## Strategic Competitiveness of Corporate India through Collaborative Restructuring

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#### Abstract

With the process of globalisation going on both the private and public sector first entered into overhauling of their organisational structure and processes and now have adopted highly aggressive path. This restructuring has become inevitable due to changed economic environment and policies, incomplete reforms, weak base of material production and growing emphasis over TQM in its strategic variant, its associated developments like strategy-orientation, attitudinal development, team building, achievement motivation, transformational and visionary leadership, creativity training, intrapreneurship, TCM, BPR, Benchmarking, performance management, TPM, SCM and CRM.

Corporate restructuring in India started with PSU reforms in mid eighties in the forms of MOUs, holding companies, SCOPE, Public Enterprises Selection Board, etc. But, later on the private sector was also gripped by this fever. Now various novel experiments like morphing, designless structure, coordinated cooperative or participative structure, family models, BPO, BPR, c-Commerce, c-Business, social control and diversification have led to transformation of their whole of organisational structures and processes. The collaborative commerce (c-Commerce) is leading to extension of enterprise level structures to extraprise level. Its main features are:

- Common solution to shared challenges
- Product-Oriented Collaboration
- Centered on Internet Technologies
- Collaboration between companies in a supply chain but competition between supply chains
- Cooperation on a secure and long- term basis
- Span of Business Process to Extraprise levels.
- CRM to be the focus of c-Commerce

These structural and behavioural reforms are having implications on human, financial, marketing, R & D, production, work culture and efficiency.

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Public sector reforms have been a major public policy issue in India since the mid eighties. They were compared to the private enterprises on the measuring rods of profitability, employee productivity, cost- effectiveness, quality and diversity in output, customer- service and so on and were mostly found to be inefficient and ineffective. But with the process of globalization going on along with liberalization and privatisation the private sector first entered into overhauling of its organisational structure and processes and now has adopted highly aggressive path. Hence the talk of corporate (both public and private) restructuring goes on since the mid nineties in particular. Some call it reorganisation or organisational renewal or corporate reforms. These are minor variants of the same phenomenon. The strategy orientation of all organizational processes and functions has made these reforms inevitable.

### Why Corporate Restructuring?

Many factors have contributed to this phenomenon as is shown in figure 1. The Indian economic background is the basic one. For the first twenty years since the Independence government and business both worked in unison with supportive relationship though Nehru placed a lot of reliance on public sector. But things changed drastically when Mrs. Gandhi took decidedly a leftist line. The period between 1967-1984 is well known for license-quota-permit raj



where entrepreneurs couldn't base their business plans on market conditions. This period saw many policies designed to kill industry. (Prasad, 2002) Further, the highly protective foreign trade policy also resulted in lack of attention to product quality, competitiveness, cost-effectiveness and customer service. As the situation has changed drastically and even dramatically the business organisations are undergoing serious adjustments.

The private - public debate has proved to be quite superficial and cosmetic in nature, just a matter of fashion. Both the public and private sectors have been victims of multiple inefficiences and ineffectiveness. One due its politicization, bureaucratic and excessive government control and the other due to its traditional family business style, monopolistic and oligopolistic tendencies, profiteering at the cost of quality, customer faith and community concerns and restrictive government policies. Take the case of public sector banks. They were earlier private ones and they ignored the community concerns, national priorities, small borrowers and non-urban areas. Bank failures and bankruptcies were common. The banks participated in anti-social activities like lending the public money to speculative, hoarding and profiteering. They had to be brought under social control, but they were all of a sudden nationalised purely as a political manoeuvre. The same happened to insurance, coal, textile etc. But nationalisation resulted in excessive involvement of government money in these enterprises and gross inefficiencies. Again the mood changed.

The first phase of reforms initiated the process of disinvestment of profit making enterprises. But what about loss-making enterprises? Many experiments were resorted to like pooling of civil servants and their deputation to PSUs, MOUs, holding company structure, public enterprises selection board, retrenchment, VRS etc. But the tendencies of bureaucratism and politicization could not be tamed sufficiently. The inefficiencies of the loss making state electricity boards could not be removed. Instead the prices of electricity continued soaring. The same used to be the case with the state road transport undertakings.

