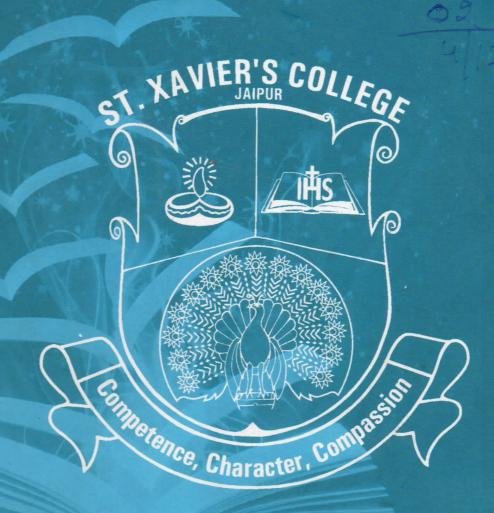
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#### **FOREWORD**

A cademia finds research to be an invigorating experience. An academician constantly endeavours to explore new ideas and theories to forge ahead. We also engaged ourselves in such a pursuit. Starting a new journal is considered an uphill task but an enriching experience all the same. We have been able to leap frog all initial hiccups and hold this journal in our hands as proud parents. Finding publishers, appointing editors, recruiting editorial board members, calling for manuscripts, selecting peer reviewers who will deliver on time and finding substitutes when they do not, makes authors understandably reluctant to commit their best work.

The Journal of St. Xavier's College is no exception, but it did have the advantage of being in the growing area of research. This issue of the journal sees a new editor who provides the journal with a fresh vision while assimilating the best of the multi-disciplinary approach in bringing out a compilation that is both effective as it is diverse in its content. Visiting Professor John Joseph Puthenkalam of Sophia University, Tokyo, Japan, not only founded the journal on these very beliefs, but also successfully steered its course since its inception. To mark this first edition, authors from various streams have submitted their research articles for the issue.

As this is the first issue in capacity of an Editor, it is perhaps also worth considering the future of the Journal in a multidisciplinary approach and see it developing to the reader's advantage. Any change made will be an attempt to improve it still further. Therefore, it is perhaps of no surprise to find that these sections are amongst the most read parts of the journal. Our aim is to present and explain research through native eyes and from native perspectives, and to employ discipline-based skills in pursuit of answers and solutions to the questions asked by our diverse communities. For instance, the journal will include an in-depth analysis of e-governance and e-commerce to explain the penetration of Internet-based solutions that have come to become a regular feature of our lives. In the same journal, we would be presenting the renaissance in direct taxes and carry a discourse on the impact of mutual funds in the nation's economy, impact of retail sector, consumer behaviour, growth of the company, the dichotomy of good and evil in the novels of Harry Potter, cloud computing structure, OODBMS etc.

We want the journal to provide a means by which we can establish international understanding of indigenous academic discourse and assist in the creation of an academic community that can hold robust debates and further knowledge. This is bound to be challenging, and we look forward to contributions from our colleagues around the world in future issues. We welcome the support of our international advisory board, our editorial committee and our first group of referees to help us establish policies and procedures for ensuring the journal is launched and is sustainable. We believe there is a need for a multidisciplinary journal, which acknowledges that researchers have different philosophies and writing imperatives. While other journals publish the analysis and concerns of specific user groups, this new journal connects all indigenous people, creating a dialogue among the global community of academic researchers. In preparing the present edition, I have received help from the faculty members of our college, and Mr. Sanju Thomas. Finally, I feel highly indebted to Father Glenn Menezes and Father K.P. Mathew for bringing out this edition.

Dr. Mahua Majumdar Bose Chief Editor April 2012

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#### PUSHING THE BOUNDARIES OF E-GOVERNANCE

Dr. Mahua Majumdar Bose Faculty, Department of Commerce

#### **Abstract**

E-governance is about delivering improved services to citizens, businesses and other members of the society through drastically changing the way governments manage information. In the framework, E-governance is defined as a great application of ICT to get a better governance and develop a healthy communication between the government and various parts of the society. The purpose of this paper is to explore E-governance in Rajasthan. However, it's a typical task to explore integrated E-governance in Rajasthan, but this paper will try to represent every aspect of E-governance of Rajasthan in a summarized manner. The government of Rajasthan is taking E-governance as a key resource to develop a paperless model of administration. The state government is attempting to leverage information-technology not only as a tool for improving governance and employment opportunities, but more significantly as a means to enhance the quality of life and bridging the socio-economic divide in the state and level out the skewed development in state.

#### Introduction

E-governance is the commitment to utilize appropriate technologies to enhance governmental relationships, both internal and external, in order to advance democratic expression, human dignity and autonomy, support economic development and encourage the fair and efficient delivery of services. E-governance offers a large opportunity for serving the citizens in a better way. Information Communication and Technology (ICT) promises lots of advantage in governance process but at the same time require a change in process, building infrastructure, capacity enhancement etc. E-governance is about delivering improved services to citizens, businesses and other members of the society through drastically changing the way governments manage information. In the framework, E-governance is defined as a great application of ICT to get a better governance and develop a healthy communication between the government and various

parts of the society. The purpose of this paper is to explore E-governance in Rajasthan. However, it's a typical task to explore integrated E-governance in Rajasthan, but this paper will try to represent every aspect of E-governance of Rajasthan in a summarized manner.

Rajasthan is a progressive state of India. A large number of planning projects are being implemented through E-governance initiatives. Due to some critical problems like incomplete awareness, limited resources, weak infrastructure, lack of ICT knowledge etc. it is very difficult to implement E-governance projects successfully.

#### The concept of E-governance

E-governance or electronic governance refers to the use of information and communication technology to provide and improve government services making possible real-time transactions and exchange of

information. Internet has become the most visible arm of E-governance in the countries across the world, India being no exception. It is helped by modern means of communications and processing such as cellphones, laptops and fax machines to name a few.

The online passenger reservation system of the Indian Railways has become a shining example of E-ticketing across the country including Rajasthan. Last year, Prime Minister Manmohan Singh set up the National Knowledge Commission and the Unique Identification Authority of India, to usher in a new platform of E-governance in the country.

With internet accessible on the mobile phones and laptops the governments are in a position to take decisions even on the move. E-governance has evolved over the years with the improvement in communication technology and the advancement in the internet and communication technology.

Decisions made at a gram panchayat can be relayed across the state live with the help of modern means of communication. The high-end technology has now made it possible for the government to monitor the public issues and address their grievances from the district and state headquarters through live video-conferencing with officials and elected representatives in the villages.

# E-governance in Rajasthan Genesis

Rajasthan Government under the previous Chief Minister, Vasundhara Raje has taken various measures in introducing IT in various departments of the state. The people of Rajasthan are the prime priority for the government and the state is committed to provide them with better governance. The idea is of SMART (Simple, Moral, Accountable, Responsive and Transparent) governance.

In the last one year fast inroads have been made in the area of expansion of E-mitra project, Rajasthan State Wide Area Network (RSWAN) local area network in Secretariat (SecLAN), creation of State Data Centre (SDC) and projects have been initiated with a view to implement the E-governance system effectively. Computerization of procedures in different departments are also being done for E-governance.

Projects are in progress in all sectors which are directly associated with common man like the Revenue, Police, Medical and Health, Education, Power and PHED departments. The common man is also being provided respite and facilitating environment through Lok Mitra services. Decision has also been taken to set up knowledge corridor and knowledge park with a view to promote investment in information and technology sector in the state.

Computer education is being imparted in schools and colleges and more and more I.T. institutes are being opened in the State. Similarly, Information technology is adding new dimensions in technical education and the state is taking new strides in optical fiber communication. Leading companies of business processing outsourcing industry (B.P.O.) are looking into Rajasthan for investment. The State Government is also providing land on concessional basis on services connected with Information technology.

In Rajasthan, the Lok-Mitra kiosks became the first successful model of E-governance in which the people were involved directly. Until then, the E-governance was mostly limited to the exchange of information or procurement of goods and contracts within the government departments and their sister concerns.

The Lok-Mitra was first introduced in Jaipur in 2002. It offered the people a centralised solution to bill payments which was until then done only at the departments where the bills were generated. For instance, a person would have to reach the BSNL office in his area to pay the monthly phone bill. The huge number of consumers meant a long wait in the queue.

But, Lok-Mitra changed the concept and billing centres connected with internet were established throughout the city. Now, a consumer can pay utility bills like electricity bills, telephone bills, water bills at any of the lok Mitra outlets in the city. Lok Mitra is now successfully running in Ajmer, Bikaner and Udaipur also.

E-governance now extends to a whole new dimension. The governments are procuring services and issuing contracts online. Tender process for sanctioning of works in government departments is being carried out online.

New services have been added to the delivery system based on the internet. People can now download the lease deeds for their land or the revenue map of their area from an E-kiosk at the village. They need not go to the district collectorate to collect the records.

The Price Water House Coopers has identified four basic requirements for successful implementation of E-governance in Rajasthan: citizen centric service delivery, backend computerization, IT infrastructure creation and Human Resource Development.

#### Services

IAS officer Rohit Kumar Singh who was involved with the development of the IT infrastructure in Rajasthan says that the Unique Identification, UID, being introduced by the union government is the first serious attempt to integrate the delivery of various developmental initiatives of the government. The UID will provide a unique identification number to every citizen of India like a PAN number which will be used for all online transactions, tax deposits, bill payments, social security deposits among others.

Rajasthan, unlike the rest of the country, thrives on tourism industry. Every third foreign tourist landing in India arrives in the state. A robust E-governance system assists in boosting the tourism products as well as enhances the goodwill of the state in the foreign countries where delivery of services is based on a technologically advanced IT-enabled platform.

For example, a tourist arriving in the state can now book his stay at any of the hotels owned by the Rajasthan Tourism Development Corporation. Just as a person books a railway ticket from anywhere in India similarly a tourist in France can book a hotel room in Jaipur or Ranthambhore online and pay for his accommodation.

Similarly, the Palace on Wheels, the luxury train operated by the state government has tourist bookings till 2012. How? Simply by going on the Rajasthan tourism website which provides online booking services for tourists.

Among the major services which are planned in the pipeline in state are: digitalising the employment exchange, collection of taxes particularly Value Added Tax and other commercial taxes, agriculture marketing for farmers, registration of properties online and classification of land records in the cities and in villages.

The district collectors have already started mapping the digital records of the revenue land under their jurisdiction in the state. In near future it would be possible for a farmer in Chaksu to download a detailed revenue record of a land from a E-mitra centre without having to check the records at the tehsildar's office or at the district collector in Jaipur.

In the study it came out that the revenue earning departments like the commercial taxes, excise, stamps and registration are computerised to a great extent.

The land development agencies like the Jaipur Development Authority, the Rajasthan Housing Board and the local municipalities have already initiated a number of important E-governance initiatives. The www.jaipurjda.org and the www.jaipurmc.org are some of the initiatives that offer the people online redressal system, information on their new projects and the fiscal spending on Jaipur city.

These departments have been equipped with informative web sites, downloadable forms, procedures and timelines for procuring services on the internet.

Some of the government departments which have been funding infrastructure works, like the Rajasthan Urban Infrastructure Development Project, RUIDP, have adopted the process of E-procurement to purchase, supply and order sales of equipment and services online.

#### **E-governance Challenges**

"E-governance is not really the use of IT in governance, but as a tool to ensure good governance. E-governance does not mean proliferation of computers and accessories; it is basically a political decision, which calls for discipline, attitudinal change in officers and employees, and massive government process re-engineering," Ravi Kant (Special Secretary, IT, Govt of West Bengal) on the functional role of electronic governance or paperless governance.

All implementers and drivers of E-governance initiatives agree that the biggest challenge of deploying E-governance is not technology but change management. Change management is important not only in terms of cultural change but also in terms of changing operations and processes workflow that the automated environment will introduce.

"It's important to educate people at all levels about the benefits of technology. The various benefits and advantages of E-enabling the system should be communicated clearly right at the beginning to ensure popular support which will lead to greater chances of success," explains Dr G D Gautama, Secretary, IT, Government of West Bengal.

It is important to explain to people that the introduction of IT will not take away existing jobs but will make them easier, and if less manpower is required for operations the staff can be deployed

elsewhere with no threat to their career growth path.

The key challenges with electronic governance are not technology or internet issues but organisational issues like redefining rules and procedures, information transparency, legal issues. infrastructure, skill and awareness. Other obstacles are geographical distances, lack of trained human resources, and lack of ICT penetration in remote areas. For instance, a good E-governance application will not benefit anybody in remote areas if there is no supporting infrastructure such as electricity, computers and connectivity. Many pilots have been successfully implemented in almost all areas of E-governance, but, says Ravi Kant, "Rather than having an obsession to undertake pilot projects, we should capitalise on the existing successful examples in the country and customise them for our use."

The challenges of connectivity have also reduced over the years with the falling prices of bandwidth and increased reach of connectivity service providers. Major VSAT service providers already have established large footprints in India, and telecom service providers have stepped up their leased line offerings even in previously unrepresented territories.

Many state governments have developed state wide area networks (SWANs), customised applications, and data banks. But the interconnectivity of the servers is an issue which calls for the establishment of state data centres. The NIC, which is promoting E-governance in the country, has established VSAT connectivity in all the districts of the country. There remain however issues such as standardisation, interoperability, security, and propriety vs. open source.

The other set of challenges lie in extending the reach of E-governance services to 70% of Indian population that lives in villages. These include:

- Assessment of local needs and customizing
   E-governance solutions to meet those needs
- Connectivity
- Content (local content based on local language)

- Building human capacities
- E-Commerce
- Sustainability
- E-governance and challenges specific to India

We list down some of the challenges, which are specific to India - (Some of the inputs are taken from an officer from NIC).

Lack of Integrated Services: Most of the E-governance Services being offered by state or central governments are not integrated. This can mainly be attributed to lack of communication between different departments. So the information that resides with one department has no or little meaning to some other department of Government.

Lack of Key Persons: E-Governance projects lack key persons, not only from technological aspect, but from other aspects as well.

**Population:** This is probably the biggest challenge. Apart from being an asset to the country it offers some unique issues, an important one being: establishing 'person identities'. There is no unique identity of a person in India. Apart from this, measuring the population, keeping the database of all Indian nationals (and keeping it updated) are some other related challenges.

Different Languages: A challenge due to the diversity of the country. It enforces need to do governance (upto certain level), in local languages. Ensuring E-Governance in local language is a big task to achieve.

According to an officer from NIC, the success factor of E-Gov projects depends on:

- 10% Technology
- 60% Process
- 20% Change Management
- And the rest is luck

New information and communication technologies can make E-governance efficient and more effective,

and bring other benefits too. This paper outlines the three main contributions of E-governance: improving government processes (E-administration); connecting citizens (E-citizens and E-services); and building external interactions (E-society). Case studies are used to show that E-governance is a current, not just future reality for developing countries. However, most E-governance initiatives fail. Countries therefore face two challenges. First, the strategic challenge of E-readiness is preparing six identified pre-conditions for E-governance. Second, the tactical challenge of closing designreality gaps is adopting best practice in E-governance projects in order to avoid failure.

"The purpose of implementing E-governance is to enhance and to achieve success. A vision for change is therefore outlined of which more details are given in a related good governance. Good governance is generally characterised by participation, transparency and accountability. The recent advances in communication technologies and the Internet provide opportunities to transform the relationship between governments and citizens in a new way, thus contributing to the achievement of good governance goals."

- The UNESCO

#### A future perspective

In the budget for 2009-10, the Rajasthan government decided that 3 per cent of total financial allocation to every department will be spent on strengthening the infrastructure for electronic-governance. It was a simple decision that reflected on a policy shift within the government to improve its delivery of services through information technology.

As Neil Armstrong had once said that a small step (on the moon) is a giant leap for mankind, on a similar note, the dedicated spending on E-governance in the state budget shows the commitment of the government towards transparency in public dealings while recognising the urgency of building a platform of administration where services can be delivered and decisions taken 24X7, all round the year.

More recently, Rajasthan became the first state in the country where the government departments will reply online to questions raised by public representatives inside the Vidhan Sabha (State Assembly). Until, now the bureaucrats in government department. Several times there was a delay in response and sometimes the questions were never answered.

But, with the implementation of online answering system the government has extended the E-governance facility in state. It also empowers the people because answers given by government to questions raised by MLAs will be made public on the website so that people may know about the status of schools, water supply, construction of roads and electricity connections in their area, at the click of a mouse.

Ideally, this is a more transparent mode of governance while it also strengthens the Right to Information Act in the state. It also signifies the transformation in E-governance since the beginning of the new millennium.

The state government has recently provided laptops to all the MLAs and the ministers in the cabinet to enable them to take decisions even if on the move because the delivery of services and facilitating of business with the people should be possible without the consumer having to physically go to the offices.

The government is now encouraging public private partnerships (PPP) in the field of IT investments. E-mitra and Lok Mitra are examples of flowering PPP in the state. The private models can function better to provide services to the people.

"This is the start of a journey and we expect resistance. But people are open and receptive to change. We see a better climate for change now than 20 years ago,"

 Sam Pitroda, Chairman, National Knowledge Commission

#### Conclusion

The government of Rajasthan is taking E-governance as a key resource to develop a paperless model of administration. The state government is attempting to leverage information-technology not only as a tool for improving governance and employment opportunities, but more significantly as a means to enhance the quality of life and bridging the socioeconomic divide in the state and level out the skewed development in state.

The government has made its intent to pursue an enhanced technological platform for administration in state by allocating three per cent of the state budget to engineer a model of E-governance in all functioning departments. IT experts, government officials and the stakeholders of socials sector are unanimous in their belief that E-governance can be effectively employed is a tool to counter corrupt measures and bolster the idea of a transparent government.

The barometer to gauge successful implementation of any project is the ability of the scheme to reach out to the people. E-governance, with its unlimited applications is the most suitable tool to achieve this end. Already, most government departments are uploading information pertaining to their policy initiatives and their implementation on their websites. The websites of the state finance department and the department of personnel exemplify how E-governance can provide ease of access to government information to the common man while reducing consumption of time and money.

Several state government services like the Rajasthan State Road Transport Corporation are employing IT initiatives like online ticketing for their bus services to increase revenue and plug losses. The government is already 'practicing' E-Commerce to carry out major infrastructure projects through its agencies. For instance, the Rajasthan Urban Infrastructure Development Project, a government agency that executes Asian Development Bank projects in state

sanctions contracts online through E-tendering process.

Where the government is trying to weave technology into administration for effective governance, it faces limitations like lack of trained manpower, dedicated delivery system and core infrastructure that are restricting its initiatives from flowering into full potential. It is now time for the government to tie up the loose ends and take E-governance to the next level where it can harness its power to benefit the people and streamline administration.

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# SUPPLY CHAIN PARTNERSHIPS – EFFICIENT ROUTE TO SUCCESS

(A CASE STUDY ON PARTNERING PRINCIPAL IN AIRTEL SUPPLY CHAIN)

Dr. Vidhi Tickoo Faculty, Department of Management Studies

#### Abstract

In the current scenario of globalization, focus on value creation is the only key to success. This is possible by identification of core competency of an organization and continuous evaluation of strength and weaknesses. Out sourcing is becoming the need of the day for value creation. It's a process of divesting non-core areas to an organization whose core competency lies in that particular area of operation. The objective of outsourcing of activity to fulfill need for sustained growth is being ensured by establishing long terms relationship with suppliers for non-core but crucial area of operation. In this research paper an attempt has been made to establish connection between outsourcing and creation of a win-win scenario for both organizations namely company and the partner through partnership model.

#### Introduction

Supply chain management is the management of a network of activities in an organization to deliver the best value for a product or service to the end customer. It typically constitutes of activities from ordering, movement and storage of raw material, to the production, storage and delivery of finished product and all of this being governed by forecasting of market scenario based on past trends updates on current conditions and anticipated events in future.

In the prevailing scenario when markets are getting global and there is rapid development in technology and information sharing, no organization is untouched by an increased demand from customers, sudden emergence of competition with the same quality product. All this makes companies vulnerable, to become uncompetitive and thus increase the cost pressure. Thus, the traditional methods of demand and supply management have given way to more organized and structured approach to meet customer demands and organizational goals.

Supply chain management as a function has been evolving ever since this term came into existence. Originally, the term was strongly related to assembly line industries automobiles/ consumer durable but it was gradually accepted by various industry segments and modified to suit their specific requirements like Information Technology, Information Technology Enabled Services, Constructions/ Chemicals/ Telecommunication etc.

Through continuous performance assessment, supply chain has helped in identifying the non value adding activities in organization and focuses on core competencies which lead to outsourcing non-core operations and scrapping of vertical integration units. The purpose of outsourcing is to ensure bringing in best practices in key business components by divesting themselves of these non core activities. Companies are realizing that they can focus their energy on areas where they have the distinctive competitive advantage, while differentiating themselves from their competitors and taking

advantage of cost savings from the outsourced functions.

This is not just outsourcing the production of materials and components, but also outsourcing of services that traditionally have been provided inhouse. Traditionally, outsourcing included shutting down production unit of peripherals in manufacturing industry and out sourcing the material supply to ancillary units, but now the organizations are outsourcing distribution and logistics, customer service at doorstep, new product development, financial services like tax reporting, accounting, billing, customer engagement, payment collection etc. All the activities mentioned may not be core for the parent companies but they are critical to their survival in the market place and these non-core but critical activities are core competences of outsourcing firms. Hence, identification of outsourcing vendor and keeping them engaged is the key to success of such an endeavor. Such linkages may be more aptly called "partnership". The key aspect of supply chain is to form appropriate partnerships within and outside the organization and such partnerships strengthen the process and people integration of two or more organizations to achieve

cost efficiency, faster product or service delivery for the organization

#### **Objective**

The objective of this research paper is to identify and ascertain how Airtel facilitates partnership with vendors for achievement of business objective, further:

- a) How partnering provided a way to leverage unique skills and expertise of each partner for the purpose of unlocking value for customers?
- b) How Airtel SCM emphasizes on the overall and long terms benefits for parties involved in the chain through co-operation and information sharing?
- c) How far Airtel succeeds in establishing business partnership in order to create win-win situation for all parties involved?

#### Research Methodology

The research is based on secondary data available over COAI (Cellular Operators Association of India) website, TRAI (Telecom Regulatory Authority of India) website, and PWC (Price Waterhouse Cooper) benchmarking study available over internet.

#### Evolution of Airtel in Indian Telecom Market and Evaluation of Opportunities and Threats

Year	Airtel Sub Base	% inc YOY	Airtel Market Share	Total GSM base	GSM market Growth			
1997	0.2	) )	27%	0.79				
1998	0.2	5%	21%	1.07	35%			
1999	0.3	36%	19%	1.60	50%		YOY growth of	
2000	0.6	86%	18%	3.11	94%		<b>GSM Market</b>	
2001	1.1	100%	20%	5.48	76%	3000	CARTER TO SECURITARIS AND	
2002	2.8	150%	27%	10.48	91%	)		
2003	5.5	96%	25%	21.99	110%			
2004	9.4	71%	25%	37.38	70%	]	YOY growth of	
2005	16.3	73%	28%	58.50	57%	-		
2006	32.0	96%	30%	105.43	80%		Airtel Sub Base	
2007	57.1	78%	32%	177.88	69%	20	MI ONSO CONTROL DE LA MINISTERIO DE CONTROL DE MINISTERIO	
2008	85.7	50%	33%	258.24	45%			
2009	118.9	39%	31%	380.45	47%			
2010	152.5	28%	28%	542.97	43%			

Table 1: Subscriber base trend

The chart gives telecom market scenario prior to 2002 till 2010.

The analysis of the chart shows that there was exponential increase in market size which if left untapped would have resulted in loss of opportunity. Since such a growth was never seen in any other country, capturing such a sub base would have been difficult for a new telecom company

Moreover managing and retaining expected huge customer base. Few years down the line would have been possible only by constantly evolving and innovating the technology and services as per the expectations of customers and industry. Continuing with the traditional buyer supplier relationship would have resulted in huge capital investment in upgrade of network and services.

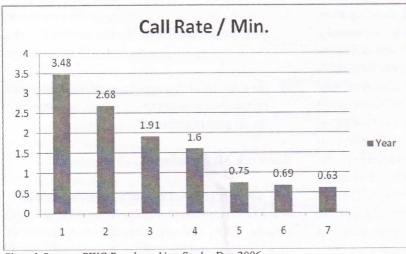


Chart 1-Source: PWC Benchmarking Study; Dec 2006

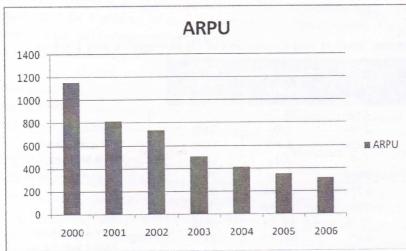


Chart 2- Source: PWC Benchmarking Study; Dec 2006

Such a huge potential was a lucrative market for other players and Airtel knew, than sooner competition, will become huge and it would be hard to remain profitable. Moreover, call rates were also falling (trend as shown in Chart 1) hence cost pressure would eventually buildup and ARPU1 would follow suit (as depicted in Chart 2), if not they took a dominant customer market share.

Understanding challenge and opportunity in Indian telecom sector Airtel approached telecom equipment manufacturer with a proposal to take up the job of complete deployment / rollout and of network upkeep throughout India on the model of total outsourcing of network provisioning agreed key through performance indicators.

<sup>&</sup>lt;sup>1</sup>ARPU – Average Revenue per User

The model was developed in such a way so that it served the purpose of both the company and outsourcing partner. For Airtel such relationship meant:

- 1. Acquisition of expertise in technology
- 2. Less capital expenditure on infrastructure
- 3. Faster rollout of services
- 4. Access to new technology immediately on launch
- 5. Low cost upkeep and maintenance

For the equipment manufacturer such relationship meant:

- 1. Guaranteed long term business
- Increase in revenue due to additional services of deployment and upkeep being provided to company
- 3. Strong presence in an upcoming major economy with a huge potential and to ward off cheaper Chinese equipment entry in Indian telecom industry. Ultimately ensuring market leadership.

With such strategic long term partnership it becomes the objective of service provider to ensure the operator company to ensure their future growth also.

Ericsson and Nokia were world's leading telecom equipment manufacturers when Airtel was just an upcoming and growing organization in 2002 but still Airtel chose them as its partners who already were suppliers of equipment for Airtel Network. Both willingly agreed to the offer and entered into an agreement.

#### Results of Partnership initiative

By 2002 Airtel outsourced entire infrastructure and customer care backend to Ericsson, Nokia Siemens, IBM etc. This reduced operating costs and allowed faster rollout and improved margins. By the end of 2010 Airtel had the highest CMS<sup>2</sup> and RMS<sup>3</sup> and the largest network pan India and highest EBITDA<sup>4</sup> margins.

#### Graphical representation

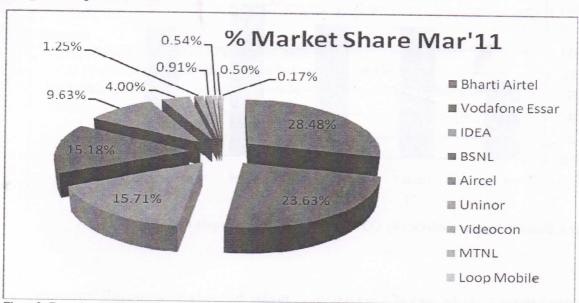


Chart 3: Based on COAI All india GSM sub figures Mar 2011

<sup>&</sup>lt;sup>2</sup> CMS - Customer Market Share

<sup>&</sup>lt;sup>3</sup> RMS - Revenue Market Share

<sup>&</sup>lt;sup>4</sup> EBITDA - Earnings Before Interest, Tax Depriciation and Amortisation

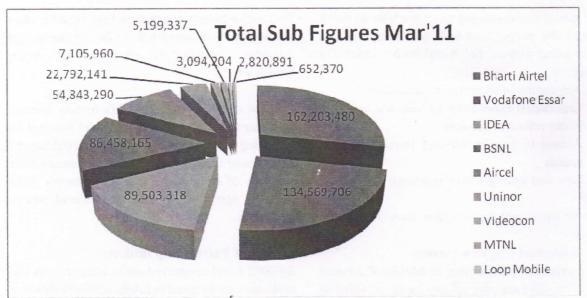


Chart 4: Based on COAI All india GSM<sup>5</sup> sub figures Mar 2011

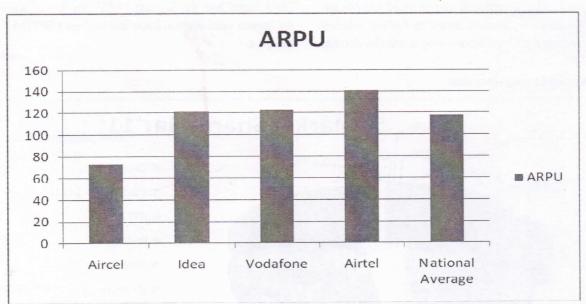


Chart 5: Based on figures published by COAI - ARPU/Revenue Analysis Report Apr-Jun 2011

The above graphs recite the story of Airtel success due to supply chain partnership model. Airtel enjoys the dominant leadership position in Mar'11 with 28%

market share and a handsome 162Mn subscriber base with the highest Average Revenue per user (ARPU) of Rs140 in Mar'11.

