implemented to raise cost awareness and reveal hidden costs. Ricoh India also provided training on the **TGOS [Total green office solutions]** approach to educate the users about how to minimize paper waste and energy consumption.

b. It included a single-price offer where the costs of printing including paper, toner, parts, servicing, and the EZ Accounting solution were factored into the unit price. This provided Siemens India with a transparent cost structure, making it easier to control variable expenditure and forecast future costs.

SUGGESTIONS

1. High precision work, bulk orders or time-critical and mission critical jobs like printing of millions of phone bills and insurance policies; the secret ballot or the annual budget or the day to day running of multinational and large pan-India enterprises, educational institutions, banks, the government or small and medium businesses all having a huge print, copy, scan, facsimile demand. So maximize **customers delight is the main focus of OA players at the same time fulfilling their responsibilities towards mother earth**. Various software solutions integration optimizes above mentioned.

2. Companies should resolve their departmental disputes and promote software integration as per their environmental responsibility.

3. Understanding the technology will increase the knowledge of individual and add value to the societal advancement.

THE SCOPE FOR FUTURE STUDIES

Siemens India agreed to discuss the acquisition of more numbers of MFPs laser printers. They were also interested in testing and product demonstrations of **@Remote, ESA Transformer and EZ Charger.**

A- @Remote provides several services that enhance productivity as follows:

1. **Automatic Toner Alert:** Resulting in improved uptime.

2. **Automatic Service Call:** Improving uptime.

3. **Automatic Meter Reading:** Accurate billing enables flawless, on-time billing cycle. Saves manual labor and eliminates billing issues, improving customer productivity.

4. **E-Governance with Helpdesk Management:** A simple real-time dashboard view that enables management of all devices from a single PC

B- ESA TransFormer transform paper documents into Excel spreadsheets, Word documents and searchable PDFs.

C- EZ Charger is Ricoh's cost accounting solution that enables organizations to monitor and control their document production costs by tracking copy, print, and scan functions of multifunction products (MFPs) and printers—for each and every user.

REFERENCES

Reference books

1. Goods, Williams, J. & Hatt Paul K.
2. *Methods in Social Research.* (McGraw Hill)
3. Young, Pauline V. *Scientific Social Surveys and Research* (Prentice-Hall)
4. Kothari C. R. *Research Methodology – Methods and Techniques.* (New Age International Publishers)
5. Boot and Cox *Statistical analysis of Managerial Decision.* (McGraw Hill)
6. Mc Clave, T. T. *Statistics for Business and Economy* (Prentice-Hall)
7. Vohra N. D. *Quantitative Techniques in Management* (Tata McGraw Hill)
8. Mik Wisniewski *Quantitative Methods for Decision Making* (Pitman)

Websites

1. www.canon.com
2. www.epa.gov/climatechange/ghgemissions/gases/co2.html
3. www.hcl.in
4. www.hclinfosystems.in
5. www.ricoh.com
6. www.sharp-world.com
7. www.wikipedia.org
8. www.xerox.com
9. http://en.wikipedia.org/wiki/Carbon_dioxide
10. http://news.mongabay.com/2005/1124-climate.html

ANNEXURE 1

A- Interview schedule:

1. How do you implement the Go-green commitment as a part of CSR activity in your organization?

2. Being in to the printing industry asking for the less use of paper is a kind of negative marketing of its owns, how would you strategies to mitigate and overcome such situation?

3. How software solutions help in increased productivity and efficiency of the workflow?

4. What is the susceptibility level among the employees of an organization towards advancement of the technology?

5. How would these solutions be able to streamline the different verticals at customers' end?

6. Whether MDS embedded into the device is the end solution?

7. What are the environmental benefits?

8. Do we have any case where customer has opted for MDS?

9. What are the hurdles that the company faced while implementation of the software solutions?

10. What is the way ahead?

B- List of Interviewee with their designation and date of interview:

Sr. No.	Name	Designation	Organization	Interview Date
1	Mr. V. Balakrishnan	CMO	Ricoh india Ltd.	14/05/12
2	Mr. Arun Kumar Gupta	Ex-Gp. CTO	Shoppers Stop Ltd.	02/05/12
3	Mr. Sujit Sanyal	Former Sr. VP India	Ricoh india Ltd.	26/04/12
4	Mr. Shiju George	Sr. Manager-IT	Shoppers Stop Ltd.	11/05/12
5	Ms. Sanjana Ruby	Manager – IT	Kotak Mahindra Capital Company Ltd.	18/04/12
6	Mr. Jai	Marketing Head	HCL – OA Division	25/05/12
7	Mr. Ashish Shah	AVP – IT	Future Generali India LI Company Ltd.	04/06/12