The so-called second phase of reforms started with 2001-2002 budget. It was expected to concentrate upon the financial sector reforms. But the Governments have been quite hesitant and slow on such reforms in the way as two steps further and one step back because of their political implications and also the risks and uncertainties involved in them in a period of industrial and financial recession worldwide. The economic depression started in 1989 and was expected to end in six years, i.e. 1996 but it continued unto 2001 with inherent uncertainties and violent upheavals. As against this, the stock market has been a victim of artificial and manipulative skyrocketing since then. The Asian crisis and later the crisis in Argentina put a serious warning on bold reforms earlier and delayed this process.

The low performance in material production in industrial and agricultural sectors in the 80s and 90s also intensified the need for complete overhauling. The direct leapfrogging of the Indian economy from agriculture to services ignoring the industrial production was not a good signal. It was bound to lead to dualism and many more complications. The weak base of material production is sure to cap the demand for knowledge, information and services and limit their growth. A large part of the services sector is non- productive or even unproductive like administrative and judicial services, financial services, etc.

The Indian economy has been a victim of dualism also. In many sectors like computer hardware and software, space technology, communications, entertainment, cars, etc. it has been trying to establish parallelism with highly globalised, liberalised and advanced world quite aggressively. But in other sectors like Indian polity and bureaucracy, the traditional Indian businessmen and the traditional Indian farmers have been quite slow in freeing themselves from the structural rigidities in their beliefs, values, attitudes, systems and procedures.

A weak physical production structure in every sector has been responsible for recent recession in knowledge and information economy which is needed mainly for management of information relating to acquisition, processing and distribution of material production as well as services. The capital and resource scarce Indian economy has not been able to ensure proper



development and utilisation of agro-industries, ecological and commercial forestry, water and land resources and infrastructure. For this, an integrated but decentralised approach to forest, water, agriculture and agro-industries is needed. Recently both the government and public sector have started to pay better attention to these sectors along with information and communication technology and design its structure accordingly in order to successfully come out of industrial recession. Lop-sided and unbalanced industrial development highly skewed to non-durable consumer goods, information technology and communications is a major factor responsible for uncertain and slow recovery, unbalanced utilization of varied complimentary resources is mainly responsible for economic disparities and depression.

A highly positive development in the form of quality consciousness and strategic total quality management(hereinafter STOM) has also made restructuring indispensable. A quality culture has to be inculcated amongst people at every level within the organisation. Some associated developments like strategy-orientation, attitudinal development, team building, achievement motivation, transformational and visionary leadership, creativity training, intraprenurship, total cost management, BPR, performance management and total process/preventive management (TPM), benchmarking, SCM, CRM and so on are also bound to have implications for corporate restructuring. The emergence of RDL, Ranbaxy, Tata Steel, Birla (in Aluminium) and so many other numerous Indian software firms in the global economy with their acquitive and merger powers is the excellent outcome of this quality awareness.

### **Factors Responsible for Corporate Restructuring**

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The Slow and Inefficient Economic Recovery after Prolonged Recession	
Second Generation Reforms	Dominance of Service and knowledge Sector
First Generation Reforms	Weak Material Production Structure
Economic Dualism	Protectionist Economic Background

Figure: 1

### **Developments in Corporate Restructuring**

The structure of any corporate body depends upon its nature of work (structured or unstructured, rigid or flexible, programmable or uncertain, simple or complicated), nature of environment (static or dynamic), organizational vision and organisational strategy. On the basis of these factors many interesting developments are taking place in corporate restructuring as are mentioned in Figure 2.

