CHAPTER 6
RECOMMENDATIONS & SUMMARY, GAINS, LIMITATIONS, SCOPE FOR FURTHER WORK.

(I) RECOMMENDATIONS IN GENERAL

1. GROWTH- The International Monetary Fund (IMF) has projected the Indian Economy to grow 7.5% in 2015-16, more than China, (Ref. Business Standard dt. 15.4.2015) owing to rise in disposable income and pick up in investments due to recent policy reforms. As per ‘McKinsey’ report, Indian Pharma Industry would grow further to $ 55 billion by 2020 and $70 billion by 2025. This clearly indicates ‘Golden Opportunities’ for Pharma Industry in India to grow and become a world leader. It also implies to earn good enough profit to plough back in R&D for searching ‘New Molecules’, new drugs in years to come.

2. CULTURE- Indian Pharma organizations need to put lot of efforts to change culture. This has reflected in Ms. Margaret Hamburg’s (US-FDA commissioner) visit to India in February, 2014. She has expressed her concern towards Indian Pharma Industry on Quality issues and culture. Approval does not end, Industry should go beyond approval.

Many respondents also expressed candidly about necessity of change of culture. Many times, management works on the basis of convenience and not objectives based.

If management of organization is not based on sound principles, it will tend to be influenced by various personalities in the organization. This results in an increase in organizational politics & subsequently lead to conflicts.

Thus, Organization needs to manage the change effectively & bring about the effective change in the management.

3. REGULATORY & QUALITY REFORMS- Organizations have to continuously maintain quality practices at every level of manufacturing. Elimination of short-cuts, poor quality systems, implementation of SOPs and integrity at all the levels will only ensure entire system.

Total Quality Management needs to be implemented seriously and the onus of that would lie on top management only.
4. HUMAN RESOURCE- Indian Pharma Industry is experiencing high attrition rate. Many employees leave the organization due to poor culture and integrity issues at top management level itself.

In a span of decade, roles and organizational hierarchy will cease to exist. Today’s workforce consists of young employees, willing to embrace flexibility and change. Organizations need to create frontline leaders who can collaborate, act speedily, can respond to changes.

Organizations need to train and invest in people in building business acumen and market skills, including international exposure. Agile thinking to deal with ambiguity, complexity and planning for multiple scenarios is a must for these employees. Mentoring and coaching to individual, and if not possible to a group of people will have good impact. Creation of good organizational culture that fosters fun and a less formal atmosphere can keep a young workforce engaged. However employees look forward for a culture which is open to change, flexible with a focus on sharing and innovation through a regular communication.

Pharma Organizations see individuals taking more responsibility for their career thus keeping their formal skills up-to-date without necessarily relying on organization. This means greater demand for challenging assignments and roles.

Finally, Pharma organizations need to tap into the potential of this new generation of young leaders and equip them with the required tools to grow and succeed. In the process, the new generation employees will help the organization to succeed.

5. TQM/TPM - It’s a high time that Pharma organizations implement techniques like TQM (Total Quality Management)/ TPM (Total Productive Maintenance). Implementation of TQM is mainly responsibility of top management & obviously their involvement is inevitable. TQM not only ensures ‘Quality’ at all levels throughout organization but also helps in changing culture. Change in ‘Culture’ has become necessity for the Pharma organization. TPM is further extension to TQM. TPM takes care of equipment and production facilities. Proper maintenance & preventive maintenance are important dimensions of TPM.

Practicing TQM/TPM will certainly help organizations to develop a culture throughout organization. This can happen provided management does not look at TQM as a tool of cost reduction only, leaving all other factors implementing.
6. PATENTS : BALANCING ACT

- Indian Pharmaceutical Industry needs to take a balance view at the ‘Patents’. A view lopsided at one can harm the ‘Researcher’ at one end or can harm the ‘Public’ at large at other end.
- Patent means contract between Researcher & Government.
- Patent grants protection to researcher from manufacturing, selling, using. Patent gives a unique right over research; for about 20 years.
- Patent can be sold to anyone for a good enough compensation, which can cover the full expenses of research done plus an award to the researcher and some left out amount for the new research.
- Why balancing? If ‘Pro-researcher’, researcher gets huge money and protection. If ‘Pro-public’, researcher does not get requisite money and is discouraged from doing new research, whereas, public is benefitted.
- Developed countries – since economically they are well placed, these countries will be always for ‘Pro-researcher’. Researcher gets money and is well encouraged. Due to this policy, new products are launched, business grows and countries get new revenues. That is the reason there is a saying in humor, that anything under the sun made by man is ‘Patentable’ in the US. Generally, MNCs take ‘Patents’ in the developed countries to get all commercial benefits. This is very much conducive to the manufacturer (Researcher) as well as to the developed countries. US patent law is very convenient to them from their benefits point of view. US is pressurizing other countries to make it convenient if hindrance for progress of US.
- Developing countries or under developed countries are having less industrialization and lack of infrastructure. R&D is either negligible or absent. Economically these countries are lagging behind. Obviously, these countries oppose outsider’s patent in the interest of country and a public at large of that country. However, developing and under-developed countries depend upon developed countries for new drugs, new medicines. Consequently, developing countries must take care of ‘economics’ of developed countries. If appropriate medicines are required for ‘acute diseases’, developing countries have no remedies but to go for ‘compromise’ with developed countries or
accept their ‘Patent’. Developed countries can always play with developing countries. “WTO” is being prerogative of developed countries.

