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विभूति खण्ड, गोमती नगर, लखनऊ - 226 010 (यू.पी.)

..... बैंकिंग, वित्त एवं बीमा क्षेत्र में सूचना प्रौद्योगिकी का अग्रणी संस्थान



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Thought for the quarter

Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe, no less than the trees or the stars; you have a right to be here.

-Disiderata

FROM THE EDITOR

Dear Readers,

First of all, it is my pleasant duty on behalf of my colleagues as well as my own to extend a warm welcome to our new Director, Shri B. K. Mahindroo in our midst. Possessed of extensive experience in banking, Shri Mahindroo is a person of vision, understanding and initiative. He held the position of Deputy General Manager at Retail Asset Division, Head Office, New Delhi before taking over as the Director of PNBIIT Lucknow.



In this issue we feature a highly informative article by Shri Pankaj Kumar Agarwal , Dean Jhunjunwala Business School, exploring - Credit default swaps are insurance-like contracts that promise to cover losses on certain securities in the event of a default. They typically apply to municipal bonds, corporate debt and mortgage securities and are sold by banks, hedge funds and others.

Shri Bipin K S Deokar, speaks in his perceptive article about significance of E-payments, its evolution and growth and how it leaves behind the traditional banking payment system.

Ms. Sadhana Misra of Navyug Kanya P.G College writes in her article that efficient cash management processes are pre-requisites to execute payments, collects receivables and manage liquidity and are essential for growth in business transaction volumes.

Just because a Web search engine can't find something doesn't mean it isn't there. You may be looking for info in all the wrong places is what Ms. Archana Saihai of Amity Institute of Information Technology, Lucknow tries to explain in her edifying article "The Deep web Mining"

Ms. Parul Verma, Sr. Lecture of Amity Institute of Information Technology, Lucknow, tells in her article that focus today is on cutting costs and centrally managing IT adoption of various virtualization technologies. As of now many banks are choosing to wait for virtualization products with a greater value and ease of use, before employing them.

The editorial team is pleased to inform our readers and authors that this e-track journal has been assigned International Standards Serial Number (ISSN) by National Institute of Science Communication and Information Resources, New Delhi

In the end, please accept our apologies for unavoidable delay in publication of this issue.

Happy Reading.....

Pramod Dikshit
Pramod Dikshit

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FROM THE DIRECTOR'S DESK

Banking sector has undergone a sea change in the last two decades. These years have witnessed deregulation, liberalization and evolution of Core Banking Solutions. The Banking system has absorbed Information Technology fast and deep thus facilitating real time solutions, spectrum of customized products, handling of very large volumes of sensitive financial transactions, and managing critical financial data. This has created a need for qualified personnel not only for operations but also to manage critical installations like Data Centers, Network Centers and Security Operation Centre etc as well as for developing and upgrading products and services. As a consequence, banks are faced with the twin challenges of upgrading the skills of employees from being pure bankers to techno- bankers and scouting for next generation of bankers possessing technical skills inherently.



In line with vision of the bank, Punjab National Bank Institute of Information Technology, Lucknow initiated a Six months, Advanced Diploma in Banking Technology (ADBT) programme that prepares fresh B Tech & MCA pass outs to be employable as next generation bankers. Inputs include Banking & Financial System, Credit Appraisal, Financial Analysis, Project Evaluation, Legal Aspects, various Products & Services, Core Banking Operations, and Advanced Concepts of Operating Systems such as Linux, Data Based Management System (Oracle-10 g), Network Management and Soft Skills etc for all round development. The program is conducted through a mix of classroom instructions, hands on exercises, tutorial and assignments, case studies, interaction with Industry experts and project work/ internship. The course equips the students to be ready to deliver from day one to prospective employers i.e. banks and BFSI sectors.


B. K. Mahindroo
(Director)

CREDIT DEFAULT SWAPS: LENDER'S BOON

- Pankaj K Agarwal , Neeraj Agarwal



Recent move by RBI seeking out the opinion of select bankers on introduction of Credit Default Swaps in India has raised many eyebrows. More infamous than understood, this instrument has been blamed for exacerbating the global financial crisis by abetting downfall of giants like AIG. In spite of this the RBI move is being seen as an attempt to put life into moribund secondary market for corporate bonds. Since the CDS evolved as a credit derivative instruments lot of action has been seen in other emerging markets. South Korea and Brazil have been among the most actively traded countries with Venezuela trailing not far behind.

In the developed world, the rapid growth of credit default swaps market led to a fundamental change in the trading pattern in the markets especially the Eurobond markets. Investors became more comfortable with CDS after a number of prominent corporate defaults in 2001 and 2002 proved utility of these new credit derivative structures. Since the CDS allowed investors to take long and short positions in individual issuers, a number of new players, mainly credit hedge funds, have taken advantage of this. It resulted into rapid shifts in buying and selling pressure and volatility of credit spreads.

