

“Implementation of Paperless Office in ONGC”

on

A Major Project Report

Submitted for the award of the degree of
Master of Business Administration (Executive)

by

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CERTIFICATE

On the basis of the declaration submitted by Kiran P. Mohidekar- Roll No: 2K13/MBA/507, a student of Master of Business Administration (Executive), I hereby certify that the project titled "Implementation of Paperless office in ONGC" which is submitted to Delhi School of Management, Delhi Technological University, Delhi in fulfillment of the requirement for the award of the degree of Master of Business Administration (Executive), is an original contribution with existing knowledge and faithful record of project work carried out by him under my guidance and supervision. To the best of my knowledge, this is as part of project work has not been submitted in part or full for any Degree to any other University or elsewhere

Signature:



Professor Dr. Pradeep Kumar Suri

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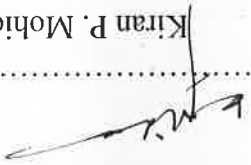
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I, Kiran P. Mohidekar Roll No: 2K13/MBA/507 student of Delhi School of Management, Delhi Technological University, would like to state that the project titled "Implementation of Paperless Office in ONGC" is an authenticated work carried out by me using existing literatures reviews, secondary data from various departments of ONGC and research journals available on public domains under the supervision of Prof. Dr. Pradeep Kumar Suri, HOD in Delhi School of Management, Delhi Technological University for the award of the degree of "Master of Business Administration (Executive)" and have submitted a satisfactory report on the project. The matter embodied in this report has not been submitted in part or full to this or any other university as part of project work to the best of my knowledge.

DECLARATION

Signature:

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A Paperless Office is a novel ideology that involves reduction and eventually complete elimination of paper consumption in organizations. The benefits associated with a paperless way of working are plenty and they completely redefine the way businesses function making them efficient than ever before.

In particular, this study is about the paperless office initiative implemented at ONGC. The report begins with a very generic distinction between a pre-paperless scenario and a paperless scenario. This vision statement is helpful in laying the foundation of goals that an organization transitioning to a paperless office must achieve.

The processes and business workflows that have been automated for a paperless scenario at ONGC are richly presented within this report. Some of these include the leave encashment process, reimbursement of telephone charges, travel allowances and vehicle charges. The processes are analyzed in detail and various parameters such as cost, effort and cycle time are contrasted before and after the implementation in addition to monitoring the paper consumption. Accurate actual statistics within this report are true pointers of the successful implementation of paperless office in ONGC.

Moreover, some proposed processes within ONGC that are yet to be implemented are also discussed in depth. These processes are a vital part of a very wide set of organizations and will definitely prove to be an ideal model and guide for transitioning to a paperless office.

ABSTRACT

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CHAPTER 1: INTRODUCTION

This project details the implementation of a Paperless Office in ONGC. A plethora of benefits such as the reduction in cost, space and wastage generated greatly boost business productivity, agility and efficiency. With the growing concerns of reducing the carbon footprint, the paperless-office initiative proves to be a strong solution which will eventually be an indispensable practice that will be surely adopted by organizations all over the world.

1.1 Organization Profile

Global Ranking

ONGC [1] is ranked as the **Top Energy Company in India, Fifth in Asia and 21st** globally as per **Platts Top 250 Global Energy Rankings**; Maintains place as **World's Third ranked E&P Company** in the list.

Ranked 21st among global Oil and Gas Operations industry in Forbes Global 2000 list of the World's biggest companies for 2014; Ranked 176 in the overall list - based on Sales (US\$ 29.6 billion), Profits (US\$ 4.5 billion), Assets (US\$ 53.8 billion) and Market Value (US\$ 46.4 billion).

Only Indian energy major in **Fortune's Most Admired List 2014** under 'Mining, Crude Oil Production' category (No. 7 worldwide - Up 3 places from previous year) Ranked 26 in 'Transparency in Corporate Reporting' among the world's 124 largest listed companies published by Transparency International (Up from 39 in 2012)

Ranked 217 in the **Newsweek Green Rankings** World's Greenest Companies 2014 (up from 386 in 2012)

India's most valuable-public sector enterprise

ONGC won Petrofed Oil & Gas Industry Awards 2011 in three categories - "Exploration & Production: Company of the Year", "Project Management (above Rs. 2000 crore): Company of the Year" and "Innovator of the Year: Team (Won by IOGPT)"

ONGC bagged Oil Industry Safety Directorate (OISD) awards for "Best Overall Safety Performance of Oil and Gas Onshore Assets" and "Most Consistent Safety Performer Award" (won by Rajahmundry Asset of ONGC) for the year 2011-12. In addition, JV

- operation at Panna gas field between ONGC, BG and Reliance, operated by BG India won the OISD award for "Best Production Platform – Pw/JV Companies"
- 'Best Employer' award and 'Voice of Employee' award at the Aon Hewitt Best Employers – India 2013
- Golden Peacock Award for Corporate Social Responsibility for 2013. ONGC's structured approach in delivering tailored CSR projects for communities around its operational areas got it the coveted award.
- Randstad Award-2013 for the Most Attractive Employer in the Energy Sector in India
- Gold Trophy of SCOPE Meritorious Award in the category of Corporate Social Responsibility and Responsiveness for 2011-12
- 'Best Enterprise Award' in the Maharashtra and Navratna category at WIPS Award of excellence held on February 11, 2014 at Kolkata. ONGC bagged this award third time in a row.
- ONGC's foreign operations arm OVL bagged the best PSU award in the oil and gas sector at the Dainik Bhaskar India Pride Awards on December 19, 2013
- Human Resource Management Excellence Award in the Navratna and Maharatna category at the PSE Excellence Awards 2013
- ABP Global CSR Excellence and Leadership Awards' 2013 - ONGC was the solitary winner in the category of 'Best CSR Practices in the Areas of Health'
- ONGC represents India's Energy Security Through its Pioneering Efforts**
- ONGC is the only fully-integrated petroleum company in India, operating along the entire hydrocarbon value chain. It has single-handedly scripted India's hydrocarbon saga. Some key pointers:
- ❖ ONGC has discovered 6 out of the 7 producing basins in India:
 - ❖ It has 7.59 billion tonnes of In-place hydrocarbon reserves. It has to its credit more than 320 discoveries of oil and gas with Ultimate Reserves of 2.69 Billion Metric tonnes (BMT) of Oil Plus Oil Equivalent Gas (O+OEG) from domestic acreages.
 - ❖ It has cumulatively produced 851 Million Metric Tonnes (MMT) of crude and 532 Billion Cubic Meters (BCM) of Natural Gas, from 111 fields.
 - ❖ ONGC has won 121 out of a total 235 Blocks (more than 50%) in the 8 rounds of bidding, under the New Exploration Licensing Policy (NELP) of the Indian Government.
 - ❖ ONGC's wholly-owned subsidiary ONGC Videsh Ltd. (OVL) is the biggest Indian multinational, with 30 Oil & Gas projects (9 of them producing) in 15 countries.

- ❖ Produces over 1.24 million barrels of oil equivalent per day, contributing over 64% of India's domestic production. Of this, over 75% of crude oil produced is Light & Sweet.
- ❖ The Company holds the largest share of hydrocarbon acreages in India (51% in PBL Areas & 67% in ML Areas).
- ❖ ONGC possesses about one tenth of the total Indian refining capacity.
- ❖ ONGC has a well-integrated Hydrocarbon Value Chain structure with interests in LNG and product transportation business as well.
- ❖ A unique organization in world to have all operative offshore and onshore installations (403) accredited with globally recognized certifications.