- It is beyond doubt, that, ‘Researcher’ must make money for number of hours spent, investments done in infrastructure, in people and others. Question is how much? Without ‘Patents’ there is not going to be economic growth and progress of the society. However, poor countries and developing countries cannot afford the high expenses for a long period of time and thus, a balancing act is required to look at the entire episode.

(II) RECOMMENDATIONS BASED ON DATA & INFERENCES

B.1 EMPLOYEES.

Indian Pharma Industry is growing and in time to come more and more employees, educated and professionally trained would be required.

Even though, lots of professional & management institutes are well equipped to generate students, suitability of such students to the Pharma Industry is always a question. Thus more training to employees, especially on-job-training is required. Exposure to Global operations, culture, events would help in gaining experience, skills and right attitude.

Employees require special training in ‘cost reduction’ as well. An ‘eye’ on wastage, use of different tools and techniques, right motivation, culture, elimination of ‘cognitive dissonance’ would help an organization in long term.

B.2 MATERIALS CONSUMED:

Data indicates that materials consumed are in the range of 35% to 45% of the sales revenue. The cost of traded items is different. Thus, there is a lot of scope for cost reduction for ‘Materials Department’. Barring few exceptions, most of the organizations are in the range as indicated above.

A word of caution could be for those organizations that are more dependent on ‘outsourcing’. Generally, to focus more on core activities and to get a benefit of cost reduction, outsourcing is preferred. Quality requires to be ensured and more so in the context of current scenario of US ban

B.3 BUSINESS OPERATIONS:
Most of the top organizations are in the businesses of ‘Formulations and Bulk drugs (API)’. Few are also in the ‘Intermediates’.

For cost reduction and to get ‘Competitive advantage’, organizations need to look into ‘backward integration’. A narrow view of playing in domestic market would not help. Organizations require to have a ‘Global view’ and think of ‘world class manufacturing facility’. A link of Formulations → Bulk Drugs → Intermediates gives an edge commercially and technically too. Hence, while thinking of a particular therapeutic segment, organization can think deeply into this aspect of backward integration or forward integration.

**B.4 APPROVALS RECEIVED:**

All the organizations have ‘GMP’ certificate which is basic & inherent to the Pharma operations to start with. ISO 9000 and ISO 14000 are received by very few organizations.

More area of concern is both these certificates. Even though, many have received ISO 9000, it is contradictory to the US inspections and ultimate ban from US-FDA and other regulatory countries. Getting certificate once, without maintaining its rituals in true sense, can create serious problems for the organization as well as for the country. This has been proved beyond doubts by ban of so many organizations.

Other area of concern is ISO 14000. This is mainly for ‘Environmental’ aspects. In fact, by this time almost all the top organizations should have received ISO14000. This speaks about the seriousness of management has on environmental issues & serious concerns of Government. Pharma Industry must take it seriously and implement. It would help to upgrade the quality of environment as well as that of entire organization.

**B.5 THERAPEUTIC SEGMENTS:**

Topmost organizations in Pharma Industry are in Anti-infective, Cardiac, Diabetic segments. These segments are showing high growth factor, Diabetic-21.3%, Cardiac-10.7%, Anti-infective- 15.3% (until last year).

As per AIOCD’s market intelligence report, top 7 segments share 71.53% share of the Indian Pharma Market (IPM). Rs.59,377 crs. market share is contributed (71.53%) out of total of Rs.83009 crs.

Report also suggests that ‘South India’ is leading in 10 therapies, contributing 45% of the total Indian Pharma Market in these therapies.

**B.6 TECHNOLOGY (IT)**
Materials Department is not seen as ‘cost center’. Many look at it as ‘strategic’ &/or ‘source of cost saving’. Top organizations are using latest technology like SAP, ERP etc. This approach gives an edge to Pharma Industry in long term for sustainability and competitive advantage.