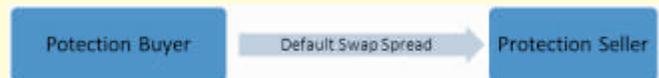
CDS is akin to insurance on the price loss of an investment due to default. In a CDS of a given credit, counterparty A pays counterparty B a periodic payment (CDS spread) which can be thought of as an insurance premium. In exchange party B agrees to pay par for one of the issuer's eligible bonds should a default occur. It is similar to making a claim on insurance policy. These counterparties are generally

referred to as "protection buyer" (who pays the premium) and "protection seller" (who makes the contingent default payment or buys the eligible bond for par in the event of default). The CDS contracts specify what credit events are considered default, for purposes of making the contingent claim, and what assets are deliverables for par.

The documentation used is from International Swap and Derivatives Association (ISDA).

The mechanics of Credit Default Swap can be shown here:

Between trade initiation and default or maturity, protection buyer makes regular payment of default swap spread to protection seller.

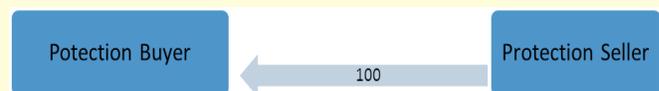


Following the credit event one of the following will take place:

Cash settlement



Physical Settlement



The mechanics of a CDS can be understood with the diagram. The protection in a CDS contract lasts until some specified maturity date. To pay for this protection, the protection buyer makes regular payments to the protection seller on what is known



as premium leg. These payments last until a credit event occurs or maturity date, whichever is earlier, and are quoted in term of an annual CDS spread. The actual payment amounts on the premium leg are adjusted for the frequency, usually quarterly, using a basis convention that is usually actual/360.

If a credit event occurs before the maturity date of the contract, there is a payment by the protection seller to the protection buyer. This leg is called protection leg. This payment equals the difference in value between par and the price of cheapest deliverable asset of the reference entity calculated on the face value of the protection. It therefore compensates the protection buyer for the loss associated with holding the same face value of an asset of the same reference entity. The protection buyer also typically will pay the portion of premium that has accrued since the previous payment date and the time of credit event. The credit events covered by CDS frequently, as per ISDA and prevailing practices include bankruptcy (Corporate becoming insolvent or unable to pay its debts), Failure to Pay (Failure of reference entity to make due payments, allowing for some grace period), Restructuring (Changes in the debt obligations of the reference creditor but excluding those associated with credit deterioration), Obligation acceleration or Repudiation or Moratorium.

Following the credit event, there are two ways to settle the payment of the protection leg, the choice being made at the initiation of the contract. They are physical settlement and cash settlement. Of the two physical settlements is most widely used procedure. It warrants the protection buyer to deliver the notional amount of deliverable obligations of the

reference entity to the protection seller in return for the notional amount paid in cash. In general there is a choice of deliverable obligations from which the protection buyer can choose that satisfy a number of characteristics. They include restrictions on the maturity and the requirement that they be pari passu-most CDS are linked to senior unsecured debt. Especially in case of restructuring event, the protection buyer may take advantage of this situation by buying and delivering the cheapest asset.

Cash settlement is not a standard settlement method in CDS; it is a preferred alternative in default baskets and synthetics Credit Default Obligations. In cash settlement, a cash payment is made by the protection seller to the protection buyer equal to par minus the recovery price of the cheapest-to-deliver reference asset. The recovery rate is calculated by referencing dealer quotes or observable market prices over some period after the credit event has occurred. Economically speaking, this should have the same value as physical settlement.

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Globally the CDS has revolutionized the credit markets by making it easy to short credit. It can be very useful for those wishing to hedge current credit exposures or those wishing to take a bearish credit view. Since CDS are unfunded, there is a possibility of leverage. It may be used for locking in an interest rate liability if huge funding costs are

present. The most attractive feature of CDS is there customizability in terms of maturity, seniority and currency. Also, just as a bond can be sold to realize a gain or loss owing to spread movements, a CDS contract may be unwound in order to realize some mark-to-market gain or loss owing to changes in CDS spread. It has been seen that liquidity in CDS market has been traditionally better than cash market.

CDS are used to hedge existing credit exposures in the portfolio and to create new exposures that could not be created otherwise, for example, taking a short position to express a negative view. A conventional corporate "cash" instrument, for example, a regular corporate bond bundles together exposures to interest rates, swap spread, credit spread and may be currency risk also.

CDS allow investors to pick from this bundle of exposures only the desired ones. It may be hoped it will contribute to the development of a healthy

Author is Dean, Jhunjhunwala Business School, Faizabad, Co -Author is a Finance Professional

The mechanic and the surgeon story (perceptions, the devil is in the detail, the nature of big differences)

A heart surgeon took his car to his local garage for a regular service, where he usually exchanged a little friendly banter with the owner, a skilled but not especially wealthy mechanic.

"So tell me," says the mechanic, "I've been wondering about what we both do for a living, and how much more you get paid than me.."

"Yes?.." says the surgeon.

"Well look at this," says the mechanic, as he worked on a big complicated engine, "I check how it's running, open it up, fix the valves, and put it all back together so it works good as new.. We basically do the same job don't we? And yet you are paid ten times what I am - how do you explain that?"

The surgeon thought for a moment, and smiling gently, replied, "Try it with the engine running.."

DATA VIRTUALIZATION

- Parul Verma



INTRODUCTION

The application infrastructure in most businesses has grown organically. There are some organizations that have adopted approaches of enterprise architecture that attempt to impose a high level structure over both the business applications and their underlying data systems. Storage solutions, as a space in the IT industry has always generated enough interest in the manufacturing as well as in the trading space.