<sup>&</sup>lt;sup>5</sup>GSM – Global System for Mobile

#### **Crucial Elements**

Partnership may not be worth time and effort for an organization if any of these crucial elements are missing.

- 1. Organisation Alliance: Organisations must believe alliance will help them in achieving individual goals.
- 2. Relationship building and mutual trust: Successful partnership can only be achieved by building relationship and mutual trust between company and outsourcing partner by creating a win win situation.
- Communication procedure: Proper code and procedure of information sharing must be set on the basis of type and periodicity of data and communication.
- 4. Lucidity in business: Transparency with respect to sharing of all business related data will help in building long term relation.
- 5. Long term collaboration: Outsourcing collaboration should not be for short terms, on the contrary organisations must enter into such agreements with long term approach.

- Continuous Improvement: To take care of prevailing scenario all the prevailing systems and procedures should be assessed timely and evaluated in order to bring relevance and continuous improvement.
- Integrated Key performance Indicator: Business health of aligned organisations must be ascertained through pre-agreed performance indicators and must be shared with the partners.
- 8. Sustenance and Risk Mitigation: The agreed arrangement must be reviewed periodically to mitigate all risk encountered during the course of relationship.

#### Conclusion

Company and supplier/partner relationship is evolving day to day depending upon the goals and objectives of organizations. Such partnerships always yield fruitful results if nurtured with trust, transparency and a vision of long term association. Organisations which are innovative, adopt and structure supplier relationships in such a manner that the relationship is of benefit to both company and the partner.

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- www.tompkinsinc.com

# THE FINANCE BILL, 2012 WITH RESPECT TO SERVICE TAX IN INDIA – A MOVE TOWARDS INTEGRATED TAX REGIME

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#### Abstract

The levy of tax on services was an outcome of the New Economic Policy wherein the then Union Finance Minister Dr. Manmohan Singh introduced the tax on services in the year 1994. Service sector is a major contributory to the Gross Domestic Product of India, as also of the world and hence was the need to introduce Service Tax in India which has so far been in its nascent stage. It started as a modest tax on only three services but over a period of eighteen years it has matured into an impending taxation on the entire service sector. Till so far, the reforms in this direction were majorly procedural and resulted in enhancing the assessee base generally, but The Finance Bill, 2012, has attempted to make a major revamp in the Service Tax regime by shifting taxability from positive list to negative list or say from selective basis to comprehensive basis. This is nothing but an attempt to move towards a uniform code namely "Goods and Service Tax", to bring about an integration and simplicity in the taxation laws, making them more easy to follow and in concurrence with international taxation laws. The paper is a serious attempt to study the intention and impact of The Finance Bill, 2012, with respect to Service Tax and how it is beneficial in achieving the ultimate goal of "Goods and Service Tax".

#### Introduction

The levy and collection of tax on services by the nomenclature "Service Tax" was introduced by Chapter V of The Finance Act, 1994 as a moderate tax on only three services under the organised sector. Gradually, the tax base was broadened and many of the services under the unorganized sector were also made taxable with exemptions, abatements, CENVAT credit etc. A major step has been taken by the Government this year with the introduction of The Finance Bill, 2012, wherein the levy has been made more comprehensive one and a "Negative List" of services is all set to replace the "Positive List". Also the rate of Service Tax has been enhanced and consequential procedural changes have been incorporated in law. The Union Government is

aiming to bring out a uniform code in the Direct as well as the Indirect Taxes scenario by the names "Direct Tax Code" and "Goods and Service Tax" respectively. The Goods and Service Tax, hereinafter referred to as GST is all set to replace all other indirect taxes like Octroi, Sales Tax, Central Excise, Service Tax etc. and bring about uniformity and simplicity in Indirect Taxes on a national and state level. It is thus important to understand the nature of taxation on services in India - so far and beyond, the changes sought to be brought by The Finance Bill, 2012, the concept of GST, the extent upto which the said Finance Bill has been able to achieve the goals of GST, implications of the same on various industries on exemplary basis, the hidden anomalies of this movement and the benefits that the Indian economy is likely to achieve from the integrated taxation system. These topics have been vividly covered in the paper after a careful study from various sources.

#### Meaning of service

Service can be defined as "A type of economic activity that is intangible, is not stored and does not result in ownership. A service is consumed at the point of sale. Services are one of the two key components of economics, the other being goods. Examples of services include the transfer of goods, such as the postal service delivering mail, and the use of expertise or experience, such as a person visiting a doctor."

The term Services has wide connotation and connotes transformation of use/user of goods as a result of voluntary intervention of service provider. Different people have been defining services differently but the basic character of it being an economic activity is of importance for an economy, and simply said in this context, anything which does not qualify as goods is "services".

#### Need of taxation on Services

The share of ervice sector in the Indian economy has in a ged significantly over the years with a ation of about 59% towards Gross Domestic Product (GDP) of the country. Moreso, the growth in the year 2011-12, in services, is estimated to be 9.4% as against 2.5% in agriculture and 3.9% in industry. The contribution of services to GDP is immense and this has been the reason to bring the services under the net of Service Tax ever since 1994 when the Service Tax was first introduced by the then Union Finance Minister Dr. Manmohan Singh. This is also in league with the international taxation system wherein huge emphasis is laid on taxation of services looking to their increasing role in the world economy. Now, there appears to be a need to replace the Modified Value Added Tax (MODVAT) by full fledged tax across goods and services, wherein set

I taxes paid is permissible and the benefit of lue Added Tax is passed on to the ultimate

consumer. Indirect Taxes being not period specific and not person specific, is by far a better tool to collect revenue since by broadening the tax base and introducing simplicity and reducing burden of taxes, it restricts the general tendency among consumers to avoid taxes.

The Service Tax which is a fairly recent levy was initially imposed on a selective basis on three services but as The Finance Minister in his Union Budget 2012 speech rightly said that it has reached adulthood, being eighteen years old now and hence the need to shift gears and accelerate is inevitable.

#### Constitutional validity of levy of Service Tax

In 1994, Service Tax was levied by the Central Government under the powers granted under the Entry 97 of List I. Since the tax was levied under the residuary powers allotted to the Centre, in cases where the subject matter of tax is restricted to the state domain, a number of trade bodies and individual service providers had challenged the levy of Service Tax by the Union Government under the residuary Entry 97, List I in Schedule VII of the Constitution of India and therefore the Government passed the Constitution (95th Amendment Act), 2003 which provides for a formal levy of Service Tax by the Centre through the insertion of Article 268A to the Constitution and Entry 92C of List I. The levy is thus now free from all validity litigations.

#### The Evolution of Service Tax

The Service Tax was levied in India in 1994 with an intention to bring under tax net the sector contributing maximum to the GDP namely the service sector. Initially, the levy was on a selective basis on three services only, in its nascent stage and over a period of eighteen years the number of services covered under Service Tax had been increased to 119 till May, 2011. Initially, Service Tax was levied on services under organised sector to facilitate the prompt collection of taxes and gradually its base was broadened by including the unorganized sector also, while also allowing SSI (Small Scale Industries)

exemptions to small service providers generating turnover of upto Rupees Ten Lacs from rendering services. Till so far, the major changes included addition of new services, granting exemptions to various kinds of services, changes in rates of taxation, introduction of reverse charge mechanism and CENVAT credit rules and other procedural aspects. However, The Finance Bill, 2012, has brought a landmark change in the arena of Indirect Taxes by widening the tax net by introducing a comprehensive approach to Service Tax. This is a step towards the proposed "Goods and Service Tax" regime as pledged by the Government of India two years back. The changes brought about in the levy of Service Tax through The Finance Bill, 2012 have been discussed at length in the light of proposed shift to GST system.

#### Scope and relevance of GST in India

The Government of India is showing all intentions to move towards Goods and Service Tax which is also reflected in The Finance Bill, 2012, and hence it is time to understand the meaning, scope and relevance of GST.

The GST is an integrated value added tax system proposed to be introduced by the Government of India from April 1, 2010 (as announced by The Union Finance Minister Mr. Pranab Mukherjee) but since then, the GST has missed two deadlines and it is now expected to come into force soon.

GST is a comprehensive tax levy on manufacture, sale and consumption of goods and services at a national level and state level. It is a consumption based and not a production based tax. Through a tax credit mechanism, this tax is collected on value-added goods and services at each stage of sale or purchase in the supply chain. The system allows the set-off of GST paid on the procurement of goods and services against the GST which is payable on the supply of goods or services. In such a scene, the end consumer bears this tax as he is the last person in the supply chain.

GST is considered to be a major improvement over the pre existing Central Excise Duty, and Service Tax at the national level and the Sales Tax system at the state level. The new tax will be a further significant breakthrough and the next logical step towards a comprehensive Indirect Tax reform in the country.

World over, the GST rates are typically in between 16 percent to 20 percent and in India it is likely to be around 14 percentage. Internationally speaking, more than 140 countries have introduced GST in one form or another. It has been a part of the tax landscape in Europe for the past 50 years and is fast becoming the preferred form of indirect tax in the Asia Pacific region. It is interesting to note that over 40 models of GST are currently in force, each with its own peculiarities. The best GST systems across the world use a single GST while India has opted for a dual-GST model in which:

- a 'Dual rate structure' consisting of 'Central GST'
   (to be levied and administered by the Central
   Government) and 'State GST' (to be levied and
   administered by the respective State
   Governments) would be the new form of taxing
   goods and/or services;
- both taxes would simultaneously apply on a transaction and principally on the same tax base (except in cases where exclusions apply due to turnover thresholds); and
- an Integrated GST or IGST would apply on interstate supplies of goods and services.

From a legislative framework perspective, a single legislation for levying Central GST has been proposed. However, each State and Union territory will enact its own State GST legislation, with an endeavor to adhere to uniform basic features of law such as:

- · chargeability;
- definition of taxable event and taxable person;
- measure of levy including valuation of goods and services;
- · basis of classification of goods and services; and

procedure for collection and levy of tax

In view of the above dual-structure, Centre and States would have concurrent jurisdictions for all tax payers; thereby resulting in dual administration and compliances.

The implementation of GST will lead to the abolition of other taxes such as octroi, Central Sales Tax, Statelevel Sales Tax, Entry Tax, Stamp Duty, Telecom License Fees, Turnover Tax, Tax on Consumption or Sale of Electricity, Taxes on Transportation of Goods and Services, etc., thus avoiding multiple layers of taxation that currently exist in India. Under GST, the taxation burden will be divided equitably between manufacturing and services, through a lower tax rate by increasing the tax base and minimizing exemptions.

Currently, a manufacturer needs to pay tax when a finished product moves out from a factory, and it is again taxed at the retail outlet when sold, but GST will be levied only at the destination point, and not at various points (from manufacturing to retail outlets). In this system, both Central and State taxes will be collected at the point of sale. Both components (the Central and State GST) will be charged on the manufacturing cost. If the service providers honestly adhere to the input tax credit mechanism and pass on the benefit of all the taxes paid in the entire supply chain to the ultimate consumer, such a system will benefit individuals as prices are likely to come down. Lower prices will lead to more consumption, thereby helping companies

The Government is working on a special IT platform for smooth implementation of the proposed GST and it is expected to help build a transparent and corruption-free tax administration.

It is estimated that India will gain \$15 billion a year by implementing the Goods and Services Tax as it would promote exports, raise employment and boost growth.

#### Present scene of GST in India

The Finance Minister in his Union Budget 2012 speech said, "the Constitution Amendment Bill, a preparatory step in the implementation of Goods and Services Tax (GST) was introduced in Parliament in March 2011 and is before the Parliamentary Standing Committee. As we await recommendations of the Committee, drafting of model legislation for Centre and State GST in concert with States is under progress." He further stated that the structure of GST Network (GSTN) has been approved by the Empowered Committee of State Finance Ministers. GSTN will be set up as a National Information Utility and will become operational by August 2012.

There is every hope that the improvised taxation system will thus soon be implemented.

# Provisions of The Finance Bill, 2012, on Service Tax

In The Finance Bill, 2012, placed before the parliament on 16th March, 2012, The Union Finance Minister, Mr. Pranab Mukherjee emphasized that the share of services in taxes remains far below its potential and that there is a need to widen the tax base and strengthen its enforcement. Accordingly, he introduced major changes in the Indirect Taxes regime especially Service Tax. Some of the proposals of the said Bill are as under:

1. Meaning of Service – In the existing system only the services specified in clause (105) of Section 65 of the Finance Act 1994 are taxed under the charging section 66. In the new system, all services, other than the services specified in the "Negative List", provided or agreed to be provided in the taxable territory by a person to another would be taxed under section 66B.

Service has been defined in clause (44) of the new section 65B and means –

- any activity
- for consideration
- · carried out by a person for another
- · and includes a declared service

The said definition further provides that 'Service' does not include –

- any activity that constitutes only a transfer in title of (i) goods or (ii) immovable property by way of sale, gift or in any other manner
- a transaction only in (iii) money of (iv) actionable claim
- any service provided by an employee to an employer in the course of the employment
- fees payable to a court or a tribunal set up under law for the time being in force

Here it is important that there should be an activity, whether active or passive, including also any forbearance to an act; consideration which means everything received in return of services would include monetary as well as non monetary consideration; there should exist mutually exclusive service provider and receiver, i.e. one cannot provide service to own self and person includes natural as well as artificial or juridicial person.

With this shift from selective approach to comprehensive approach, the question of which taxable service is being rendered shall no longer arise. The taxation in future will be based on what is popularly known as "Negative List of Services".

In simple words, if an activity meets the characteristics of a "Service", it is taxable, unless specified in the Negative List comprising of 17 heads listed in the proposed new section 66D or otherwise exempted by a notification u/s 93 of The Act. Presently, services like non profit organizations relating to public and social welfare, agricultural and animal husbandry services, services rendered by Government and local authorities, education and health services, construction of small residential units, old age homes etc. are included in the negative list with few ifs and buts and similar other exemptions are also available.

This change in character of taxable services is a unidirectional move towards the proposed GST emphasizes upon the integration of taxes on goods and services alike.

- Changes in Service Tax Rates The rate of Service Tax has been enhanced from 10% to 12% w.e.f. 01/04/2012 and consequential changes in composition rates have also been made.
- 3. Place of Provision of Services Rules 2012 With the introduction of the new Place of Provision of Services Rules 2012, the Taxation of Services (Provided from outside India and received in India) Rules 2006 are all set to be replaced. Since the Export Rules will cease to apply, the required provisions will be incorporated in Service Tax Rules.
- 4. Valuation The system of valuation of services for levy of Service Tax and of availment and utilization of CENVAT credit essentially remains the same with only incidental changes required for the new system of taxation . There shall be a sufficient reduction in the cascading of taxes by permitting utilization of input tax credits in a number of services such as catering, restaurants, hotel accommodation, pandal and shamiana and transport sectors.
- 5. Abatement The abatement in Service Tax in certain services have been reduced resulting in enhancing the taxable portion of the value, but the same are accompanied with liberalization in input tax credits and this availability of credits will lead to reduction in costs and hence prices for the consumers.
- 6. Point of Taxation Rules 2011 These rules lay down the determination of point when the taxation should take place. The liability to pay Service Tax accrues when the invoices are issued against services or money is received, whichever

is earlier. The Finance Bill, 2012, has increased the time period for issuance of invoices to 30 days ordinarily and 45 days for banks and financial institutions.

# Analysis of the impact of The Finance Bill, 2012, on Service Tax levy on various services

- 1. Telecom and Information and Technology industry With an increase in Service Tax rate from 10% to 12%, there shall be an increased burden of 2.06 % on the telecom services and IT and ITES (Information and Technology enabled services) sector, rendering such services to be more expensive. At the time when the IT and ITES sector industries are already facing escalating input costs, increase in Service Tax rate by 2 percentage points shall further add to the burden.
- 2. Housing industry Increasing Service Tax adds to the cost of the property thereby making it more expensive. However, the affordable housing has been included in the negative list which is a pleasant respite and would give a boost to the affordable housing sector. However, what nullifies the above positivity is an increase in Service Tax and excise duty to 12 percent each resulting in an increase in cost of raw material. On an overall basis, whereas the housing sector was looking for a relief from Service Tax, the increase in Service Tax rates will increase the cost of construction by approximately 0.5 percent.
- 3. E-commerce The Finance Bill, 2012 will result in synergy and streamlining of the tax structures and thus the E-commerce entrepreneurs can expect a fall in prices of the products sold online. At present, due to differences in tax across states, online commerce ventures, which mostly operate on the hub and spoke model, have set up warehouses in cities where taxes are lower and they can now think of creating fewer and larger warehouses in the most optimal locations.

- Services rendered by Government and local authorities – Generally the services rendered by the Government and local authorities are in the negative list and hence not subject to Service Tax, but some of the services are still proposed to be subjected to Service Tax. The rationale behind this, as clarified by the Government is that only those activities of Government or local authorities are taxed where they compete with private entities, so as to provide a level playing field to private entities. However, such exemptions would lead to competitive inequities and break the CENVAT chain as the support services provided by Government are normally in the nature of intermediary services. The flaw is amply understandable - majority of the services are consumed by common man and hence there arises no CENVAT benefit and such an act would directly result in enhancing the cost of services to common man.
- 5. Services mentioned in the Negative List like those related to health, education, medical facilities, agriculture, social welfare etc. along with the exempted services shall only have a sigh of relief till so far as they are waived off from the levy. It shall not be much surprising that in near future the list is further reduced, to make the levy more comprehensive and commensurate with the proposed GST.

# The Finance Bill, 2012- A medium to reach the biggest taxation reform "GST"

An attempt to broaden the Service Tax base by introducing taxation on all services except those falling under negative list and exempted categories, enhancing the rate of Service Tax from 10% to 12%, allowing CENVAT credit on Service Tax on a comprehensive basis etc. are all indicative of the Government's aim of inching economy towards "GST" which will be a welcome and desired change for various industries functioning in the Indian economy. Such a migration is extremely important, being guided by a need to move towards a system that is simple, equitable and progressive.

#### CONCLUSION

The Finance Bill, 2012, read in consonance with the proposed GST is indicative of per se simple and integrated laws with larger assessee base, but the question is whether the benefit of setting off Value Added Tax (VAT) will be passed on to the end consumers who are last in the supply chain by the service providers at various stages? The matter is of grave importance because the general tendency of service providers/manufacturers is to charge the burden of increased taxation from the consumers but rarely is it seen that they provide the benefit of declining rates of taxes or benefit of setting off of · VAT to them. Such a tendency results in nothing but gross unjust enrichment in the hands of service providers. A conceptual learning and consumer awareness are thus required on a large scale so as to educate service providers and consumers to uphold the purpose of law, rather than defeating it.

Another important issue that crops is whether the increase in rate of Service Tax from 10% to 12% is actually enhancing the burden on the consumers? The situation needs to be examined in light of the fact that The Finance Bill, 2012, approaches to broaden the base of assesses by including most of the services provided in the economy, leaving out only a few. This broadening of tax base is also accompanied by the increased VAT credit which was earlier on a selective basis. Some of the services which were earlier not in tax net have now become taxable, some others have become taxable at higher rate due to decrease in abatement and some have become exempted. The net impact would thus not be grave when an overall view of the economy is taken and such a step would only result in enhancing the assessee base, with a consequential wipe out of parallel economy and if adhered to, in honesty, will result in overall reduction in prices by transferring benefits of set off to the ultimate consumer. Such an increment should thus not pose questions about the capability of the economy to take extra burden or the Government being left with no choice but to generate more revenue from

easy sources, because this is actually a step towards integration of Indirect Taxes.

Alongwith the proposed "Negative List", there is a series of exemptions available which is indicative of the intention of The Union Finance Minister to retain powers to grant concessions to the deserving cases since the Negative List has been framed with the consensus of the States and cannot be altered easily and frequently. The tendency to have available such exemptions and concessions apart from Negative List is what spoils the simplicity of tariff and provides conflicting viewpoints wherein on one hand the Government proposes to bring uniformity in law and on the other hand it itself creates disparities by different ways and methods. This issue needs to be addressed in the long run with a broader perspective to bring about equity.

In near future, it is estimated that an integrated GST shall be introduced within the country. The first step towards this has already been taken by virtue of reduction in the rate of Central Excise Duty. The next logical step would be to integrate the Central Excise and Service Tax laws into a single levy at a single rate, leading to a Central level GST. Further, the uniform implementation of VAT, the delegation of power to tax services to the states also and the phased reduction in Central Sales Tax would all result in the State level GST. The dual GST would then be assimilated into single GST with the sharing of tax revenue between the Centre and the States. Such a taxation system is good for an economy, good for consumers and administratively easier to implement and would definitely result in bringing more revenue to the Government exchequer.

Tax is the cost of civilization and one must not be disheartened merely by the fact that the rates of taxes have increased. A positive insight would yield that the absolute increase in rate is only a myth, whereas actually it will lead to uniformity and simplicity in taxation, while also reducing administrative costs.

The Finance Bill, 2012, is a positive move towards The Goods and Service Tax regime and both in turn are all set to integrate the state economies and boost overall growth. It will create a single, unified

Indian market to make the economy stronger, procuring a major place for India on the world map and should thus be welcomed wholeheartedly.

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# RURAL CONSUMER BEHAVIOR — A STUDY WITH REFERENCE TO SHAMPOO SACHETS

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#### Abstract

Rural markets have great potential today. With increasing rural prosperity, the consumption level of rural people is also on a higher side not only for FMCGs but of other products too. FMCG companies like HLL, Britannia, Colgate Palmolive, ITC, etc. are actively working in rural areas and trying to tap the rural market. This study shall focus on finding the factors related with the purchase of different brands of shampoo. Research findings are based on responses collected from Chaksu Tehsil of Jaipur district with only 120 responses on random and convenience sampling.

#### Introduction

Consumer behaviour can be defined as the decision-making process and physical activity involved in acquiring, evaluating, using and disposing of goods and services. Consumer behaviour is a complex, dynamic, multidimensional process, and all marketing decisions are based on assumptions about consumer behaviour. It refers to the acts of individuals directly involved in obtaining and using goods and services and includes the decision process, that brings about purchase. Consumer behaviour is not only the study of what people consume but also 'where', 'how often' and 'under what conditions' the product is consumed.

The marketers, therefore, try to understand the needs of different consumers and having understood these different behaviours require an in-depth study of their internal and external environment, in order to formulate their plans for marketing.

Rural markets do have great potential today. With increasing rural prosperity, the consumption level of rural people is also on a higher side. According to Shanthi Kanaan writer for 'The Hindu', rural markets are growing twice as fast as the urban markets (2001). To define rural market, A location is defined as rural

if at least 75 percent of the population is agrarian. Rural population account for 68.84% (Census 2011), 83,30,87,662 persons, of the total population, 1,210,193,422 persons.

FMCG Companies like HLL, Britannia, Colgate Palmolive, ITC, etc. are actively working in rural areas and trying to tap the rural market. According to Francis Kanoi, 2002, FMCG's account for approx. 53% of the overall consumption in rural areas. Cosmetics are endorsed by all people since thousands of years, as products help in beautifying men and women. Shampoo is one of the popular cosmetics. There are various companies marketing shampoo brands. In shampoos, rural demand grew by 10.7% in value terms, while in urban markets, it rose by 6.8%. "Rural demand will continue to beat urban demand in a category like shampoos because penetration levels are low in rural India to start with," says V. Ramesh, ED of Chennai-based Cavinkare, which makes Nyle and Chik shampoos.

Keeping in mind the enormous growth rate in Indian rural markets, this paper tried to study the consumer behavior and decision making pattern of rural people and identified, the sources of information in rural areas with reference to shampoos, the factors

influencing choice and the factors which affect purchase decision for shampoos, as its major objectives. This paper is limited to a selected area and does not prove concrete results for the entire industry or for overall population of the rural areas. At the same time, this paper can serve the base for other similar researches in the relevant field of interest.

#### **METHODOLOGY**

120 consumers were selected in Tehsil Chaksu of Jaipur District in Rajasthan, India, using random and convenience method. Sampling includes students, housewives and daily wage workers only.

#### **DATA ANALYSIS**

Study is based on certain attributes like rural consumer buying behavior, effectiveness of available channels of communication, their choice of products, product features and the like. Analysis is based on primary information and data collected from different respondents.

### Information sources available for product choice and selection

Each consumer was asked personally about information source as to how they came to know about various goods, specifically shampoos. Respondents' answers was in alignment with advertisements shown on television and radio and newspapers as well. Table 1 given below shows the responses.

Table 1: Information Source For Product Choice

Maria III II Ede Gaza	
Number of Respondents	Percentage
57	47.5
24	20
22	18.33
10	8.33
07	5.84
120	100
	24 22 10 07

<sup>#</sup> Primary Data

Different brands of shampoo visibility on television is highest (47.5%) in the research area. Television advertising has a deep impact on rural consumers' mind. They receive shampoo information and awareness is converted to purchase. Radio and newspaper fall next to television with next highest accessibility. Friends and family also influence rural consumers to purchase and use many brands of shampoo.

#### Factors influencing choice of shampoo

Consumers in rural areas have preference for good packaging, colour, easy use, product fragrance, etc. Maximum rural consumers give preference to small packets and low value or low price packets of shampoos. Table 2 shows the factors affecting product choice in rural areas.

Table 2: Factors Which Affect Product Choice

<b>Choice on Factors</b>	Responses	Percentage
Small Packs (Sachets)	30	25
Low Price	42	35
Eye Catching Package	18	15
Product Fragrance	12	10
Quality	12	10
Others	06	5
Total	120	100

# Primary Data

Study in the respective area reveals that low price attracts rural consumers a lot (almost 35% responses in the present study). Small packs (sachets) follow low price with 25% of responses, which means small packs also attract rural consumers, next to the feature of low price. 15% of responses preferred attractive packaging and research recorded equal responses for quality and product fragrance. It has observed that rural consumers like small sachets of shampoo with low price affordability as the highest factor.

#### Brand choice of shampoo

Brand choice and preference is important in product decision. This is the stage where consumer selects the best. Table 3 shows different consumers using shampoo of different brands.

Table 3: Consumer using different brand of shampoos

Shampoo Brand Name	Responses	Percentage
Chik Shampoo	54	45
Clinic Plus	13	10.83
Sunsilk	5	4.17
Head and Shoulders	5	4.17
Dabur Vatika	12	10
Nyle Shampoo	10	8.33
Nirma Shampoo	21	17.5
Total	120	100

<sup>#</sup> Primary Data

Responses on the brand use by rural consumers depends upon the availability of a type of product in the area of research. Purchase and use of Chik shampoo is recorded highest with 45% of total responses followed by Nirma shampoo with 17.5% of the responses. Clinic plus and Dabur Vatika shampoo ran close to each other prevailing upon the preference of rural consumers with 10.83% and 10% respectively.

#### Factors affecting purchase decision

Respondents enumerated on factors which influenced their purchase decision. Table 4 shows

the factors which effect purchase decision for shampoos.

Table 4: Factors affecting purchase decision

Factors Res	sponse	Percentage	
Availability of shampoo	37	30.83	
Affordability (Purchasing Power with respect to price		Portional.	
of the shampoo)	83	69.17	
Total	120	100	

# Primary Data

Researcher identified only two factors which can lead to purchase decision. There may be other factors also. Affordability with low price is the highest factor which can generate sales for a particular brand of shampoo followed by availability which is almost half than the responses recorded for affordability.

#### CONCLUSION

Rural market has great potential for selling not only shampoos but other brand of FMCGs too. FMCG companies are targeting untapped rural markets keeping in mind the prosperity and potential of rural markets. In the present study on shampoos it was revealed that television functions as the major source of information in a selected rural area. Chik shampoo stands first with low price, small size, sachet and affordability as the topmost factor in rural areas to boost sales of different brands of shampoos. The study also focused on changing rural behavior with regard to FMCGs depending on availability of the product, low price and small packs.