Competitive Strength:

- ❖ All crudes are sweet and most (76%) are light, with sulphur percentage ranging from 0.02-0.10, API gravity range 26°-46° and hence attract a premium in the market.
- ❖ Strong intellectual property base, information, knowledge, skills and experience
- ❖ Maximum number of Exploration Licenses, including competitive NELP rounds. ONGC has bagged 121 of the 235 Blocks (more than 50%) awarded in the 8 rounds of NELP.
- ❖ ONGC owns and operates more than 26,600 kilometers of pipelines in India, including sub-sea pipelines. No other company in India operates even 50 per cent of this route length.

The Road Ahead:

- ❖ ONGC looks forward to become an integrated energy provider, with:
 - ❖ New Discoveries and fast track development
 - ❖ Equity Oil from Abroad
 - ❖ Downstream Value Additions & Forward Integration
 - ❖ Leveraging state-of-the art technology and global best practices
 - ❖ New Sources of Energy
 - ❖ Production from small and marginal fields
- ❖ ONGC has taken structured initiatives to tap unconventional energy sources through unconventional gases like Coal Bed Methane (CBM), Underground Coal

ONGC has taken structured initiatives towards Corporate Governance and its practices which evolve around multi-layered checks and balances to ensure transparency. Apart

Corporate Governance:

- ❖ persons.
- ❖ Promoting sports/sports persons; supporting agencies promoting sports / sports
- ❖ Sponsorship of seminars, conferences, workshops etc. and
- ❖ Initiatives for physically and mentally challenged;
- ❖ Water management including ground water recharge;
- ❖ Women's empowerment, girl child development, gender sensitive projects;
- ❖ Promotion of artisans, craftsmen, musicians, artists etc. for preservation of heritage, art & culture;
- ❖ Protection of heritage sites, UNESCO heritage monuments etc.;
- ❖ Environment protection, ecological conservation, promotion;
- ❖ Infrastructure support roads, bridges, Schools, hospitals in around our operational areas
- ❖ Entrepreneurship (self-help & livelihood generation) schemes;
- ❖ Health Care;
- ❖ Education including vocational courses;

to the developmental needs across the following focus areas:
 societal growth and environmental conservation, ONGC in 2011-12 continued to cater business paradigm that is based on an interconnected vision - of people's welfare, positive, tangible difference in the lives of the vulnerable and disadvantaged. With a In recognition of its role as a 'responsible leader', ONGC continues its quest to make

Corporate Social Responsibility:

- ❖ "ONGC Energy Centre Trust", a dedicated center created by ONGC for holistic research in non-conventional energy sources, has taken up three projects viz., Thermo-chemical reactor for Hydrogen, Geo-bio Reactors and Fuel Cells. ONGC has already commissioned a 50 MW Wind Farm in Gujarat and plan is afoot to set up another 100 MW Wind Farm in Rajasthan. ONGC has also set up 3 Solar Thermal Engines at Solar Energy Centre, Ministry of New and Renewable Energy (MNRE) campus at Gurgaon.
- Gasification (UCG), Shale Gas and Gas Hydrates, or unconventional energy sources like wind, solar etc.

To be global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.

Vision & Mission:

ONGC has vast pool of skilled and talented professionals – the most valuable asset for the company. 32,909 ONGCians (as on 31st March, 2012) dedicate themselves for the excellent performance of the company. ONGC extends several welfare benefits to the employees and their families by way of comprehensive medical care, education, housing and social security.

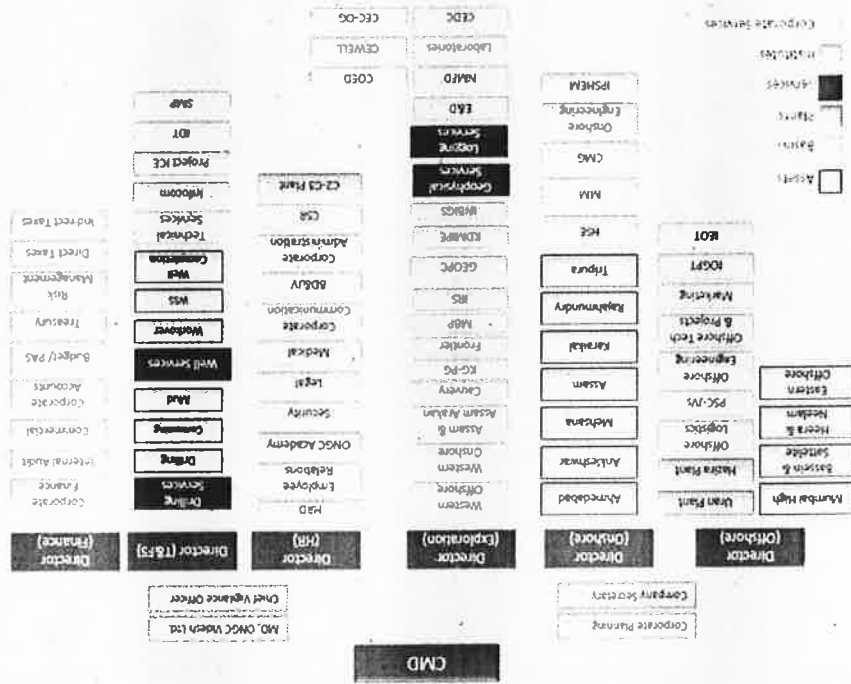
Human Resources:

Occupational Health module has now been populated on SAP system. Health physical fitness criteria for employees deployed for offshore operations: disaster management all across ONGC. ONGC has also developed Occupational Corporate Disaster Management Plan and guidelines have been developed for uniform HSE awareness programs completed. operational units audited for HSE Performance, 130 employees trained on HUET, 14 of oily waste treated using Bioremediation, 412 installations certified with QHSE, 240 (E/C/TOR) obtained, 4 Lakh Ringal Bamboo Planted in Upper Himalayas, 25000 MT During 2011-12, 20% reduction in incidents achieved, 131 environmental clearance organization in line with international practice.

ONGC has implemented globally recognized QHSE management systems conforming to requirements of ISO 9001, OHSAS 18001 and ISO 14001 at ONGC facilities and certified by reputed certification agencies at all its operational units. Corporate guidelines on incident reporting, investigation and monitoring of recommendations has been developed and implemented for maintaining uniformity throughout the

Health, Safety & Environment:

Management (ERM) framework. MCA Voluntary Guidelines on Corporate Governance, Enterprise-wide Risk Whistle Blower Policy, Annual Report on working of the Audit & Ethics Committee, Governance, ONGC has gone the extra mile in this regard and has implemented the from the mandatory measures required to be implemented as a part of Corporate



Organizational Chart

availability.

- ❖ Retain dominant position in Indian petroleum sector and enhance India's energy
- Dominant Indian Leadership**

- ❖ Create growth opportunities and maximize shareholder value.
- ❖ Provide value linkages in other sectors of energy business.
- business opportunities.
- ❖ Focus on domestic and international oil and gas exploration and production

Integrated In Energy Business

- ❖ Strive for customer delight through quality products and services.
- stimulating and challenging experience for our people.
- ❖ Foster a culture of trust, openness and mutual concern to make working a community life.
- ❖ Abiding commitment to safety, health and environment to enrich quality of
- ❖ Imbibe high standards of business ethics and organizational values.
- technology with involved people.
- ❖ Dedicated to excellence by leveraging competitive advantages in R&D and

World Class

This study aims to obtain a comprehensive, detailed and well-rounded view of the tangible and intangible benefits achieved by implementing a paperless office. Various legacy processes have been understood, studied and contrasted with their paperless implementation counterparts. Some of these processes include endorsement of medical cards, submissions of savings and income details, leave encashment and many other claims and reimbursements. Typically, applications and supporting documents have to be submitted, often to various departments to complete one such process. In this study, the effort, time and paper consumption is sharply contrasted and compared with processes designed in a paperless scenario. This report presents an accurate view of how essential a paperless scenario can be. However, there are certain myths that cloud the paperless office initiative which are also considered within this document. Ultimately, the effort to design, build and eagerness to transition to this new philosophy of working can be deciding factors in the success of implementing a paperless office. This study seeks to elaborately discuss all aspects of a paperless initiative and encourage the adoption of this novel method of business operation.