There has been a radical change in the way enterprises look at storage related issues. They have started to look at storage as a key component of their overall IT infrastructure and new storage technologies are in the wish list of a several organizations to reduce their operational cost, while achieving better utilization rates.

"Storage virtualization-related investments have gained momentum among large and medium-sized enterprises."

Data storage virtualization is the process of abstracting, transforming, federating and delivering data contained within a variety of information sources so that they may be accessed by consuming application or users when requested without regard to their physical storage or heterogeneous structure. This concept and software is commonly used within data integration, business intelligence, service-oriented architecture data services, cloud computing, enterprise search and master data management.

Data virtualization leads to improved data requirement analysis, metadata management, and data standards. With the boom in usage of latest IT trends in the enterprises they are forced to improve their data governance practices. Data virtualization has the potential to revolutionize ways of data quality assurance and improvement.

Data Quality challenges in an Enterprise World

The "enterprise world" is in need of updated and widely varied information with multiple data sets through repeated copying and replication. The inconsistency in reporting leads to an ongoing need for reconciliation of generated reports and analyses. Variance in use of commonly accepted reference data concepts leads to inconsistencies and inaccuracies as well. Following are the challenges that data quality has to face-

1. **Structural and Semantic inconsistency:** Differences in formats, structures, and semantics presumed by downstream data consumers may confuse conclusions drawn from similar analyses;
2. **Inconsistent validations:** Data validation is inconsistently applied at various points in the business processes, with variant impacts downstream;

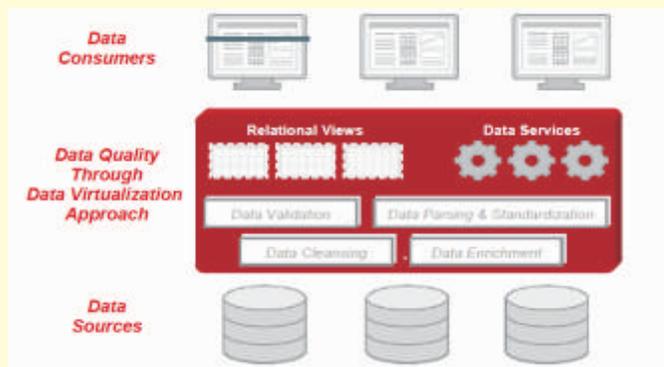
3. **Replicated functionality:** Repeatedly applying the same (or similar) data cleansing and identity resolution applications to data multiple times increases costs but does not ensure consistency;
4. **Data entropy:** Multiple copies of the same data lead to more data silos in which the quality of the data continues to degrade, especially when levels of service for consistency and synchronization are not defined or not met.

How Data Virtualization works

Copying primary data sources into multiple secondary repositories in preparation for reuse is actually a root cause of a number of data quality issues. If so, then eliminating that root cause by changing the approach to sharing data should alleviate many of those issues! An alternative approach to data sharing is *data virtualization*, which allows the data to remain in its primary data source until required for specific downstream needs.

Data virtualization provides layers of abstraction between the consuming applications and the primary data sources, and these abstraction layers present data taken from its original structures using canonical representations that simplify data reuse while enabling common data services to meet downstream consumer performance and data quality expectations. From a business application perspective, the abstraction provided through virtualization reduces complexity by standardizing

the representations; by incorporating our data quality techniques directly into these layers of abstraction we can also address most of our data quality challenges as well. Embedding data quality management as part of data virtualization integrates data management best practices *directly into the application infrastructure*, and identifies data issues early in the information production process, and enables cleansing or other remediation processes to be performed before material impacts can be incurred.



Conclusion

Storage virtualization has been the key drivers for the demand in the various enterprise segments. Virtualization removes the incumbencies in storage and optimizes the data sharing scenario. It also helps in securing optimal returns and reduces the operational costs by managing data across engines. With load balancer and shared data across workstations, virtualization helps in efficient data sharing.

Author is Sr. Lecturer, Amity School of Information Technology

EVOLUTION AND GROWTH OF ELECTRONIC (E-PAYMENTS) IN INDIA

-Bipin K S Deokar



In the last two decades, technology has played a significant role in improving efficiency of the financial system. Information Technology (IT) and the Communication Networking Systems (CNS) have revolutionalised the functioning of entire Banking, Financial Services and Insurance (BFSI) industries world over.

In the wake of adopting IT and CNS-based banking solutions, the traditional banking has undergone a major transformation which has vastly changed the banking landscape of India. Of late, the rapid implementation of technology-based solutions undertaken by the commercial banks has facilitated them:

- (i) to provide a fairly exhaustive range of products to customers;
- (ii) to extend the banking facilities to the vast majority of population by expanding the banking outreach, especially in the rural areas;
- (iii) to offer speedier and efficient payments;
- (iv) to reduce the transaction cost and
- (v) to reduce the reliance on paper-based transactions

RBI's Initiative for e-Payments

In the early 1990s, the payment systems in India were mostly based on paper, with currency and cheques being the dominant form of payment for both retail and wholesale transactions. The electronic era in the banking sector began in the mid 1990s when the RBI developed technology-based payment and settlement systems. Since then, the RBI has taken several initiatives to develop and promote e-payments infrastructure; as a result, there has been a phenomenal change in the architecture and technology of payment systems in India.