### (A) The Earlier Experiments

The holding companies like SAIL, GAIL etc. were organised earlier for providing an integrated and depoliticized environment and responsible management to the PSUs. Memorandum of Understanding (MOU), SCOPE (Standing Conference On Public Enterprises) and public enterprises selection boards were undertaken for the same purpose. In the private sector the functional structure has been replaced by (product) divisional structure by companies like Godrej Boyce. Delayering or morphing of the structure has been resorted to by Whirlpool, HCL, Associated Instrument Manufacturers India Ltd. (AIMIL), Ashok Leyland, BPL, ITC, etc. This has led to dejobbing and redesigning of the organisations and downsizing of workforce. Now promotion mindset is being changed over to project performance, development of multiple



skills, leadership, customer-orientation and intrapreneuship. (Managing People,1996) Debureaucratisation and removal of red-tapism in the public rector needs complete overhauling of the structure and processes and professionalism and stability in management of such enterprises which has been followed by power centered polity and bureaucracy more in words and less in spirit.

### COLLABORATIVE RESTRUCTURING

- (A) The Humano Economic Side
  - \* MOUs
  - \* Holding Companies
  - \* Public Enterprises Selection Board
  - \* Designless structure
  - \* Cooperative / Participative Structure/ SMWTs
  - \* Family Models
  - \* Social Control

### (B) Technical Side

- \* B P O
- \* B P R
- \* Benchmarking
- \* c-Commerce and c-Business
- \* S C M
- \* C R M
- \* Diversification
- \*STOM

Figure: 2

## (B) Designless Structure

Its purpose is to eliminate job definitions to allow employees to learn, specialise and apply techniques in areas they are interested in. The structure has to be flexible like an amoeba incorporating self-learning cross-functional horizontal teams which are fluid and based on emerging products and markets. Here, employees move around until they find the products where they can add most value. Teams have to be build around projects, old notions of hierarchy have to discarded and the people have to be on a continuous learning curve. The STQM-oriented models have to follow horizontal process view rather than the traditional vertical structures in their organization, functioning and attitudes.

## (C) Cooperative/ Participative Structural Models

Some models like co-determination, cooperative corporation, self-managing work teams (SMWTs), quality circles and strategic circles are quite supportive to strategic HRM (Human Response Management), industrial relations and quality management efforts. A decade ago a feeling was widely prevalent that cooperation has failed in India. But now the position is just the reverse which is clear from the following observations:

- (a) Most of the prosperous economies in the world have been significantly served by cooperative organizations like Denmark, Israel, Sweden, Switzerland, Japan, Germany, South Korea, etc.
- (b) Even in India the earlier industrially developed states like Gujarat, Maharashtra, Tamil Nadu etc., are now advanced in agriculture and allied activities also. This is mainly due to the significant role played by the cooperatives.
- (c) The regional groupings like European Union, NAFTA, SARRC, etc. are cooperative efforts for mutual progress of member nations at economic, political and social levels. The EU is significant. The less developed members of EU are making higher gains in age of common



currency. Members have been able to establish balance in flow of resources, products and advantages in the direction of collective upliftment. Such wise developments need to be a source of inspiration in adopting practicable structure for a business corporation.

(d) The Self Help Groups (SHGs) or informal cooperatives have produced good results in activating many voluntary agencies, organizing and empowering people especially women and promoting the economic level of the masses. On the more sophisticated side, the companies like Proctor and Gamble have been resorting to self- managing work teams (SMWTs) since the early 1960s.

A SMWT is a group of co-workers in the same areas sharing common goals and objectives. They are responsible for managing the work in their unit by pooling their knowledge, talents and skills to achieve quality results. In SMWT the people work as valued team members who share common goals and interests; skilled through past experience and ongoing training; and empowered with authorisation, resources, information and accountability. They handle job assignments, plan and schedule work, make production- related decisions and take action on problems based on mutual trust and respect with minimum of / no direct supervision.

As compared to traditional teams, participative teams and shared leadership teams the SMWTs denote a higher level of empowerment. Apart from doing their individual work, team members are also empowered to manage the performance of their unit - to carry out planning, organising, staffing, directing, controlling and improvement functions traditionally carried out by management. (Paramsivan, 2002)

Sometimes called autonomous work groups or sociotechnical teams or self-directed work teams, SMWTs are natural work groups that are expected to control their own behaviour and results. Typically, team members progressively learn a wide range of relevant skills; float from area to area, depending on where they are needed most; and make joint decisions about work schedules, resource requirements, and assignment of tasks. The work of self-managing teams is assisted by team leaders (not called supervisiors), whose main role is to facilitate the success of the group. The group of employees (typically 10 to 15 in number) take on the responsibility of their former supervisiors.