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# IMPACT OF ORGANIZED RETAIL ON CONSUMERS

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#### Abstract

The retail business, in India, is estimated to grow at 13 per cent per annum from US\$ 322 billion in 2006-07 to US\$ 590 billion in 2011-12. The unorganized retail sector is expected to grow at about 10 per cent per annum from US\$ 309 billion 2006-07 to US\$ 496 billion in 2011-12. Organized retail which now constitutes a small four per cent of retail sector in 2006-07 is likely to grow at 45-50 per cent per annum and quadruple its share of total retail trade to 16 per cent by 2011-12. The study, based on survey of all segments of the economy that could be affected by the entry of large corporates in the retail business, has found that unorganized retailers in the vicinity of organized retailers experienced a decline in sales and profit in the initial years of the entry of organized retailers. The adverse impact, however, weakens over time. The study has indicated how consumers benefit from organized retailers. The results are indicative of the mega-and-mini- metro cities around a limited number of organized retail outlets. Based on the results of the surveys, the study has made a number of specific policy recommendations for regulating the interaction of large retailers with small suppliers and for strengthening the competitive response of the unorganized retailers.

The retail sector is expanding and modernizing rapidly in line with India's economic growth. It offers significant employment opportunities in all urban areas. This study, on the retail industry, attempts to rigorously analyse the impact of organized retailing on different segments of the economy. No distinction has been made between foreign and domestic players, in analyzing the impact of the increasing trend of large corporates entering the retail trade in the country. The findings of this study are based on the largest ever survey of unorganized retailers (the so-called "mom and pop stores"), consumers, farmers, intermediaries, manufacturers, and organized retailers. In addition, an extensive review of international experience, particularly of emerging countries of relevance to India, has also been carried out as part of the study.

The study estimates that the total retail business in

India will grow at 13 per cent annually from US\$ 322 billion in 2006-07 to US\$ 590 billion in 2011-12. The unorganized retail sector is expected to grow at approximately 10 per cent per annum with sales rising from US\$ 309 billion in 2006-07 to US\$ 496 billion. Organized retail, which constituted a low four per cent of total retail in 2006-07, is estimated to grow at 45-50 per cent per annum and attain a 16 per cent share of total retail by 2011-12. In short, both unorganized and organized retail are bound not only to coexist but also achieve rapid and sustained growth in the coming years. This is clearly not a case of a zero sum game as both organized and unorganized retail will see a massive scaling up of their activities. In fact, the retail sector, left entirely in the unorganized and informal segment of the economy, could well emerge as a major bottleneck to rising productivity in both agriculture and industry. One of the rather surprising findings of the study is

that low-income consumers save more than others through shopping at organized retail outlets. This is a result of targeted discount shopping. It is also seen that farmers gain considerably from direct sales to organized retailers, with significant price and profit advantages as compared with selling either to intermediaries or to government regulated markets. Large manufacturers have also started feeling the competitive impact of organized retail through both price and payment pressures. Yet, they see the advantages from a more efficient supply chain and logistics that accompany the growth of organized retail.

#### **Retail Summary**

The real GDP is expected to grow at 8-10 per cent per annum in the next five years. As a result, the consuming class with annual household incomes above Rs. 90,000 is expected to rise from about 370 million in 2006-07 to 620 million in 2011-12. Consequently, the retail business in India is estimated to grow at 13 per cent annually from US\$ 322 billion in 2006-07 to US\$ 590 billion in 2011-12.

#### Overview

India has 12 million retail outlets. The retail sector is the second largest source of employment and the job market is hugely receptive to retailing expertise as more and more B-schools are now focusing on the sector and large retailers are setting up retail academies. It is estimated to create 50,000 jobs a year in the next five years. The retail market in India is estimated at Rs.5,88,000 crore. Out off this the unorganized market is worth Rs.5,83,000 crore and the organized market is Rs.5,000 crore.

#### The study shows:

- The unorganized retail sector is expected to grow at about 10 per cent per annum with sales rising from US\$ 309 billion in 2006-07 to US\$ 496 billion in 2011-12.
- Given the relatively weak financial state of unorganized retailers, and the physical space constraints on their expansion prospects, this

- sector alone will not be able to meet the growing demand for retail.
- Hence, organized retail which now constitutes a small four per cent of total retail sector is likely to grow at a much faster pace of 45-50 per cent per annum and quadruple its share in total retail trade to 16 per cent by 2011-12.
- This represents a positive sum game in which both unorganized and organized retail not only coexist, but also grow substantially in size.
- The majority of unorganized retailers surveyed in this study, indicated their preference to continue in the business and compete rather than exit.

#### Transition from traditional to modern retailing

- With a share of over 95 per cent of total retail revenues, traditional retailing continues to be the backbone of the Indian retail industry.
- Over 12 million small and medium retail outlets exist in India, the highest in any country.
- Traditional retail is highly pronounced in small towns and cities, with a primary presence of neighbourhood 'kirana' stores, push-cart vendors, 'melas' and 'mandis'.
- Organised retailing is growing at an aggressive pace in urban India, fuelled by burgeoning economic activity.
- An increasing number of domestic and international players are setting up base in the country and expanding their business to tap this growing segment.

#### Growth across segments

- The food and beverages segment accounts for the largest share, at more than 70 per cent of the total retail pie.
- Traditional retail dominates food, grocery and the allied products sector, with grocery and staples largely sourced from 'kirana' stores and push cart vendors.
- The apparel and consumer durable verticals are the fastest-growing verticals.
- Mobile phones, supported by the growing telecom penetration in small towns and villages,

are a major retail item with the addition of 10 million to 12 million mobile phone users every month.

- The home décor sector is witnessing rapid growth with the reducing average age of Indians buying homes.
- Beauty care, home décor, books, music and gift segments are gaining traction, predominantly in the urban areas and emerging cities.

#### **Future outlook**

- Retail sector revenues are pegged to touch US\$ 460.6 billion by 2010–11.
- Organised retail is projected to grow to US\$ 41 billion by 2012–13.
- Modern retail is expected to adapt and imbibe from traditional formats.
- Unorganised retail formats are converging and combining in formats such as mushrooming village malls.
- Large Indian retail players have already begun formulating strategies for the rural retail space.
- The food and beverages (F and B) sector is expected to touch the US\$ 116 billion mark by the end of 2008–09.
- Two-thirds of India's population is under 35 years of age and more than 60 per cent of the population will be in the working age group (15 to 60 years)until the year 2050.
- The median age of 23 years, opposed to the world median age of 33, sets the emerging young India apart.
- India is home to about 20 per cent of the global population under 25 years of age.

#### The Empirical Basis

The study comprises the survey of consumer segments of the economy that could be affected by the entry of large corporates in the retail business. The findings are based on a survey of 255 consumers shopping at both organized and unorganized retail outlets. The purpose of the survey of consumers is to understand the behaviour of and benefits to consumers in shopping at organized vs. unorganized retail outlets. Exit interviews were

conducted with 255 consumers who shopped at 101 organized outlets in Jaipur city and an equal number of consumers who shopped at 101 unorganized outlets in the same city. After dropping the outliers, the sample has 235 customers at organized outlets and 232 at unorganized outlets.

#### **Consumer Survey Results**

a) Income Levels of Shoppers

As expected, consumers shopping at organized outlets have higher income levels than consumers shopping at unorganized outlets. However, the middle class including the aspirers (covering monthly household income between Rs.10,000 to Rs. 1,00,000) which is the mainstay for retail, shop at both organized and unorganized outlets (Table 1).

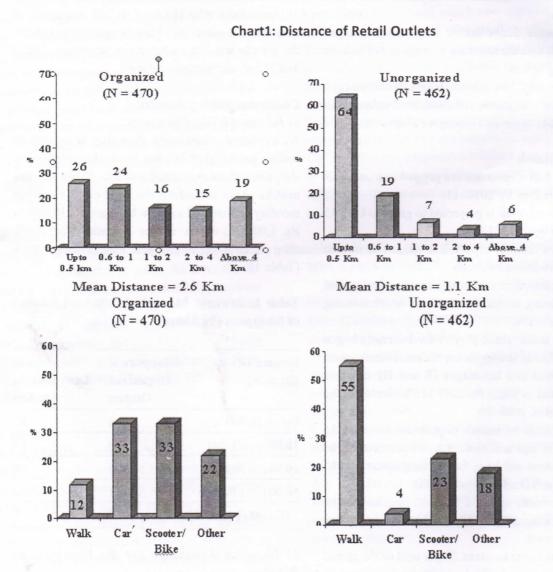
Table 1: Average Monthly Household Income of Shoppers (% Share)

Income Group (Rupees)	Shoppers at Organized Outlets	Shoppers at Unorganized Outlets	
Up to 10,000	6	27	
10,001 - 20,000	36	54	
20,001 - 50,000	45	16	
50,001 - 1,00,000	11	2	
1,00,000 -10,00,000	2	1	

# b) Location Advantage for the Unorganized Retailers

Location is a comparative advantage for unorganized retailers as the mean distance to the residence for consumers at unorganized outlets is 1.1 km compared to 2.6 km for consumers at organized outlets (Chart 1). As expected, a majority of consumers walk to traditional retailers, while most of the consumers use own vehicle to reach organized outlets (Chart 2).

#### **Chart1: Distance of Retail Outlets**



#### c) Preference for Organized vs Unorganized Retailers

Those who shopped at organized outlets reported the main reasons as better product quality, lower price, one-stop shopping, choice of more brands and products, family shopping, fresh stocks, etc. Those who shopped at unorganized outlets attributed it to proximity to residence, goodwill, credit availability, possibility of bargaining, choice of loose items, convenient timings, home delivery, etc.

The survey also revealed the fact that shoppers do not shop exclusively at the organized or the unorganized outlets. They shop at both outlets and the share of spending varies from product to product. Even those who were interviewed at organized outlets, declared that 43-46 per cent of their spending on vegetables, fruit, non-staple food items, cooking oil and other packaged food items was from unorganized outlets (Table 2). On the whole, the sample shoppers at organized outlets

make a 30 per cent of their spending on food and grocery, and textiles and clothing at unorganized outlets.

Similarly, consumers interviewed at unorganized outlets also spend at organized outlets; on an average, 39 per cent of their monthly shopping is done at organized outlets. This is relatively higher for toiletries (59 per cent), household cleaning products (45 per cent), readymade garments (45 per cent), and cooking oil (41 per cent).

Table 2: Share of Average Monthly Spending by Product Category of Consumers at Organized/ Unorganized Outlets (% Share)

	Consumers at Or	rganized Outlet	Consumers at Unorganised outlet		
Marrie Commen	Spending at organized outlets	Spending at unorganized outlets	Spending at organized outlets	Spending at unorganized outlets	
Staples	66	34	31	69	
Other food items	59	41	34	66	
Cooking oil	54	46	41	59	
Other packaged foods	55	45	38	62	
Toiletries	63	37	59	41	
Household	9-81-9-90			NELVOLOI - DONTE	
cleaning products	54	46	45	55	
Fruit	56	44	36	64	
Vegetables	57	43	35	65	
Readymade garments	62	38	45	55	
Total	70	30	39	61	

The consumers at organized outlets were asked whether their overall spending on food and grocery, and textiles and clothing has increased, decreased, or remained the same after they started shopping from organized outlets. While 32 per cent of sampled consumers declared an increase in spending, 21 per cent indicated a decrease and the balance no change. Thus the arrival of organized retail has enhanced spending in general. The reasons indicated for higher spending have been mainly the purchase of larger quantities due to wider range of products, availability of attractive offers like discounts and promotional schemes, and access to better quality products with higher prices.

#### d) Savings from Organized Outlets

Do the shoppers who buy at organized outlets save money? Yes, they save but the degree of saving depends upon the type of modern formats. The sampled consumers at organized outlets reported an overall saving of 4 per cent, and the saving is higher at 8 per cent at discount stores and supermarkets, and a low of 2 per cent at hypermarkets and hardly one per cent at departmental stores (textiles and clothing outlets). The study has shown that small spenders save more from shopping at organized outlets (Table 3).

Table 3: Savings from Buying at Organized Outlets by Format (as % of Spending)

Spending at Sampled Visit	Discount	Super- market	Hyper- market	Depart- Mental Store	Overall
Up to 250	12	10	6	0	10
251 – 500	9	6	6	2	6
501 – 1000	7	9	6	4	7
1001 – 2000	7	10	3	2	6
2001 – 5000	5	4	0	1	1
Above 5000	0	0	2	0	0.4
Overall	8	8	2	1	4

Table 4 shows that it is really the low-income households who save more at organized outlets.

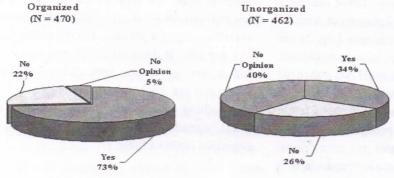
Table 4: Savings from Buying at Organized Outlets by Format (as % of Spending)

Monthly Household Income	Discount	Super- market	Hyper- market	Depart- Mental	Overall
Up to 10,000	17	10	-	Store	10
	17		0	0	10
10,001 – 20,000	7	10	4	4	7
20,001 - 50,000	7	6	2	1	3
50,001 - 1,00,000	7	3	1	1	2
1,00,000 -10,00,000	0	7	0	0	1
Overall	8	8	2	1	4

#### e) Consumers' View on Opening of More Organized Outlets

Finally, consumers were asked about their opinion about opening of more organized outlets. Among the shoppers at organized outlets, 73 per cent wanted more organized outlets whereas only 34 per cent of shoppers at unorganized outlets preferred to have more organized outlets. Among both shoppers, a quarter did not want any more organized outlets (Chart 2).

Chart 2: Attitude towards Opening of More Organized Outlet



Consumer Survey at Unorganized Fruit and Vegetable Outlets

The above consumer survey did not include consumers who are shopping at pure fruit and vegetable shops located in fixed market areas or the push-cart hawkers selling fruit and vegetables. Separate exit interviews were conducted for a total of 308 consumers shopping at these outlets. The findings of this survey are given below.

#### a) Income Levels of Consumers

About 52 per cent of the sampled shoppers at fixed and push-cart fruit and vegetable vendors are the low-income households (monthly income up to Rs. 10,000). Within the sample, it is observed that about 37 per cent (114 numbers) of consumers shop also from organized retail outlets and the majority (63 per cent) shop exclusively from unorganized outlets. If we consider the part of shoppers who

exclusively shop from these outlets, 66 per cent of them belong to the low-income group (Table 5). Among those who also shop from organized outlets for fruit and vegetables, the majority (71 per cent) belongs to the middle-income category (monthly household income from Rs. 10,000 to Rs. 1,00,000).

### b) Attractiveness of Shopping from Fruit and Vegetable Vendors

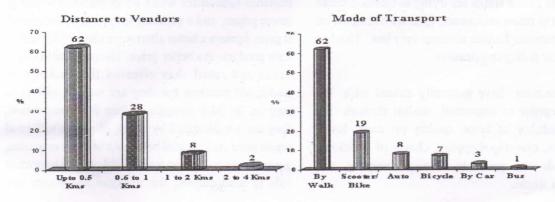
Proximity comes out clearly as the major advantage of the traditional fruit and vegetable shops and hawkers with their mean distance for consumers at just one km (Chart 3). A majority of consumers walk to these outlets (62 per cent), some travel by scooter or motor cycle (19 per cent). These results are similar to what was evident in the case of consumers shopping at neighbourhood kirana shops.

Table 5: Average Monthly Household Income of Consumers at Unorganized Fruit & Vegetable Outlets (% Share)

Income Group	Total	Consumers Buying also from Organized Outlets (N = 114)	Consumers Buying only from Unorganized Outlets (N = 194)
Up to 10,000	52	28	66
10,001 - 20,000	32	43	25
20,001 - 50,000	14	24	8
50,001 - 1,00,000	1	4	1
1,00,000 -10,00,000	1	1	0

Chart 3: Distance and Mode of Transport to Unorganized Retail Vendors

Chart 3: Distance and Mode of Transport to Unorganized Retail Vendors



Besides closeness to residence, the survey has highlighted the other attractive features of shopping from these retail outlets as:- possibility of bargaining, freshness of products, better quality, lower price, choice of varieties, credit availability, convenient timings, etc.

#### Main Findings of the Study

- Retail trade is expected to grow at 13 per cent per annum during 2007-12. Its value will then be about US\$ 590 billion in 2011-12. With this expected increase it is inconceivable that the rising demand would be effectively met by the unorganized sector. As in other countries, this provides the basis for the expansion of organized retail.
- The international experience shows that in nearly all emerging economies, governments have taken policy measures to improve the operating conditions for unorganized retail.
- Unorganized retailers in the vicinity of organized retailers have been adversely affected in terms of their volume of business and profit. Unorganized retail has maintained employment levels perhaps as a result of competitive response.
- The major factors that attract unorganized retailers to consumers are proximity, goodwill, credit sales, bargaining, loose items, convenient timings, and home delivery.
- While kirana stores are trying to increase credit sales to retain customers, their own reliance on institutional finance remains very low. This has a clear policy implication.
- Consumers have generally gained with the emergence of organized outlets through the availability of better quality products, lower prices, one-stop shopping, choice of additional brands and products, family shopping, and fresh stocks.

 Lower income consumers have saved more from purchases at organized outlets.

These results are not indicative of the countrywide scenario, but only of mega-and mini-metro cities around a limited number of organized retail outlets. The results of the control-sample survey conducted for the study indicate that traditional retailers are not affected adversely even in these cities, away from organized outlets. For the country as a whole, unorganized retail is growing at a reasonable rate and will continue to do so for many years to come. Yet it is clear that the growth in demand for retail business is likely to exceed any possible supply response coming exclusively from the unorganized retailers.

#### A Balanced Approach to Retail

India is at the crossroads with regard to the retail sector. Several emerging market economies have gone ahead and reaped the benefits of modern retail. India is however a latecomer to organized retail expansion and the picture still remains unclear as to its future direction. The study advocates a balanced approach to retail and suggests that the government plays a major role in shaping its future course.

There is no doubt that traditional retail has been performing a vital function in the economy and is a significant source of employment. However, it suffers from huge inefficiencies as a result of which consumers do not get what they want, and farmers often get prices for their produce much below what is considered fair. In contrast, organized retail provides consumers with a wider choice of products, lower prices, and a pleasant shopping environment. It gives farmers a better alternative channel for selling their products at a better price. The competition from organized retail has effected the business of traditional retailers but they are making efforts to stay on. In their struggle to face this competition, they are handicapped by a lack of access to formal credit from commercial banks. As in other countries, government policy can and should play an important role in modernizing the unorganized sector and improve its competitiveness. On the other hand, a policy of protection of traditional retailers by restricting organized retail will harm the growth prospects of the country by foregoing the enormous benefits that are generated by organized retail.

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### HUMAN RESOURCE ACCOUNTING: CHALLENGES AND IMPLICATIONS FOR MEASUREMENT

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#### Abstract

'Human Resource Accounting' (HRA) is one of the latest concepts adopted by Indian companies in recent times. Success of commercial undertakings purely depends upon the quality of human resources. It has been noticed that the human element is the most important input in any corporate enterprise. The investments directed to raise knowledge; skills and aptitude of the workforce of the organization are the investments in human resources. In this context, it is worthwhile to examine the Human Resource Accounting practices in corporate sector in India. Human Resource Accounting is of recent origin here and is struggling for acceptance.

Basically, the concept of HRA can be observed from two facets:

- 1. The investment in human resources
- 2. The value of human resources

The expenditure incurred for recruitment, selection, placement, training and development on human resources is known as investment in human resources, which results in the generation of higher income and higher productivity for the organisation. This increased income and productivity due to investment in human resources is known as value of human resources.

But present accounting system overlooks the importance of 'Human Resource Value' because managers lack information about the effectiveness and efficiency of 'Human Resource Investment'. Human resource accounting also known as 'Human Asset Accounting' is a method by which the cost is assigned to every employee when recruited and the value that the employee would generate in the future. Human Resource Accounting reflects the potential of the Human Resource of an organization in monetary terms, in its financial statements.

The need of the hour is to shift the importance of capital from financial capital to intellectual capital as human capital is hard to imitate and cannot be duplicated in a short time. My paper will focus on the role of Human resource accounting through different approaches.

#### Introduction

Everyone agrees that the only real long lasting asset which an organisation, nay, any society or nation, possesses is the quality and calibre of the people working in it. Human Resources play the most important part in every organisation as it helps in achieving the organisational goals and objectives. Without human resources, the other resources cannot be operationally effective, as physical and monetary resources by themselves cannot contribute to an increased rate of return on investment. The original health of the organization is indicated by the human behaviour variables, like group loyalty, skill, motivation and capacity for effective interaction, communication and decision making. It is, however, unfortunate that so far there is no agreed and generally accepted method of putting a value on this vital asset and showing it as a part of financial statements. However, work has been done in the western countries to develop a suitable method but a validated method of Human resource accounting is still not available in the Indian context.

According to recent reports on "Generally Accepted Accounting Principles" (GAAP), with the emergence of service based economies, complex methods of measurement are being adopted as opposed to 'Traditional Historical Cost Approach' methods of asset measurement.

The American Accounting Association defines HRA as, "the process of identifying and measuring data about human resources and communicating this information to interested parties". In other words, Human Resource Accounting means measuring of costs incurred for recruitment, selection, placement, training and development of the employees as well as the quantification of their economic value in the organisation.

Basically, the concept of HRA can be observed from two facets:

- The investment in human resources
- 2. The value of human resources

The expenditure incurred for recruitment, selection, placement, training and development on human resources is known as investment in human resources, which results in the generation of higher income and higher productivity for the organisation. This increased income and productivity due to investment in human resources is known as value of human resources.

The US Financial Accounting Standard Board (FASB), in 'Exposure Draft on Business Combinations and Intangibles' mentions Human Resources as, "broad-based intangibles – workforce-based assets, i.e., intangible assets that relate to the value of the established employees or workforce of a company."

It summarizes as:

1. Skilled and Trained Workforce

- 2. Monetary and Non-monetary Incentives
- 3. Training and Development Programs
- Relationships among Employees and Management

#### Objectives of the Study

- 1. To get acquainted with the concept of HRA.
- 2. To know the reasons for its gaining importance in recent times.
- 3. To study the methods of measurement of HR.

### Historical Development of Human Resource Accounting

The first research in Human Resource Accounting was conducted by Renis Likert, founder of the University of Michigan Institute of Social Research during 1960s. Many works and researches have been conducted by various thinkers, scholars and economists in the field of HRA but the development of HRA is meticulously and precisely divided into five stages by Eric G. Flamholtz. The stages are explained as under:

First Stage: The first stage marked the period of 1961-66. During this period, many thinkers/scholars took interest in Human Resource Accounting and they primarily focused on deriving the concepts of HRA from other theories like 'emerging concepts of personnel relations', 'measurement of corporate goodwill', etc.

Second Stage: The second stage marked the period of 1966-71. During this period, different models were developed containing monetary and non-monetary value of human resources to validate HRA. This period aimed at development of such tools and methodology which further helped in assessment of value of human resources in realistic manner.

Third Stage: The third stage marked the period of 1971-76. This period lead to the new findings in the field of HRA. It mainly focused on the subject matter of appliance of HRA in corporate sector. Significant contributions were made by R.G.Barry through his various experiments during this stage.

**Fourth Stage:** The fourth stage marked the period of 1976-80. This period had shown a lack of interest in the area of HRA because it required deeper pragmatic research on complex issues to validate HRA as a branch of accounting, which in turn, required a lot of financial resources on research work. Though the idea of HRA appeared interesting but it lacked support of investing time and energy on research.

Fifth Stage: The fifth stage marks the period of 1980s onwards. The interest in the field of HRA restored with the emergence of amenities (service) based industries. Since the existence, development and profits of the organisation were determined by the value of human resources of the business organisation rather than on the physical assets, like plant, machinery, building, land, etc., the need of having more suitable methods of measurement of costs, investment and value of human resources was felt.

This resulted in greater application of HRA in business organisation, development of different models containing both tangible and intangible aspects and use of HRA as a part of financial accounting practices by various companies.

Today, strategic importance has been given to the quantification of human resource capital with the increasing demand of transparent accounting system in the corporate protocol.

# HUMAN RESOURCE ACCOUNTING IN INDIAN CONTEXT

Human Resource Accounting has not yet been established as a method of valuing human resources in India but many public as well as private companies have adopted HRA. The Institute of Chartered Accountant of India has not yet given any absolute paradigm in the valuation of human resources. As far as the statutory requirements are concerned, the Companies Act, 1956, has also not made it mandatory to disclose the human assets in the financial statements of the companies. But recognizing the value of human resources and the advantages derived from recording

human assets, many companies voluntarily furnishes the relevant information in their books of accounts or annual reports. In India, such companies are: Infosys, Bharat Heavy Electricals Ltd. (BHEL), the Southern Petrochemicals Industries Corporation of India (SPIC), the Hindustan Zinc Ltd., the Steel Authority of India Ltd. (SAIL), the Associated Cement Companies Ltd., the Minerals and Metals Trading Corporation of India Ltd. (MMTC), etc.

An Infosys Employee sitting in Bangalore providing service to a US Client may be happy earning Rs. 5 Lakhs p.a. but he rarely comes to know that his value has been estimated by the company at a whopping Rs. 1.03 Crore. And these figures are not mere predictions by some analysts; these are the official figures which have been released by Infosys.

Infosys while officially releasing these figures said that the management believes that a company's annual report only shows the financial parameters. It only looks at the tangible assets but the major strength of Infosys is not its tangible assets but its intangible assets which mainly comprise of its employee base and that is why Infosys lays huge relevance on Human Resource Accounting.

This value is computed and evaluated on the basis of 'Present Value of Future Earnings of Employees' and a few other factors like the age of the employee, future economic conditions etc. This value has been computed for the purpose of Human Resource Accounting and helps a Company to be valued at its true potential.

In India, Human Resource reporting generally consists of record of human assets, their remuneration pattern, training and development, their value, productivity and total wealth of the company.

#### MAJOR ISSUES AND CHALLENGES OF HUMAN RESOURCE ACCOUNTING

The major issues and challenges faced by human resource accounting are as follows:

1. An acceptable model for the purpose of valuation of human resources has not evolved

- yet as different firms may be using different methods.
- Installing a human resource accounting package involves heavy costs and is an expensive process, therefore, it is not suitable to small business units.
- 3. The concept of HRA is of theoretical use only as it is not acknowledged by tax authorities.
- 4. The physical assets can be owned, sold and purchased by an organisation but human resources can only be employed and utilized.
- 5. The physical assets are at its highest at the time of its purchase and may have some scrap value at the end of its life but human resources do not have. At the time of recruitment of human resources, their value is at its minimum and it increases slowly and gradually and at its highest at the time of their retirement. The company has to make payments even after retirement such as gratuity, pension, PF, etc.
- HRA has a subjective approach which makes it less reliable for the procedure of selection as various factors are to be considered to fulfil specific objectives of the organisation.
- Very little information with no empirical evidence is available regarding HRA as a tool which facilitates better and effective management of human resources.
- 8. The idea of HRA may not get favourable response from employees and trade unions because HRA may create division among the employees. Human resources when converted into mere Human Resource Data could have a devastating effect on the attitudes of employees.
- Methods of amortization of human assets have not yet been developed.
- 10. Human Assets does not come in the traditional definition of an asset, therefore, it is always criticized and argued that HRA lacks symmetry with traditional resources as traditional methods were considered to be free from any bias.

### ROLE OF HUMAN RESOURCE ACCOUNTING

The role of Human Resource Accounting in an

organisation is as follows:

- It helps in the process of decision making about acquiring, allocating, developing and maintaining human resources so as to attain cost effectiveness.
- It provides comprehensive and accurate information about an organisation's total worth to the investors.
- 3. It allows the management to examine and control the use of human resources.
- Measurement of human resources helps in assessing the value of human assets, whether they should be appreciated, depreciated or conserved.
- 5. HRA helps in assessing whether acquiring, developing, and utilizing and rewarding of human resources is adding value to the organisation or increasing unnecessary costs.
- 6. It helps to improve human resource management.
- It provides information regarding the returns on investment in training and development of human resources.
- 8. It helps to retain qualified workforce.

### ROLE OF HRA IN INFORMATION TECHNOLOGY INDUSTRY

In the information technology (IT) industry, if we examine the issues relating to the human resources of an organization, we will find that if people hold the key to prosperity anywhere, it is more so in the IT industry which employs knowledge workers. Here, human capital (resources) is not merely one component of capital, it is the critical component that forms the basis for other forms of capital. People with their expertise are the sole creators of value to the customer and people through their effort are the key to the optimization of its process efficiency.

Perhaps the natural corollary to this is the high attrition rate in the IT industry. So IT organizations have a critical need to know the value they would forego when they are about to lose a person. This knowledge is important in taking appropriate action,

in making counter-offers, in keeping up a constant preventive effort to hone the compensation structure. All these should always be in line with the value being provided by the employees.