Table 1: Various E-Payment Systems Launched by RBI

Year	Systems Introduced
1995	Electronic Clearing Service (ECS) & the Electronic Funds Transfer (EFT) System
March 2004	Real Time Gross Settlement (RTGS) System
November 2005	National Electronic Funds Transfer (NEFT) System
February 2008	Cheque Truncation System (CTS)
September 2008	National Electronic Clearing Service (NECS)

Source: RBI (2008), Bulletin, September.

Banks' Initiative for Computerisation

Technology-based banking has shown significant improvement since the initiation of financial sector reforms in the 1990s which has facilitated speedier computerisation in the banking sector in India. Essentially, the arrival of new private and foreign banks in the mid-1990s with their superior state-of-the-art technology-based services for competitive advantage pushed the existing banks in India to follow suit by going in for the latest technologies so as to compete and retain their customer base. During 1995 to 2000, almost all commercial banks, including public sector banks, old private sector banks, Regional Rural Banks and co-operative banks initiated efforts to adopt technology-based services and simultaneously implement an IT platform to reduce the overall operating costs and to provide new electronic information-based services like internet banking, on-line banking, smart cards and ATMs with the mainstream banking technology.

Growth of e-Payments

In recent years, the banking sector has made a quantum leap forward in terms of switching over from paper-based transactions, which include use of currency notes, cheques or challans, to electronic means, which include RTGS, NEFT and other electronic modes. In order to promote e-payments system, the RBI has intervened and mandated reasonability in pricing of transactions effected through electronic mode for transactions above a specified threshold.

The augmentation is more pronounced in terms of value than volume, reflecting the impact of shifting of high value transactions to the electronic mode. The share of electronic transactions in the total value of transactions increased to a peak of 81.8% in 2008-09 from 30% in 2003-04 and in terms of volume also, it has gradually increased to around 33% from 14% during the same period.

Table 2: Paper-based and Electronic Transactions

Year	Volume (in thousands)				Value (in Rs crore)			
	Paper-based	Electronic	Total	Share of Electronic (%)	Paper-based	Electronic	Total	Share of Electronic (%)
2004-05	1,166,848	230,016	1,396,864	16.5	1,04,58,895	1,09,09,497	2,13,68,392	51.1
2005-06	1,286,758	287,421	1,574,179	18.3	1,13,29,134	1,94,86,152	3,08,15,286	63.2
2006-07	1,367,280	383,358	1,750,638	21.9	1,20,42,426	3,03,17,963	4,23,60,389	71.6
2007-08	1,460,564	542,123	2,002,687	27.1	1,33,96,066	4,66,89,754	6,00,85,820	77.7
2008-09	1,395,906	682,299	2,078,205	32.8	1,24,61,202	5,59,72,211	6,84,33,413	81.8

Source: RBI, Report on Trend and Progress of Banking in India 2008 -09 and earlier issues.

RTGS System

The RTGS system is one of the important e-payment channels. The system enables settlement of transactions in real-time, on a gross basis and is a fully secured funds transfer system. It was operationalised in March 2004 for facilitating faster settlement of high value transactions and has stabilised with increased branch network (66,178 branches). RTGS transactions, both in terms of volume and value, have increased sharply in a short span of its operations. Thus, the RBI has doubled the threshold limit for electronic fund transfers using the RTGS system to Rs 2 lakh with effect from November 15, 2010.

Retail Electronic Funds Transfer

The retail e-funds transfer system comprises Electronic Clearing Services (ECS), Electronic Funds Transfer (EFT) and National Electronic Funds Transfer (NEFT) systems. The ECS system, NEFT, card-based payment system (credit & debit) are becoming increasingly popular as indicated by the increase in transactions through retail e-payment methods. During 2007-08, the volume of aggregate retail electronic transactions increased by 41.4% as compared with 32.9% in the previous year.

1. ECS

ECS has two variants, (i) ECS Credit Clearing and (ii) ECS Debit Clearing. The credit clearing operates on the principle of '*single debit- multiple credits*' and is used for making payment of salary, pension, dividend and interests. While the Debit Clearing functions on the principle of '*single credit- multiple debits*' and is used for collecting payments by utility service providers like electricity, telephone bills as well by banks for receiving principal/interest repayments for housing and personal loans from the borrowers. At present, about 18 million transactions flow through the ECS system every month across 70 centres and the settlement takes place on T+1 basis.

Table 3: Transactions through Retail Electronic Payment

Transaction Volume ('000)							
Years	ECS		EFT/NEFT	Card Payment		Total	Percentage Variation
	Credit	Debit		Credit	Debit		
2004-05	40051	15300	2549	129472	41532	228904	
2005-06	44216	35958	3067	156086	45686	285013	24.5
2006-07	69019	75202	4776	169536	60177	378710	32.9
2007-08	78365	127120	13315	228203	88306	535309	41.4
2008-09	88394	160055	32161	259561	127654	667825	24.8
2009-10	98550	150214	66357	234209	170170	719500	7.7
Transaction Values (Rs. Crore)							
2004-05	20180	2921	54601	25686	5361	108749	
2005-06	32324	12986	61288	33886	5897	146381	34.6
2006-07	83273	25441	77446	41361	8172	235693	61.0
2007-08	782222	48937	140326	57984	12521	1041990	342.1
2008-09	97487	66976	251956	65356	18547	500322	-52.0
2009-10	117833	69819	411088	62950	26566	688256	37.6

Source: RBI, Report on Trend and Progress of Banking in India 2008-09 and earlier issues.