1.2 Objective of the Study

meetings of the Board.
 Managing Director, ONGC Videsh Limited (OVL) is a permanent invitee to the by the Government of India. To share the global experience and business strategies, time official nominee Directors and 1 part time non-official Director) nominated and 3 Non-executive Directors (comprising 2 part- comprising of 6 Functional Directors (including the Chairman & Managing Director) As on 16th March, 2015, the strength of the Board of Directors is 9 members, control and guidance of the Board.

The Company is managed by the Board of Directors, which formulates strategies, policies and reviews its performance periodically. The Chairman & Managing Director (CMD) and Six Whole-Time Directors viz. Director (Onshore), Director (Technology & Field Services), Director (Finance), Director (Offshore), Director (Exploration) and Director (Human Resource), manage the business of the Company under the overall supervision,

Board of Directors

CHAPTER 2: LITERATURE REVIEW

To ensure the success of a paperless office initiative, it is necessary to be aware of the reasons why this issue should be included within the IT agenda. The paper "An IT Manager's Guide for moving toward the Paperless Office" by Nuanca Communications [2] answers key questions regarding why such an initiative is of importance from the business perspective, how such an initiative can affect the security concerns of the organization in question, what kind of technology must be sought for implementing the same and finally how can the performance and results of such an initiative be assessed. This paper proves to be a wholesome starting point for one who is interested in the idea of a paperless office implementation.

The web article "14 Tips for Creating a Paperless Office" by Paul Mah [3] is another source from which ideas can be derived for starting with the paperless office implementation. It encourages easy reduction of paper by suggesting concepts as easy as discouraging the mindful usage of paper to complex methods that involve redesigning and re architecting business processes. In the ONGC implementation, this very method has been adopted for going paperless. It also discusses how this idea took root during the early days of the IBM computer. This point emphasizes that paperless office has been a distant reality even after the great advancement in technology.

Perhaps, the best example of a real world implementation of paperless office can be found in the "Overview of Paperless Office Concepts" by Rice Software Consulting. [4] The paper begins on a note how paperless office is no longer just a technical issue but an organizational one. It proceeds with discussing pre requisites to be considered before going paperless. It also elaborately details the kind of software and tools that will be required in a paperless scenario. By explaining their Lexis Front Office Software, this paper provides an exhaustive study of the paperless office. It proves to be extremely vital to learn the realities of a paperless office and achieve the paperless dream.

Paperless Office is not an idea in its infancy but has been heralded as the inevitable future of business operation since a decade. However, despite the availability of technological resources, paperless office is still not a mainstream concept. The web articles "The Paperless Office is All Talk, No Action" [5] and "Whatever happened to Paperless Office" [6] discuss this cold, hard reality of the difficulty and reluctance of

organizations to embrace this ideology. It takes considerable time and effort to set up the foundation for a paperless office. Various tools and machines need to be set up and the entire infrastructure needs to be reorganized to reap the benefits a paperless office initiative has to offer. Therefore, it is of utmost importance to put in serious effort and create a general vibe of eagerness within the organization to successfully implement a paperless office or the myths associated with the paperless initiative can send the paperless office dream into a crippling failure.

CHAPTER 3: RESEARCH METHODOLOGY

This section elucidates the steps taken in order to implement the paperless office initiative in ONGC. It is essential to contrast legacy systems and paperless systems to gain a sound understanding of the areas that need to be focused upon to implement a paperless office. Then, the implementation must proceed with re-engineering these processes and workflows in accordance with the paperless scenario desired.

The following figure outlines advantages of a paperless scenario in contrast with a paperless scenario which must be mapped as basic goals to transition to a paperless office.



Routing and Storage Costs	
	Expensive to file and store. An employee must look at a document (usually more than once) and decide where it needs to go. Over time, the document must be routed to various people and eventually into storage. Storage costs vary but one must factor in the energy and time of the employees to maintain lists of stored documents and the time it takes to retrieve stored documents.
	Much easier to file since electronic documents need to be saved only once and can be stored on high-capacity media for archiving.

Locating Lost Documents	
	Employees must spend time to locate lost documents (sometimes hours or even days). If a document has been filed in the wrong client folder, it may never be located.
	Easier to locate using document search software (like the search index feature built into Front Office).

Sharing and Collaborating	
	Employees must spend time to copy and distribute the documents. Redlines and notations are compiled and redrafted – communication can be slow and duplicative.
	Easily distributed with each reviewer working on the same document. Messages and communication can be easily compiled and centralized.

Remote Access	
	Must be copied and shipped to remote locations – more energy is expended to file the copy at the remote location. Traveling employees do not have access to documents unless the documents were copied ahead of time.
	Available to all users with proper security across the Internet. Documents can be e-mailed, reducing the expense of faxing.

Fig 1: Pre Paperless Scenario vs. Paperless Scenario

Having set the ultimate vision in place, it is now required to analyze elementary business processes that need to be re-engineered for transitioning into a paperless

office. The following sections discuss some business processes and workflows within ONGC and how they have been converted into paperless and paper efficient processes.

3.1 Leave Encashment

All employees in ONGC are entitled to get 30 days Earned Leave (EL) per annum (15 days after every six months). They are eligible to avail/encash their earned leaves as per a pre-established HR procedure, which governs accumulation and encashment of leave. The Leave Encashment claim is generated by the individual employee. The process involves; approval, leave balance updating, payment as per prevailing rules and record keeping. The LE claim process has been automated in stages from Legacy (manual & paper based) to Off-line (semi-automated) to On-line (automated).

3.1.1 Legacy Process

In the legacy process, leave encashment claim processing was completely manual and paper based. An employee used to fill the leave encashment claim in prescribed form, which was then approved by CO and forwarded to HR. After verification of leave record from personal file, HR used to issue sanction order against the claim and forward it to PCS along with the claim for payment and a copy to individual for intimation. A copy of order was maintained in a personal file of the employee. PCS used to process the claim and prepare voucher, which was then forwarded to Cash & Bank section for payment mode selected by the employee or as per the then standard practice.

The cycle time from "request-to-payment" used to vary from 21 days to 30 days. Since the process was manual; human interventions like Dak, CO, HR & Finance personnel, etc. were very high at each stage as they had to dig out old records, verify the claim and perform the rituals manually (calculation, voucher creation, cheque preparation, signing, etc.). The checks and controls were manual, time consuming and, error prone.

3.1.2 Semi Automated Process

Leave Encashment process prior to making it on-line was partially manual and partially in SAP. This system was started initially in SHRAMIK since 01-07-2004. SHRAMIK system was then merged with ICE system. Employee used to fill their leave encashment claim in prescribed form, which then approved by CO and forwarded to HR. The Dealing Officer (DO) used to enter the requested Leave

Every employee is required to submit details of their Proposed/Actual Savings as well as declare their income to ONGC for the purpose of:

3.2 Submission of Savings & Income details

In the on-line process, the cycle time from leave encashment claim-to-payment is around 1 to 7 days if payment is to be made through off-cycle schedule and 30 days if payment is to be made through monthly salary.

The On-line Leave Encashment process in Wevice has been started in ICF system from 01-02-2007. In this process, the employee creates his/her leave encashment claim in the system, which automatically gets validated by the system. A Lock-mode record gets generated, which automatically goes in the Inbox of Establishment Head for the employee, who unlocks it. This updates the leave balance in HR master and creates record for payment through salary. In case, employee requires advance payment (as an urgent requirement) he approaches PCS for off-cycle payment. If payment is to be processed through off-cycle; then PCS unlocks the claim, else it gets processed automatically for payment along with monthly salary without intervention of PCS.