# APPROACHES TO HUMAN RESOURCE ACCOUNTING

Allocation of monetary values to different aspects of human resource costs and investments are the major challenge in Human Resource Accounting. A number of approaches or models have been promulgated for the quantification or measurement of human resources. These approaches are explained below:

- 1. Cost Approach
- 2. Value Approach

#### Methods of Measurement of Human Resources

Before suggesting an approach to HR valuation, let us look into the various methods available for HR valuation:

#### **Cost Approach**

Cost is the foregone monetary value to earn some anticipated profit. Costs can be classified into two:
(a) costs as expense and (b) costs as expenditure. Costs as expense is of revenue nature and the benefit is derived within one accounting year whereas costs as expenditure is the investment on capital assets and the benefit is likely to rise with the number of years. From the perspective of valuation of human resources, the cost would comprise:

- 1. Amount spent on the processes till selection and placement.
- Amount spent on formal training imparted to the selected employee.
- Amount spent on informal training, loss due to mistakes committed by the new employees and time taken by them to reach the normal level of efficiency.

Thus, the Human Resource Cost Approach may be defined as the measurement of costs incurred to obtain and foster people as organisational resources. There are various methods to measure cost under

Cost approach and are explained as:

#### Acquisition Costs

This represents the traditional or original cost of human resources and includes costs incurred on acquisition, training and developing human resources, which is capitalised and written off against profits of the year over the expected life of the employees in the organisation. In case, the employee leaves the organisation before the anticipated period of his tenure in the organisation then the unamortised value of the cost will be charged in profit and loss account of that year only. Under this method, determination of training costs is difficult in case of in-house training, because expenses related to dedication of trainers, space occupied for training, staff welfare expenses, general expenses, etc. are not quantifiable.

#### Substitution Costs

Substitution costs are explained through an extreme situation by Likert. According to Likert, "Suppose that tomorrow all the jobs are empty, but you still have available all the rest of the resources: buildings, factories, industrial plants, patents, stock, money, and so on, except, of course, for the personnel. How much time would it take you to recruit the necessary personnel, train it until they are able to assume all the existing functions at the present competitive level and integrate it in the organisation in the same way they now are?" This extreme situation has drawn the attention of thinkers, researchers to valuation of human resources. This implies putting of human resource valuation under substitution cost criteria. To calculate the substitution cost, business organisation has to consider the replacement cost of an employee, which includes costs of the leaving employee and recruiting and training of new employee.

#### Opportunity Costs

Hekimian and Jones considered opportunity costs as, "an asset value when [they are] the target of an alternative use". In other words, if the financial resources spent on human resources would have been

invested on physical assets or something else, then what would have been the returns, are calculated under opportunity costs method. The use of this method is restricted to internal usage and not used for external reporting.

#### Replacement Costs

It is the replacement value of existing employees of the organisation. Replacement costs have two aspects: (a) Positional Replacement Costs, which refer to the sacrifice that would have to be incurred if a person presently working in a specified position were to be replaced today with a substitute capable of providing an equivalent set of services in that given position. Positional replacement costs comprises of (i) acquisition and learning costs and (ii) separation costs. (b) Personal Replacement Costs, which refers to the sacrifice to be incurred to replace a person today with a substitute capable of providing an equivalent set of services in all the positions that the former might occupy.

Generally, replacement cost has the reference only to the replacement of people in relation to specified positions (positional replacement) rather than with reference to the replacement of persons (personal replacement).

#### Value Approach

The economic value of an object is the present value of future earnings. Similarly, the economic value of a firm is expected future earnings that the firm is likely to earn with the services rendered by its existing employees. A number of valuation models have been developed and these models, for the valuation of human resources, can be classified into two: (a) monetary and (b) non-monetary methods.

#### **Monetary Measures**

Assignment of monetary values to different dimensions of HR costs, investments and the worth of employees are known as monetary measures. Different monetary measures (models) by various researchers are explained below:

#### Flamholtz's Model

According to Flamholtz, "the value of an individual is the present worth of the services that he is likely to render to the organisation in future". Accordingly, the present value of an individual is the cumulative value of all the possible services that may be rendered by him during his total tenure or association with the organisation. It is not only difficult to determine the present value of an individual but it is uncertain also, as it largely depends on two aspects: (a) Expected conditional value of an individual, which further depends upon the productivity, transferability and advancement (promotion) of an individual. Employees' skills and organizational determinants play a vital role in valuing an individual through expected conditional value approach. (b) Expected realizable value of an individual, refers to the probability that the individual will remain in the organisation during his entire working life. As human resources cannot be owned by the organisations, therefore it becomes necessary to ascertain the probability of their turnover.

Flamholtz's Stochastic Rewards Valuation Model "The Stochastic Rewards Valuation Model is a direct way of measuring a person's expected conditional value and expected realizable value". This model is based on the assumption that an individual will generate value in all the roles performed by him in the organisation. This model assumes that an individual will advance or move from one position to another within the organisation after completing a specified time period in one position. For this purpose, the information required to use this model is as follow:

- a) The value of each position to the organisation.
- b) Estimate of individual's expected tenancy in the organisation.
- c) Probability that an individual will not leave the organisation and will assume the positions at a specified time.
- d) It also assumes that ROI of the organisation is the result of the efforts of the employees and executives and not based on any external factors.
- e) The discount rate of future earnings.

The above model can emerge as the most sophisticated method of valuation of human resources, if the above information is made available and the assumptions are considered carefully. In favourable condition, an individual's expected conditional value and expected realizable value will be equal.

#### The Lev and Schwartz Model

Lev and Schwartz advocate the estimation of future earnings of an individual considering the remaining working life of the employees and arriving at the present value by discounting the estimated earnings from the firm's cost of capital. Future earnings can be calculated by using the following formula:

$$E(V_x) = \sum \frac{I(T)(t)}{(1+r)t-x}$$

Where,  $V_x$  = the human capital value of a person who is 'x' years old.

(t) = the person's expected future annual earnings up to retirement.

r = discount rate specific to the person.

T = retirement age.

Under this model, the present value of future payments to employees is calculated for the measurement of human resources, which includes pattern of remuneration, career growth and reward for efficiency. As the accepted and validated method of valuation is not available, therefore, the companies use this model by making necessary alterations according to their practical situation and requirements. For example, use of different discount

rates by different companies as the standard rate is not provided in Accounting Standards.

This method is very popular among Indian companies as it measures the value of employee's gain from the organisation rather than the employer's gain from the employee. It helps in studying the productivity pattern with the changes in payment patterns in an organisation. It was explained by Prabhakara Rao in 1993, that, "the value of human resources will be more or less increasing, even if the organisations continuously incur losses or decrease in profitability". The use of Lev and Schwartz Model by different companies in tabular form with its calculated value is given in Table 1 below.

Each model has its own negatives and positives when it comes to practical application. In an Indian context, the Lev and Schwartz model has an edge over the other models. Since the method has been widely adopted by Indian companies such as Infosys, DSQ Software Ltd., Satyam Computers, BHEL and SPIC, it enables the company to benchmark the performance and the efficiency of their human resources with others. The assumptions in this model are realistic and scientific. The method has practical applicability when availability of quantifiable and analysable data is concerned.

#### **Non-Monetary Measures**

It refers to the assessment of skills and capabilities of employees by using some behavioural measurement technique to know the benefits gained

1. Table showing the value of Human Resources by Lev and Schwartz Model:

	SAIL	To solve of	BHEL	ei omo s	MMTC	to the little
Years	Number	Value	Number	Value	Number	Value
1984-85	74464	1216	206414	9581	3638	96
1985-86	75915	1358	206198	9589	3760	121
1986-87	74918	1588	203292	10828	3830	140
1987-88	74813	1827	197296	12013	3862	158
1988-89	75116	2183	194872	12725	3825	174
1989-90	74436	2673	193223	15790	3825	196

Note: Adapted from Prabhakar Rao (1993)

from the human resource of an organisation. They are judged on various indices or ratings and rankings. Different non-monetary measures are explained below:

#### Skills and Capability Inventory

This is the listing of qualification, experience and skills of all the employees of an organisation.

#### Performance Evaluation

This is based on the ratings and rankings. Ratings refers to the employee's performance when judged and compared by the set benchmarks whereas ranking is given by the superiors to their subordinates on one or more aspects, like, interpersonal skills, judgement of situation, intelligence, etc.

#### Traits Approach

An employee's ability for promotion and development and his competency is determined to assess his potential for a particular position in the organisation.

#### Attitude Measurement

Employee's attitude towards their job, package, working conditions, etc. is measured with the aim of ascertaining their satisfaction and dissatisfaction.

#### Suggested Approach

This approach is based on the assumption that most of the human beings are generally endowed with intelligence and same willpower to work. Now, if an organisation is claiming that it enjoys good and special human resources then it must prove the claims through actual performance. Here actual

performance means changes in output due to changes in input (human resources) only and not by any other external factor. If this results in increased ROI as compared to the results of previous years and also of other companies, then a value can be put on these extra or special human resources. This is known as Goodwill Approach.

#### Conclusion

In this era of globalisation and service based economies, human resources have taken the key position in the capital structure of the companies in place of physical assets; therefore, Human Resource Accounting will be able to provide a better and correct vision to the organisation. Though the concept of HRA has been appreciated by various thinkers, scholars, and accounting professors but it has not been institutionalized yet.

Keeping the financial objectives of the organisation in mind, three levels in the process of valuation of human resources must be considered: (a) individual level, (b) group level and (c) organisational level. Unfortunately, no model for HRA, to measure human resources at all the three levels, currently exists. Not only a valid and reliable model for measurement of human resources but an accounting standards in this regard must be developed, which should be helpful in decision making, free from subjective bias and quantifiable in accounting terms.

Hence, appropriate steps should be taken by the Government as well as Professional Bodies at national and international levels with regard to the formulation of specific accounting standard for HRA.

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### PERCEPTION OF INDIVIDUAL INVESTOR AND SELECTION CRITERIA OF SPECIFIC MUTUAL FUND: AN EMPIRICAL ANALYSIS

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#### Abstract

In the recent past, India has achieved tremendous growth potential with rising GDP and enhancement in standard of living on account of new economic reforms and resonance macroeconomic policy frame work. Incidentally, India is passing through the transitional phase of financial revolution. A major chunk of India's population consists of primarily, the middle class segment which has much saving potential. Hence, they have tremendous prospects to save and that could be utilized in the future investments in various financial avenues. The so-called traditional banking sector investment has undergone remarkable transformation to meet the challenges of saving propensity and potentialities of the consumers. The present generation wants to multiply their investment with higher returns by taking higher risks but in fact the state of mind of these retail investors are looking for avenues where risk is to be minimized and return is to be maximized. To find such a balanced avenue, mutual fund is regarded as one of the best and suitable propositions for investment in the current scenario. Mutual fund at present is considered to be a viable and feasible option for the retail investors in India because of its features such as diversification and risk minimization with reasonable return. Mutual fund industry will keep on growing in spite of competition and will drive in the right direction because of investor friendly financial markets.

#### Introduction

The economics of maximizing benefit and higher efficiency in allocating / reallocating resources is the cry of the globalised economy. Today, success is measured in terms of money and intelligence is measured in terms of application and multiplication of money. In the recent past, India has achieved tremendous growth potential with rising GDP and enhancement in standard of living on account of new economic reforms and resonance macroeconomic policy frame work. Incidentally, India is passing through the transitional phase of financial revolution. A major chunk of India's population, consists of primarily, the middle class segment which has much

saving potential. Hence, they have tremendous prospects to save and that could be utilized in the future investments in various financial avenues. The so-called traditional banking sector investment has undergone remarkable transformation to meet the challenges of saving propensity and potentialities of the consumers. The present generation wants to multiply their investment with higher returns by taking higher risks but in fact the state of mind of these retail investors are looking for avenues where risk is to be minimized and return is to be maximized. To find such a balanced avenue, mutual fund is regarded as one of the best and suitable proposition for investment in the current scenario. Mutual fund

at present is considered to be a viable and feasible option for the retail investors in India because of its features such as diversification and risk minimization with reasonable return. However, the decision to invest in a particular mutual fund is being affected by many factors. The decision of the individual investor differs from person to person and in every likelihood depends to a great extent upon the financial advisors and professionals and at times by personal beliefs and prejudices.

#### **Review of Literature**

According to Shanmugham (2000) investment decision taken by individual investor is influenced more by psychological and sociological factors, in contrast to economic considerations. Ippolito (1992) in his study found that past performance of the fund is not enough condition for fund selection rather it depends upon how the money flows into winning funds more rapidly than in the flow of losing of funds. Singh and Vanita (2002) have examined the investors' preferences and perception towards mutual fund investments. It was found that the investors' generally preferred to invest in public sector mutual funds with an investment objective of getting tax exemptions and stayed invested for a period of 3-5 years. The investors also evaluated the past performance. Lynch and Musto (2003) in their work opined that present decade and the anticipated future will belong to mutual funds only because the ordinary and general investor does not have the patience, time and understanding to take independent investment decisions on his own and need an institution to do so.

This study reveals that there are numerous factors that are responsible and contribute to the performance of a particular fund and its selection.

#### Significance of the study and Its objectives

The present work was conducted to find out the mechanism of individual investors' decision making and selection philosophy for mutual fund in India. Different determinants that effect individual investors' decision making for mutual fund selection

have been taken to analyze their relative importance and effectiveness. Further various other issues need to be addressed so as to understand an individual investors' decision for mutual fund selection.

#### Objectives of the Study

- To understand the perception and expectation of individual investor for selecting a particular mutual fund.
- To analyze the factors that influence selection of a particular fund.
- To comprehend the degrees and magnitude of each determinant that effects selection of a definite mutual fund.
- To assess and evaluate the different psychoeconomic decision-making processes of the individual investors.
- To understand the basic objectives behind preference of a definite fund among individual and retail investors.
- To analyze the impact of market dynamics on selection of mutual fund.
- To suggest the different measures and methodology to different retail investors in their decision making.

#### Methodology

The present empirical study is basically based on the primary data but secondary data has also been collected from various published and unpublished sources so as to supplement each other as per the requirements of the study.

#### Sample size

The survey was conducted on 100 respondents from different backgrounds belonging to Jaipur city in Rajasthan. To evaluate the dynamics and criteria of investing in selected mutual fund by retail investors, a primary survey was conducted based on selective questionnaire method. Data has been collected using a structured questionnaire having various attributes, to be rated on a five point likert scale (1-Unimportant, 5-Important).

The parameters which are used to measure the

dynamics and determinants of investing in selected mutual fund by retail investors are:

- 1. Past performance
- 2. Diversification of Investment of the fund
- Financial objectives and goals of the individual investor
- 4. Efficient fund Manager
- 5. Information sharing
- 6. Product quality
- 7. AMC and its brand
- 8. Service provisions and disclosures
- 9. Income vs. Growth scheme preferences
- 10. Entry and exit load
- 11. Time horizon Short term and long term
- 12. Financial advisors and professionals
- 13. Personal beliefs and risk taking capacity

#### **Factor Analysis**

Factor analysis is a class of procedures primarily used for data reduction and summarization. In factor analysis, relationships among sets of many interrelated variables are examined and represented in terms of a few underlying factors. Using the data from a large scale source, factor analysis applies an advanced form of correlation analysis to the responses which later on are converted to a number of statements. The purpose of this analysis is to determine if the responses to several of the statement are highly correlative or not and verify the validation empirically.

The following tables and data interpretation is a part of field work which is generated by factor analysis method.

#### **Descriptive Statistics**

The descriptive statistics of all the 13 variables are calculated using SPSS where mean and standard deviation of each and every variable is calculated. It is found from the table that the respondents do agree with the significant impact of only four variables on investment decision on individual investors.

	Statistics												
K-2	1	2	3	4	5	6	7	8	9	10	11	12	13
N Valid	100	100	100	100	100	100	100	100	100	100	100	100	100
Mean	3.72	4.08	3.08	4.32	2.88	4.24	4.16	3.56	2.68	2.88	2.48	3.60	2.40
Std. Deviation	1.045	.692	1.061	.680	.956	.818	.368	1.028	.886	.998	.858	.899	.752
Skewness	496	854	.045	-1.28	.245	-1.37	1.883	620	.680	.245	1.236	817	1.51
Kurtosis	909	1.735	972	3.187	-1.88	2.059	1.578	983	-1.38	-1.98	482	390	.524
Range	3	3	4	3	2	3	1	3	2	2	2	3	2

#### **KMO** and Bartlett's Test

KMO and Bartlett's Test is one of the instrument for measuring the appropriateness of data and sampling adequacy of the data that is being used in the factor analysis.

#### **KMO** and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.653	
Bartlett's Test of Sphericity	Approx. Chi-Square	0.653
	df	78
	Sig.	.000

#### Interpretation

Kaiser (1974) recommends accepting values greater than 0.5 as acceptable. Our KMO value is 0.653 hence, and the quality of data is mediocre and so we should be confident that the data collected is acceptable and will yield good results, making factor analysis appropriate for the data.

Bartlett's Test of Sphericity tests the hypothesis that the original correlation matrix is an identity matrix.

#### Interpretation

Hence our finding reveals that the value of significance is 0.000 (p<.001) indicating that Bartlett's Test is highly significant and therefore factor analysis is appropriate.

#### Communalities

Communalities indicate the amount of variance given, explained by all factor variable that are accounted for. The communalities in the column labeled initial reflect that the common variance is 1 in the data structure 'Before Extraction'. 'After Extraction' reflects common variance in the data structure.

#### Interpretation

So we can interpret that 88.4 %, 79.3% and 79.2 % of the variance associated with scheme preferences, AMC & its brand and time horizon respectively.

#### Communalities

	Initial	Extraction
Past performance	1.000	.672
Diversification	1.000	.543
Objectives and goal	1.000	.642
Efficient Fund Manager	1.000	.742
Information sharing	1.000	.709
Product quality	1.000	.752
AMC and its brand	1.000	.793
Service and disclosures	1.000	.751
Scheme preferences	1.000	.884
Entry and Exit load	1.000	.586
Time horizon	1.000	.792
Financial advisors	1.000	.709
Personal beliefs	1.000	.758

Extraction Method: Principal component analysis.

#### **Total Variance Explained**

This lists the Eigen values associated with each linear component and the factor before extraction, after extraction and after rotation. SPSS has identified 13 linear components in the data set. The Eigen values associated with each factor represents the amount of variance explained by that particular linear component and SPSS also displays the Eigen values in terms of percentage if variance is explained. So, Component-1 explains 20.15% of the total variance. SPSS then extracts all the factors with the Eigen value greater than 1 and leaves us with 5 factors. The Eigen values associated with these factors are again displayed in the 'Extraction sums of squared loadings'. The values of this part of the table are the same as the values before extraction, except the values for the discarded factors which are ignored.

In the final part of the table, "Rotation sums of squared loadings" show the Eigen values after rotation, thus optimizing the factor structure. The total % of variance explains the same but rotation changes the Eigenvalues for each of the extracted factor. It is found that after 'Rotation Sums of Squared Loadings', the first two variables decrease whereas the value of remaining variables increase.

#### Scree Plot

Scree Plot helps to decide upon the numbers of factors that should be retained. The curve begins to even out after extraction of five factors. So, only five factors are to be retained.

The shape of a plot helps us to decide upon the numbers of factors that should be retained. The Scree plot is used to determine the optimal number of components. Typically, the plot has a distinct break between the steep slope of factor, with large eigen values and gradual trailing off associated with rest of the factors. The components on the shallow slope contribute little to the solution and have little impact on study.

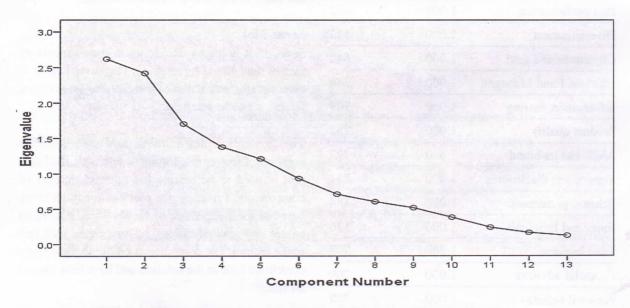
**Total Variance Explained** 

Component	Iı	Initial Eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	%of Variance	Cumulative	
1	2.621	20.158	20.158	2.621	20.158	20.158	2.169	16.682	16.682	
2	2.420	18.616	38.773	2.420	18.616	38.773	1.890	14.537	31.218	
3	1.703	13.096	51.870	1.703	13.096	51.870	1.840	14.152	45.370	
4	1.378	10.598	62.468	1.378	10.598	62.468	1.767	13.596	58.966	
5	1.212	9.324	71.792	1.212	9.324	71.792	1.667	12.826	71.792	
6	.932	7.168	78.960		n kyli s	Marcy 30		yd husie	iges , earl	
7	.711	5.469	84.429	91. J	CHANGE OF	ar in rest in		6011-30	a department of	
8	.603	4.640	89.069					900 COT 10	LINE DELICA	
9	.516	3.972	93.041						no man	
10	.382	2.935	95.976						MIXCON	
11	.238	1.834	97.810							
12	.164	1.260	99.069	ői.					and and	
13	.121	.931	100.000		4-71 10		W. F	T. Bulletin	381 391 0	

Extraction Method: Principal Component Analysis.

#### **Scree Plot**

#### Scree Plot



#### The Component Matrix

The "Component matrix" gives the factor loadings among the factors between rows and columns. Loadings above .6 are usually considered "high" and those below .4 are "low".

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#### **Component Matrix**

DELL'AND PROCEEDINGS	(holiman)		Component	ALVERT STATE	Service of
	1	2	3	4	5
Past performance	.297	570	343	.319	.198
Diversification	463	.037	224	355	.389
Objectives and goal	041	.565	.087	.555	065
Efficient fund Manager	.249	549	.479	.347	.169
Information sharing	483	.040	305	.317	.529
Product quality	088	403	.620	.040	.442
AMC and its brand	.435	.307	.298	212	.613
Service and disclosures	.627	.532	176	131	.167
Scheme preferences	.810	274	323	193	.111
Entry and Exit load	.165	.697	140	074	.219
Time horizon	.601	319	499	.282	.002
Financial advisors	.171	.503	.140	.637	.029
Personal beliefs	.598	.127	.554	171	221

Extraction Method: Principal component analysis.

#### **Rotated Component Matrix**

Rotated component matrix is a matrix of the factor loadings for each variable with each factor and is calculated only after rotation. Values less than 0.40 are suppressed for clarity in interpretation.

#### **Rotated Component Matrix**

			Component	MILLER OF THE PARTY OF THE PART	34 13 (1815)
	1	2	3	4	5
Past performance	.751	148	.166	.231	067
Diversification	259	.134	.559	093	371
Objectives and goal	156	.064	.042	123	.772
Efficient fund Manager	.273	135	200	.777	.075
Information sharing	.001	003	.820	.079	.172
Product quality	150	.052	.049	.841	133
AMC and its brand	033	.840	065	.286	.004
Service and disclosures	.222	.715	223	333	.172
Scheme preferences	.754	.363	304	060	298
Entry and Exit load	137	.593	.082	366	.274
Time horizon	.880	.009	075	095	.048
Financial advisors	.011	.172	036	.013	.823
Personal beliefs	060	.308	789	.186	.055

Extraction Method: Principal component analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 6 iterations.

a. 5 components extracted.

#### **Conclusive Evidences**

- It was found from the study that most of the retail investors are influenced a lot by the quality and extent of disclosure of information regarding NAV and any deviation from so-called stated objectives and fringe benefits etc. They do believe there is a need of transparency in information sharing system.
- One of the most important determinants that affect the selection criteria of mutual fund by the individual investor is the reputation and goodwill of the company/AMC.
- 3. Generally mutual fund schemes of different nationalized banking sources are more preferred being owned and managed by the Government. Hence, a major chunk of investors want to invest in public sector financial institutions as a growth strategy and minimization of risk.

- 4. The selection of mutual fund depends much upon perception, preference, attitude, and behavior of individual investors.
- The investment choice of mutual fund of individual investors depends much upon the emergence of other financial products like exchange trade of funds, hedge funds, manage accounts that lead to more competition in the financial market.
- 6. Now a days, for a common man mutual fund is the most easy, suitable investment avenue and helps in investing in a diversified manner by professionally managed basket of securities at relatively low cost and reasonable return.
- Mutual fund industry will keep on growing in spite of competition and will drive in the right direction because of investor friendly financial markets.

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### HOW FAST SHOULD YOUR COMPANY GROW... HOW FAST CAN YOUR COMPANY GROW?

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#### Abstract

If you have got it... Flaunt It: If you haven't got it... Try to get it: If you can't get it. Get

1990 onwards, marked the transcendence of India, from a closed economy to a liberalized one. Another decade will see the full process of globalization and liberalization truly unfold. The ripple effects... felt by corporate India...led to a change... a change in the picture that corporate India now represented. This change is still in the unfolding process.. however, thus emanated the need of the hour. Business sustainability, which went hand in glove with corporate growth... Key questions thus emanated: How fast should a company grow? or How fast can a company afford to grow?

#### Introduction

What comes to mind when one hears the phrase "Fast growth" is probably a company which serve markets, that has seemingly inexhaustible appetites for its products. Limitless lines of investors and spiraling stock prices are usually part of that image. Starting a business requires cash .. yes we all know that, and growing business requires even more. A big challenge for corporations growing or established would be to strike that proper balance between consuming cash and generating it.

Few understand that a profitable company that tries to grow too fast can run out of cash even if its products are great successes. "Forty Five Minutes" is a short video that encapsulates what excessively fast growth without the appropriate sustainability pillars in place can do. This video is about the hellish, short lives of broiler chickens that have been genetically engineered to put on weight faster than normal chickens. The poor creatures had trouble standing on their spindly little legs, whose growth

did not keep up with their bloated bodies. The message is clear. Grow .. but grow sustainably.. grow fast, but how fast? Many corporations today, operate under the assumption that there is no limit to growth, as long as sales increase. Growth, however, can easily outstrip a company's financial resources. The key for corporations today is to determine an "Affordable Growth Rate".

Another dimension less thought of is the "Humanistic angle". To begin with, people want to work with high growth companies in order to further their career prospects, if the growth isn't there the talent will go elsewhere. Moreover, if a company is thinking of going public a growth rate of 10% is the least expected. The earlier paradigm of privately held companies with 25 or fewer employees and whose growth was steady doesn't work anymore, as today markets place a high premium on high growth. "There's too much money out there, too much consolidation, in addition to an explosion in Information Technology". This in turn is what is

dragging a lot of traditionally oriented companies today.

One thing seems clear in today's economy, growth seems more random and more unexpected than ever, So perhaps a fitting response to that reality is that companies must find a way to plan for that random growth.

Corporate executives are at times concerned only about financial growth of their companies. After all, making money, is the one concrete way the world tells a company whether it's doing things right. Moreover, if a company stops making money, it may stop altogether.

All kinds of corporations today dot the corporate landscape:

- High growth companies
- Some that lack the financial resources to fully exploit available product market growth opportunities
- Those that don't have opportunities adequate to match their financial capacity

Financial Resources and Product Market Opportunities help determine how fast a company can grow, but given those two ingredients, How fast should a company grow? And is growth always important? From a shareholder's perspective growth is desirable if it adds value to his stock, and this is a thought shared by most noted economists too. What is interesting, is to understand under what circumstances does growth add value to a company's shareholders.

Exploring the realm of shareholder value, when the company creates a positive spread, between its return on equity and its cost of capital. In simple terms, this would mean that the company is generating profits that exceed what investors would require from companies in the same class of risk. Value is also added to shareholders through tapping growth opportunities, at a positive spread. Yet, one must also keep in mind that if the spread turns negative which

would entail the ROE being lower than the cost of capital, faster the company grows, the faster will be the destruction pace.

Management should thus evaluate the outcome of strategic decisions for all business units, including those that create shareholder value. Such an evaluation either confirms the current growth strategy's validity or points out better alternatives. At the very least, evaluating the implications for shareholder value, contributes to a better understanding of the assumptions on which current strategy is predicated and prepares top management to respond strategically to future developments.

An examination of the interaction between Inflation, Capital Costs, Profitability, Growth and the Market Value of a company's common stock, provides a further insight.

#### **Inflationary Impact**

Inflationary Impact is important on corporate growth patterns. Assume that the expected inflation rate is say 1%, and if investors demand a 9% real return for investing in your company. If your company expects to earn a 10% ROE, on an capital base of say Rs 100, it will find the capital valued in the market at Rs 100. This is because equity returns and equity costs are exactly equal, therefore as seen the market value represents 100% of book value.

However, if the long term inflation expectation rise from 1% to 11%, and your company's anticipated ROE stays at 10%, how can investors achieve adequate returns? By driving down the equity value to Rs 50. Inflation, directly effects the cost of equity capital for a company. Investors act to protect the purchasing power of their assets, by pricing securities at levels that would cover inflation and at the same time produce a real return consistent with the risk assumed in owning a share of common stock.