The ECS (credit) volumes increased by 13.5% in 2007-08 while the value increased by more than eight times on account of refunding the over subscription amount of IPOs floated by companies. Similarly, the volumes under ECS (debit) which is mostly used for payment of utility bills and regular premium, increased by 69% in 2007-08 and by 92.4% in value terms.

1. EFT System

The EFT, which was operationalised in 1995, enabled an account holder of a bank to electronically transfer funds to another account holder with any other participating bank.

2. NEFT System

NEFT is a more secured which uses the SFMS messaging format with public key infrastructure (PKI) enabled digital signatures having a nation-wide network to facilitate funds transfer by the bank customers, between the networked bank branches in the country. Banks have been increasingly using the NEFT system for ensuring wider reach for electronic funds movement. The daily average of the transactions is over 80,000 by volume and over Rs 500 crore by value.

Table 4: Transactions through EFT/NEFT

Years	Volume (000's)	Growth in Volume (%)	Value (Rs Crore)	Growth in Value (%)
2004-05	2549		54601	
2005-06	3067	20.3	61288	12.2
2006-07	4776	55.7	77446	26.4
2007-08	13315	178.8	140326	81.2
2008-09	32161	141.5	251956	79.6
2009-10	66357	106.3	411088	63.2

Source: RBI, Report on Trend and Progress of Banking in India 2008-09 and earlier issues.

4. CTS Payment System

This is the latest e-payment product introduced by the RBI. The main objective of the CTS is to improve the efficiency and to reduce the cheque processing time. The traditional clearing system requires the physical presentation of cheques in the clearing house for payment and settlement while in CTS, the electronic image of the cheque is sent to the clearing house.

5. Transactions using Cards

The use of cards for making retail payments is one of the preferred modes in recent years. The acceptability and convenience of this mode of payment are reflected in the increased volume of transactions through cards (debit & credit) (Table 3).

6. NECS System

This is the centralised processing of the ECS transactions. The system facilitates end-to-end seamless posting of the NECS transactions in a straight-through processing (STP) environment.



New Medium of Banking

Of late, the commercial banks have moved a step ahead by launching internet banking and mobile banking.

(1) Internet Banking:

Currently, banks are providing a host of services via internet banking like,

- (a) utility bill payments and regular periodical payment;
- (b) funds transfer across banks; and
- (c) integration with e-commerce transactions such as booking of tickets for air and railways.

(2) Mobile Banking:

With the rapid growth in the number of cellular subscribers in India, the banks are exploring the feasibility of using cell phones as an alternative channel of delivery of banking services. Recently, the RBI has formulated the 'Draft Operating Guidelines for Mobile Payments in India' through a consultative process.

(3) Satellite Banking:

A Technical Group constituted by the RBI has since examined the proposal and recommended the use of satellite connectivity as it would facilitate integration of the rural branches of the banks and help them to provide efficient funds-transfer facility to their customers.

Setting up of National Payments Corporation of India (NPCI)

In the Vision Document 2005-08, RBI envisaged the setting up of an institution at the national level to own and operate all retail payment systems in the country. Accordingly, the Indian Banks' Association set up a working group which examined this issue and suggested the modalities for setting up an organisation to be known as NPCI. Accordingly, it was incorporated

in December 2008 and the certificate of commencement of business was issued in April 2009.

Challenges Ahead

It is generally noted that the spread and reach of the e-payment services are often confined to certain sections of the society. Thus, there is need to focus on expanding the geographical reach of the e-payment services as it is difficult to achieve financial inclusion without encompassing rural-India in the payment system out-reach.

Another area of concern for the RBI is the regulation of issuance of e-money. Besides, there are emerging challenges the banks have to address including those arising from large-scale IT deployment. These include the impact of more scientific risk management, ensuring effective anti-money laundering measures and the security concerns relating to implementation of IT in banks. Another major requirement relates to disaster recovery management and the fail-safe business continuity plans.

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MANAGEMENT OF CASH-AN OVERVIEW

- Sadhana Misra

Cash management is one of the important areas of working capital management. Although being the most liquid current asset, cash is the common denominator to which all current assets can be reduced as the other major liquid assets, like receivables and inventory ultimately get converted into cash. This emphasizes the significance of cash.

Motives for Holding Cash

When we talk about cash management the term cash is used in two senses:

1. The narrow view covers currency and generally accepted equivalents of cash like cheques, drafts, and demand deposits in banks.
2. The broadview of cash includes near-cash assets, such as marketable securities and time deposits in banks. The main characteristic of these is that they can be readily sold and converted into cash. They serve as a reserve pool of liquidity which provides cash quickly when required. They also provide a short-term investment outlet for excess cash and are also useful for meeting planned outflow of funds.