3.1.3 Online Process

The cycle time from request-to-payment used to vary from 7 days to 15 days. In this case; automation part was only payment calculations, check, control & balances, printout of order using standard format and maintaining records in the system. Since the process was semi-automatic, human interventions like Dak, CO, HR & Finance personnel, etc. were still required.

Encashment days in the system. On saving the details in the system; a Lock-mode entry gets generated against which automated mail goes to establishment head. Establishment head further forwards this mail to I/C HR/ER to unlock the claim. This unlocking creates a record for payment through salary. Establishment Head used to take printouts of Leave Encashment order, which then sent to PCS and employee concerned. A copy is also maintained in his/her personal file. In case, employee requires advance against this payment, he approaches PCS for advance through off-cycle. Payment, then, was processed by PCS either through off-cycle as an advance against the total amount or through salary depending on the urgency request by the employee.

- Income Tax TDS calculations
- Disclosure of income before financial year end

3.2.1 Legacy Process

In the past, employees used to submit their details on paper/prescribed form with supporting documents directly to PCS. These forms used to vary from location to location. PCS used to update the records in EDP system available in the region or work center. The tax calculation was manual. Records were required to be maintained for requisite period as tax evidence.

3.2.2 Semi Automated Process

In this process, employees used to submit their savings details either on white paper or in prescribed form along with supporting documents to PCS. In turn PCS used to enter the details in the system under Info-type 5XX for calculation of income tax rebate/payment. To summarize; in this system, the process of submission of saving/income details were manual, but calculation was done by the system (ICE System).

3.2.3 Online Process

The On-line process in Wevice is user friendly and has an inbuilt entry control mechanism, which saves lot of effort of the individual and the PCS. When the details are saved by the employee, a Lock mode entry gets generated. On verification of the documents submitted by the employee, the PCS unlocks the record. This itself provides an acknowledgement to the employee. The system takes care of calculation and the eligibility part. This new process saves manpower, processing time & overheads.

3.3 Intimation/Permission for Movable/Immovable Transaction (Proforma 'S')

Employees acquiring or disposing off any movable/immovable property are required to give an intimation/take permission of employer (ONGC) before the actual transaction. Employee submits his/her request to concerned HR/ER in prescribed format. HR/ER section in turn entertains the request after scrutinizing employee's claim and a copy of duly endorsed proforma is returned to them as an acknowledgement.

Recently the proforma "S" has been automated in Webice. This is with the objective to facilitate employees to intimate the transaction for acquisition/disposal of movable/immovable property online and get the approval online. As per O.O 18(02)/07/CP dated 21.01.2008, the proforma S needs to be routed through the CO however, as of date there is no workflow developed in Webice. Hence, the copy of duly filled in proforma S is routed to concerned HR physically through controlling officer. Thus, physical movement of paper is yet not eliminated from this process due to unavailability of workflow in the system.

3.3.3 Online Process

Since, the process is highly manual; it takes 5 to 15 days to process the request.

As this process has legal aspects, there was not much change w.r.t the legacy process. In the ICE system, the database of employees' intimation/permission transactions is being maintained. The approval process is still manual and paper based. The concerned HR section verifies the details and approves the transaction. The HR updates their database and maintains the approval copy of transaction I in the employee's personal file.

3.3.2 Semi Automated Process

The process was paper based, lengthy and totally manual, so it was taking 15 to 30 days depending the location and availability of the Competent Authority.

In the legacy process, the employee used to fill up the standard form ('S' form) for acquisition/disposal of any movable/immovable property of a certain value (limit decided by CVC/organization). The form used to be submitted along with supporting documents to the HR section via the controlling officer of the employee. The paper movement was through DAK. The establishment section verifies the details and puts it up to the I/C HR or Chief HR depending upon the level of the executive seeking permission for the transaction. After getting necessary approval, the establishment used to send a confirmation copy to employee while maintaining one copy of the processed record in the personal file of the employee.

3.3.1 Legacy Process

Under the off-line process mapped in Project ICE, individuals used to submit his telephone reimbursement claim in prescribed format (handwritten or computer print) to PCS directly. Claim details were maintained in the sectional register before forwarding it to PCS. The claim was paper based and required DAK process to reach to PCS. After claim form reached to PCS, they verified it and entered the claim in System. This creates a record for payment through salary in PCS.

3.4.2 Semi Automated Process

The cycle time from "request-to-payment" used to vary from 15 days to 30 days. Since the process was manual; human interventions like DAK, CO, HR & Finance personnel, etc. were required at each stage as they have to dig out old records to "verify earlier claim records to avoid duplicate payment" and perform the rituals manually (calculation, voucher creation, Cheque preparation, signing, etc.). The checks and controls were manual, time consuming and, error prone.

In the legacy process, Reimbursement of Telephone Charges was completely manual and paper based. The employees used to make their claim in prescribed form, which then approved by CO and forwarded to HR. After verification of record from personal file, HR/ Infocom used to forward it to PCS for processing payment. PCS used to process the claim and prepare voucher, which then forwarded to Cash & Bank section for payment mode selected by employee or as per the then standard practice.

3.4.1 Legacy Process

Executives of E-5 and above levels are eligible for reimbursement of telephone charges maintained at their residence. The ceiling limit of reimbursement of telephone charges is pre-fixed by ONGC management. The Telephone Reimbursement claim is generated by the individual employee.

3.4 Reimbursement of Telephone Charges

After employee creates online record, the lock mode entry is getting generated with mail for Establishment Head, who in turn verifies the details and forward the mail to I/c HR-ER and/or to next competent authority (chief ER in case of E7 & above) for release and approval of the employee's transaction. After unlocking by HR/ER, employee gets acknowledgement mail. The request processing in this new system reduced to 2 to 10 days.

In the legacy process, the process of reimbursement of Vehicle Maintenance Charges was completely manual and paper based. Employee used to claim reimbursement of vehicle maintenance on a paper, which then forwarded to HR. After verification of record from personal file, HR use to issue one time sanction order against the claim and forward it to PCS for payment with a copy to individual for intimation. A copy of sanction order use to be maintained in personal file of the employee. PCS used to process the claim and prepare voucher, which then forwarded to Cash & Bank section for payment mode selected by employee or as per the then standard practice. Checks and controls were manual, time consuming and error prone.

3.5.1 Legacy Process

E-6 & above level Executives are eligible for reimbursement of maintenance charges against their vehicles. The limit of vehicle reimbursement charges are pre-decided by company management. The individual concerned raises a Vehicle Maintenance reimbursement claim on monthly basis. The process involves; approval and record keeping.

3.5 Reimbursement of Vehicle Maintenance Charges

In On-line process, there is no paper movement. All record remains in the system. Claim validation is On-line and instant. However, PS role of unlocking the record for payment processing through salary needs review.

In this process, the employee creates his telephone charges claim in Wevice, which automatically gets validated by the system. On successful validation, the system allows to save the claim. Once the claim record is saved, lock mode entry gets generated. PCS unlocks the record in SAP system). For all the requests made before salary run (i.e. before 23rd to 25th day of each month) the payment will be processed through salary of the month.

3.4.3 Online Process

For all the requests made before salary run (i.e. before 23rd to 25th day of each month) the payment was processed through salary of the month. In this case; automation part was only validation of ceiling level vis-a-vis designation and maintaining records in the system. Since the process was semi-automatic, human intervention by Finance personnel, etc. was still required.

After joining at new location employee needs to fill the form MED-IDC-01 to get his medical card endorsed at new location. In the form details of dependent family members is to be given. On receipt of form concerned establishment officer creates entry in SAP R/3 and order is issued. In this off-line process the automation part is only record maintenance in the system and order generation (printout in a standard format).