(e) Collaborative product commerce or c-commerce seems to be a new incarnation of cooperative approach in 2002 as is mentioned further.

## (D) The Family Approach

In fact, the wholesole problem with joint stock companies has been that of creating sense of belongingness and team spirit among the various parties concerned with a company. It has already passed through many improvements and developments in its structure and style of functioning. Many progressive companies have been trying to develop a sense of attachment and team spirit through an amalgam of company and cooperative forms. Some of these companies are Pearl Polymers Private Ltd., Quad Graphics (USA), W.L. Gore Associates (USA) and Sahara India. The top management team in Pearl Polymers Private Ltd. consists of four brothers each having a special area of activity. The eldest brother is the overall group incharge who coordinates and looks after the interests of the entire group besides being responsible for an activity like marketing and trading. Quad Graphics, a very successful print company in USA calls its workers 'partners'. W.L. Gore Associates refers to all its people on its pay rolls as 'associates'. Sahara India treats its directors as worker directors. Thus, the tendency to adopt family approach in company ownership and management has increased. What a strange phenomenon! Blood-related family members run economic units in backward economies while companies are trying to convert themselves into families of members with common goals, common stakes, team-building and teamwork in the modern progressive economies. This family approach is much more reflected in the Japanese style of management.



#### (E) Social Control

As compared to the extremist approach of wholesole nationalization or privatization social control has been be a better option for large and basic/key /strategic industries. It is well known that the option of social control was under consideration of the Banking Commission when a sudden pre-mature decision was taken by the Indira Government in 1969 for nationalization of fourteen large banks. Social control has been allowed no opportunity to work, not even now at practical plane. But it is worth experimenting in three ways. Firstly, the ownership of such industries should be co-shared by the government, Financial Institutions, cooperative body of all employees and the private investors with no majority of anyone. The second option is to allow majority shareholding of private investors with limited voting power in matters of strategic, national and public interest. The third option may be majority shareholding and voting power to private investors with the decisions on matters of strategic, national and public interest be subject to majority approval or revision of a national or state level board consisting of the representatives of government, industry, labour, consumers, technical experts and judiciary. The efforts by the Government of India for reducing the Government share in nationalised banks up to 33% is welcome but it should also be supplanted with any of the last two measures mentioned above. But direct control or interference of the Government is not necessary in most of the cases. The Government bureasurats are also needed to be disassociated from such undertakings. In addition to banks other industries and services of commercial and cooperative nature also need to be covered by social control measures.

## (F) Business Process Outsourcing (BPO)

BPO represents a huge opportunity for India today. Sometime in 1990s, C.K. Prahalad's core competency theory caught the imagination of most big corporations in the world. The basic lessons of the theory  $\Box$  identify what your core competencies are, focus only on them, and get out of everything else. Later, even though this theory was supplanted by newer management buzzwords, it had an enduring effect on the operations of many big corporations. One of the most prominent phenomenon it brought about was BPO. A lot of companies realised that they could outsource those staff functions, which added no value, to specialist outside firms. That would free them up to concentrate on matters more crucial to their business - like manufacturing or production management or marketing  $\Box$  instead. Companies also found that specialist, outsourcing service providers could do the some job at fraction of what it cost the company to run an in-house department. Moreover, at the top end of the scale, an outsourcing service provider could actually act as a consultant for that function. (Singh & Jayashankar,2002)

This phenomenon may have serious implications for the structure and processes of the companies. Many private Indian companies like e-Service International, Bird Group, HCL Technologies, Dell International Services, EXL Service, iEnergizer, eFunds, India Life Hewitt, Icon Data Management, Ernst & Young, GE, Global Tele-Systems, it Accounts, iBackoffice, etc. are involved in BPO. The PSUs in particular need to adopt this technique that will force them to delete those systems and process which add no or little value.