Basically there are four motives for maintaining cash balances-

1. Transaction Motive-

It refers to the holding of cash to meet routine payments which a firm carries on in the ordinary course of business.

2. Precautionary Motive-

It means to maintain a cushion or buffer to

meet unpredictable or unexpected cash needs. Precautionary balances are the cash balances held in reserve for random and unforeseen fluctuations like (1) floods, strikes and failure of important

customers (2) bills may be presented for settlement earlier than expected (3) unexpected slow down in collection of accounts receivable

(4) cancellation of order of goods when customer is not satisfied (5) sharp increase in cost of raw materials.

3. Speculative Motive-

It is the desire of a firm to take advantage of temporary opportunities which present themselves at unexpected moments during the normal course of business. Speculative motive helps to take advantage of-

- ◆ Delay purchase of goods on the anticipation in price decline,
- ◆ Purchase at favorable prices,
- ◆ Purchase goods at reduced price by paying immediate cash,
- ◆ To speculate on interest rate graph by buying securities when interest rates are expected to decline.

4. Compensating Motive-

It refers to compensate banks for providing certain services loans. Banks provide different services to the business firms, like cheque clearance, supply of credit information, fund transfer, etc. For





some of these services banks charge fee or commission and for others they seek indirect compensation. The clients are usually required to maintain a minimum balance of cash at the bank which can not be utilized for transaction purposes. The banks themselves can use this balance to earn a return thus it is called as compensation balance.

Objectives of Cash Management

The two fold objectives of management are-

- 1. Meeting The Payment Schedule-** The basic objective of cash management is to have sufficient cash to meet the disbursement needs of a firm. The advantage of adequate cash are (a) it prevents bankruptcy arising out of inability of a firm to meet its obligations, (2) the relationship with the bank is not strained, (3) it helps in fostering good relations with trade creditors and suppliers of raw materials, (4) a cash discount can be availed of if payment is made within the due date.
- 2. Minimum Funds Committed to Cash Balances-** Another basic objective of cash management is to minimize cash balances. In doing so two conflicting aspects have to be reconciled (1) a high level of cash balance will ensure prompt payment together with all the advantages. But it also means that a large fund will remain idle, because cash is a non-earning asset and the firm will have to forego profits, (2) a low level of cash balances, may imply failure to meet the payment schedule. Thus the aim of cash management should be to have an optimal amount of cash balances.

Factors Determining Cash Needs

The primary factors determining the cash needs are-

- 1. Synchronization of Cash Flows-** In determining the cash need the extent of non-synchronization of cash receipts and disbursements is taken into consideration as the need of maintaining cash balances arises from the non-synchronization of the inflows and outflows of cash. If the receipts and payments of cash perfectly balance each other the need of cash balances would never arise.
- 2. Short Costs-** The expenses incurred as a result of shortfall are called as short cost. The cash forecast presented in the cash budget show periods of cash shortages. Every shortage of cash, expected or unexpected, involves a cost which depends upon the severity, duration and frequency of the shortfall and how the shortage is covered. The short costs includes transaction costs, borrowing costs, loss of cash discount, cost associated with deterioration of the credit rating and penalty rates.
- 3. Excess Cash Balance Cost-** It is the cost of having excessively large cash balances. When ever large funds in a firm are idle, it indicates that the opportunity to invest those funds is lost along with the interest which could otherwise be earned on it. This loss of interest is primarily the excess cost.
- 4. Procurement and Management-** These are the costs associated with establishing and operating cash management, staff and activities. They are generally fixed and are



mainly accounted for by salary of the concerned staff, shortage, handling of securities and so on. These are administrative cost incurred for management of cash.

- 5. Uncertainty and Cash Management-** It is seen that uncertainty and cash management are related to each other because cash flow can not be predicted with complete accuracy. The cost incurred is keeping idle cash to take care of irregular cash collections, customer's default etc. This can be reduced through improvement forecasting of cash payments and through ability to borrow through bank overdraft.

Cash Management Strategies-

The basic cash management strategies intended to minimize the operating cash balance requirement are

1. Stretching accounts payable without affecting the credit of the firm,
2. Efficient inventory management,
3. Speedy collection of accounts receivable through decentralized collections. The decentralized network includes-
 - (a) Concentration Banking,
 - (b) Lock-Box System.

Cash Budget

It is probably the most important tool in cash management as it helps to plan and control the use of cash. Cash budget of a period highlights the cash

position of a firm. Cash budget usually has three parts-

- (a) Cash Collection,
- (b) Cash Payments,
- (c) Cash Balances.

Conclusion

Efficient cash management processes are pre-requisites to execute payments, collect receivables and manage liquidity, managing the channels of collections, payments and accounting information efficiently becomes imperative with growth in business transaction volumes. Banks are increasingly becoming innovative and anticipating the needs of corporates towards standardization, ERP integration, reconciliation, real-time reporting, providing an end to end view of cash management value chain besides offering the ability to reach and be reached by their own customers.