This brings us to two key thoughts: A forecast of future inflation and a return commensurate with acceptance of a certain level of risk. What return

matches what level of risk, is also affected by the key paradigm, that risk "differs from industry to industry, and within industry it differs from player to player". Is risk systematic or unsystematic? Ponder .. Well simplifying systematic risk, means a risk which cannot be avoided, e.g. the movement of interest rates in a country. However, unsystematic risk is a risk which is avoidable, for e.g. don't invest in a company, if you feel that sector outlook, or company outlook is bleak. Thus when we talk about a return commensurate with the amount of risk taken, what we are really looking at is systematic risk, the return of bearing which is called BETA FACTOR, in financial parlance.

Travelling back to our earlier case, of an investor who expects a 9% real return for investing in your company. Now, if this investor harbors long term inflation expectations of 10% (11% - 1%), taking this into account, the cost of equity capital for your common stock of average risk ought to roughly 19%. (This would be equal to an expected inflation rate of 10% + risk premium of 9%)

#### Profitability and growth

Assume we have four companies, each with a growth rate just fast enough to stay even with inflation nominal terms, they grow at 10% every year, BUT they are not growing at all in real terms. Their return on equities differ, and each follows a particular kind of investment opportunity.

Company 1: Say, I Invest Rs 100 in this company, which is offering a 25% return on equity. The profit yield is Rs 25. As there is no opportunity for real growth, I would need to reinvest Rs 10, in order to support a 10% nominal growth during a time when inflation is 10%. This allows Rs 15 as dividends. We continue this till such time as returns no longer exceed the cost of equity capital say 20% now. Then the company liquidates and returns the accumulated book value to investors. On calculation of the present value of dividends and final liquidation payment is Rs 129. I as an investor have earned Rs 29 more than my initial investment of Rs 100. Thus this

company has earned a rate of return for me far exceeding its equity capital cost. Every rupee of capital invested has yielded Rs 1.29 in terms of market value to the shareholders, helping their cups brim over...

Company 2: Now let us hop across to a company giving me a return on equity of only 10% on my Rs 100 investment. As there is no opportunity for real growth, I would need to reinvest Rs 10, in order to support a 10% nominal growth during a time when inflation is 10%. This allows NIL dividend, since financing the inflation induced growth absorbs all the profit. Finally on calculation, final liquidation payment is less than my initial Rs 100 investment. This company earned a rate of return far below the cost of equity capital. The company may describe its 10% sales growth as progress, but in fact, this was entirely due to inflation (we know...). Thus we see, this company's need to retain and invest capital has actually destroyed shareholder value

#### Corporate valuation versus growth paradigm

Poor Performing companies tend to have rates of reinvestment far higher. Naturally, this reinvested money is used either for issuance of stock aimed at the company's diversification, or to fund attempts of profitability enhancement of existing sagging businesses.

Looking the other way, there are cases where high rates of reinvestment, would greatly add to shareholder value, yet the reinvestment rates are highly restrained.

Travelling back down history lane, I can't help but remember the classic story of Xerox. The year 1972 was a time when Xerox corporation was at its peak, ten years later come 1982, things had reversed a whole 180 degrees. At this time investors may have evidently believed that Xerox could not in future achieve an ROE equal to its cost of capital. Why this bleak picture in the minds of investors? You would wonder...

During the 1970's, Xerox's highly profitable franchise in the copier market came under attack from rising competition form U.S Federal Trade Commission, IBM as well as the Japanese. The erosion of profitability in their core area of operation, manifested by a disastrous history of acquisitions, led to their downfall come 1982.

#### Coming back to our initial question, How fast should a Company grow, and under what circumstances does growth add value to shareholders?

The answers to both these questions are balanced on the pretence of whether future profitability (Return on Equity) exceeds or falls short of the cost of equity capital. If the ROE> Cost of Capital, higher the growth, the better. But inadequate profitability coupled with a need, to do nothing more than growth just equal to inflation, can lead to disastrous implications. If a company cannot improve profitability, maybe they could think of divesting their negative contributing products from their product portfolio's. Profitability, thus is the key to value.

Another interesting dimension is calculating an organization's "Self financeable growth rate", taking

into account three critical factors:

- (a) A Company operating cash cycle (the amount of time a company's money is tied up in inventory and other current assets before customers pay for goods and services)
- (b) The amount of cash required to fund each dollar of sale
- (c) The amount of cash generated by each dollar of sale

Managing some, or a combination of these factors would lead to being able to determine a balanced self financeable growth rate for companies.

At the end, we know that speed is critical for success: "You have to grow quickly, or others will beat you at your game", yet companies must take care as speed can undermine quality and fiscal discipline. It is vital to keep in mind, in today's highly competitive liberalized scenario that not only is it important as to how fast the company grows, but also in this era of mergers and acquisitions, how successfully can one shepherd ones company before handing it over to others is vital as well. It is the best way you can in a volatile economy, and whatever strategy works best in achieving the aim is the right one.

To conclude success in business is growing not only at the "Right Pace but also in the Right Manner".

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### SOCIAL EXCLUSION AND DEVELOPMENT: A CASE STUDY OF RAJASTHAN

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#### Abstract

Rajasthan, being the largest state of India and also a culturally diverse state, is the home of a large number of communities. It is common knowledge that some communities are still lagging behind others in various facets of life even by moderate national and state standards. One of the major objectives of the government, reflected in various plan documents, has been to promote economic growth with social justice keeping in mind an egalitarian society. The paper examines the relative positions of SCs and STs vis-à-vis other social groups in Rajasthan. The study shows that an inverse association is observed between the populations in SC and ST dominated districts and their human development index. Unfair exclusion with differential treatment results in low access and participation of marginalized and socially excluded population groups, which ultimately causes low human development among excluded groups. The exclusion of and discrimination against scheduled castes and scheduled tribes in the state continues to be quite widespread and deeply entrenched. In all socio-economic indicators of development (education, health, income) the status of these excluded communities continue to be low. Rajasthan is one of the lowest achievers in the country as far as socio-economic developments of its people are concerned. The Economic Survey 2011-12 released recently, has found that only Karnataka has performed poorer than the desert state. As per Human Development Report 2011, quoted by the Economic Survey, Rajasthan has slipped three places from the ranking of 14 in 1999-2000 to 17 in 2007-08.

#### Introduction

Social Exclusion has been defined by the Department of International Development(DFID) as a "process by which certain groups are systematically disadvantaged because they are discriminated against on the basis of their ethnicity, race, religion, sexual orientation, caste ,descent, gender, age, disability, HIVstatus, migrant status or where they live."

One of the major objectives of the government, reflected in various plan documents, has been to promote economic growth with social justice keeping in mind an egalitarian society. Both the central and

state planning authorities have framed and implemented various policies for improvement in standards of living of scheduled castes (SC) and schedules tribes (ST) who have historically been most backward classes. In order to evaluate the impact of national and state level development programmes, it is important that we obtain an accurate picture of standard of living of these less privileged social and ethnic groups. The development process for any society/community is ultimately evaluated through its impact on quality of life and human well-being. Here the focus is on the economic status of these backward communities

using some standard measures of income inequality and poverty.

"The basic purpose of development is to enlarge people's choices. In principle, these choices can be infinite and can change over time. People often value achievements that do not show up at all, or not immediately, in income or growth figures: greater access to knowledge, better nutrition and health services, more secure livelihoods, security against crime and physical violence, satisfying leisure hours, political and cultural freedoms and sense of participation in community activities. The objective of development an enabling environment for people to enjoy long, healthy and creative lives" is how renowned economist Dr.Mahbub ul haq defined human development (HD).

The socio-economic development is a function of purchasing power, literacy, life expectancy.

Conceivably, almost all types of deprivations initiate from lack of access to income necessary to maintain a minimum acceptable standard of living. UNDP would call this 'Inadequate economic empowerment.' However the national and state average HDI, income inequality and poverty index figures mask much of the variations in empowerment across states and social groups. It is thus critical to observe the income inequality and poverty indices separately for SCs and STs to recognize the merits and limitations of planned development programmes aimed at improving the levels of living of these backward communities.

Apparently, household income is only an indispensable indicator of material well-being. An adequate household income is necessary though not sufficient to guarantee a reasonable quality of life. Higher the household income, greater is the possibility of leading a decent life, implying a higher level of well-being. This is exactly why a comparative analysis of earned income of households across communities is likely to unfold a few aspects

of quality of life in relative terms.

Social exclusion involves the systematic denial of entitlements to resources and services, and the denial of the right to participate on equal terms in social relationships in economic, social, cultural or political arenas. Exclusionary processes can occur at various levels – within and between households, villages, cities, states, and at the global level. As a condition or outcome, social exclusion is a state in which excluded individuals or groups are unable to participate fully in their society. This may result from:

- Their social identity (for example race, gender, ethnicity, caste or religion), or
- Social location (for example in areas that are remote, stigmatized or suffering from war or conflict).

As a multidimensional and dynamic process, social exclusion refers to the social relations and organizational barriers that block the attainment of livelihoods, human development and equal citizenship. It can create or sustain poverty and inequality, and can restrict social participation. As a dynamic process, social exclusion is governed by:

- Social and political relations, and
- Access to organizations and institutional sites of power.

Social exclusion is a process and a state that prevents individuals or groups from full participation in social, economic and political life and from asserting their rights. It derives from exclusionary relationships based on power (Jo and Piron, 2005)

Section 2 of this account describes objectives of the study, followed by review of literature in section 3. Section 4 deals with discussion and results and finally section 5 presents some concluding remarks.

#### Objectives

Rajasthan being the largest state and also a culturally diverse state is the home to a very large number of communities. It is common knowledge that some communities are still lagging far behind others in various facets of life even by moderate national and state standards. The objective of this paper is to contrast the level of poverty, health and education for SCs and STs vis-à-vis other groups in the population. Comparisons are drawn between SCs, STs and other groups on the basis of computed measures of poverty, health and education viz. percent of households below poverty line, important health outcomes like IMR, NMR, CMR, MMR etc., gross enrolment ratio respectively. Accordingly, the perceived objectives of the study are as follows:

- To analyze the status of SCs and STs in BPL survey.
- To study in Rajasthan inter-temporal change in the gross enrolment ratio. This is an important indicator of education.
- To examine the change in the health status of SCs and STs vis-à-vis other social groups.
- To highlight the share of crime against SCs and STs in the state.
- To suggest some policy prescriptions in order to improve the conditions of these social groups in Rajasthan.

The study is purely based on secondary data. The analysis has been carried out on the basis of data available in published reports of census of India, NFHS, BPL survey 2002 NUEPA and NCRB etc.

# Status of SCs and STs: Discussion and Results

In this paper I have discussed the status of SCs and STs in terms of the following classifications:

Poverty Level: Poverty and social structure are uniquely intertwined in the state. Demographically, the state has a SC population of 96, 94,462 (census of India 2001) little over 17.2% of total population (5,65,07,188) being those belonging to the scheduled castes and over 12% belonging to the scheduled tribes. It ranks 7th in India in terms of total sc population and 10th in terms of their proportion to the total population among all states and Union territories. As per 2002 BPL survey, the state has a population of 15.28% to its total population recorded as those living below poverty line, less than the national average at 26.10. moreover, as per the World Bank's 1997 India Poverty Assessment Report the state's rural poverty was reported as 47.5% as against the national average of 36.7% in the country. Though, regional imbalance in growth and development is significant in the state of Rajasthan, the state has high concentration of poor in the resource-poor regions - largely occupied by the scheduled tribes. Among various causes, such regions have lacked severely in productive land, irrigation facilities, industrialization, skills and higher incidences of illiteracy.

Though various anti-poverty initiatives have been implemented by the government of India (GoI) and the state government, the results have been dismal on account of various reasons, mainly poor targeting and inefficient management. With the background, the DPIP was implemented in seven districts of Rajasthan during the period 2000-2007 with an objective of improving the status of the rural poor through increased income, improved standard of living, and improved social status.

Table 1: Households below poverty line according to social groups

Districts	Total No of	Perce	nt of Household	ls among Social	Groups
	Households	GEN	ST	SC	OBC
Ajmer	33921	4.56	9.02	23.01	63.42
Alwar	65100	12.01	26.36	24.79	36.84
Banswara	160617	5.60	83.00	5.93	5.47
Baran	47952	5.46	35.07	23.73	35.74
Barmer	127332	10.62	10.26	22.91	56.21
Bharatpur	49393	8.35	5.75	33.16	52.74
Bhilwara	94200	7.40	23.93	25.21	43.46
Bikaner	85281	32.53	2.06	29.09	36.32
Bundi	33562	5.35	21.91	29.97	42.77
Chittaurgarh	89862	7.77	48.57	18.20	25.46
Churu	68056	17.58	3.01	38.95	40.46
Dausa	49582	10.82	27.13	30.63	31.41
Dholpur	26964	16.99	7.93	30.70	44.38
Dungarpur	139367	5.00	82.24	4.74	8.02
Ganganagar	66437	5.65	1.97	64.10	28.28
Hanumangarh	44359	7.89	1.51	51.62	38.98
Jaipur	64960	12.63	16.58	28.72	42.07
Jaisalmer	24858	22.61	8.21	17.83	51.34
Jalore	79012	8.83	18.56	29.29	43.32
Jhalawar	50784	6.47	18.03	29.25	46.25
Thunjhunu	14957	14.27	3.70	40.93	41.10
Jodhpur	68754	18.12	9.72	26.97	45.19
Karauli	60386	11.83	23.16	31.44	33.56
Kota	34387	8.24	14.73	35.89	41.13
Nagaur	56953	12.66	1.05	45.80	40.49
Pali	63618	6.63	20.03	31.58	41.76
Rajsamand	62028	12.43	25.29	16.72	45.56
Sawai Madhopur	42300	9.64	19.52	28.07	42.78
Sikar	27339	17.83	6.93	35.65	39.59
Sirohi	32538	4.48	56.71	22.46	16.36
Гonk	35544	7.86	18.82	29.41	43.91
Jdaipur	255779	9.70	70.44	6.15	13.71

Source: Based on BPL Survey 2002.

Health Status: The health status of population is assessed on the basis of it's health outcomes, reflected in indicators such as IMR, CMR, Neonatal Mortality ,Post Mortality etc.

Table 2: Health Outcomes: According to Social Groups

NFHS – 2	MEHE 2			Other		
	NFHS - 3	NFHS-2	NFHS - 3	NFHS - 2	NFHS - 3	
60.3	65.3	58.0	38.4	49.9	44.7	
38.6	31.0	36.7	34.8	31.7	13.4	
98.9	96.4	94.7	73.2	81.6	58.1	
46.4	29.6	66.6	43.8	30.1	12.5	
140.7	123.1	155.0	113.8	109.3	69.9	
14.2	19.6	15.8	24.7	27.9	44.1	
84.9	80.4	84.1	75.3	71.6	55.9	
58.1	25.8	57.0	30.7	10 1	22.2	
	140.7 14.2 84.9	140.7     123.1       14.2     19.6       84.9     80.4	140.7     123.1     155.0       14.2     19.6     15.8       84.9     80.4     84.1	140.7     123.1     155.0     113.8       14.2     19.6     15.8     24.7       84.9     80.4     84.1     75.3	140.7     123.1     155.0     113.8     109.3       14.2     19.6     15.8     24.7     27.9       84.9     80.4     84.1     75.3     71.6	

Source: NFHS II and III

Five districts in Rajasthan, viz., Udaipur, Banswara, Dungarpur, Jaipur and Chittorgarh account for more than half (54.50%) of the total ST population in Rajasthan (2001 Census). A cursory look at the general socio-economic development of the SC and ST population makes it evident that an inverse association is observed between the populations in SC and ST dominated districts and their human development index. Geographically, Nothern and north eastern districts namely Ganganagar (33.72), Hanumangarh (26.13), Karauli (23.16), Bharatpur (21.70), Dausa (21.21), Churu (21.17), Dholpur (20.13), S. Madhopur (19.98) have more SC population and southern and southeastern districts namely Banswara (72.27), Dungarpur (65.14), Udaipur (47.86), Sirohi (24.76), Karauli (22.37), Chittrogarh (21.53) have more ST population. Except for Ganganagar, Hanumangarh and Bikaner all these districts occupy very low ranks in HDI. Health index is an important indicator of human development. The more developed a region is, higher is the value for health index and vice versa. Health index for the state is 0.588 in 2008. However, the health index for such a district as Dungarpur is 0.282, Banswara is 0.309 and other tribal predominant districts fall between 0.2 and 0.4.

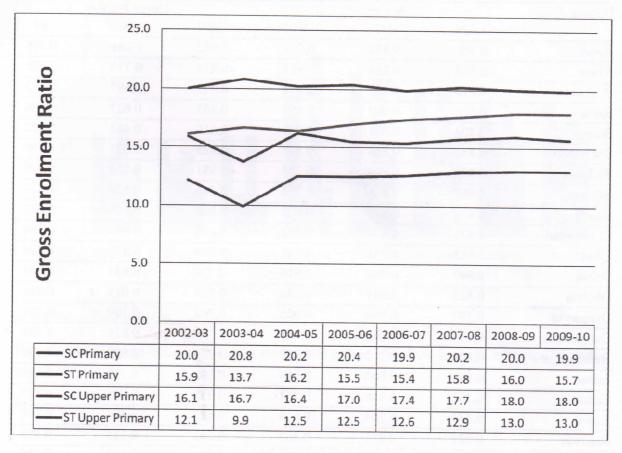
Table 3. Percent Change in Health Outcomes (1998-2005)

		,	
Indicators	SC	ST	Other
Neonatal Mortality	1.18	-4.83	-1.49
Post Neonatal Mortality	-2.81	-0.74	-8.25
IMR	-0.36	-3.24	-4.11
CMR	-5.17	-4.89	-8.35
Under 5	-1.79	-3.80	-5.15
Institutional	5.43	8.05	8.29
Home	-0.76	-1.49	-3.13
No ANC	-7.94	-6.71	-7.69

Source: Computations by authors based on NFHS data

Education: Following is an overview of the enrolment of SCs and STs teachers which has been almost stagnant from 2004-05 to 2009-10

Figure 1. SC and ST Teachers in Elementary Education



Source: Various Reports NUEPA

Elementary Education: The process of education and attainments has an important impact on all aspects of life. Education in the present context, is perhaps the single most important means for individuals to improve personal endowments, build capability level, overcome constraint and in the process enlarge their available set of opportunity and choices for a sustained improvement in well being Following is an overview of the status of education in State

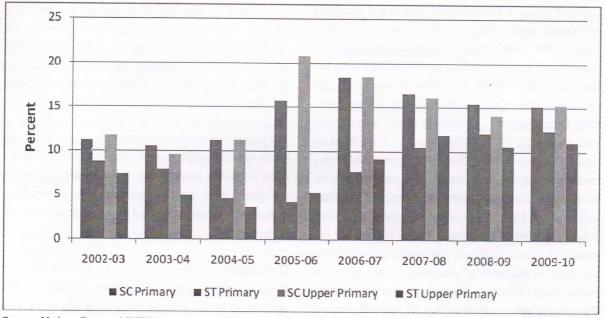
Table 4. Gender Parity Index for Enrolment by Social Groups in Rajasthan (2006-07)

Table 4. Gender I		Primary			pper Primary	C/T
District	GEN	SC	ST	GEN	SC	ST
Ajmer	0.886	0.872	0.768	0.912	0.681	0.589
Alwar	0.845	0.889	0.917	0.814	0.735	0.760
Banswara	0.810	0.929	0.904	0.807	0.697	0.673
Baran	0.860	0.903	0.890	0.885	0.627	0.580
Barmer	0.802	0.831	0.729	0.450	0.452	0.322
Bharatpur	0.833	0.864	0.877	0.825	0.635	0.760
Bhilwara	0.930	0.864	0.788	0.881	0.531	0.459
Bikaner	0.887	0.826	0.772	0.746	0.520	0.633
Bundi	0.855	0.870	0.837	0.866	0.618	0.613
Chittaurgarh	0.931	0.878	0.842	0.857	0.694	0.584
Churu	0.913	0.851	0.841	0.809	0.712	0.810
Dausa	0.897	0.890	0.936	0.778	0.634	0.731
Dholpur	0.825	0.849	0.886	0.804	0.615	0.625
	0.797	0.868	0.906	0.804	0.799	0.767
Dungarpur	0.819	0.892	0.815	0.799	0.826	0.623
Ganganagar	0.805	0.913	0.865	0.730	0.839	0.890
Hanumangarh	0.908	0.900	0.918	0.892	0.730	0.698
Jaipur	0.702	0.848	0.761	0.357	0.355	0.229
Jaisalmer	0.843	0.789	0.618	0.520	0.490	0.268
Jalore	0.922	0.913	0.867	0.791	0.535	0.558
Jhalawar	0.832	0.899	0.860	0.783	0.882	0.810
Jhunjhunu	0.892	0.848	0.805	0.652	0.502	0.494
Jodhpur	0.927	0.900	0.946	0.933	0.622	0.828
Karauli	0.862	0.929	0.857	0.856	0.712	0.759
Kota	0.899	0.843	0.859	0.820	0.533	0.811
Nagaur	0.899	0.823	0.716	0.850	0.609	0.418
Pali	0.917	0.902	0.855	0.728	0.727	0.387
Rajsamand		0.869	0.904	0.873	0.495	0.632
S. Madhopur	0.873	0.870	0.844	0.836	0.753	0.757
Sikar	0.877	0.813	0.651	0.686	0.479	0.345
Sirohi	0.787	0.813	0.851	0.883	0.520	0.448
Tonk	0.957	0.922	0.807	0.770	0.881	0.620
Udaipur	0.850	0.8/1	0.007			

Source: Citizens' Report, 2009.

Gender parity index is the number of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education. GPI is the ratio of female students enrolled at primary, secondary, tertiary levels of education to the number of male students in each level.

Figure 2. Gross Enrolment Ratio of SC and ST in Rajasthan

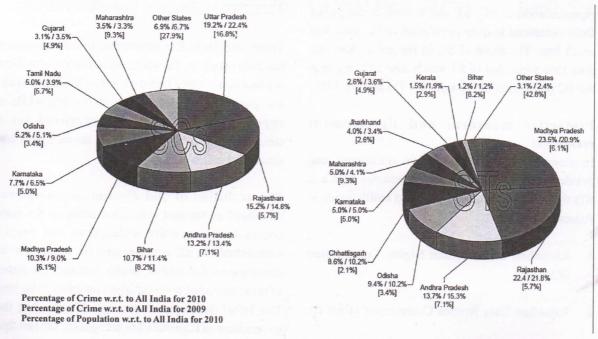


Source: Various Reports NUEPA

The graph clearly shows that as compared to enrolment in primary education, the enrolment ratio of secondary education is lower.

Crime against SC and ST

Figure 3. Incidents of Crime



Source: NCRB, 2010

The latest data of the National Crime Record Bureau (NCRB) makes Rajasthan's prejudice towards scheduled castes (SC), scheduled tribes (ST) and women, the three most vulnerable sections of the society, evident. According to the NCRB data for the year ending 2009, Rajasthan is second in the country in crimes against SC, ST and women, only after Uttar Pradesh. According to the data for the year ending 2009, UP witnessed 7,522 incidents of crime, however, Rajasthan witnessed maximum number of cognizable offences. The state saw a total of 4,985 incidents of crime including 65 murders and rape of 163 dalit women. In crimes against scheduled tribes, Rajasthan not only topped the list with 1,183 such incidents but also got the number one rank on the basis of percentage share in the all India total of crime against schedule tribes. Rajasthan's contribution to the all India figures of crime against ST, SC and women was 21.8%, 14.8% and 8.5%, respectively. There was 2 to 3 per cent jump in each category. While, the state tops the list in crime against SC/ST, it ranks fourth in crime against women. In fact, Bihar, stood at 20th place in cognizable crimes against women and seems to be treating women better than Rajasthan. The representation of SC, ST and women in the police force compared to their population in the state was much less. The share of SC in the police was less than 15% while that of ST was below 10% whereas the SC population in the state is 17% and ST 13%.

# Protective measures and development measures:

Implementation of protective measures and development measures aimed at securing SCs and STs their due in terms of rights and entitlements in Rajasthan:

- 1. Rajasthan State Human Rights Commission (RSHRC)
- 2. Rajasthan State Women Commission (RSWC)
- 3. Rajasthan State Commission for SCs (RSCSC)

- 4. Rajasthan State Legislative Assembly Committee on Welfare of SCs (RSLA-WSC)
- 5. Protection of Civil Rights Act, 1955. (PCRA)
- 6. SCs, STs (POA) (Prevention of Atrocity) Act, 1989.

The protective measures have not been implemented in the spirit in which they were conceived and result is its impact is limited and is not clearly visible at the micro level. So, a serious exercise to arrive at indicators of meaningful change needs to be undertaken.

#### Conclusion

Rajasthan is one of the lowest achievers in the country as far as socio-economic developments of its people are concerned. The Economic Survey 2011-12 released recently, has found that only Karnataka has performed poorer than the desert state. As per Human Development Report 2011, quoted by the Economic Survey, Rajasthan has slipped three places from the ranking of 14 in 1999-2000 to 17 in 2007 {Health index 0.587(2008), Income index 0.253(2007-08)education index 0.462(2007-08)}.

There is no doubt that socio-economic development has been very low. The socio-economic development is a function of three factors-literacy, life expectancy, and purchasing power. Even in literacy while it appears that Rajasthan has improved but a comparison with other states will reveal that it has actually gone down.

The exclusion of and discrimination against scheduled castes and scheduled tribes in the state continues to be quite widespread and deeply entrenched. In all socio-economic indicators of development (education, health, income) the status of these excluded communities continues to be low. The Tribal development strategy document of the government of Rajasthan has recognized the fact that

benefits from programs and schemes intended for the tribes do not reach them automatically. Thus, deliberate, strategic measures and proactive regimes have to combine with relevant programs in order to ensure that benefits actually accrue to the vulnerable sections such as the marginalized. Mechanisms of participation of the poor and the excluded, created by legislation to support their empowerment, remain ineffective because adequate efforts in informing

people about these mechanisms and building their knowledge and capacity to operate these mechanisms are never made. The marginalized till date have continued to remain excluded.

#### \*Dedicated to:

"The sufferings of the excluded communities". Rightly said, "The world is full of sufferings, it is also full of overcoming it". – Helen Keller.

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# THE DICHOTOMY OF GOOD AND EVIL IN THE NOVELS OF J.K. ROWLING

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#### Abstract

This paper explores the recurrence of good and evil elements in the novels of J.K. Rowling. It looks at the various characters and incidents that align themselves with these anti-thetical elements. Harry Potter novels are narratives that run parallel to real life and simulate the real world and its problems. This paper shall evaluate as to how a prudent reader can glean from these novels a ready wisdom to distinguish between good and bad choices. In keeping with the popular literary formats of the picaresque the Harry Potter series also trace the adventures of a young orphaned boy. This paper also goes on to explore the Harry Potter novels as an example of 'bildungsroman' – a story of growth, self discovery and maturity.

#### Introduction

Man has always segregated the living world into antithetical elements and dichotomies. Literature, Philosophy, Psychology, Sociology and other faculties have constantly delineated theories that compare and contrast good and evil, light and darkness, happiness and grief and other such bipolarities. Literature, from its very origin unravels the victory of good over evil. Both the oral tradition and the written narratives introduce the hero and the anti-hero. The stories are descriptions of the exploits of the hero and the onslaught of the villain and in the modern context the anti hero. Even if, the Bible was to be read on these lines it would unfold the story of God and Satan, the falling of man, virtues and vices and the eventual penance for falling into disgrace by the precept of Christ's sacrifice.

This paper in the light of the above context intends to explore some of the anti-thetical elements of good and evil in J.K. Rowling's popular Harry Potter series.

#### Analysis of the novels/themes

Let us begin this dialectic by analysing what makes Harry a universal hero and Lord Voldemort, his villainous adversary, an anti-hero. Harry's fortunes are contradictory. On the one hand, he is the boy who lived after the death curse, the lightening scar on his forehead is the testimony of his trials. On the other hand, the same colossal event that spared his life usurped that of his parents. He is orphaned in his infancy. The mighty wizard Albus Dumbledore entrusts him in to the care of his uncle and aunt, who ill-treat Harry. Harry leads a charmed vet miserable life till the age of eleven. His coming of age and the magical entry into the world of Hogwarts is the happiest event in the dulcet tones of his life. This new life opens a plethora of new sensations. He makes friends for the first time, experiences unconditional love and kindness, wears new clothes and eats to his fill. These fortunate adventures also bring in their wake the knowledge of the murder of his parents, by the 'One who Must Not Be Named' i.e. Lord Voldemont. Every wizard and witch lives in mortal fear of this Dark Lord, the epitome of evil, who shall return one day and wreak havoc.