SAP, ERP technology integrate all the functions of an organization and gives further edge in enhancing efficiency as well as maintain competitiveness.

C: COST REDUCTION:

C.1 Cost reduction is taken as a ‘GOAL’ every year by the organization and assign specific goals to ‘MATERIALS’ department. These goals are more of strategic nature and approach of management is both ways-‘Top down’ and ‘down top’.

Even though this is seen as more of a ritual from business point of view, the cohesiveness is lacking. There is a ‘silos’ approach. The responsibility is vested on Materials department without involvement of others. Total integration is lost.

Materials department strives very hard in a dedicated manner to achieve cost reduction targets, however, other departments falter on the cost reduction efficiency, since, they are not involved or they have not been asked to take such goals.

- Hence for more success ‘Integration’ and total ‘Involvement’ of other departments is necessary. This will ensure program is ‘not short lived’ and totally not vested in only one department, responsibility being joined one.
- What is there to set out for? How success and failure would be assessed? Clarity on exact goal for cost reduction and the process (planning) to achieve step by step – all these require clarity at the top level.
- Two ways approach required so that, involvement of employees is more.
- Even though ‘ownership’ is of Materials department, co-owners required to be defined clearly. During review time, an appropriate action can be taken for further improvisation.
- Transparency in realizing the benefits should be known at the beginning of project.

C.2 ACHIEVEMENT OF COST REDUCTION

No respondent could spell out in absolute figures actual cost reduction achieved. Majority of respondents were not aware and some had cursory expressed one! Some expressed
‘confidentiality’ as a reason and thus were not able to quote. Many expressed final figures are not given to us as a part of ‘confidentiality’.

- Management need not part with the outsiders as a part of ‘confidentiality’.
- However, the actual reduction is not known to the ‘owner’ of the program of cost reduction. Cursory figures are given or parted. This de-motivates the actual worker or team. The lack of transparency generates lack of ownership. Hence management needs to take the team in confidence and part with the actual cost reduction figures. This would motivate the team members and encourage to take more responsibilities.
- The resources assigned to the initiative should not be diverted at later stage by giving name-excuses.
- At initial stage of ‘cost reduction’ program itself, it is worthwhile to check on availability of skills within the Materials Department &/or other co-owners to avoid future collapse of the program.

C.3 REVIEW METHOD

All organizations review the cost reduction program, either monthly, quarterly or bi-annually or annually, depending upon the practices held.

* Review of cost reduction program should take place every month at departmental level i.e. Head and his subordinates. This would facilitate the entire chain and eliminate any hurdles.
* Every quarter review should take place at top management level, indicating the target to be achieved by the date and actual achieved. The difference + or – could establish the reasons. Irrational reasons could be dealt with seriously.
* The success or failures can be institutionalized so that other employees learn from the episode.
* Organizational communication requires to be addressed to all employees of successes. This will help in developing culture, morale and motivation.

C.4 VALIDATION OF COST REDUCTION

The cost reduction is finally validated either by comparing with previous figures or with target or benchmarked figure.

- The structured approach is necessary in cost reduction. It means the effects of cost reduction achieved in one, on other functions and reflection of it on the overall efficiency
of the organization required to be assessed. This is a fundamental requirement of Pharma Industry.

C.5 MAJOR CAUSES OF COST REDUCTION

Many reasons are cited by the Pharma Organizations like, DPCO, Outsourcing, Generic drugs, Competition etc.

- All reasons are very much relevant. However one major and important reason is ‘Changing Market Dynamics’. Thus, organization needs to gain ‘competitive advantage’.
- A firm is said to possess a competitive advantage over its rivals when a firm sustains profits that exceeds the average for its industry. Competitive advantage enables the firm to create superior value for its customers and superior profits for itself.
- Organization needs to take a cognizance of changing market and proactively work towards it.
- There is a demographic change; many drugs are becoming obsolete; competition is going to be more keen with Global giants, many products are going to be off-patent, generic competition would increase, OTC products would increase; many new entrepreneurs would enter into DTC (Direct to consumer); organizations require to change their strategy from cost of medicines to patient to cost of total health care.
- For all these purposes, organization requires to invest and also to take care of appropriate profit margin in order to plough back to R&D etc.
- Thus. ‘Cost Reduction’ becomes inevitable for sustainable competitive advantage, Growth and Survival.