3.6.2 Semi Automated System

After joining at new location employee use to fill the form MED-IDC-01 to get his medical card endorsed at new location. In the form details of dependent family members were given. On receipt of form concerned establishment officer use to issue medical booklet / card to the employee. This process was fully manual in legacy system.

This process discusses the transition from legacy to online of medical expenses process in ONGC.

3.6 Endorsement of Medical Card on Transfer

In this process employee creates his Maintenance charges claim in Wevice, which automatically gets validated by the system. On successful validation, system allows to save the claim. Once Claim record is saved; lock mode entry gets generated. PCS unlocks the record using T-Code.

3.5.3 Online Process

This system was started initially in SHRAMIK. It was then merged with ICE system from 01.05.2005. In this process, employee fills Maintenance charges claim in prescribed form and forward it to PCS. The Dealing Officer (DO) enters claim in the system. This creates a record for payment through salary. A copy of claim is maintained as a record. Automation part was only to the extent of claim validation and maintaining record in the system. Since the process was semi-automatic, human interventions were required. For all the requests made before salary run (i.e. before 23rd to 25th day of each month) the payment will be processed through salary of the month.

3.5.2 Semi Automated Process

In legacy system, individual used to prepare a Tour Program (travel plan) in a prescribed format on note sheet, which is then approved by Competent Authority through individual's Controlling Officer. After specific entries in the sectional register, the duly approved tour program along with Air/Train ticket and accommodation booking requisition form of an individual used to be forwarded to Hospitality section for booking of Tickets and accommodation. Individual's request for TA advance, along with approved tour program used to be given to PCS for drawing admissible advance, if required by the individual. Concerned Hospitality section used to co-ordinate with hospitality sections of other locations for hotel/guesthouse booking through telephone/fax, etc. Through Balmer Lawrie

Earlier Travel Process was totally manual, involving manpower at each stage. Legacy system continued till implementation of 1st phase of Travel Module in SAP.

3.7.1 Legacy Process

Employees go on tours to various places in the interest of business or training or medical checkups of their own or dependents. They are entitled to avail tour facilities as per company guidelines. Individuals can avail Travel Allowance (TA) as an advance before commencement of their tour, if one wants it (optional). However, they are required to submit TA adjustment in the form of TA bill. Travel process encompasses, tour program approval by competent authority, ticket & accommodation booking by hospitality section, providing TA advance, if required by the individual as per entitlement, TA bill approval, passing of TA bill by Finance (PCS) and reconciliation of travel expenditure (ticket, accommodation, etc.).

3.7 Travel Process

In this process, employee will apply for "Endorsement of Medical Card" by login into his WeBice account. In WeBice he will select dependent family members for whom endorsement is needed. On save / submit sap mail will go to the attached establishment in-charge. Establishment in-charge will unlock the record and confirmatory sap mail will go to the applicant that his medical card has been endorsed by the establishment in-charge.

3.6.3 Online System

(ONGC's approved Travel Agent) journey tickets used to be booked as per options given by the individual. Hospitality section in turn, confirms the accommodation and ticket booking to individual. In case of any change in journey schedule or accommodation, individual used to contact hospitality section beforehand. PCS used to process TA advance for payment through Cash & Bank section.

In case of any deviation in journey schedule/ tour extension, etc. individual was supposed to take ex-post-facto approval of Competent Authority on note sheet. Individual used to submit his/her TA bill along with a copy of approved tour diary and relevant supporting documents to PCS through his/her controlling officer. Dispatch of TA bill to PCS was recorded in the sectional register. PCS after pre-audit, use to pass the TA bill adjusting TA advance, if availed by the individual.

Reconciliation of travel and accommodation expenditure was done at later stage once Travel Agent and Hotel used to raise their bills to concerned PCS. Many a times Reconciliation used to be a lengthy exercise consuming considerable time and efforts. The Legacy travel process was paper based and highly manual. Cycle time for Tour Program approval to Ticket issuance & accommodation confirmation and TA bill submission to TA bill adjustment used to be significantly high nearly 21 to 35 days. The process involved lot of follow-up by the individual at each stage consuming his own time and creating unwarranted stress.

3.7.2 Semi Automated Process

In current process, individual creates Tour program online in WeBice and gets a printout copy. This Tour Program consists of requisition for Ticket, Hotel booking and Tour Advance (on individual's requirement basis). Creation of Tour Program in WeBice generates a unique TRIP NUMBER. Individual then sends the printout copy of tour program for the approval of competent authority through his/her controlling officer.

A copy of approved tour program then given to Hospitality section for Ticket and accommodation booking and another copy to PCS for TA Advance (if required).

Sending a request for booking of accommodation at other work center is being done through system, involving hospitality section at that location. After getting the accommodation booking done, the hospitality section of other location confirms the

pre-audit the claim online. Rest of the process would remain the same. Though in the beginning, movement of TA bill-cum-Tour Diary would be a manual process; submission of TA bill-cum-Tour Diary to PCS will be online. PCS will also interpretation of pre-auditing.

In the first phase, there will not be any change in the processes of Tour Program approval, ticketing, accommodation booking and obtaining TA advance. However, when individual returns back from the tour, he/she shall submit TA bill-cum-Tour Diary through Wevice system. Submitting TA bill through system would consume less processing time, calculations of TA, DA, etc. would be automatic, pre-programmed rules would validate the claims and will eliminate subjective

- i. Implement workflow for CO, CA, Hospitality (local & other work center) and PCS.
- ii. TA advance through DME/Off-cycle.
- iii. On-line movement of tour program and tour diary
- iv. B2B connectivity with Travel Agent (Balmer Lawrie) for ticketing (hotel booking can also can be clubbed, if feasible)

Completely automated travel process have been planned to be implemented in phased manner. The on-line travel process would be improved in following phases:

3.7.3 Proposed Online Process

There is no change in the process of submitting TA bill. However, reconciliations of TA advance, ticket & accommodation charges shall be done against the system generated Trip Number. This facilitates reduction of workload of PCS and validates the billed amount hence ease in passing the TA bill as well as reconciling the expenditures.

availability through system. Travel Agent (Balmer & Laurie) may send e-ticket to employee in his mail id or may issue it to concerned Hospitality section, where from employee collects his tickets. Employee also gets confirmation of ticket and drawing TA advance, however, it may be noted that advance payment is done against the system generated Trip Number as like issuance of tickets and confirmation of accommodation booking through Wevice. There is no change in the process of accommodation collects his tickets. Employee also gets confirmation of ticket and drawing TA advance, however, it may be noted that advance payment is done against the system generated Trip Number as like issuance of tickets and confirmation of accommodation.

Reimbursement of Vehicle Insurance process is partially automatic. Off-line process started initially in SHRAMIK since 01-07-2004 and subsequently merged in project ICF. In offline system, employee fills his vehicle insurance claim in prescribed form, which then approved by CO and forwarded to HR. The Dealing Officer (DO) enters claim in the system and maintains a copy of claim in his/her personal file. On saving the details in the system, a Lock-mode entry gets generated against which, automated e-mail goes to establishment head. Establishment head unlocks the claim. This unlocking creates a record for payment through salary. The cycle time from request-to-payment through off-cycle varies from 7-10 days. From Fiscal year 2008-09, mode of payment has been converted entirely through salary. For all the requests made before salary run (i.e. before 23rd to 25th day of each month) the payment will be processed through salary of the month. In this case; automation part is only checking of record, printout of sanction order using standard format and maintaining records in

3.8.2 Semi Automated Process

In legacy, Reimbursement of Vehicle Insurance claim processing was completely manual and paper based. Employee used to claim in prescribed form, which then approved by CO and forwarded to HR. After verification of record from personal file, HR used to issue sanction order against the claim and forward it to PCS along with the claim for payment and a copy to individual for intimation. A copy of order was maintained in personal file of the employee. PCS used to process the claim and prepare voucher, which then forwarded to Cash & Bank section for payment mode selected by employee or as per the then standard practice. The checks and controls were manual, time consuming and error prone.