There are striking similarities between Harry and Lord Voldemort which are confusing and frightening for Harry from the very beginning of this picaresque tale. Harry is an orphan and so is Lord Voldemort, his nemesis. They are both born with mixed blood. Their lives are marred by penury until they are rescued by Albus Dumbledore. Both of them are destined to be powerful wizards and share similarities in their wands. These similarities provide justification for Lord Voldemort being called the anti-hero. On juxtaposition, Harry represents good and Lord Voldemort is evil incarnate. This marking of one as good and other as evil is in accordance with what Professor Albus Dumbledore, delineates, that Harry makes a choice and so does Lord Voldemort. Harry chooses good over evil and Voldemort vice-versa. They are distinct as chalk and cheese for the categorical choices they make.

Harry is an amateur wizard, an average student and has been marked as an opponent by the invincible Lord Voldemort. In all the novels, he embarks upon an adventure which is not of his choosing and comes out a winner only as a result of his fortitude. Lord Voldemort in sharp contrast is a veteran wizard, practised in the art of evil witchcraft. He reduces other people to the status of worms, frightens them, tortures them, kills them and takes any other recourse that befits his will. He is wily and power hungry. He is devious and seeks to immortalise himself by trying to acquire the philosopher's stone. Just like the saying goes a cat has nine lives he creates 'Horcruxes' and seven of them at that, each time putting out the remnants of humanity in him.

In the end, Harry has to die himself first, in order to kill Lord Voldemort. On a symbolic level, slivers of Lord Voldemort's persona that had become a part of Harry as the result of the death curse that was hurled upon by Lord Voldemort needed to be divested. The little evil that lurked in Harry had to be smothered so that he could resurrect phoenix-like. Thus poetic justice is arrived at with the victory of good over evil.

The Harry Potter novels are replete with illustrations of good and evil. The representations of 'The Order of the Phoenix' and 'Death Eaters' are also in keeping with this theory of good and evil.

'The Order of the Phoenix' as described in the novels is a congregation of the good wizards, those who crusade against the satanic Lord Voldemort. They are supporters of Albus Dumbledore who have put their lives on stake for the good cause. Some of the members are as named in the novel, Remus Lupin the professor who is also a werewolf, Sirius Black the animagus and Harry's Godfather who is an alleged mass murderer, the eccentric Alastor Moody with a magical eye, Nymphadora Tonks - a metamorphmagus, an expert in concealment and disguise. They are all a motley lot but what is significant in the context is they are all dedicated to the right cause. Werewolves and mass murderers and thieves (as in Mundungus Fletcher) are generally considered anti-social elements but in the Harry Potter novels, these are the people who ultimately help Harry hoist the flag of goodness. On the other hand, an esteemed member of society such as Lucius Malfoy, an eminent official in the Ministry of Magic, fraternises with the devil, Lord Voldemort. He is a death eater and has the death mark on his forearm. Barty Crouch Junior, is the son of a ministry official, who in the disguise of Mad eyed Moody brings about the resurrection of Lord Voldemort and fulfills the duties of a faithful death eater. Bellatrix Lestrange, from the erstwhile family of Blacks and Sirius Black's cousin has affiliated her loyalties to Lord Voldemort and kills and tortures many of her own brethren.

For other manifestations of good and evil, let us explore the elements in the chronology of the books. The first book of the series is *Harry Potter and the Philosopher's Stone*. The novel begins with a description of house number four, Privet Drive. This house belongs to Harry's uncle. Mr. Vernon Dursley, his wife Petunia Dursley and his son Dudley are Harry's only living family. The filial affection that Harry ought to have derived from them is altogether absent. Instead he gets from them scorn, jealousy and insult. However, their house where Harry lives in shambles, provides Harry with a magical protection that Lord Voldemort cannot penetrate. Next, in the course of the novel, we meet Hagrid, the gamekeeper of Hogwarts School of witchcraft

and wizardry, an honest man who aligns himself with Professor Albus Dumbledore. This novel brings forth a veritable gallery of characters. The good being, Professor Albus Dumbledore, Professor Minerva McGonagall, Rubeus Hagrid, Ron Weasley and Hermione Granger - Harry's friends and fellow students, Nicolas Flamel - the alchemist who made the Philosopher's stone and many more. In sharp relief, evil is represented by Draco, son of both a ministry official and a death eater. The most malficent characterisation is that of Professor Quirell - the teacher of Defence against the Dark Arts. His character is a carefully crafted simulation of the Mephistophilean image. His master Lord Voldemort needs to inhabit his body and Quirell's other face is a wicked one. Mephistopheles - the messenger of Satan or Lucifer ensnares gullible mortals and so does Professor Quirell who entraps Harry to acquire the philosopher's stone, to resurrect his master. Harry is protected by ancient magic. His mother's love insulates him from the defiling touch of Professor Quirell and the evil soul of Voldemort has to flee.

In the second novel *Harry Potter and The Chamber of Secrets* the evil designs of Lucius Malfoy, a death eater, are again directed at bringing Lord Voldemort back to power. He plants Tom Riddle's diary in Ginny Weasley's bag. Tom Riddle is an alias of Lord Voldemort. Through this diary, the Chamber of Secrets is opened again and the monster or the Basilisk unleashed upon Hogwarts. Harry's bravery and loyalty to Dumbledore bring to him the sword of Gryffindor and Fawkes - the phoenix. Harry as an ultimate act of bravery and chivalry kills the basilisk, destroys the diary and rescues Ginny from the Chamber of Secrets.

In the third novel Harry Potter and The Prisoner of Azkaban the author begins her tale with a mass murderer on the loose by the name of Sirius Black. Sirius Black has gone absconding from Azkabanthe prison for wizards gone wrong. It was considered an impossible task and Harry is told that Sirius Black was out to kill him. Also, another character introduced to us is that of Remus Lupin - a professor

and a werewolf. Harry seeks him out to learn how to conjure a Patronus - a charm that keeps Dementors at bay. Dementors are creatures of the dark, keepers of Azkaban. They are faceless and infamous for their 'Death kiss' that they perform indiscriminately. Their fetid breath laden mouth, sucks out all the happiness from a person and draws out their soul, thus rendering a person soul less and the punishment is worse than death - a living death. As the novel progresses, the truth that is unravelled is most shocking. Remus Lupin the werewolf finds Harry fencing wands with Sirius Black. Sirius however is intent at killing Scabbers, the pet rat of Ron Weasley who is actually an animagus. Scabbers, was Peter Pettigrew who betrayed Harry's parents and his treacherous act not only got them murdered but also got Sirius implicated for this act of treason. The end of the novel brings forth an ambiguous resolution. Sirius becomes Harry's Godfather but is on the run. Peter Pettigrew escapes and Remus Lupin resigns from his post.

The fourth novel Harry Potter and The Goblet of Fire begins on a very ominous note with the conjuring of the death mark. The novel acts out the Triwizard tournament which was indeed a ploy of Barty Crouch Junior to bring back Lord Voldemort to life. The evil elements are intense in this novel and the end is frightening with Cedric Diggory - a triwizard champion's untimely death. Harry comes out unscathed from the terrible rendezvous but the reader's sensibilities are assaulted with Lord Voldemort's rebirth.

The fifth novel *Harry Potter and The Order of the Phoenix* etches out an impending battle, that between the good forces and the evil. The Order is pitted against the death eaters for the obtaining of a prophecy which is a replica of the original clairvoyance made by Sybill Trelawney - a professor of divination. This prophecy is a weapon that Lord Voldemort intended to gain in order to kill Harry. In the battle, which ensues in the Department of Mysteries in the Ministry, Sirius Black is killed by Bellatrix Lestrange. Harry is able to destroy the prophecy but he is rendered alone in the vile world.

In the sixth novel, Harry Porter and The Half Blood Prince, Harry is mentored by Professor Albus Dumbledore into the art of defence against the dark magic, of Lord Voldemort. In one escapade after another they destroy Horcruxes - a magical object in which Voldemort has saved a sliver of his living self. The act tremendously weakens Dumbledore and he is killed by his faithful servant Severus Snape. It is a typical Julius Caesar like tragedy where the benefactor is betrayed and stabbed by his protege. Severus Snape, is the half blood prince, who always was of dubious repute. He was a member of the Order of the Phoenix but he gives the unbreakable vow to Narcissa Malfoy. In order to fulfill his oath he kills Albus Dumbledore.

The seventh novel Harry Potter and The Deathly Hollows is the darkest novel of the series which begins with the holocaust of doom. Harry is terribly alone without his Godfather and mentor. His friends Ron and Hermione are bickering amongst themselves. Lord Voldemort's reign has clouded all minds and disharmony is rampant. No one can be trusted upon. Evil looms large, threatening to snuff out goodness. Harry knows that in his final confrontation with Lord Voldemort he would have

to meet his own death, in order to fortify the invincible Dark Lord. In the end, despite the prophecy coming true, Harry lives and Lord Voldemort dies. The novel ends on a very optimistic note of good conquering evil, virtue overpowering vice, happiness over grief, hope fortifying disillusionment.

#### Conclusion

Harry Potter novels are fantastical, away from the realms of reality but its concerns are for the real world. The real world is infested with evil elements that plague and disease man's existence. Man's nature gives in easily to the pressures of such evil. Such novels, enlighten mankind and resurrect faith and optimism. Literature, aids the cause of trust in truth and goodness. Modern life is harsh and stark. Harry Potter and other such fantastical novels are a noble effort that by means of precept, help right from children to grown up readers to invest their trust in God's mysterious ways. Life is all about the choices that a person makes. The path of good is not easy and it is easier to deflect on to the evil. Yet, it is important to adhere to goodness and tread upon the right path and that is the message disseminated by J.K. Rowling's novels.

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### HOMELESSNESS IN HOMELAND: ANALYSIS OF EXPLOITATION OF DALITS IN K.A. GUNASEKARAN'S THE SCAR

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#### Abstract

Dalit literature is an important part of Indian literature. Dalit literature appeared to the forefront after 1960, starting with Marathi, followed by Hindi, Kannada, Telugu and Tamil languages. It came in the form of self-narratives like poems, short stories and most importantly autobiographies which are known for their realism and for its contribution to Dalit politics. It was a movement to bring about a change. It acts as a vehicle to project the problems and sufferings that subalterns had to undergo over the years. On certain grounds, it is very close to African-American literature especially in its depiction of issues like racial segregation and injustice as often noticed in slave narratives.

'Subalterns', the primary focus of my paper, are people who are socially, politically and geographically out of the hegemonic power structure. They are people who have been facing a lot of problems and that is very much prominent if we go back to our own history. The scar is an autobiography by K.A Gunasekaran (Director of the International Institute of Tamil Studies) who narrates his experience of caste oppression and prejudice prevalent in the villages of Tamil Nadu. This is just another example of caste oppression and discrimination in our own Indian society which proudly calls itself 'independent'. Dalit literature brings forth the bitter truth and reality of our own respective societies. The time has come when we should be aware of it and put in our efforts to make this world a better place to live in.

#### Introduction

In the postcolonial dialectic, "subaltern" or "underclass" occupies a prominent place which incorporates the entire people that is subordinate in terms of class, caste, age, gender, and office, or in any office, or in any other way. It is the subject position that defines subalternity. Even when it operates in terms of class, age and gender, it is more psychological than physical. Deprivation, alienation, and subordination, resignation, silence, and neglect mark the lives of the subaltern and even when they resist and rise up, they feel bound and defeated by

their subject positions. They have no representatives in society which they live in and so helplessly suffer and get marginal place or no place at all in the history and culture, of which they are an essential part.

Subalterns are people whom history failed to provide space for. History remembers only kings and emperors and not the soldiers who fought for their victory. Subalterns are everywhere but one cannot see them because they don't have any identity. One can trace their uprising then and there in the pages of history but they are very few and far between. They are just dolls and dance to the tunes of elites. Subalterns are there in every society, developed, developing and under developed. Subaltern studies in India gained ground after 1970's and 1980's. It was largely associated with such movements which happened in Latin American and African countries. People like Guha, Spivak, Mahasweta Devi, Asok Sen, Gautam Bhadra, Partha Chatterjee, Gyan Pandey and many others contributed to it by their various literary and seminal works.

The dalits in India are the subalterns as they are the downtrodden group who are marginalised. Indian society is divided into three broad 'social' categories: the caste communities, the outcaste communities and the indigenous people. The outcaste communities and the indigenous people are referred to in the Indian Constitution respectively as Scheduled Castes (SCs) and Scheduled Tribes (STs). The term 'Scheduled Castes' refers to anyone who falls beneath the four caste communities: the Brahmins, the Kshatriyas, the Vaishyas and the Shudras which are established on the basis of Varna system, an ancient cosmic-moral scheme of fixed categorisation. The precise origins of caste and untouchability are unclear - shrouded in myth and history. However, the development of the caste system and the practice of untouchability are generally ascribed to the (disputed) Aryan invasion of India around 1500 BC.

Previously known as the 'untouchables', SCs nowadays refer to themselves as 'Dalits' meaning 'broken' or 'oppressed'. They make up about 20 % of the Indian population and still suffer from social and religious exclusion and economic exploitation by the upper castes. They are among the poorest of India's poor. The dalits are discriminated because they do not belong to the hierarchy formulated in the Varna system and they are poor and downtrodden. They do menial jobs such as manual scavenging, carcass cleaning, rope-makers, leather-workers and plantation labourers. They are illiterates. Over centuries till date the dalits have been marginalised, pushed to the periphery, looked down upon by the

upper castes and the oppression and the various abuses on them have been atrocious.

Home is a word that symbolizes happiness, peace, love and equality. Unfortunately, the dalits in India are homeless in their homeland, in the sense, they are deprived of social, economic, religious and political stands. Their constant struggle against the deep-rooted caste system and their urge to belong to the center is evident. Dr. B.R Ambedkar, the person responsible for the Indian Constitution was a dalit and he had struggled to eradicate discrimination of dalits. Ambedkar was the first dalit leader of India. In this capacity he is almost an enigma: how did he drag himself away from his social background to acquire this standing and become a genuine statesman? Certainly, he had the advantage of an extraordinary mind and an iron will: he could channel all his energy in the service of a wider project and his determination never failed him. Ambedkar was the heir to a regional tradition, his struggle harked back to the anti-Brahmin movements which emerged in western Maharashtra from the mid 19th century onwards.

In order to bring about a social change and also to press the need for social equality where the dalits would be treated equals, many writers and activists emerged. Dr. B.R Ambedkar, Eleanor Zelliot, Arjun Dangle, Namdeo Dhasal, Raja Dhale, Sharankumar Limbale, Joseph Macwan, Omprakash Valmiki and many other writers started writing in the form of essays, poetry and life narratives (autobiography) so that the social change (homeland) is achieved by the homeless dalits. Dalit literature is not simply literature but is associated with a movement to bring about a change. The Dalit Panthers Movement emerged in the year 1970 following the already flourishing Black Panthers Movement established by the Afro-Americans. The Dalit Panthers Movement paved way for so many Marathi dalit activists to assert themselves so as to bring about the much needed change in the society.

Ambedkar in his book 'The Annihilation of Caste'

addresses the dalits not to give up hope and urges the dalit masses to educate, agitate, eradicate this social evil (caste system). The primary motive of Dalit literature is the liberation of dalits. K.A Gunasekaran is a teacher, folk-artist, dramatist and researcher. He was born a dalit and through his autobiography The Scar expresses his struggles against this caste ridden society. This paper would analyse the various instances from the above mentioned text by K.A Gunasekaran and how the dalits are homeless in their homeland.

#### **Content**

Growing up as a boy from the Paraya caste, in the milieu of christian, hindu and muslim communities, K.A. Gunasekaran narrates the familiar tale of caste oppression and prejudice prevalent in the villages of Tamilnadu. As the narrative unfolds, it is evident that the 'low' caste negotiates with the three religious communities. The deep pain of the Paraya surfaces through the risible anecdotes that ridicule the grievously unjust practices of the 'upper' castes. This analysis provides insight into how the dalits are homeless in their homeland.

'How many in the class are Parayars?' he would ask. 'Put up your hands! How many are Pallars? Stand up, I will count. Look, all of you should come to the office after class to pick up your scholarship forms which should be filled up within a week's time and return to the office.' Even now it hurts to think about those times when we had to stand up in front of the others in the class, shrinking and cringing. They would reinforce caste identities by labeling us Pallars, Parayars, and Chakiliyars in front of our friends who never knew what caste was. Even then, Muslim boys had little awareness about Hindu caste divisions. (The Scar, 5)

The caste system discriminates the 'lower' caste from the 'upper' caste and the students who belong to the dalit communities were hurt due to this. Mahatma Gandhi termed the dalits as harijans but these so called God's Children are not given their due. Though they belong to this country, they are still marginalised and this shows how they are homeless in their homeland.

During my high school days, our father enrolled my brother Karunanidhi and me in the Harijan hostel for he could not afford our education. (The Scar, 6)

The dalits in India are poverty stricken and they cannot afford to educate their children. The dalits live in such a horrible state that they cannot afford even food, clothing or shelter and the basic amenities. This is the result of many dalits forcing themselves to work as menial labourers and this is another instance where the dalits are Homeless in their Homeland when it comes to lack of education.

I have already narrated the ordeal of getting the scholarship form at the school. To get the signature of the headman and the karnam was very difficult. If we go looking for him at Marandai, the karnam would be in Sethur. The headman in Sethur would all of a sudden adjourn to Elayankudi. It was difficult to even see them. If they saw us in the village they would ask us to tie up their cattle, dig out a canal, etc., and only then would they sign the forms. Father would feel frustrated every time he had to approach them for their signatures. 'It's' horrid, the way they display their caste superiority before they sign anything', (The Scar, 9)

The dalits have to slog day and night for their livelihood. They are treated very badly and also made to wait to receive their own rights. In the above passage the 'upper' caste people simply do not bother about their needs. They are made to work like dogs in order to persuade the headman to sign their scholarship forms. They are deprived of their human rights and this exhibits how they are homeless in their homeland when it comes to the treatment of dalits.

Our parents told us to say that we were christians if anyone asked us about our caste. They believed that christians were not as obsessed with caste as the hindus were. (The Scar, 12)

Dalits in India do not want to reveal their caste identity because the dalits feel secure that way and are not oppressed which is so true of hinduism. This shows how ridiculous it is for a dalit to reveal his original identity so as to escape the brunt of caste exploitation. This is an instance of how the dalits are homeless in their homeland when it comes to revealing their true identity.

The moment we reached Kaloorani the smell of sweet palm wine would waft in the air. The air was redolent with the heady scent of the making of palm sugar. We would stop near the Sannar settlements and ask them for Pathaneer. For five or ten paise we would get pathaneer in a bowl made out of palm leaves. Whichever village we entered, the first question would be 'Who are you?', and the moment they knew we were Parayars, they would not offer us a drink in a vessel, but would pour it only in the folded palm leaf. (The Scar, 20)

Parayars is a Dalit caste. They are marginalised and secluded by the 'upper' caste. The Sannars are 'upper' caste people. The protagonist is a Paraya and the nearby villagers find out from the boys their caste. If they are identified to be dalits they would not offer the drink in a vessel but in a folded palm leaf. Even in the present in some parts of the country 'Two Tumbler System' exists. Muhammad Ali, the Black American boxer won a Gold Medal in the Olympics but when he returned to his native town Louisville, he was not allowed to dine in a restaurant. Likewise the dalits are discriminated and this is an instance of how they are homeless in their homeland.

While walking down the road we would see sugarcane fields on either side. Feeling thirsty we would crouch near the Thovoor canal and drink water by scouring it with both hands. We would be very, very careful about not disturbing the water. Otherwise the water would become muddy and smelly. We did not know to which caste this canal belonged. 'If it belongs to the upper caste we would be tied to a tree and beaten. So run', we would say to each other and take to our heels. Even sedately running water would intimidate us, in the name of caste, in the villages surrounding Elayankudi. (The Scar, 20-21)

The dalits are not allowed to bathe or wash clothes or drink water from the 'upper' caste wells, canals and rivers. If they do so then it is considered as an act of polluting and they would be brutally punished. The fact that they are dalits makes them tremble even if they have to think of drinking water. This is another anecdote which projects the plights of the homeless dalits in their homeland.

Some of my father's students who had been to Malaysia and Singapore gave us three or four shirts or t-shirts as gifts. I do not remember my father wearing any of those. He would sell what was given to him as gift for fifteen rupees or so in Pullappan's shop. He would use that money to buy rice and pulses for the house.... I don't remember my father ever buying new clothes for us. We have never bought fish as I have seen Muslims buy them.

(The Scar, 22)

The condition of the dalits is so pitiable that they cannot afford to wear neat clothes. They are in a position to think only of food and feeding their stomachs rather than enjoying things. They do not have money to buy fish or meat and all that they can afford is rice and pulse. Meat is a rarity. They have no happiness but a worn some life filled with distress and agony. They feel homeless in their homeland when it comes to happiness and materialism.

If a dalit enters an 'upper' caste street, it is considered polluting the streets and a great sin. They do not approve of this. They would be simply abused. If the dalit enters an 'upper' caste person's house it is considered arrogant as he has overstepped his limitations. His hands and feet would be tied and he would be brutally abused. There are many people who love pet animals and birds but if a dalit enters the street and house then it a sign of disrespect and arrogance. This instance projects the exploitation of dalits and also goes on to stress the homelessness in their homeland. This is clearly evident in:

The men kept asking, 'how can a fellow from your caste enter the upper caste street? And worse, how dare he enter our house.' 'If the fellow had entered our house without knowing the limitations of his caste, then he must really be very arrogant. Where is he? Let's tie up his feet and hands, and carry him away,' they shouted. (The Scar, 26)

The dalits have to undergo so much abuse verbally, physically and psychologically as well. Some dalits think it is their fate to be born as dalits. They are termed as 'casteless fellows', 'bad caste' and so on. Women were not allowed to wear blouse. The dalit women who live in Cheris (Slums) are not allowed to wear a blouse as this was the regulation of the caste system of the village. They are held by the dominance of the 'upper' caste and this annoys them as it deprives of their right. This shows how homeless they are in their homeland:

Casteless fellows, fellows belonging to bad caste,...' 'From the day I came to Thovoor, after my marriage, I have never worn a blouse. The Cheri women were not allowed to wear blouses as per the caste regulations of the village.

(The Scar, 26)

In the Cheri every Paraya house and the Chakiliyar house, would have an uppercaste master. There would be no day when they would not talk about 'our master's house'. When I think about it now I feel it was a kind of slavishness.
(The Scar, 28)

The above quote shows how dalits are merely slaves in the hands of the 'upper' caste masters. Each of the dalit belonging to various sub-castes work under an upper-caste master and there is not a single day that these dalit people end their day without talking about their masters. It seems as though they are slaves who have to think about their masters and be at their service all through. This slavishness under the clutches of the upper caste masters is another account of how they are homeless in their homeland.

They had gone out of their hometowns mainly to escape the oppression of the upper caste. If they had stayed on they would have had to do as they were bidden. And their artistry would be written off as service to the village. It was generally slavish work without recompense.

(The Scar, 35)

Here is an instance in which the dalits migrate or leave their hometowns to the city areas where caste oppression is not at all prevalent and this migration is mainly to escape from the oppression of the upper caste people. They do not earn a livelihood and their work is considered as service to the village. They are mere slaves who are forced to work for a long period of time without any wages. This show how they are puppets in the hands of the upper caste masters and goes on to show their homelessness in their homeland.

'Even if we elope, your people will destroy my parents and my entire clan. Forget me and marry a girl in your own caste and live in peace', said Michael Amma. The next moment she was hacked to death with a sickle...ever since that murder, there has been no inter caste marriage in that area.... If a Dalit and a girl of a different caste were

to fall in love, they would not be able to live peacefully unless they get out of their village and went away to a town. Even then, in some places, they are not able to save their lives. The village high caste people, wanting to safeguard caste, would round up couple who lived in the town and finish them off quietly. (The Scar, 37-39)

According to Hindu scriptures and customs, inter caste marriages are forbidden. It is considered against the laws of the religion. And marrying a Dalit is a mean and a shameful act. If, ever an upper caste person wants to marry a Dalit, the Dalit will be killed. Even if the Dalit rejects the idea of getting married to the upper caste person still the Dalit would be killed. They will have to escape from the village and live in a city or town without the knowledge of the upper caste people who are fastidious in safeguarding this caste hierarchy. Sometimes, the elop couple would be searched for and both would be killed. This is the harsh reality that they are to face in their homeland and shows the plight of the homeless dalits.

One can cross this village only after declaring one's caste to those men. Then we could have to deal with their dogs. From Valayanoor, there is a very good road leading to Keeranoor. But the road is meant to be used only by the higher caste. There is another path full of dirt and thorns, that's the one that leads to the Keeranoor cheri. I've never gone to my birthplace through the good road. (The Scar, 41)

When the dalits have to leave their own village for any other place, they will have to pronounce their caste as the dalits were not allowed to walk or travel through the roads laid for the upper caste people to travel. The road that the upper caste people travelled was very good whereas the dalits had to travel through a dirty and thorn ridden road. This shows how the dalits are homeless in their homeland even in the smallest of ways.

Life for the dalits has never changed. They lived in utter poverty and agony of the oppression that the upper caste meted loud to them. The tag that a dalit carries is shameful and it remains forever and this keeps haunting them always. They were treated kindly by the muslims but the hindus looked down upon them and discriminated them and sometimes treated them worse than animals. Here:

'Just because I was born here you ask me to identify myself with Marandai. I was born here, but grew up in Elayankudi. The Elayankudi Muslims are loving towards me. They ask us to eat with them when they have celebrations in their houses. I address them as kaka, mamu and mami, like they were my own relatives. Caste was never a barrier. And never did they, even after knowing our caste, discriminate us. Whereas in my birthplace, Marandai, apart from the tree, the soil and the house that we own, the relationship between living beings is fractured by caste. Caste has divided people into the village and the Cheri. In Elayankudi, all people are my relatives. Whereas here, only the tree and the soil are close to me. How can I mention Marandai on the radio when I share no ties with the people here? That is why I call myself on the radio as Elayankudi Gunasekaran. For me that seems to be the right thing to do. I played, studied and had friends only in Elayankudi. It is difficult for me to think of Marandai as my place since I have never been given access to the upper caste streets in the village,' I said, explaining to him my stance. He on the other hand tried to escape criticism by saying, 'Unless, many things change, Marandai would not be as you want it to be.' (The Scar, 53-54)

The dalits are homeless in their homeland and this is a long awaited longing that they search for their home in this deep rooted caste prone homeland. The college used to remain closed interminably due to caste fights now and then. On those occasions I used to take money from Meera sir to go to my place. Most of the boys, belonging to the dalit community, will not have money....The very look of the temple used to scare me. Every time I went into the temples which had a gopuram, my heart would race with fear as I wondered whether they would allow a low caste into the temple.

(The Scar, 70-89)

The dalits always faced taunts and abuses from the upper caste students. Due to this the college remained closed for a long time and many dalit students who stayed in hostels would not be able to go to their native places due to lack of money. This shows how economically downtrodden they are. Sometimes the very thought of entering a temple haunts a dalit because dalits were not allowed to enter into the temples. This fear has become a part of dalit thought and the idea of Homeland is a day dream and a mirage in the desert.

#### Conclusion

The dalits have to fight against these atrocious exploitations meted out to them by the so called upper

caste communities. The only way to transform this mirage into an oasis is by educating the minds of people (both the so called upper caste people and the dalits) as the need is change of mindset. Scar most importantly focuses at emancipation and dalit assertion which is impossible without education. K.A Gunasekaran has made an effort to give voice to the voiceless and is appealing us through his autobiography to think beyond these petty discriminations. This autobiography bears ample testimony to the fact that wounds made by fire might heal but wounds made by untouchability, discrimination and caste oppression would continue to ache. Even today in the newspapers, magazines and journals a lot of atrocious crimes and murders are reported and the Dalits are to bear the brunt of this unstoppable, mean act. The dalit writers through dalit literature in the form of life narratives, poetry, essays and short story should throw more insights to eradicate this deep rooted Caste System so that the homeless regain their lost Home. Periyar, E V Ramaswamy, a social Activist staged a protest walking all the way from Tamilnadu to a particular place in Kerala (Vaikkam) to fight for the dalits to enter into the temple. There is a need for Social change and this can happen only if the dalits are given their due rights of food, clothing, shelter, education and equality in the social strata.

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# CLOUD COMPUTING STRUCTURE: A NEW BUSINESS APPROACH

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#### **Abstract**

The concept of cloud computing users in an exciting collection of business opportunities, for small and midsize companies. Broadly, the industry is excited by the possibilities of enabling rich interactions between on-premises client and server applications with the flexibility and scalability of Web-based services.

It is no surprise that in the current economic climate, companies are considering cloud for potential cost savings and business agility.