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THE DEEP WEB MINING

- Archana Sahai



The Deep Web is a vast information repository not always indexed by automated search engines but readily accessible to enlightened individuals. The terms Deep Web, Hidden Web, Invisible web and Deep Net describe the portion of the World Wide Web that is not visible to the public or has not been indexed by the search engines. Some portions of the deep web consist of dynamic pages accessible only via a form or submitted query. Web pages that are not linked to other pages are also part of the deep web. They are, in effect, invisible; search engine crawlers will not be able to find them since they have no backlinks or inbound links.

Sites that require registration prior to access can also be considered part of the deep net. These sites block the search engine spiders from browsing and indexing their web pages through protocols such as the Robots Exclusion Standard. Furthermore, pages created by Flash and JavaScript, scripted content as well as non-text content or non-HTML file formats in Usenet archives such as PDF and DOC documents are indexed only by some search engines. This makes them part of the Hidden Web.

The Shallow Web, also known as the Surface Web or Static Web, is a collection of Web sites indexed by automated search engines. A search engine bot or Web crawler follows URL links, indexes the content and then relays the results back to search engine central for consolidation and user query. Ideally, the process eventually scours the

entire Web, subject to vendor time and storage constraints.

The reason for its being deep is: Search engines typically do not index the following types of Web sites

- Proprietary sites
- Sites requiring a registration
- Sites with scripts
- Dynamic sites
- Ephemeral sites
- Sites blocked by local webmasters
- Sites blocked by search engine policy
- Sites with special formats
- Searchable databases

Proprietary sites require a fee. Registration sites require a login or password

Many Web sites act as front ends to searchable databases. **Complete Planet**, **IncyWincy Spider** and **The Librarians' Internet Index** provide quick links for quality Web database searching. This technique is called **split-level searching**. Enter the key phrase "searchable database" into the above for more. You can find other subject searchable databases by entering the keyword phrase "subject_name database" into your favorite search engine (e.g., "jazz database," "virus database"). A naive searcher typically enters a keyword into a general-purpose search engine, gets too many hits and then expends time and energy sorting through relevant and irrelevant results. Alternatively, they get no hits and wonder why. It is difficult to get all relevant hits and no irrelevant hits. Information

Technology researchers call this the **Law of Recall and Precision**. A search engine's web crawler uses hyperlinks to uncover and index content found on the Web. This tactic is ineffective in a search of deep web resources. For instance, search engine crawlers do not look for dynamic web pages that result from queries of databases because there are may be a lot of possible results. These limitations are, however, being overcome by the new search engine crawlers (like **Pipl**, The most comprehensive people search on the web) being designed today. These new crawlers are designed to identify, interact and retrieve information from deep web resources and searchable databases. Google, for example, has developed the mod OAI, **OAI-PMH** stands for Open Archives Initiative Protocol for Metadata Harvesting. It was designed to simplify the process of gathering information (metadata) from digital

repositories. With OAI-PMH, collecting metadata about digital resources is efficient and flexible. These new developments will allow the web servers to automatically show the URLs that they can access to search engines. Another solution that is being developed by several search engines like **Alacra**, **Northern Light** and **Closer Look Search** are specialty search engines that focus only in particular topics or subject areas. For e.g. Alacra delivers business information-based solutions to more than 400 global financial institutions, corporations and professional services firms. This would allow the search engines to narrow their search and make a more in-depth search of the deep web by querying password-protected and dynamic databases.

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Many years ago in a small Indian Village, a farmer had the misfortune of owing a large sum of money to a village moneylender. The Moneylender, who was old and ugly, fancied the farmer's beautiful Daughter. So he proposed a bargain.

He said he would forgo the farmer's debt if he could marry his Daughter. Both the farmer and his daughter were horrified by the Proposal. So the cunning money-lender suggested that they let Providence decide the matter. He told them that he would put a black Pebble and a white pebble into an empty money bag. Then the girl would have to pick one pebble from the bag.

- 1) If she picked the black pebble, she would become his wife and her father's debt would be forgiven.
- 2) If she picked the white pebble she need not marry him and her father's debt would still be forgiven.
- 3) But if she refused to pick a pebble, her father would be thrown into Jail.

They were standing on a pebble strewn path in the farmer's field. As they talked, the moneylender bent over to pick up two pebbles. As he picked them up, the sharp-eyed girl noticed that he had picked up two Black pebbles and put them into the bag. He then asked the girl to pick a pebble from the bag.

The girl can react in the following manners:

1. The girl could refuse to take a pebble.
2. The girl could show that there were two black pebbles in the bag and expose the money-lender as a cheat.
3. The girl should pick a black pebble and sacrifice herself in order to save her father from his debt and imprisonment.

Well, here is what she did....

The girl put her hand into the moneybag and drew out a pebble. Without Looking at it, she fumbled and let it fall onto the pebble-strewn path where it immediately became lost among all the other pebbles.

"Oh, how clumsy of me," she said. "But never mind, if you look into the Bag for the one that is left, you will be able to tell which pebble I picked."

Since the remaining pebble is black, it must be assumed that she had picked the white one. And since the money-lender dared not admit his dishonesty, the girl changed what seemed an impossible situation into an extremely advantageous one.

MORAL OF THE STORY: Most complex problems do have a solution. It is only that we don't Attempt to think.