Shelly Singh (2005) reported the global business in temping to be of the size of \$200 billion with over five million people. In India, it is in its nascent stage with a workforce of half a million translating to Rs 450-crores worth of wage bills. Nasscom's (2007) report on Indian IT industry 'Strategic Review 2007 shows that BPO operations continue to grow in scale with present business volume of \$8m along the annual growth rate of 32 per cent with (Murli, 2007) a possible saving of 30%-40% in costs. Their scope is also continuously widening to cover KPO, Legal PO, Transformation PO and so on. Experts predict that in the next 25-20 years, around 20% of the working population would be temps mostly in white- collar IT jobs. Tejaswi (2007) mentions about the medical, healthcare and pharmaceutical (MHCP) BPO that this sector alone may account for two lakh people in India by 2008, up from about 20,000 people in 2006.But the healthcare system of developing countries is seen to be riddled with inefficiencies, excessive



administrative expenses, inflated prices, poor management, inappropriate care, wastage wastage and fraud.

The BPO companies have also accepted now accepted the reality of job hopping young employees' casualness about jobs and resignations leading to 50% attrition rate for this industry in the first seven days of the joining month. Chhavi & Naithani (2007) The Indian BPO sector is also pleagued with outdated curriculum heavily dependent on say, old accounting standards, JAVA languages with inadequate understanding of US GAAP & newer language concepts like SAAS respectively (Vyas, 2007); poorly trained&skilled and even fake employees; dominance of low-end jobs taken from developed countries; tough challenges from China(annual growth rate 22% as compared to 16% of that in India) and Phillipines; and so on.

## (G) Business Process Reengineering (BPR)

The comparative study between Ford Motors and Mazda in respect of management of cash flow and accounts payable in the mid-eighties proved that by obliterating the redundant processes, streamlining the processes and reducing the work in various business functions along with automation the companies can realize substantial savings in time, human resources and cost. (Jayaraman, et. Al., 1996) This is a challenge particularly for rule-obsessed public sector units who are a victim of bureaucratic red tapism and obsolete procedures. The STQM also takes BPR as a pre-requisite.

### (H) c-Commerce and c-Business ☐ An Electronic Version of Cooperation

Companies need to cooperate to build common solutions to shared challenges. The internet economy demands, as well as, encourages collaboration, given the spread of geographically dispersed virtual corporations, matrix management, a centreless network organisation, project-based teams, outsourcing and supply chain integration. Collaboration brings human interaction to business processes letting any one reach out to distributed workforce and to their customers and suppliers in an increasingly decentralised and interconnected business economy. Most business processes are collaborative in the sense, that people need to interact, and they need to reach across business boundaries to do so. (Balasubriamanian, 2001)

Collaboration is about more than Web pages and employee e-mail. It is about rethinking every aspect of how a company does business, from how to interact with customers, employees and suppliers, to the design of new products and IT execution strategies. Also known as Collaborative Product Commerce (CPC) c-commerce is centred on internet technologies that allow different dispersed resources like design, sourcing, engineering, testing, sales and customers to share information and communicate throughout the development of new product. c-Commerce and c-Business cover intranet and extranet technologies also along with internet technology. It is extension of the enterprise both back and front ends. The popular collaborative softwares developed for large as well as medium & small enterprises in **proprietory category** are 1C:Enterprise from 1C Company, 24SevenOffice Start, Premium, Professional and Custom from 24SevenOffice, Accpac from The Sage Group, Agresso Business World from Unit 4 Agresso, AMS Advantage from CGI Group (formerly American Management Systems), BatchMaster Enterprise from BatchMaster Software, Inc., BPCS from SSA Global Technologies, Enterprise Business System from Made2Manage Systems, Epicor Enterprise from Epicor, IFS Applications from Industrial and Financial Systems, JD Edwards EnterpriseOne & JD Edwards World from Oracle, kVASy4 from SIV.AG, Lawson Financials from Lawson Software, MFG/PRO from QAD, Microsoft Dynamics from Microsoft, Movex from Intentia, NetERP from NetSuite Inc., Oracle e-Business Suite from Oracle, ORION from 3i-INFOTECH LTD., PeopleSoft from Oracle, Ramco e.Applications from Ramco Systems, Sage MAS 500 from The Sage Group, SAP R/3 from SAP, mySAP from SAP, SSA ERP LN from SSA Global Technologies, TQT from iSystems, Inc., Visual Enterprise from Infor Global Solutions. In the free & open category these are Adempiere, Compiere, ERP5, GNU Enterprise, OFBiz, OpenBlueLab, Openbravo, Opentaps,







Tiny ERP, WebERP.

http://en.wikipedia.org/wiki/List of ERP software packages).