3.8.1 Legacy Process

All employees in ONGC are entitled to get "Reimbursement of Vehicle Insurance" once in year. They are eligible to avail reimbursement as per pre-established HR procedure. The Vehicle Insurance Reimbursement claim is generated by the individual employee.

3.8 Reimbursement of Vehicle Insurance

In the subsequent phases, Travel process as a whole is planned to be completely automatic and fully on-line.

The proposed system will be in **Webice**. It will be completely online and paperless. In this process, while making claim, employee will enter relevant details such as date, time and nature of extra job performed. On submitting the claim, system will generate e-mail for employee's Controlling Officer, prompting him to verify the claim in the system. After scrutinizing the claim, Controlling Officer either approves it (if he is

3.9.2 Proposed Online Process

Approving Authority to PCS. Record keeping is also manual. physically paper (form) has to move from employee to Controlling Officer to of claiming Reimbursement of out-of-pocket expenditure is currently manual, as for Out of Pocket Reimbursement payable to employee through payroll. The process payable to the employee for a given month. PCS enters employee's record in IT 0015 Authority (Key executive with E7 or higher level). PCS verifies the admissible amount Employee sends the claim to PCS through his Controlling Officer and/ or Approving also being maintained in a register at employee's section for counter verification. individual is required to be mentioned in the proforma. More or less, same entries are for extra duty performed. The date(s), time and nature of extra duty performed by the Employee claims Reimbursement of Out-of-Pocket expenditure in a prescribed form

3.9.1 Legacy Process

allowance, payable by organization based on predefined criteria. duty performed, employee is liable to claim extra money, known as out-of-pocket beyond normal working hours including Saturday/ Sunday/ Holidays. For the extra Due to business requirement an officer is required to over-stay or attend the office

3.9 Out of Pocket Reimbursement

salary. In this process employee creates his Vehicle Insurance claim in **Webice**, which automatically gets validated by the system. On successful validation system allows to save the claim. Once Claim record is saved then, payment will be made with monthly

3.8.3 Proposed Online Process

HR & PCS are still required. the system. Since the process is semi-automatic, human interventions like DAK, CO,

After implementation of ICE, the process of reimbursement of Membership Fees is partially automatic. The semi-automatic system is in place from 1st July, 2004. While

3.10.2 Semi Automated Process

In legacy, Reimbursement process of Membership Fees was completely manual and paper based. Employee used to fill the Membership Fees Reimbursement claim form, which then approved by CO and forwarded to HR. After verification of academic record and area of work of the individual from his personal file, HR used to issue sanction order against the claim and forward it to PCS along with claim details for payment with a copy of the sanction order to individual concerned for intimation. Also, a copy of sanction order was maintained in personal file of the employee. PCS used to process the claim and prepare voucher, which then forwarded to Cash & Bank section for payment mode selected by employee or as per the then standard practice. The cycle time from "request-to-payment" used to vary from 15 days to 30 days. Since the process was manual; human interventions like Dak, CO, HR & Finance personnel, etc. were required to dig out old records, verify the claim and perform the rituals manually (calculation, voucher creation, Cheque preparation, signing, etc.). The checks, validations and controls were manual, time consuming and error prone.

3.10.1 Legacy Process

As per pre-established HR policy of ONGC, E0 to E9 level executives, having Q1 qualification are entitled to get reimbursement of Membership Fees of Professional Institutes in their area of specialization. The reimbursement claim by the individual involves; approval, system updation, payment as per prevailing rules and record keeping. The process of reimbursement of Membership fees is being improved in phased manner. The Legacy process was manual & paper based. After implementation of SAP it became semi-automated. The new proposed on-line system in Wevice would be automated and more efficient.

3.10 Membership Fees Reimbursement

Key executive with E7 or higher level) or forwards it online, to Approving Authority (Key executive with E7 or higher level). On approval of Competent Authority; system will automatically calculates the payable amount to the employee and payment will be made to employee automatically through salary.

claiming the reimbursement of Membership Fees; executive fills up the prescribed form, which then approved by CO and forwarded to HR. The Dealing Officer (DO) verifies the claim and enters requisite details in ICE system. On entering and saving the details in system, a Lock-mode entry gets generated against which, automated mail goes to Head establishment, who further forwards this mail to I/C HR/ER to unlock the record. After unlocking of record by I/c HR-ER; Establishment Head takes printout of Membership Fees Reimbursement order, which then goes to PCS and a copy to employee concerned. A copy is also maintained in his/her personal file. Payment is made either through off-cycle or through salary. The cycle time from request-to-payment varies from 7 days to 30 days. In this case; automation part is record check in the system, printout of order using standard format, maintaining records in the system & payment processing. Since the process is semi-automatic, human interventions like Dak, CO, HR & Finance personnel, etc. is still required.

3.10.3 Proposed Online Process

The On-line process for reimbursement of Membership Fees has been proposed to be incorporated in Webice. The on-line process is developed in such a way that executive enters his reimbursement claim in Webice by selecting appropriate payment option viz through salary or off-cycle. System automatically check, verifies & validates the claim after on-line certification by the executive. Immediately a Lock-mode record gets generated, which PCS can unlock to make the payment effective as per selected mode.

The cycle time from claim-to-payment will vary from 1 to 7 days for "off-cycle" payment and 1 to 30 days for payment through "salary".

CHAPTER 4: DATA ANALYSIS

This chapter elaborately discusses the main findings and statistics obtained after implementing the paperless office initiative in ONGC. The results depict actual and accurate data and can be analyzed to determine the degree of success of this extensive project.

4.1 Data Collection Sources and Techniques

The data specified in this project has been taken from actual ONGC implementation records. Various parameters such as cost, time, man hours, effort, and cycle time and so on were identified for each process and their values before and after the implementation were documented.

The data has been collected from ICE-HR, Local-HR, ICF-Finance, Local Finance departments.

These records were extremely essential in the creation of this project.

4.2 Descriptive Statistics

This section presents the statistics that were computed for each process that help lead the paperless office initiative in ONGC. Each parameter is contrasted in great detail and presented in a tabular form for greater readability and understanding.

4.2.1 Comparison in submission of Leave Encashment Process

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Claim Processing Time	LE Claim creation to approval Claim processing by HR Claim processing for payment by PCS	On-line	15-20 min 10-20 min 10-15 min 35-55 min (total)	5-15 min
Manpower involved in processing the claim				3 people
				9 people
				9 people
				3 people

Table 2: Comparison for the process of Savings & Income Details

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Application Processing Time	Filling / submission of saving details and processing by PCS	Entering details in Webic, submission of supporting details and Processing by PCS	50-65 min	20-35 min
Manpower involved in processing the Claim	Employee, Dak and PCS	Employee, Dak & PCS	4 persons	4 persons
Man-hours to process the claim	Spent in Employee section & PCS	Spent in Employee section & PCS	0.83 to 1.08	0.33 to 0.58
Cycle time for Claim-to-Payment	Off-line	Off-line	1-30 days	1-30 days
Inter departmental paper movement time	Waiting+ DAK movement time	Waiting+ DAK movement time	1.5-3 days	1.5-3 days
Cost to process single claim	Printing & stationery	Printing & stationery	Rs. 25	Rs. 20

4.2.2 Comparison in submission of Savings and Income Details

Table 1: Comparison for the process of Leave Encashment

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Application Processing Time	Filling / submission of saving details and processing by PCS	Entering details in Webic, submission of supporting details and Processing by PCS	50-65 min	20-35 min
Manpower involved in processing the Claim	Employee, Dak and PCS	Employee, Dak & PCS	4 persons	4 persons
Man-hours to process the claim	Spent in Employee section & PCS	Spent in Employee section & PCS	0.83 to 1.08	0.33 to 0.58
Cycle time for Claim-to-Payment	Off-line	Off-line	1-30 days	1-30 days
Inter departmental paper movement time	Waiting+ DAK movement time	Waiting+ DAK movement time	1.5-3 days	1.5-3 days
Cost to process single claim	Printing & stationery	Paperless transaction	Rs. 20	Nil