Our purpose here is to shift through the noise, expose the core cloud definitions and issues affecting small and midsize companies, and help ensure that your company is one of the success stories resulting from the cloud computing phenomenon.

#### Introduction

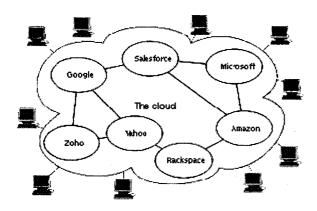


Figure 1.1

Cloud Computing means "Internet Computing." The Internet is commonly visualized as clouds; hence the term "cloud computing" for computation done through the internet. With Cloud Computing users can access database resources via the internet from anywhere, for as long as they need, without worrying about any maintenance or management of actual

resources. Besides, databases in cloud are very dynamic and scalable.

It is an independent platform in terms of computing see figure 1.1. The best example of cloud computing is 'Google Apps' where any application can be accessed using a browser and it can be deployed on thousands of computer through the internet.

First from near the beginning when mainframes were predicted to be the future of computing. Indeed mainframes and large scale machines were built and used, and in some circumstances are used similarly today. The trend, however, turned from bigger and more expensive, to smaller and more affordable commodity PCs and servers.

Most of our data is stored on local networks with servers that may be clustered and sharing storage. This approach has had time, to be developed into stable architecture, and provide decent redundancy when deployed right. A newer emerging technology,

cloud computing, has shown up demanding attention and quickly is changing the direction of the technology landscape. Whether it is 'Google's unique' and scalable 'Google File System', or 'Amazon's robust Amazon S3' cloud storage model, it is clear that cloud computing has arrived with much to be gleaned from.

As new technologies emerge, they often tend to build on the success of previous developments. Cloud computing and storage, benefit from years of development and testing of large scale infrastructure. The most important take away is that cloud storage is for everyone and every organization. From big to small, groups to individual, the use of grid infrastructure can be deployed for maximum return and efficiency.

Out of many the definitions of cloud computing as there are self-acclaimed cloud specialists. Most of those definitions include pay-per-use, instant availability, scalability, hardware abstraction, self-provisioning, virtualization and internet. The cloud computing market is typically segmented into public clouds (services offered over the internet), private clouds (internal enterprise) and hybrid clouds (a mix of both). The public cloud market is often subsegmented into IAAS (Infrastructure as a Service), PAAS (Platform) and SAAS (Software).

#### **Basic Concept**

Cloud computing found its origin in the success of server virtualization and the possibilities to run IT more efficiently through server consolidation. Soon, visionaries came up with an idea to push virtualization to a next level by implementing some early storage and network virtualization techniques and thus making abstraction of the hardware in the entire data centre. Add to this self-provisioning and auto scaling, and cloud computing was born. At the time it was called utility computing, however, and only Amazon – a bookstore – was good at it. Amazon saw a growing popularity of its EC2 (compute) and S3 (storage) and the Amazon API was being used by thousands of developers and many more

customers to deploy and run infrastructure in the cloud.

The first BYOC (build your own cloud) products that were brought to the market came from companies like Flexiscale (UK), 3Tera (US) and Qlayer (BE)[2]. They aimed at the ISP's – who had an urgent need for innovation: ISP's had entered into a price war amongst themselves and their market was now also threatened by newcomers like Amazon, Microsoft and Google. The first new services those ISP's offered were nothing more than virtual machines – allowing them to run their facilities more efficiently and still charge the same prices to their customers. Soon, companies like Savvis, Go Grid and Rack space added interfaces that enabled end users to control their own infrastructure. In early 2009, Sun Microsystems launched the Virtual Data Center (VDC), a graphical interface with drag and drop that enables users to create and manage a full virtual data center in the cloud. In March 2010, Microsoft's CEO, Steve Ballmer, made his strongest statement of betting the company's future in the cloud by proclaiming "For the cloud, we're all in" and further stating "About 75 percent of our folks are doing entirely cloud based or entirely cloud inspired, a year from now that will be 90 percent.

Currently, the battle has moved to the private clouds. Enterprises seem to be ready to cloud-enable their infrastructure either in a purely private or a hybrid (enabling cloud-bursting to public clouds for certain services) environment. All the leading software providers have announced their products and I expect an important role for integrators and Telcos to help enterprises to pick a best of breed for their own implementation.

Implementing a private cloud affects the entire business, including the entire IT infrastructure (hardware, software, services) but also most business processes (e.g. regulatory compliance). As none of the big software providers have teams with experience in all those fields – except maybe IBM – enterprises will have to rely on integrators to build

their clouds. I do expect, however, that quite a few enterprises will build their clouds all by themselves (e.g. Wall Street banks).

#### **Need of Cloud Computing**

Cloud computing deals with any subscription-based or pay-per-use service that, in real time over the Internet, extends IT's existing capabilities. Cloud computing technology provides on-the-fly, point-and-click customization and report propagation for business users, so IT doesn't spend half its time making minor changes and running reports.

Cloud computing technology is tripping a huge change in application development circles. Today, for the most part, IT must jade into cloud-based services individually, but cloud figuring aggregators and integrators are already emerging. One potential security implication of cloud computing is that if you have individual data in that cloud, you are sharing hardware/networks with potential competitors in rather close propinquity, which is why for some folks building "clouds" they look to be for the most part just virtualization-heavy internal deployments. Cloud-based tools can be up and working in a few days, which is silent of with sanctioned business software.

Increasingly, IT squads are turning to cloud computation technology to minimize the time spent on lower-value natural actions and allow IT to focus on essential activities with greater impact on the business.

The cloud computing infrastructure not only provides deep customization and application configuration, it preserves all those customizations even during upgrades. By their very nature, cloud figuring technology is much better and quicker to incorporate with your other enterprise applications (both sanctioned software package and cloud computation infrastructure-based), whether third-party or homegrown.

By eliminating the problems of traditional application

development, cloud computing technology releases you to focus on developing business applications that deliver true value to your business (or your customers).

### Cloud Architecture Design Top-down approach

To drive the design cloud architecture from the application perspective is called the top-down approach. The benefit of top-down approach is the system efficiency gain which creates just enough infrastructures for an application to run without any waste. This gives the best ROI from a business perspective.

The top-down approach works perfectly for enterprise private cloud. For service providers, however, it may or may not work. If the service provider provides specialized services such as online storage where the application workload pattern is known, then one should definitely follow the top-down approach.

#### Bottom-up approach

For service providers who provide generic services, it's hard, if impossible, to know customer workload patterns in advance. In these cases, the best service is received by following a bottom-up approach. That means designing the cloud infrastructure based on typical applications see figure 1.2.

When new applications come in, just mix them based on their workload patterns described in this blog. In so doing, we may still achieve good workload balancing and the best business ROI.

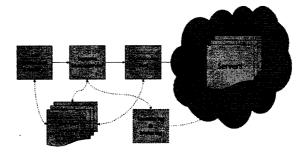


Figure 1.2

#### **Concluding Architecture:**

When using top-down approach, an individual wants to analyse the workload patterns and quantify them with numbers in CPU, memory, networking, storage and so on and cannot easily infer the numbers, just pick a similar system and measure it before adjusting your design based on the scale ratio.

With the workload numbers, one can translate them into infrastructure level requirements. To play safe, some allowance for unusual cases are necessary. On the networking side, it's not purely about bandwidth, it's also about good topology design that can help flow network traffic better.

Another very important dimension of workload pattern – timing must be kept in mind. If the same workloads and their peaks are evenly distributed over time, one should be fine. To best design a private cloud, some elements are carefully considered For example, the accounting system will peak at the close of each fiscal quarter.

Although cloud infrastructure design is mainly about computing infrastructure, we should drive the design from the applications that run on the infrastructure.

When the application workload patterns are unknown, one can go with bottom-up approach.

For the private cloud and specialized public cloud, the top-down approach is preferred. For generic service providers, bottom-up is usually best.

#### **Terminologies Related To Cloud Computing**

Cloud computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand, like the electricity grid.

#### Software as a Service (SaaS)

SaaS represents applications delivered as a service, typically over the internet. Several examples include business applications (CRM/ERP), communications and collaboration tools (such as e-mail and web

conferencing), payment, mapping, and a myriad of other capabilities.

#### Public cloud

Public cloud is a data centre made available in a metered manner to the public for purchase, resale, or some other pay-as-you-go manner. The easiest way to think of this is as a cloud housed completely outside the confines of your corporate firewall. The readily apparent benefit to this approach is the lack of upfront infrastructure investment. Furthermore, public clouds can more readily scale and address demand-based or workload-based fluctuations. Whether you are using 100 servers for 1 hour or 1 server for 100 hours, the elasticity of the public cloud reduces or eliminates any premium previously associated with large scale.

#### Infrastructure as a Service (IaaS)

IaaS is particularly helpful in satisfying the compute needs of services whose needs are high or varying, such as batch processing, seasonal traffic increases, and short-use microsites. The provider is solely focused on keeping the infrastructure "lights on" within the availability parameters defined within the purchase agreement. IaaS requires highly skilled developer resources within your organization. You simply get out what you put onto the purchased "resource," and the burden of application deployment, management, monitoring, failover, backup, and support lies with the purchaser.

#### Platform as a Service (PaaS)

In contrast to IaaS offerings, PaaS providers focus on offering rich management, monitoring, and failover needs of the purchaser's application. Value-add offerings are available as needed for an additional fee. Such offerings include rich relational database capabilities, simplification of identity and access requirements, or providing infrastructure for complex business-to-business interactions between, and outside of, corporate firewalls. Think of this as building and deploying applications in the cloud, with the cloud provider abstracting away all the hardware and software complexities associated with

deploying, securing, managing, and scaling an application.

#### Private cloud

This is a private data centre not made readily available for purchase or reuse to the general public. Private clouds are typically owned, run, managed, and supported by an individual business or organization and are contained within the organization's firewall. Private clouds are usually considered by companies with larger-scale IT infrastructures seeking to better take advantage of existing hardware and software assets.

#### Hybrid approach

This approach of adopting cloud computing mixes on-premises investments with emerging cloud technologies. [5] Microsoft often refers to this approach as software-plus-services. In this model, one can choose to either move some applications or functions to the cloud or provision a portion of users on cloud-based services.

### Cloud Computing: A Driving Platform For Buisness Strategies

#### Introduction

Cloud computing is an emerging computing technology which uses the internet and central remote servers to maintain data and applications accordingly. This new methodology of cloud computing can be broken down into three major segments. Those are namely:

- Applications
- Platforms
- Infrastructure

#### The Problem domain

The common question which arises among many IT/Business professionals is that, when your applications and sometimes even your data isn't stored, managed, and controlled by your own business, isn't it a huge risk that you and your business taking, mainly due to the possibility that the provider of those things could disappear or have

some major catastrophe with the data itself. So then the interesting "Why would any business take such a risk?" question arises.

Subscription based cloud computing model becomes a fixed cost to a controllable service of many business oriented strategy models. Main reason behind it is that the capability to bypass their own in house IT shops. These shops are seen as increasingly expensive, risky, and obviously difficult to manage or control. This constitutes a management threat, and that is why the post of a CIO was introduced to the industry.

Another way of looking towards it is that, cloud computing picks up on the same threads as outsourcing, which was the last biggest revolution which happened in the IT industry sometime back. Many experts believe that if the business can treat IT as a simple cost of doing business, and hand it over to a specialized IT company in order to manage the whole scenario of IT activities, that they can control costs and increase reliability. Now the question arises if it was been a reality as expected. Well, basically the answer is, no. The main reason behind it is, that those firms whom have outsourced IT departments have not ended up saving much money as expected. It is also known that, these outsourced firms suffer the same problems as the internal departments did, but with less pressure since they are under less direct management control. Many companies find themselves faced with the very expensive proposition of restructuring their own IT departments. After doing everything, in some cases, they do not even own the server hardware and other accessories. Yes they are trapped again, but in a different manner or with a different architecture.

#### Efficiencies of cloud computing

After considering the above problem domain, it is clear that most of the businesses lack efficiency in their process or in their business activity model. Cloud computing appears to offer some great efficiency, with some massive resource consolidation in terms of server hardware and a centralized

management system for data security, backup methods, and development and other few areas that could really benefit any business process. Interoperability, which is a common requirement these days, tends to increase in these environments, and when the applications are built well, users do like them. Ultimately, there is a high probability of all of us working in a heavily cloud computing driven marketplace. It is still young and lacks experience, but in the long run, it will go that way more and more.

#### Cloud computing and the long run

There have been many predictions about IT but unfortunately you get accounted very rarely for it.

Basically, internet is known as a "Cloud". All applications we use in order to read mail, to create documents, and to work with each other will be included within this framework.

If we take a few steps back and consider the beginning, there was computing hardware. It was small, functionality was limited and to make it do anything it had to be hard-wired to do it. Then came the BIOS systems and provided separation from that specific complexity. Later, it was the "Disk Operating System" which came along and provided a consistent way for programs to interface with hardware through the BIOS. With the usage and demand for different operating systems, made them to introduce the thread security and prevented direct access to the BIOS or Hardware. Although every other OS supported this feature, Microsoft didn't. In the recent past, the GUI (Graphical User Interfaces) came along as Windows, MAC OS, X-Windows, etc. started to provide a simplified way for users and programs to interact with frameworks like Google Desktop and Adobe Air, which was built on the work of run time frameworks like NET, Java Eclipse, Notes, and others.

Each new layer of separation seems to increase rapidly to generalization so that the programmers can enjoy when working on to create new tools. Ultimately, with the time being these frameworks will grow robust enough to offer more security, stability, user interface, data storage, and functionality required for truly robust microapplications to become pervasive. This is where the point when cloud computing will come into play.

#### Infrastructure of cloud

Infrastructure is the backbone of the entire cloud computing concept. Many infrastructure vendors provide the required physical storage space and processing capabilities that allow for the all the services which was discussed earlier in this article. The products that I have discussed within this article are slightly more varied than those in the other areas of cloud computing, but it includes ones such as managed hosting and development environments in order to allow users to build applications.

#### Why shift towards cloud computing?

The shift would affect companies with a few different sub-industries including software companies, ISP (Internet Service Providers) and hardware manufacturers. Companies in each of these industries will face some significant changes if cloud computing is to be the next step for the industry, and it seems to be so. While it is relatively easy to see how the main software and internet companies will be affected by such a shift, it will make the process slightly more easier for the hardware and internet industries.

#### What's Driving The Cloud Computing Era? An 'It' Market View

Many people reasonably wonder if the growing interest in cloud computing is a just a short term phenomenon – the latest hype destined to join other fads in the tech market trash bin see figure 1.3. IDC believes that the rapid emergence of cloud services, and the cloud computing model underpinning those services, are ushering in a fundamentally new era of growth and competition in the IT market.

The main reason we believe this is so, is that the cloud computing shift is being driven not just by the

emergence of new products and technologies, but by a "perfect storm" of market forces, along three vectors:

- the search for growth (money) in important new segments,
- the shortcomings of traditional approaches in capturing that growth, and – in case those two weren't enough to drive entrenched market players into action
- competitive pressure from disrupters, with little to lose and everything to gain from pushing the new model.

#### Figure 1.3

The need for – and emergence of – new approaches – Most of the IT industry's leaders have concluded that they have zero chance of fully capturing the growth they need – from the BRIC+ markets, SMBs and the growing number of cloud services providers – with just the traditional IT models and offerings. The traditional offerings and approaches – while they will continue to adequately serve much of the market – are too costly, and take too much time, skills and effort to adopt to appeal to these emerging opportunity customers. Here's one bit of proof: the customer portfolios of most of the industry's leaders

Forces Driving Cloud Computing
- an IT Market View

The Search for
New Market Growth

The Search for
New Approaches

Underspanning and Market Brought
(core Market)
Market Brought
(core)
Market Brought

are chock full of Global 2000-type customers, and disproportionately few SMBs, and here's the kicker: in the high-growth BRIC countries, and other emerging markets in Asia, the Middle East, Eastern Europe and Latin America, SMBs account for an especially important share of total business IT spending. Fortunately, Internet-driven models and offerings — which have been developing and maturing for the last ten years — are coming of age, accelerating in terms of: the number of suppliers, the number and richness of offerings, the scale of development and distribution ecosystems around them, and the number of customers who are used to, and comfortable with, solutions from "the cloud".

## Cloud Computing: The Future Telecom Industry

The term "cloud computing" is being bandied about a lot these days, mainly in the context of the "future of the web." But cloud computing's potential doesn't begin and end with the personal computer's transformation into a thin client - the mobile platform is going to be heavily impacted by this technology as well. That's the analysis being put forth by ABI Research. Their recent report, mobile cloud computing, theorizes that the cloud will soon become a disruptive force in the mobile world, eventually

becoming the dominant way in which mobile applications operate.

What does the term "mobile cloud computing" really mean? Basically, it refers to an infrastructure where both the data storage and the data processing happen outside of the mobile device. The examples of mobile cloud computing applications including mobile Gmail, Google Maps, and some navigation application. However, the majority of applications today still do most of the data storage and processing on the mobile devices themselves and not in the cloud.

#### Why mobile cloud computing?

With a Western-centric view of the world,

it can sometimes be hard to remember that not everyone owns a smartphone. There are still a large number of markets worldwide where the dominant phone is a feature phone. While it's true that smartphones will grow in percentage and feature phones will become more sophisticated in time, these lower-end phones are not going away anytime soon. And it's their very existence which will help drive the mobile cloud computing trend.

Not only is there a broader audience using feature phones in the world, there are also more web developers capable of building mobile web applications than there are developers for any other type of mobile device. Those factors, combined with the fact that feature phones themselves are becoming more capable with smarter built-in web browsers (and more alternative browsers available for download), will have an impact on mobile cloud computing's growth.

### How will mobile cloud computing become a disruptive force?

There are two primary reasons why cloud computing will become a disruptive force in the mobile world.

- Simply, the number of users the technology has the power to reach, far more than the number of smartphone users alone.
- How applications are distributed today?
   Currently, mobile applications are tied to a carrier. If you want an iPhone application.

### Core issues to consider: mobile computing to take off

• Cost: It can be considered that using a cloud computing solutions provider for storage and processing resources automatically saves you money because you don't have to buy equipment, configure it, and maintain it. However, cost savings depends on the requirement of type of cloud to adopt. If IaaS is bought, yet it is needed to configure and maintain the applications and servers. Some cloud implementations can save business money, while others may add more costs to business.

- Data ownership, confidentiality, lock-In, and interoperability. One of the natural concerns with cloud computing the issue of security and privacy. If the information is to be sent to a third person, how to protect data theft? And get aware of who owns the data? The point is, if an application that handles or processes sensitive or proprietary data, one should conduct a very careful analysis of the confidentiality, integrity, and overall security of the solution. And be sare to create a service using a particular language on a particular service platform that it will be able to speak with or operate with a completely different language supported by a competitive service provider.
- Service availability and application performance.: What types of service-level agreements (SLA) are promised—if a service provider one is considering issues of availability, security, and internal IT staff, cloud computing can be internal IT staff, cloud computing can be provider. A good cloud computing provider should be well staffed and equipped to manage such outages.
- Regulatory requirements, geological security: What are the local governments for outsourcing data and reporting when using the closurapplication being secured—how application being protected application being protected attacks? How is the physical the data centre you are using the considered and kept in

#### Conclusion

We will live in a hybrid wall of services, with online services of software. Businesses will focus of a company and its capable of its customers and parases by

functionality across the enterprise and the Web that can be accessed through a wide selection of devices. To address all their constituencies' needs, forward-looking businesses will utilize their existing investments and scale out across the enterprise and the Web to balance devices, servers, and services. To satisfy these increasingly demanding requirements, a developer is exploring the cloud—in conjunction with the server and the device—to understand what is best for their business and user needs.

Now is the time to evaluate the opportunities cloud computing presents to your business. Deciding how to best benefit from cloud computing really comes down to mapping the actual technology benefits to the needs of your business. Be pragmatic in your approach to both the technologies and the solution providers you choose to work with. Make absolutely certain you fully understand your agreement terms with any service provider.

#### Cloud computing advantages:

- Rapid deployment of services. Deployment in 1 day is possible. Quicker testing cycles.
- Less money needed for onsite hardware, administration and maintenance required.
- Less capital expenditure
- Scalable to handle variable business needs.
- Access to large expensive hardware and services with little costs.
- An electricity cost for local servers is saved in a cloud environment. Virtual cloud servers save on electricity by sharing.

- Disaster recovery from a local event. Easy to set up quickly in a new location.
- Data access independent of location or device.
   E.g. Home, work or while travelling. Using a desktop, laptop, net book, smart phone or thin client.
- Telephony can also now be hosted.
- National Fibre Broadband will allow larger clouds.
- Save about \$1000/year in electricity and cooling for each server not deployed locally.
- Storage costs are shared which can lower client level fees.
- Lower data centre costs. Less space, cooling, UPS, generator requirements.

#### Cloud computing disadvantages:

- · Monthly fees
- Business data is stored off site.
- What happens to your data if your provider goes out of business?
- If the internet is down locally then cloud applications may be unavailable.
- Encryption of data transmission and storage needs to be considered.
- Training of programmers with cloud standards.
- Intellectual property stored off site.

#### Acknowledgement

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# OBJECT ORIENTED DATABASE MANAGEMENT SYSTEM

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#### Abstract

The hypothesis with reference to Object oriented Database Management System is to provide an insight into development of implementation operations and maintenance of large complex data intensive application such as computer integrated manufacturing which can be simplified through the OODBMS technology. It focuses on data rather than procedures and gives more security to data. It provides three accesses, specifies private, public and protected, and strictly provides security to data in database. It also provides function as well as data so that the data can be manipulated by the given functions.

#### Introduction

Data Base Management System (DBMS) provide the facility to users to define, create and maintain the database. It gives easy access for retrieval of data and helps in maintaining computerized record keeping system. A few years back industrial experts pushed object-oriented databases as a technology on rise and said it is well suited for the emerging Internet age.

They said object-oriented database-management systems (ODBMSs) would soon become the primary database technology by succeeding relational database-management systems (RDBMSs). The available RDBMSs were not designed to handle the type of multimedia data frequently found on the Internet. It was also observed that the growth of intranets signaled a decline in the use of client-server networks, in which most relational databases were used.

The key note here is what has resulted into the development of different DBMS systems. Let us move forward and understand them.

#### Data models

Each of the DBMS is implemented on one of the

data models. Data models helps to organize and structure data and information. All the data models consist of three basic components, a set of domain and a set of relation, operation on relation, integrity rule. Based upon the structure and organization, data models are of following types:

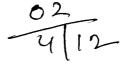
- 1. Hierarchical Model
- 2. Network Model
- 3. Relational data base model
- 4. Object oriented data model

#### **Hierarchical Model**

- It is one of the oldest model being used for representation of the data.
- It is similar to the network model in the sense that data and relationship among data are represented by records and links.
- The only difference is that in the Hierarchical model, records are organized as a tree rather than arbitrary graphs.

#### **Drawbacks**

- It only supports one to one and one to many relationship.
- Supported data access is navigational.



#### **Network Model**

- In Network data model data is represented by a collection of records and relationship among data are represented by links which can be viewed as a pointer.
- · A node contains data element and pointer
- The Network data model is similar to a hierarchical model, except that an entity can have many to many relationships.

#### **Drawbacks**

- Data Access is navigational
- · Needs skilled programmers to manage
- · Lacks flexibility to support changing needs

#### Relational data base model

- The Relational Model is based on predicate logic and set theory. It was first formulated and proposed by Edgar Codd.
- In this model, data is organized in the form of row and column similar to a table. The table is referred to as relations in a relational data model. Rows of the table are referred to as tuples and the columns of a table are referred to as attributes.
- A relational database model is defined as a database which allows you to group its data items into one or more independent tables that can be related to one another by using fields common to each related table.
- Biggest advantage of RDBMS is the ease with which user can create and access data. However, there are few limitations to the relational database management system.

#### **Drawbacks**

- Relational database does not have enough storage structure to handle data such as images, digital and audio/video.
- The second limitation of RDBMS is its inadequacy to operate with language outside sql. languages like C++, java, .Net work form. However, RDBMS do not work efficiently with these languages.
- Third limitation is the requirement that information must be in the table from where

relationship between entities is defined by values.

#### **OODBMS**

OODBMS is a combination of database capabilities and object-oriented programming language capabilities. With the help of OODBMS programmers can develop the product and store them as objects which can be further replicated or modified to make new objects with in OODBMS. Programmer can maintain consistencies within one environment using OODBMS because the database is integrated with the programming language thus model of data representation will be same in database as well as in programming language. In the case of relational DBMS an application project will have clearer division between the database model and the application.

More and more business environments are now switching on to intranet and extranet environments. Companies are showing interest in using OODBMS for representing their complex business data. The DBMS which is specifically designed to store data as objects gives advantage to those companies which are into multimedia presentations or the organizations which uses computer aided designs as a tool.

#### Characteristics of OODBMS

The most important characteristics of OODBMS is the joining of OODBMS with database technology which provides an integrated application development system. The key element in OODBMS is 'Object'. There are multiple definitions for object, here we will use: Object is a set of properties and methods for manipulation. All objects with the same set of properties and methods form a class. Although it is not possible to specify complete set of features which can be used to determine if the particular DBMS is object oriented or not, there are certainly a number of features which are common to existing object-oriented database systems.

Here are few features which are more commonly used and explained precisely:

#### Object identifier (OID)

In relational database systems records are identified only by their content. If all attributes of two records have the same values, then there is no way to distinguish these two records. But in object oriented databases objects are uniquely identified by OID. Format of OID is specific for each system. In some systems just four bytes with object index or object position in the file is enough to identify the object. In other systems object identifiers are more complex and preserve uniqueness even outside the scope of the local computer.

#### Object references

References between objects in OO databases are represented using OIDs. So, if field F of persistent object A contains reference to persistent object B, then this field F of object A stores OID of object B. Object oriented database provides efficient ways to access object by it's OID.

#### **Object classes**

OODBMS stores objects inside database. In order to make it possible to load/store objects and perform some other operations with them (garbage collection for example), OODBMS should know format of the object, i.e. set of object fields and their types. It is not efficient to store this information for each object instance. Since format of all objects belonging to one class is the same, it is possible to store class and let object reference it's class. Some OODBMS treat classes as normal objects, in which format also has to be defined. In this case the notion of metaclass is introduced. *Metaclass is class of the class*.

#### Inheritance and polymorphism

All object oriented languages support inheritance. Inheritance is a mechanism allowing child object to inherit behavior and properties of parent object. OODBMS should certainly be able to represent inheritance in database. If class A is derived from class B, then class A inherits all methods of class B and it can be used everywhere where class B can be used. So, it makes it possible to manipulate with instance of class B using variable with type A. It is

called polymorphism and its support is one of the main features of object oriented languages and databases.

#### Tight integration with programming language

Relational databases provide non-procedural query language. It means that query expressed in this language specifies what should be done, but doesn't specify how it is to be done. In contradiction to it, most of the modern programming languages are imperative languages, so the program written in this language specifies at higher or lower level of abstractions which actions should be performed to produce requested result. Object-oriented languages are also imperative languages. Although, OODBMS usually provides non-procedural query language (some kind of object oriented extension of SQL), the main language to access object oriented database is imperative language. So, the main goal of OODBMS is to provide seamless and efficient integration with this language(s).

#### **Traditional DBMS features**

Database systems were implemented to provide efficient and consistent way of manipulation with data. So object oriented database systems also need to support these features to be able to be called "database systems". One of the basic notion is ACID (Atomic, Consistent, Isolation, and Durable) transactions. It is not the intention to explain principles of supporting transactions in database systems. The only thing to be noticed is that database should be able to provide concurrent access to the data by many clients and preserve consistency of data.

### OODBMS has following advantages and benefits:

OODBMS commonly support certain features that are not available in a RDBMS. These features could be used within application to offer additional value and benefits to application consumers.

Versioning: This feature allows the OODBMS

to manage multiple versions of the same object. In its simplest form, linear versioning makes a sequential series of the same object available to an application. Each subsequent version represents the increment change in the object from the previous version to the next. The idea of a "current" version is also supported. These features would be used by many of the entities in consumer applications. Candidates for versioning include: [batch recipes + process graphics + alarm configurations + block configurations].

- Schema Evolution: This feature allows the OODBMS to deal with objects as they evolve from one release of consumer software to the next. Procedures to upgrade an "old" object to a "new" object are handled by the OODBMS.
- Off-Line Data Bases: OODBMS offer the concept of online and off-line databases. To the consumer this means a single application may be written to handle both off-line and online configuration. This means that they may run their system with the online data base, but prepare for future system expansions with off-line databases. The configuration work with the off-line database may actually be performed at a different site. The resulting off-line database containing the "new" configuration for the system expansion may be transported to the site via network, portable drives etc. A simple menu selection could merge the off-line database with the consumer's online database.