There are different **value propositions for collaboration**. The first level is about creating electronic meeting places. Next is setting up collaborative supply chains to enable c-commerce transactions between buyers and sellers. Furtheron lies the evolution of a common infrastructure investment for cross-enterprise coordination, while a still a more advanced version is about recognising the value of business collaboration and finding ways to measure it. (Balasubriamanian, 2001)

Collaboration between fewer supply chain partners on long-term contract basis(highly emphasized by the well known quality legend Edwards Deming) is considered to be a key component in the success of Japanese manufacturing, and other countries have also learnt to emulate the model. Cooperation on a secure, usually long-term basis is needed to achive the level of trust and knowledge required to work together effectively. By doing this, lower inventory levels, swifter change in response to market variations and improved new product development are argued to be possible. The companies that have demonstrated these principles in action include Dell, Cisco and Hewlett-Packard.

The supply chain management (SCM) has also been one of the fertile grounds for innovation. It synthesizes such seemingly diverse fields as Distribution Channel Design, Quality Management, Quick Response Systems, International Warehousing Management, Third Party Logistics etc. This recognises the fact that it is no longer a competition among companies, it is rather among supply chains. (Singh,2000) The business processes now span from within 'enterprise' to 'extraprise'. Global or multinational organisations are creating supply to marketing chains by shifting critical functions to low-cost locations anywhere in the world. This means that entire supply chains are to be re-engineered to connect suppliers with remote design, production or storage facilities. In addition to SCM other elements of e-commerce like EDI, ERP, CRM, EFT and electronic payment system, etc. have also been expanded to extraprise level within the overall collaborative framework of Business Intelligence & Knowledge Management. As a consequence the organisational structures of corporate bodies have to be converted into collaborative structures. The phase of c-Commerce as an advancement over e-Commerce has now taken concrete shape.

The focus of collaborative restructuring designs has to be customer relationship management (CRM), e-CRM and c-CRM. CRM is the process of understanding your customers' needs and developing personalized relationships with them in order to instill a sense of loyalty and retention. (Gupta and Mukharjee,2001) CRM deals with long-term mutually beneficial relationship among consumers, companies and other stakeholders.

The crux of CRM is to direct and integrate all marketing efforts towards establishing, developing and maintaining successful relational exchanges with the target consumers. Further e-CRM should cover all customer touch bases viz. Face to face, Internet or phone. (Vyas, 2001) The relationship between technologies of e-Commerce/ Business and c-Commerce/ Business is shown in Figure 3. The main features of c-commerce are given in Figure 4.

The c- Commerce has modified the structure of organisations and processes in a significant way. A model of a collaborative organisational structure is shown in Figure. 5

### (I) Diversification

In order to improve efficacy of the corporate structure it needs to ensure a balanced utilisation of diverse resources of the economy for diverse consumer needs. Experts are now raising an issue that mere financial restructuring of PSUs, in particular, disinvestment is not sufficient. Restructuring is also needed in other financial aspects like cash-flow management, remuneration as a way of motivation, etc. and marketing, production, human and R & D areas.



## e&c-Business Framework

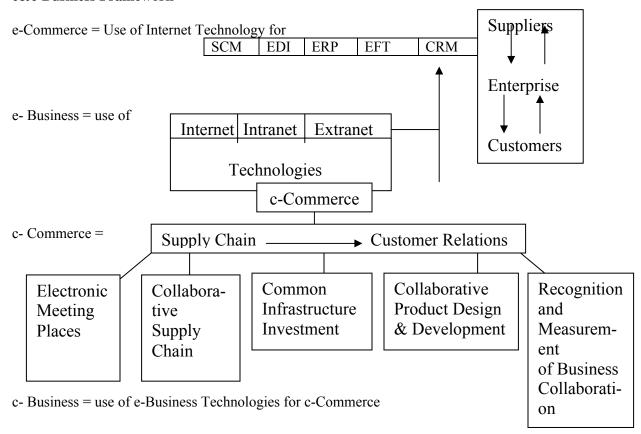


Figure: 3

By adopting better IT and other technologies benefits of better customer relationships, new revenue-generating opportunities resulting from direct customer collaboration, better use of idle employee intellectual capital and expertise, improved productivity and lower operating costs can be realized. The quality expert has been quite emphatic that quality is always free. Cost is of non-quality or non-conformance.