NEWS**Indian banks are now gearing up for the second phase of IT upgradation**

The first phase of IT upgradation in banks was largely on migration to a core banking system, which allowed for consolidation of banking services offered across regions and channels. Indian banks are now gearing up for second wave of IT investment. Indian banks' IT expenditure is expected to touch Rs 10,000 crore annually in 4-5 years as they get ready for their second wave of IT investments mainly in automated data storage, compilation, upgradation and analysis, CRM etc. RBI's IT Vision 2011-17 also sets priorities for commercial banks to move forward from their core banking solutions to enhanced use of IT in areas like management information systems, regulatory reporting, overall risk management, financial inclusion and customer relationship management

(Source: www.banknetindia.com)

Google Inc. has opened up its Google Plus social network

Google Inc. has opened up its Google Plus social network to everyone after testing it with a limited audience for 12 weeks.



Google Plus is the online search leader's attempt to compete with Facebook, by far the world's most populous online social network with more than 750 million users. Google also made Plus's "Hangouts" feature—which lets users video chat with multiple people at a time—available on smartphones with front-facing cameras. The feature currently works with phones running Google's Android system. Google says support for Apple devices is coming soon. A new service called "Hangouts On Air," meanwhile, lets users broadcast their videos online or view these videos as spectators.

(Source: economictimes.indiatimes.com)

Nokia Siemens Launches New Way to Deliver Broadband

Global telecom infrastructure firm Nokia Siemens Networks launched a new way to deliver broadband - the "liquid net". The new method allows a network operator to set up a self-adapting network that can serve variable capacity and coverage requirements, based on demand. Some of the aims of the new approach are to share resources to meet unpredictable broadband demand, and to enhance the quality of broadband services across the globe. Liquid net will free up unused capacity and allocate it instantly across the whole network wherever and whenever it is required. Capacity in today's conventional networks is typically frozen in separate places, at individual base station sites, in parts of the core network that manage voice and data services, or in the optical and IP transport networks.

(Source: www.siliconindia.com)

HCL Technologies Signs Deal with Deutsche Bank

HCL Technologies Wednesday said it had signed a five-year multi-million dollar deal with the Deutsche bank's capital markets arm to provide it application support solutions. The service factory delivery model implemented by HCL is expected to significantly enhance productivity, driven by transparent service level agreements (SLAs) and performance metrics. The transformational programme, which will result in significant vendor consolidation, involves the management of key banking applications that are the backbone to the Deutsche Bank's critical businesses.

(www.siliconindia.com)

BOOK REVIEW

The Difficulty of Being Good: On the Subtle Art of Dharma

By Gurcharan Das

In his new book, Gurcharan Das turns to the Mahabharata in order to answer the question, 'why be good?', and discovers that the epic's world of moral haziness and uncertainty is closer to our experience as ordinary human beings than the narrow and rigid positions that define most debate in this fundamentalist age of moral certainty.

He runs through the backbone of the epic quickly, so the reader is up to speed on what the story is and who the main characters are. Even for readers who perhaps are familiar with the epic, this is a good refresher. This book is written in a 'lets get to the point quickly' style, but as a reader you realize that it is a palate cleanser for the complex meals to come ahead.

It is about characters from Mahabharata, their stories, actions and moral implications of those. Each chapter focuses on a different character, and examines an episode from the Mahabharata about the character and looks at the morality of the situation. To give you an idea of what I am talking about, here are the names of some chapters:

- Duryodhana's envy
- Draupadi's courage
- Yudhistara's duty
- Arjuna's despair
- Bhishma's selflessness

The central event appears to be the episode of Queen Draupadi's humiliation in the King's court. One would normally assume that this particular scene was a dramatic episode. But that the central scenes were Arjuna's dilemma or even Karna's demise. But what the author is exploring is the question of Dharma. And the central question of Dharma is posed by the humiliated Queen to the assembly of Nobles. The book looks at the moral dilemmas that various characters faced throughout Mahabharata, and analyzes them from different perspectives.

For example: When Draupadi is first told that Yudhishtira has lost her in the game of dice, she asks:

Whom did you lose first, yourself or me?

The book takes you to the answer of Bhishma who

tells Draupadi that it is true that Yudhishtira lost himself first, and so he is not competent to wager Draupadi. A person who has lost himself is no longer free to wager that which doesn't belong to him. On the other hand, a wife does belong to her husband, and even if he is not free, she is legally his, and he is

allowed to stake her. Bhishma concludes that this is a complex matter and he cannot solve Draupadi's dilemma.

He states: As dharma is subtle, my dear, I fail to resolve your question in the proper way.

The book is filled with such questions, and their probable moral implications, and to me, that's what makes it great.

After going through this book, we realize how much we want to read the Mahabharata. Most of our knowledge of it comes from the TV serial. But there is certainly a lot more to Mahabharata than what we have gathered so far. The book quotes extensively from the Mahabharata, and although the subject itself is not light, the writing makes it clear and easy to read.

The Difficulty of being Good, dwells on the goal of dharma, moral well being. It addresses the central problem of how to live our lives in an examined way—holding a mirror up to us and forcing us to confront the many ways in which we deceive ourselves and others. What emerges is a doctrine of dharma that we can apply to our business decisions, political strategies and interpersonal relationships—in effect, to life itself.

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