4.2.3 Comparison in processing Proforma 'S'

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Processing Time	Creation of request to process the claim by HR	Creation of request to process the claim by HR	60 to 130 min	45-85 min
Manpower involved in processing the claim	Employee, CO, Attendant (at each end), Establishment, I/c HR/ER, DAK	Employee, CO, Attendant (at each end), I/c HR/ER, DAK	7 persons (total)	6 persons (total)
Request processing cycle time (Request generation to Acknowledgement)	Through manual channel	Through System based transactions	05 to 15 days	2 to 10 days
Inter departmental paper movement time	Processing +Waiting +DAK movement time	Processing +Waiting +DAK movement time	3-5 days	2 to 3 days
Cost to process single claim	Printing & stationery	Paperless transaction but printing cost for CO signature	Rs. 20	Rs.5

Table 3: Comparison for the process of Proforma 'S'

4.2.4 Comparison in processing for Reimbursement of Telephone Charges

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Processing Time	Claim creation to payment process	Claim creation to claim processing by finance	25 - 40 min	5-10 min
Manpower involved in processing the claim	Employee, PCS & DAK	Employees & PCS	3 persons	2 persons
Man-hours to process the claim	Claim creation, sending it through dak and processing by PCS	System based transaction	0.42 to 0.75 man hrs.	0.08 - 0.17 man-hrs.
Cycle time for Claim-to-Payment	Through salary	Salary payment	02-37days	1-37 days
Inter departmental paper movement time	Processing + Waiting + DAK movement time	Processing + Waiting time	1.5 - 3 days	0.5 day

Parameter	Old	New	Quantifiable efforts (Old)	Quantifiable efforts (New)
Processing time	Application creation and processing by HR	Application creation and processing	35 to 65 min	5-10 min
Manpower involved in processing application	Employee, Attendant (2 at both ends), Establishment incharge.	Employee and Establishment officer	4 persons	2 persons

4.2.6 Comparison in processing for Endorsement of Medical Card on Transfer

Charges Reimbursement

Table 5: Comparison in processing for Reimbursement of Vehicle Maintenance

Parameter	Old	New	Quantifiable efforts (Old)	Quantifiable efforts (New)
Processing Time	Claim creation to Claim processing by PCS	Claim creation to Claim processing by PCS	35-60 min	8 to 15 min
Manpower involved to process the Claim	Manpower Employee, DAK/Attendant, PCS	Employee & PCS	3 people	2 people
Man-hours spent on a single claim	Claim creation, sending it through dak and processing by PCS	System based transaction	0.58-1.0 man-hr	0.13-0.25 man-hrs
Cycle time for Claim-to-Payment	Salary payment	Salary payment	1-37 days	1-37 days
Inter departmental paper movement	Processing + Waiting time	Processing + Waiting time	1.2 to 2.5 days	Nil
Cost	Printing, Stationary, Register	Paperless transaction	Rs. 5/-	Nil

Charges

4.2.5 Comparison in processing for Reimbursement of Vehicle Maintenance

Table 4: Comparison in processing for Reimbursement of Telephone Charges

movement				
Cost to process single claim	Printing & stationery	Paperless transaction	Rs. 5	Nil

Parameter	Old	New	Quantifiable efforts (Old)	Quantifiable efforts (New)
Time required for Tour Program approval by CA, ticket issuance, accommodation of ticket & TA confirmation & advance obtaining TA	It includes Tour Program approval by CA, ticket issuance, accommodation of ticket & TA confirmation & advance obtaining TA	It includes Tour Program approval by CA, ticket issuance, accommodation & confirmation & advance obtaining TA	2.55 hrs to 6.25 hrs	1.50 hrs to 4.30 hrs
Manpower involved in processing single Travel Request	Employee/PS, CO, DAK, CA, Attendant, Hospitaly (Ticketing), Hospitaly (Accommodation), Cash & bank, Hospitaly at far end,	Employee/PS, CO, DAK, Attendant, CA, Hospitaly, PCS, Cash & bank, Hospitaly at far end,	10-12 persons	9 persons
Man-hours to process a single Travel Request till ticket issuance	Efforts spent by Individual/PS, CO, CA, Attendant, Hospitaly, PCS and Cash & Bank	Efforts spent by Individual/PS, CO, CA, Attendant, Hospitaly, PCS and Cash & Bank	2.58 to 6.42 man-hrs	1.58 to 4.1 man-hrs
Reconciliation Time	Time required to settle Ticket charges (including journey re-route, cancelled journey)	Time required to settle Ticket charges (including journey re-route, cancellation, cancelled journey)	8-15 days	1-2 days

4.2.7 Comparison in processing for Travel Process

Transfer

Table 6: Comparison in processing for Endorsement of Medical Card on

Man-hrs spend in processing a single application	Man-hrs spend in processing a single application
System based transaction	Paperless transaction
0.58 to 1.08 man-hrs	Rs. 10 per claim
0.08 to 0.17 man-hrs	Nil
Cost to process single application	Printing & stationery

Table 8: Comparison in processing for Vehicle Insurance

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Claim	Claim creation to approval by CO, claim processing by HR and processing it further by PCS for payment	On-line	60-90 min	5-10 min
Processing Time (excluding dak and paper pending for action time)	Employee, Attendant, CO, HR/ER, Dak, HR/ER, Dak, Attendant, PCS	Only employee	9 persons	1 person
Man-hours to process the claim		System based transaction	0.92 to 1.50 man-hrs	0.08-0.16 man-hrs
Cycle time for Claim-to-Payment	a) Through off-cycle b) Through salary	a) Through off-cycle b) Through salary	07 - 10 days	07 - 10 days
Inter departmental paper movement time	Processing + Waiting + DAK movement time	Processing + Waiting time	1.5 to 3 days	Nil
Cost to process single claim	Printing & stationery (registers, etc.)	Paperless transaction	Rs. 10	Nil

4.2.8 Comparison in processing for Vehicle Insurance

Table 7: Comparison in processing for Travel Process

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Cost to process single claim	Printing & stationery	Printing & stationery	Rs. 40	Rs. 25
Average follow-up time of employee	a) Ticket, approval b) Advance, approval c) Accommodation d) Tour program e) TA bill adjustment	a) Ticket, Advance, approval b) Advance, approval c) Accommodation d) Tour program e) TA bill adjustment	1 hr.	30 min
Hotel/Guesthouse charges	Hotel/Guesthouse charges and revised journey schedule, etc.)	Hotel/Guesthouse charges after receiving the debit		

4.2.9 Comparison in processing for Out of Pocket Reimbursement

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Claim Processing Time	Creation of request to process the claim by PCS	Creation of request to process the claim by PCS	105 to 155 min	20 to 40 min
Manpower involved in processing the claim	Employee, CO, CA, Attendant (at each end), PCS, DAK	Employee, CO and CA,	7 persons	2 persons
Man-hours to process the claim	From request generation to approval of CO & CA and processing the claim by PCS	From request generation to approval of CO & CA and processing the claim for payment	1.74 to 2.58 man-hrs	0.33 to 0.66 man-hrs
Request processing cycle time (Request generation to approval & claim processing by PCS)	Through manual channel	System based approval	1.5 to 3 working days	0.5 to 1 working day
Inter departmental paper movement time	Processing +Waiting+ DAK movement time	Processing +Waiting+ DAK movement time	1.5 to 5 days	Nil
Cost to process single claim	Printing & stationery	Printing & stationery	Rs. 20	Nil

Table 9: Comparison in processing for Out of Pocket Reimbursement

4.2.10 Comparison in processing for Membership Fees

Parameter	Old Components	New Components	Quantifiable efforts (Old)	Quantifiable efforts (New)
Claim Processing Time (excluding dak and paper pending for action time)	MF Claim creation to approval Claim processing by HR Claim processing for payment by PCS	Claim Creation and payment processing	15-20 min 20-40 min 15-25 min 50-1hr 25 min (total)	15-25 min

Eliminate the Role of HR and PCS at individual work-center, as role of HR and PCS in processing LE claims at individual work center is insignificant and not adding any value to the process. This would make the system more efficient.