Long Term Transactions: CAD applications were some of the first users of OODBMS. These applications as well as consumer specific applications require transaction models that are not supported by conventional RDBMS. A user may require long term access to information managed by the database.

As an example, consider a process graphic that may take days to be finished by a configurer. The database

must provide exclusive access to the graphic until the configurer is finished and decides to check the graphic back into the database. Only then would the graphic be available to the rest of users. OODBMS provide this type of long term transaction in addition to the conventional locking strategy supported by RDBMS.

#### **Need For OODBMS**

The high emphasis on process integration and other business needs are enabling the adoption of object oriented database system. Broadly, we can categorize integration and business needs in following categories:

#### 1. High performance

With complex data, it is not unusual to find that an OODBMS will run anywhere from 10 to 1000 times faster than an RDBMS. The range of this performance advantage depends on the complexity of the data and the access patterns for the data.

OODBMSs are faster because they are optimized for the traversals related to complex data. They also do not have any "impedance mismatch" when it comes to using object programming languages such as Java and C++. High performance can impact business considerations in two ways:

- You simply may need the best performance possible on complex data.
- You may take advantage of the high performance OODBMSs which provide for complex data by purchasing cheaper hardware.

#### 2. Complex data

Complex data is often characterized by:

- A lack of unique, natural identification.
- A large number of many-to-many relationships.
- · Access using traversals.
- Frequent use of type codes such as those found in the relational schema

### 3. One model to reduce development and maintenance cost

Since an OODBMS stores exactly the same object

model that is used at the application level, both development and maintenance costs can be reduced. With an OODBMS, there is no need to:

- Develop two data models: an object model in the application and a relational model stored in the database. This is not needed because an ODBMS uses the same object model as the application.
- Maintain two data models. An OODBMS eliminates the maintenance cost of keeping the data models synchronized.
- Develop mapping between the relational and the object models. This is not needed because an OODBMS uses the same object model as the application.
- Maintain the mapping between the relational and object models. An ODBMS eliminates the maintenance cost of maintaining the mapping whenever there is a change to the object or relational model.

The result is that for a development team of six to seven, it is possible to have a team with one less person when using an OODBMS. It is typical when developing an object application with a RDBMS that one person is in charge of keeping the relational model synchronized with an object model and the mapping code. That person would not be needed in an OODBMS development project.

The following is an example to precisely understand the needs:

Computer integration manufacturing (CIM) area is focusing heavily on the use of OODB technology. The process integration frameworks for advance automation system, hospital patient care tracking system, etc. are using OODB technology. All these applications need to manage complex highly interrelated information. The problem with relational database system is that they require the application

developer to force an information model into tables where relationships between entities are defined by value. The relational database is in a process of trying to figure out how to represent real world objects within tables such that good performance results and preservation of data integrity is possible.

These limitations of RDBMS can be overcome with the use of OODBMS as real world entities which can be represented as object. For OODBMS, object design is the fundamental part of overall application designed process.

Suppose we wish to define two objects, classes namely 'Department' and 'Employee' then the necessary class definition for department and employee might somewhat look like:

In the above examples, we used access, which specifies the security of data from unauthorized use of data, only class members can access the data. All data and access methods are declared in the class, only defined methods can access the data and manipulate it.

In this way we can provide better security to data and save data from unauthorized access.

#### Summary and concluding remarks

The OODBMS contains extensive concepts, which makes it a lot more complicated comparing with the RDBMS. This paper gives an introduction of OODBMS concepts.

Based on all this information it is clear that OODBMS provide better information modeling facility than relational DBMS. Following are the advantages:

- 1. Schema is easier to understand because it is structured, contains more of the semantic of the data and is intuitive.
- 2. Inheritance allows common attribute to be factorized and stated once. System define object

- identifies allow compound keys which can potentially become large, to be replaced by a fixed size, smaller and uniform system define object identifiers.
- 3. Object oriented graphics interface is easier to use than form oriented character base interface. This OOGUI allows user to get to the desire information with fewer actions. [Mouse Click, Menu Selection].

Another important observation that could be made is that an OODBMS can be implemented independent of the application. This is mostly because encapsulation of data and the abstraction of implementation from use through functions.

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### SINGULARITY JUST A DREAM....!

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#### **Abstract**

This paper is an analysis for and against the term SINGULARITY. Singularity is an era in which intelligence will become increasingly nonbiological and trillions of times more powerful than it is today—the dawning of a new civilization that will enable us to transcend our biological limitations and amplify our creativity. Ray Kurzweil in his book 'The singularity is near' discusses on the possibility of technology becoming too smart like robots working as a household machine. Robots are machines with programmed brains, so what will happen if its brain becomes like the human brain? If it commits mistakes like we do at times then what will happen? He also talked about reverse engineering of the human brain that is understanding the secret of human brain. If Moore's law continues to hold true then possibly in 2045 computers will become so smart that they will not need any human interaction. Possibly, machines may program themselves as they wish. This paper is an attempt to prove the excellence of human brain than robots and artificial intelligence.

#### Introduction

Each day is a day of new inventions. Every blink gives us a new view to see things differently. Thus, technology is advancing very fast. Technological developments are no more surprising to us. We all now belong to a silicon valley, where each and every work we do depends on technology. We are hung up completely without technology, this techno virus has effected every human being and we all are now its victims.

In the past 40 years there has been an explosion in technological advancement all leading to the technology that we use today, weather it is a cell phone, TV, car, AC or any other thing that we use. The way we keep making things smarter, we have to ask ourselves how smart it is to be smart? Surely all these machines make our life easier but what happens when they become too smart? What effect will it have on how we communicate or how we interact? How will we correct our mistakes? According to "singularity summit 2007" the term "singularity" means the point where computer or artificial intelligences stops behaving in a predictable way.

Kurzweil also discusses the possibility of robots becoming smarter than human brain. But if something like that were to happen, how would we make sure they are what we want them to be? If you give something a brain that works similar to ours what happens if it makes mistakes like we do?

Talks on technological singularity since some time is hot news. Even though we cannot say what will be on the other side of singularity, that is, what kind of world our super intelligent brains will provide us, Kurzweil and others believe that our human minds, at least, become immortal because we'll be able to either download them, or internally repair them with our collective super intelligence. Our minds will continue with or without our upgraded bodies. The singularity, then, becomes a portal or bridge to future. Technological singularity refers to the hypothetical future emergence of greater than human intelligence through technological means. The term was coined by science fiction writer Vernor Vinge, who argues that artificial intelligence, human biological enhancement or brain-computer interfaces could be possible causes of the singularity. The concept is popularized by futurists like Ray Kurzweil and it is expected by proponents to occur sometime in the 21st century. Now several questions arise in mind when we talk of singularity:

- · Will this happen?
- Will machines take over humans?
- Will they fight with each other and end up with destruction?
- How nano technology is the biggest threat to singularity?

All these questions end up with several answers or views like:

- · It may happen.
- Machines may try to overtake earth.

Machines are slaves to technological advancement which come out of innovative thinking, combining senses with brain which only human beings have. Some people like Steve Talbott author of "Devices of the soul" "battling for ourselves in an age of machines" for instance suggests that machines play a very important role in our lives which we might not see as dangerous. He is worried about the future that technology might bring. His book tell a lot of stories which conclude that technological advancement would lead to destruction of humans. A 1993 article by Vinge, "The Coming Technological Singularity: How to Survive in the Post-Human Era", was widely disseminated on the internet and helped to popularize the idea. This article contains the oftquoted statement, "Within thirty years, we will have the technological means to create superhuman intelligence. Shortly after, the human era will be ended." Vinge refines his estimate of the time scales involved, adding, "I'll be surprised if this event occurs before 2005 or after 2030."

Vinge predicted four ways in which singularity could occur:

- The development of computers that are "awake" and superhumanly intelligent.
- Large computer networks (and their associated users) may "wake up" as a superhumanly

- intelligent entity.
- Computer/human interfaces may become so intimate that users may reasonably be considered superhumanly intelligent.
- Biological science may find ways to improve upon the natural human intellect.

Vinge continues by predicting that superhuman intelligences will be able to enhance their own minds faster than their human creators. "When greater-than-human intelligence drives progress," Vinge writes, "that progress will be much more rapid."

Vinge named this event "The Singularity". In 1993, Vernor Vinge associated the singularity more explicitly with I. J. Good's intelligence explosion, and tried to project the arrival time of (Artificial Intelligence) using Moore's law, which thereafter came to be associated with the "Singularity" concept.

In 2009, leading computer scientists, artificial intelligence researchers, and roboticists met at the Asilomar Conference Grounds in California. The goal was to discuss the potential impact of the hypothetical possibility that robots could become self-sufficient and able to make their own decisions. They discussed the extent to which computers and robots might be able to acquire autonomy, and to what degree they could use such abilities to pose threats or hazards. Some machines have acquired various forms of semi-autonomy, including the ability to locate their own power sources and choose targets to attack with weapons.

Some experts and academics have questioned the use of robots for military combat, especially when such robots are given some degree of autonomous functions. A United States navy report indicates that, as military robots become more complex, there should be greater attention to implications of their ability to make autonomous decisions. Some support the design of "friendly AI", meaning that the advances which are already occurring with AI should also include an effort to make AI intrinsically friendly and humane.

Isaac asimov's three laws of robotics is one of the earliest examples of proposed safety measures for AI:

- A robot may not injure a human being or, through inaction, allow a human being to come to harm.
- A robot must obey orders given to it by human beings except where such orders would conflict with the first law.
- A robot must protect its own existence as long as such protection does not conflict with either the first or second law.

Additional laws included in some stories were described as follows:

- Zeroth Law: A robot may not harm humanity, or through inaction allow humanity to come to harm
- Minus-One Law: A robot may not harm sentience, or through inaction allow sentience to come to harm.
- Fourth Law: A robot must establish its identity as a robot in all cases.
- Alternate Fourth Law: A robot must reproduce, unless such reproduction would interfere with the first or second or third law.
- Fifth Law: A robot must know it is a robot.

The laws are intended to prevent artificially intelligent robots from harming humans.

Google has introduced the Robot Operating System (ROS) for controlling robots and machines via cloud computing. Increasingly our machines will refer to the cloud for their object recognition, control and other processing functions. As the cloud develops singularity, will humans find it necessary to plug themselves in too, to survive and compete with the machines? Will we, by plugging in to the cloud, loose, forget or have taken from us, that which makes us ourselves?

Humans are very good at recognizing patterns. We even think we find patterns in places where no pattern really exists. Some good examples are the constellations. An astronomical constellation is a manmade concept. The different points of light that make up Orion or the Big Dipper bear no natural relation to one another -- in fact, the stars that make up these constellations are billions of light years apart. Yet when we look up at the night sky, our minds begin to group stars into patterns and shapes. It is this pattern-seeking behavior and imaginative vision that allows us to recognize people and objects.

'They are copying a brain without understanding it'

The brain is still the overall winner in many fields when it comes to numbers. However, because of its other commitments, the brain is less efficient when a person tries to use it for one specific function. The brain is as we can put it, a general purpose processor when compared to the computer. It therefore loses out when it comes to efficiency and performance. We have given the estimate for total human performance at 100 million MIPS, but the level of efficiency for which this can be applied to any task may only be a small fraction of the total.

Consciousness in human and robot minds

Scientists have tried to develop intelligence and common sense in robots but they are not able to understand the consciousness of human mind and its predictions – its sixth sense.

#### Conclusion

Inventions are an ongoing process. We cannot stop it. So, definitely we need to think about a way to keep science in human favour. Singularity seem to be approaching but it can never overtake human mind, as the mind that can develop a machine can also develop another advanced machine. There is no end to advancement. Scientists are aware of such things, so as to keep the machines subordinate to our minds. Like a source code can be programmed, accordingly, another computer can be used to keep an eye on our machines. For e.g. Doctors are replaced by machines to prescribe medicine to patients but it can only prescribe programmed medicine. But lacks

an IQ which is an human element. We can develop touch sensitive machine but it cannot differentiate

between touch so machines can never be as intelligent as human brain.

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# THE SIGNIFICANCE OF PHYSICAL ATTRIBUTES IN SPORTS WITH SPECIAL REFERENCE TO BASKETBALL

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#### Abstract

The material we used for this project were a basketball, notebook, pencil, inch tape and test subjects and a basketball court was the chosen place to conduct the activity. We chose 30 basketball players from X, XI and XII standards from different schools in Jaipur, Rajasthan who had represented their school in cluster tournaments. Next, we conducted an arm length test, arm strength test through push ups, palm size test and lastly three point shooting test. The students were instructed to shoot the ball into the basket in any fashion by keeping behind the three point line. Two trails each trails consist of 10 throw are given, with one point recorded for every basket scored. The better of the two trials was counted as the final score. Finally, we used Pearson's product moment correlation to compare the relationship between the variables and shooting ability. The result was positive.

#### Introduction

Sports are all forms of competitive physical activity which, through casual or organized participation, aim to use, maintain or improve physical fitness and provide entertainment to participants. Hundreds of sports exist, some require only two participants, and some need many individuals as a team.

"Sport" comes from the french word *desport* meaning "leisure", with the oldest definition in english from around 1300 being "anything humans find amusing or entertaining"

The French word for sport is based on the persian word bord, meaning "winning" or "win". The chinese term for sport, tiyu denotes physical training. The modern greek term for sport is athlitismos, directly relates with the english terms "athlete" and "athleticism".

#### **Definition**

The precise definition of what separates a sport from other leisure activities varies between sources, with no universally agreed definition. The closest to an international agreement on a definition is provided by Sports Accord, which is the association of all the largest international sports federations (including association football, American football, cycling, equestrian sports, baseball and more), and is therefore the *defacto* representative of international sport.

Sports Accord uses the following criteria, determining that a sport should:

- have an element of competition
- be in no way harmful to any living creature
- not rely on equipment provided by a single supplier
- not rely on any 'luck' element specifically designed in to the sport

They also recognize that sport can be primarily physical (such as rugby or athletics), primarily mind based (such as chess), predominantly motorized such as (formula 1), primarily co-ordination (such as billiards) or primarily animal supported (such as equestrian sports).

#### History and significance

There are artifacts and structures that suggest that the chinese engaged in sporting activities as early as 2000 B.C. Gymnastics appears to have been a popular sport in China's ancient past. Monuments to the Pharaohs indicate that a number of sports, including swimming and fishing, were well-developed and regulated several thousands of years ago in ancient Egypt. Other Egyptian sports included javelin throwing, high jump, and wrestling. Ancient Persian sports such as the traditional martial art had a close connection to the warfare skills. Among other sports that originate in ancient Persia are polo and jousting.

A wide range of sports were already established by the time of Ancient Greece and the military culture

#### Significance

The results of this study will be useful in many ways such as in facilitating physical education teachers and coaches with a guideline for selection of basketball players and preparing a good team. The results may be helpful in order to frame the training program of school and university basketball players, the coaches will get to know where and which part to emphasize during training. The methodology used in this study could be used for self assessment by basketball players and it will help the physical educator and coaches in talent identification.

#### Importance of sports

The importance of sports and games is being increasingly recognized in India, from both the educational and social points of view. More and more

funds are being allocated for encouraging sports in schools, colleges and universities, in fact, sports have become an essential part of the curricula.

There was a time when only a few students, who were fond of games like hockey, football, cricket or tennis, were allowed special facilities. Now, regular programs are drawn up in all educational institutions to persuade as many students as possible, regardless of special aptitudes, to participate in games, and not merely watch matches occasionally to cheer up their favourite teams or attend the prize distribution functions at the end of a sports season.

Educationists and others have come to the conclusion that it is in the interest of society as a whole that adequate facilities should be provided, depending, of course, upon the availability of funds, for games and sports for the country's youth, both boys and girls. Sports encourage friendship and amity.

Several factors need to be taken into account in this connection. Physical fitness is of the utmost importance for everyone, young and old. Participation in games and sports invariably ensures good health, fitness and, generally, freedom from ailments of various types.

Also, unless the human body is kept smooth, trim and in an overall fit condition, even the brain will refuse to co-operate after some time. Actually, physical fitness is essential for proficiency in studies and for winning distinctions in examinations. Ailing bodies do not make for sharp brains. Exercise in some form or another is necessary, and sports provide an easy method to ensure such fitness.

Regular participation in sports provides a healthy channel for diversion of energies. Wherever students and other youth participate in sports regularly, misdirection of youthful vigour is much less and the tendency to indulge in indiscipline and mischief is curbed.

Young people have surplus energy, and if this is fruitfully utilised, the foundations are laid for a healthy society, where people are fully aware of the need for discipline, co-operative effort, team spirit, the cult of sportsmanship, of joint devotion to the achievement of a common goal in collaboration with others. They also learn to cultivate the vital quality of learning how to work together, to become not only good winners, but also good losers.

According to sociologists, "society gains in many ways when the government encourages sports and games everywhere, provides playgrounds, the necessary equipment and other facilities, and rewards outstanding sportsmen, so as to encourage others also to play games. The crime graph dips, which means that the incidence of general crimes decrease because the right spirit and the right approach to things is developed on the playground.

Those who violate the rules, play foul or exceed the permissible limits, or indulge in tactics that are unfair, are promptly pulled up by the referee or the umpire. Anyone who refuses to mend his ways or to repeatedly violate the rules is ordered to quit the field and is replaced by another player. This helps to inculcate the habit of respecting the judge and of observing the rules.

In any case, the relatively poor show of our athletes in international competitions does not weaken the case for encouraging sports which help to lay the foundations of a healthy, sound society. The cost is returned several-fold.

#### Research in the field of sports

Hoffman in his study aimed to look for the best relation between leg length and frequency of sprinting stride taking into account length of his legs. The measurement was taken exclusively during the competition. The result showed that the leg length is connected more with the athletes running than his height.

The purpose of **Joseph's** study was to find out whether there is any relationship of selected anthropometric and strength variable to speed performance. Twenty four male sprinters of the Lakshmibai National Institute of Physical Education, Gwalior who were undergoing regular training at the college track and preparing for collegiate and intervarsity athletic meet were selected as subjects for the study. The study results show that there is a significant relation of leg power, abdominal strength, thigh girth, calf girth, height and leg length to speed performance.

Thomas studied the relationship of motor components and anthropometric variables to the velocity of basketball throw. Motor fitness components chosen were wrist strength, waist and shoulder flexibility, speed of movement of arm. Anthropometric variables were upper arm length, lower arm length and total arm length with height, sitting height, weight and leg length. 25 male basketball players in the profession of physical education were chosen as the subject for the study. Analysis of the data showed that there is a significant correlation between the velocity of long and hook basketball passes and the anthropometric variables.

Dey T.S. made an attempt to find out whether at certain levels of achievement, sportsmen participating in different games were characterized by distinct anthropometric measurement, and to find out proportionate ratio of segmental and total body measurement required for a particular game. For this study, 12 players from each sport i.e., swimming, basketball, handball, table tennis were selected from the top first four standing teams of National school games. The results of the study have indicated that a) Basketball players have significantly more height, arm length, leg length, thigh girth and weight as compared to handball, swimming and table tennis players, b) Handball players posses more height, leg length, thigh girth and weight as compared to

swimmers and table tennis, c) Arm length, arm girth of swimmers is more as compared to handball and table tennis players.

Sisodiya Singh Aman conducted a study to determine the relationship between anthropometric measurements and the playing ability in basketball. 50 male and 50 female basketball national level players of Rajasthan state were selected as subject for the study. The study exhibited an insignificant relationship with field goal speed test (basketball playing ability) and with throw for accuracy at the chosen level but the value of product moment correlation is quite high which may be understood that the size of body may contribute to basketball playing ability when combined with other variables. The finding of study showed a not so significant relationship between body weight and basketball playing ability which attributed to the fact that basketball players do not require bulky body which may hide the performance of the players. The findings reveal that insignificant relationship exists between Leg length and Field ball speed test and dribble test (basketball playing ability), no significant relationship was found with throw ball accuracy. The data was analyzed by using Pearson's product moment correlation (r) for assessing the relationship of basketball playing ability to selected variable of anthropometric measurement.

Singh Vikram conducted a study where they compared selected motor fitness variables among male basketball, volleyball and handball players. The study was conducted on 36 subjects with age ranging 18 to 25 for the comparison of selected Motor fitness variables among male basketball, volleyball and handball players from Purvanchal University. The variables selected for the study were Motor fitness variables (agility, co-ordination, static balance and dynamic balance). One way analysis of variance (ANOVA) was used to find out the significant difference among the three groups. The LSD post hoc test was used to find the significant difference

in paired means. It was concluded that there was significant differences between basketball, volleyball and handball players in motor fitness (agility, coordination, and dynamic balance) variables. There was no significant difference in static balance among basketball, volleyball and handball players at .05 level of significance.

#### **Orientation to Basketball**

The game of basketball had its origin at the International Y.M.C.A. training school at Springfield Massachusetts, U.S.A. in 1891. It was invented by Dr. James Naismith by combining some element of soccer and rugby into a new game with a set of 13 rules only. From such a beginning it has evolved into a graceful game and in the present day basketball is fast aggressive and attractive sports for spectators.

Basketball today with its increasing popularity has become intensive and competitive. Basketball the American invented game which has spectator support all over the world, made its way into India through the Americans missionaries during 1930. However, in India it has not been able to achieve any spectacular success in the international competitions.

This poor performance could be attributed to lack of facilities and absence of advancement of scientific coaching. Correct learning of skill is possible only when the learner possesses adequate strength, endurance, flexibility and agility.

A high level performance in basket ball not only required certain physical qualities like speed, endurance, explosive power, agility etc. but also a good physical structure. Under modern condition especially related to training for sports and games with a focus on superior performance adequate importance is given to physique and body build of each athlete.

In modern sports the anthropometric measurement and their relationship with various motor traits are importance guidance for the coaches and athlete themselves for making training schedule and for classification of student into different groups according to their age, ability etc.

Several factors such as age, experience, height and weight influence the selection of players for National Basketball Team.

Extensive research studies on the physical built of basketball players have been conducted in different parts of the world. Genetic and anthropological studies have been conducted on Olympic basketball players and useful findings have been recorded. Several countries give weightage to these while selecting their national team for international competition.

Along with physiological characteristics the structural requirements are equally essential for the players who expect to be good rebounders or shooters in basketball, standing height and height palm reach make the performance of this part of the game much easier for the taller players.

Strength is one of the most important components of physical fitness, which effects the performance in all activities in some form or the others. If a player does not have good size and strength, the best way to achieve them is through a well planned weight training program. Most coaches recognize the need for general body strength in a basket ball player.

Strength training has long been accepted as a means of improving performance and preventing injury and most coaches have made it an integral part of their overall conditioning program during the off season. Since performance depends upon explosive power, speed of movement and an aerobic muscle endurance, any athlete who hopes to maintain his pre-season strength level must continue working at it during the season.

For better performance in sports, coaches usually consider physique and physical fitness of the sportsman. It is always a great task for coaches to specify the aptitude of their trainees for different positions in games or sports. A measurement and physical variable play a very vital role in most of the games and sports. Certain anthropometric configurations, somatotypes, and racial traits are identified as advantageous for performance in specific sports.

Strength is a vital factor on which the sports performance depends. Depending upon the magnitude and type of resistance to be tackled in various sports, the sports man of different games need different level and type of strength to achieve good performance. Therefore, the teacher of physical education and coaches while selecting their teams for participation in tournaments give due consideration to the skill possessed by their players and at the same time they give due weightage to various anthropometric measures such as height, weight, leg strength, hand length, girth etc. Usual concept which physical education teacher and coaches have that a player who is tall, who has a broad chest and who has a sufficient weight will be more fit as compared to a player short in height and lean and thin. Teacher of physical education and coaches very frequently remark that a good tall sports man is better than a good, short sports man. In basketball grouping of athlete must be done on a physiological development basis.

The present investigation was therefore undertaken to gain a better understanding of the importance of selected strength variables and anthropometric variable on shooting ability in basketball.

#### PROCEDURE AND METHODOLOGY

Selection of Subjects: Subjects were randomly selected. 30 male students were selected with lottery method. All the players were from high school (X TO XII) cluster level. All the 30 male basketball player were from different schools of Jaipur, Rajasthan.

Selection of Variables: The important anthropometric characteristic and required physical variable, which are desirables for better performance in basketball such as arm strength, arm length and palm size.

Criterion Measure: Different instrument were used to measure various dimensions. Dimension of the palm was taken with a measuring tape and unit of measurement was centimeter. Arm strength was measured by push ups, measuring tape was used to measure arm length and unit of measurement used was centimeter.

Procedure for administering the test: The test in all selected variables was administered on the basketball court, assessing the arm strength and three point shooting test were conducted in basketball court.

In order to obtain data on selected variable, the tests were conducted as follows:

Arm length: This test was conducted on a basketball court and a normal measuring tape was used for this purpose. Subjects were allowed to stand in relax position with arms fully extended. Measurement was taken of the distance between the shoulder joint and

to the top of the third finger. The score of arm length was recorded to the nearest centimeter.

Arm Strength Test: The subject was told to straighten his arm, front leaning resting position. From this initial position they were asked to lower the body, until the chest touched the mat and came back to the initial position. Number of push-ups were completed till the subject was exhausted in his score.

Palm Size: Subject was told to stretch the palm fully. The length was taken from bottom of middle finger to midpoint of interstylon line. Width is measured from natural concavity near palmer- digital crease to midpoint of bottom of thumb and lateral index finger.

Three point Shooting Test: The student was instructed to shoot the ball at the goal in any fashion from behind three point line. Two trails, each trail consisting of 10 throws were allowed, with one point recorded for every basket scored. The better of the two trials was counted as the final score.

Statistical Technique: To determine the relation of, arm strength, palm size and arm length seperately with performance of throw shot was established by using Pearson's product moment correlation.

S.NO.	Arm	Palm	Arm	three point shooting performance	
	length (cm)	size (cm^2)	strength (kg)		
1	77	199.5	24	4	
2	80.5	215.25	29	7	
3	80	220	32	6	
4	79	200	28	6	
5	83	218	31	7	
6	76	230	26	5	
7	80	210	31	6	
8	82.5	235.75	34	6	
9	73	184.5	22	4	
10	83	225.75	30	7	
11	82.5	225.5	38	7	
12	78	241.5	19	5	
13	84	225	33	8	
14	83	210	30	7	
15	85	260	40	8	
16	81.5	225.5	29	6	
17	74	236.25	22	5	
18	78.5	214.5	33	6	
19	84	253	36	7	
20	79	204.5	19	4	
21	83	210	31	6	
22	81	205	25	5	
23	91	264	21	9	
24	77	209	29	7	
25	83.5	225.5	41	8	
26	82	231	36	8	
27	81	218.5	35	6	
28	80	214	43	9	
29	77	2210	31	6	
30	76	205	27	5	

#### **Descriptive Statistics**

	Mean	Std. Deviation	N	
ARM LENGTH	80.5	3.67658	30	
PALM SIZE	220.8833	17.93916	30	
ARM STRENGTH	30.1667	6.25925	30	
SCORE	6.3333	1.37297	30	

Conclusion And Recommendation: The purpose of this study was to investigate the relationship of arm strength, arm length and palm size to the performance of three point shooting ability in basketball. Thirty male students from different schools of Jaipur (Rajasthan) India those who are in high school and represented their schools up to at least cluster level basketball were selected as the subjects for this study. The average age of the subjects were 18 years ranging from 16 to 19 years. The dependent variable was performance of three point shooting in basketball (10 throws) and independent variables selected for this study were arm strength, arm length and palm size.

The palm size and arm length and arm strength

measurements of the subjects were taken on different basketball courts. The data was analyzed by using Pearson product moment correlation(r) for assessing the relationship of basket ball three point shooting ability to each of the selected anthropometric measurements and physical variables. The level of significance chosen was .05.

Within the limitations of the study following conclusions may be drawn:

- Three point shooting performance in basketball had significant relationship to arm strength, arm length and palm size.
- It is possible to predict basketball three point shooting performance on the basis of arm strength, arm length and palm size.

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#### St. Xavier's College, Jaipur

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Every institution, it has been said, is but the lengthened shadow of a great personality and St. Xavier's College, Jaipur is no exception. St. Francis Xavier, whose illustrious name honours the College, inspired his spiritual brothers in arms with his deathless spirit, the spirit of a saint and of a scholar, so that they did for the college what he himself could not do.

Saint Xavier's College's history in India is a record of the achievements of generous, self sacrificing and dedicated Jesuits of India, not only of India but of the world. These men were, so to say, standing-in for St. Francis Xavier and they did what he would have liked them to do, viz, to promote the cause of higher education in India.

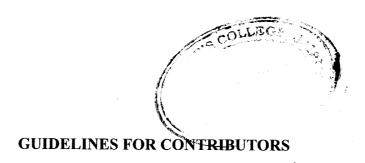
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