### **Characteristics of c-Commerce**

- (A) Common solution to shared challenges
- (B) Product-Oriented Collaboration
- (C) Centered on Internet Technologies
- (D) Collaboration between companies in a supply chain but competition between supply chains
- (E) Cooperation on a secure and long- term basis
- (F) Span of Business Process to Extraprise levels.
- (G) CRM to be the focus of c-Commerce

Figure: 4

## **Implications of Collaborative Restructuring**

Corporate restructuring on above lines bound to lead to commensurate changes in different intervening and end result variables of concerned and collaborative undertakings. Most

important implications have to be on the human side. People have to be on a continuous learning curve to synergize with the development of more and more intellegent systems.



Attitudinal and emotional direction and development is needed to cope with reactions and side effects of such changes in an environment of acclerating direction. The collaborative commerce may ensure better use of idle employee intellectual capital and expertise, improved productivity and lower operating costs. It becomes easier to get the best input from the right people at the right time. (Balasubriamanian, 2001) The impact is real and measurable. Projects take up to 50 percent less time. The designless and project-oriented structure and SMWTs need mature employees with good emotional understanding. The promotion mindset has to be changed particularly in PSUs towards total quality and project-orientation and inno.

The information technology and knowledge management is having the most significant impact both on structure and working of corporations as well as the human resources. The speedy developments in intelligence systems like artificial intelligence, neural networks, and internet and communication are influencing the processing and utilisation of information. As these intelligent systems (both hardware and software) are expected to work on the lines of intelligent human mind the human resources have to be provided sophisticated training, motivation, career opportunities or oganisational position, direction and work environment.

The second implication has to be on work culture and efficiency. The processes of finance, marketing, research and development and production have to be reengineered with internet orientation in a collaborative atmosphere. Structural rigidities have to be minimised. Quality and competitivness are at the core of restructuring.

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# **Model Organizational Structure in c-Commerce**

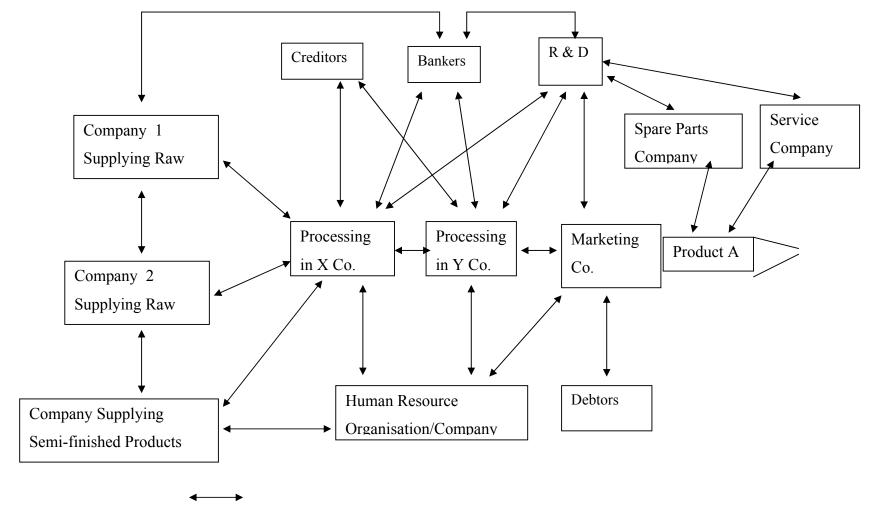


Figure: 5 Supply Chain working through Internet amongst Collaborative Companies