Recommendations:

- No paper work is involved
- In-built workflow hence, processing does not require human intervention except release of claim with a click of mouse by local HR & PCS
- No paper record-keeping requirement as data is being maintained in system and on back-up media

4.3.1 Leave Encashment Inference

After having contrasted the statistical data of the both the pre paperless and paperless scenario, the inferences that have been attained are listed. In this section the inferences for each section are listed systematically for clarity. Additionally, a few recommendations are also listed as required.

4.3 Findings and Recommendations

Table 10: Comparison in processing for Membership Fees

Manpower involved in processing the claim	Employee, Attendant, GO, DAK, HR-DO, ESTT Head, I/c HR/ER, Dak, PCS Manager	Individual and PCS	9 persons	2 persons
Man-hours to process the claim	Man-hrs spent in Employee section and payment processing	Claim Creation and payment processing	0.42 - 2.41	0.25 to 0.42
Man-hours spent in HR section	Man-hrs spent in HR section	0.66 - 2.33	0.25 - 0.41	man-hrs
Man-hrs Spent in Finance	Man-hrs Spent in Finance	Total: 1.33-5.15		
Cycle time for Claim-to-Payment	a) Through off-cycle b) Through salary	a) Through off-cycle b) Through salary	01-07 days 01-30 days	1-7 days 7-30 days
Inter departmental paper movement time	Processing + Waiting+ DAK movement time	Processing + Waiting + DAK movement time	3-8 days	1 day
Cost to process single claim	Printing & stationery	Paperless transaction	Rs. 20	Nil

- No Paper work needed
- In-built workflow hence, processing does not require human intervention except release of claim with a click of mouse by PCS
- Role of HR, Attendants and DAK is totally eliminated.

4.3.4 Reimbursement of Telephone Charges

Role of CO in the process needs review.
 Workflow can be incorporated in the system to make it totally paperless. CO can be defined in the structure by local HR/ER.
 Role of HR at individual work centers may be reviewed and substituted centrally especially for Intimation of Movable/Immovable Properties.

Recommendations:

- On-line" Performa S Process is not fully automated as there is no built-in workflow for request to move automatically to Controlling Officer of the executive. There is further scope for process improvement.
- In in-built workflow will not require human intervention except release of application with a click of mouse by HR.

4.3.3 Performa 'S'

Individual to maintain supporting documents on his own.
 Telephone / Datacard charges.
 Individual to provide self certification as in other cases e.g. reimbursement of execution.

The Webice template may be designed in such a way that employee himself can segregate the saving/income details under proper Infotype (5XX, i.e. 582,584, etc.). This would eliminate authentication by PCS thereby freeing PCS

Recommendations:

- Easy record handling.
- No manual calculations by employee & PCS.
- Comfort for employee as using Webice for uploading saving details

4.3.2 Submission of Savings and Income Details Inference

- In on-line process the role of Attendants, DAK, can be eliminated.
- getting printout of ticket should be paper based.
- (on-line) including tour approval (CO & CA) and TA bill submission. Only Paper work could be eliminated once entire travel process is through system optimum process benefits.
- "On-line" Travel Process have to be improved in phased manner to reap

4.3.7 Travel Process

- Cycle time for request to approval will reduce drastically.
- No paper work will be required.
- Proposed On-line process will be automatic.

4.3.6 Endorsement of Medical Cards on Transfer

The process can further be simplified if, role of PCS is reviewed and eliminated out rightly. Since the vehicle Maintenance charges payment is through salary; Claim-to-Payment can be direct without the intervention of PCS

Recommendations:

- Role of Attendants and Dak is totally eliminated.
- except release of claim with a click of mouse by PCS
- In-built workflow hence, processing does not require human intervention maintained in system and on back-up media.
- No Paper work needed. No paper record-keeping requirement as data is being
- Proposed on-line claim process is automatic and efficient.

4.3.5 Reimbursement of Vehicle Charges

reimbursement charges are paid through salary only.

Role of PCS at each work center in unlocking the claim for payment processing can be eliminated, if it does not add real value. Hence, waiting time for unlocking the claim can be eliminated and process can be made more efficient. PCS time can be saved by freeing them from the process. As such telephone reimbursement charges are paid through salary only.

Recommendations:

- No paper record-keeping requirement as data is being maintained in system and on back-up media.

Recommendations:

- In true on-line process, no paper records need to be maintained as related to travel claim.
- Implement workflow for Controlling Officer (CO), Competent Authority (CA), Hospitality section and PCS.
- Online movement of Tour Diary and Tour Program to CO, CA, Hospitality section and PCS
- Tour Advance Payment through DME/Off-cycle
- B2B connectivity between ONGC and Travel Agent (Balmer Lawrie) for Ticket/accommodation booking once Tour Program is approved in the system.
- On-line adjustment of TA bill and payment/recovery in Salary

4.3.8 Vehicle Insurance

- The On-line process will not require paper transaction and record maintenance.
- In-built workflow hence, processing does not require human intervention.
- Roles of Attendants, Controlling Officer, DAK, HR & PCS shall be totally eliminated.

4.3.9 Out of Pocket Reimbursement

- Proposed "On-line" Out-of-Pocket claim process is automatic and efficient.
- No Paper work is required.
- In-built workflow would make the process more efficient.

4.3.10 Membership Fees

- Proposed "On-line" Membership Fees Reimbursement process is totally automated.
- No Paper work and record maintenance required
- In-built workflow; hence, human intervention and transit delay can get avoided.
- Role of CO, HR & PCS-DO and Dak is eliminated

Recommendations:

Role of PCS at individual work centers can be eliminated, as process can be developed to make off-cycle payment without intervention of PCS. The payment processing action can happen directly at Cash & Bank. For payment through Salary, no action is required from PCS.

4.4 . Limitations of the Study

This project has elaborated in great detail all the processes and workflows that were automated and made paperless in ONGC. This report also showcases those processes that are yet to be implemented. Moreover, the report also contains the estimated savings that will be incurred when the proposed processes are implemented.

However, the gaps in the implementation that have been mentioned in the recommendation section of each process have not been thoroughly studied and is beyond the scope of this project report.

Besides, the very minor limitation expressed, this report is entirely complete in manner and contains a vivid description of the paperless office initiative in ONGC.

4.5 Conclusion

Paperless offices are becoming a reality in many offices. ONGC has taken active steps in that direction and other industries will not be far behind.

The drive to succeed in a scenario driven by the demands of the market, cut throat competition and rising environmental concerns has begun to stir many organizations into action and transition to a paperless office following the suit of organizations like ONGC.

Good management dictates that all offices should begin a review of document procedures to ensure future compatibility with paperless systems. A paperless office is more of a discipline than a technology – offices must evaluate and streamline how they store and retrieve documents so that the increased load of electronic documents in a paperless environment does not cause the firm to be overwhelmed.

By using the right tools and thoughtfully re-engineering the business workflows, it is indeed possible to attain the far-fetched vision of an efficient, competitive and environment friendly offices.

I hope that the extensive efforts put in by ONGC to implement the paperless office initiative vividly described in this report serves a guide to anyone seeking to embark upon this journey of implementing a paperless office.

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