C.6 TOOLS/TECHNIQUES USED BY MATERIALS DEPARTMENT FOR COST REDUCTION

17 tools/ techniques used by almost all organizations. This is very incidental to the very nature and functions of Materials management. However other tools which are less preferred are (a) Just in time (b) Tendering (c) Cutting costs on storage space and (d) Reverse auction.

- Just in time cannot be used blindly in Pharma Industry as being used in Engineering or automobile industry, mainly due to regulatory/ laws.
• However, Pharma Industry certainly can try for few selected items on the following basis- (a) Where ‘Quality’ suppliers are available in the vicinity of 5 kilometers from the plant. (b) volume is high and material is being used frequently (c) Quality testing does not take more than a day for such items (d) minimum two suppliers are available for the selected item (e) Production planning and coordination with suppliers are extremely well knitted (f) entire activity is under one head. In the beginning the JIT can be started for few items and then can increase slowly for rest of the other items.

• The benefits are immense. Inventory turnover is fast. Space utilization is good. It gives confidence overall to the entire supply chain team. This also helps in cutting cost over space in the stores.

• Tendering for large volume and large value, having batteries of ‘Quality’ suppliers, definitely help to cut down the costs. This should be floated only to the limited approved suppliers to avoid ‘quality’ problems at the later stage. An experience is that there is a cost-saving benefit of 10-12% on annual consumption value.

• Reverse auction can be tried for those items which are commodity type and large volume is required- especially glass bottles, ampoules, PPcaps, plastic items. Only ‘approved’ vendors should be entertained. Reverse auction will help in getting rock-bottom items.

C.7 CREATIVITY AND INOVATIVENESS IN PHARMA

50% respondents have claimed that there is a ‘strong creativity’ in their organization and 65% have claimed modest to strong innovativeness. However, many employees feel there is a gap.

• ‘Collaboration’ with downstream and upstream partners does not appear to be strong in Pharma. Even though tall claims are made on collaboration, in the true sense it does not exist. ‘Collaboration’ implies involvement, sharing of information, linkages, sharing services and also risks with common objectives. Many things are not shared with suppliers due to confidentiality. The supplier may be happens to be a common supplier due to business exigencies. Same thing with distributors. A distributor may be common one to many manufacturers. This entire episode hinders the collaboration’s objectives. Nevertheless, collaboration with selective suppliers can definitely help to generate new ideas. ‘Selective’ needs to be based on certain principles.
• Cross functional teams and even one step further cross organizational teams can help to foster creativity. Pharma industry needs to employ young, dynamic individuals with diverse backgrounds and experiences. Many organizations employ individuals from the very same place or state, hindering diverse culture and backgrounds. Experience is diversity certainly helps in fostering creativity.

• Specific area or designated room for ‘brainstorming’ or ‘creative thinking’, filled up with fun, interesting and offbeat props can act as stimulus.

• Another important factor would be rewarding creativity and helping thought convert into actions.

• The observation indicates that high growth organizations, with highest performance and fastest growing employees, show significant ability to creative thinking and innovativeness.

C.8 PROCUREMENT OF SERVICES IN PHARMA INDUSTRY:

Very few organizations are procuring services exclusively through Materials Department. Rest are procuring through other concern departments or outsourcing. The expert knowledge of Materials department is not being used and organizations are not conspicuous for ‘Indirect’ materials as they are for ‘Direct’. Many organizations are not having definite knowledge for budget of such ‘Indirect’ materials. Tall claims are made for cost reduction for such services however no validation method was expressed.

• Pharma industry needs to be much conspicuous for ‘Indirect’ materials as they are for ‘Direct’. Appropriate policies and procedures required to be made for this area too. Vendors selection, negotiations, contracts, target for cost reduction, budget preparation etc. should be in the same manner. ‘Spend analysis’ of earlier years can throw more light.

• Budget and variance should be given same importance as ‘direct’

• All services need to be taken under one head- as is being done in MNCs.

• Most of the MNCs have head at ‘Vice president’ level. Right from canteen, housekeeping, transportation, hoteling, to insurance, market survey, all services are procured by one head.
• Outsourcing for services need to be deployed depending upon complexities and expertise of vendors in such areas. However, materials department –Head for services should decide on merit.

• Centralization of procurement of services would bring discipline throughout organization. Whims and fancies would not work. Cost reduction can be achieved to a great extent. Regular reviews, budget and variance can further strengthen the system.

• IT system throughout organization can bring in more clarity, discipline, transparency in every segment of services.

D: MOTIVATION IN ‘COST REDUCTION’.

• Pharma industry is serious enough in motivating employees. Motivation to employees at organizational level and at employees’ level is good enough to achieve their personal goals and ultimately organizational goals. However, there are many hidden factors being observed during survey and during formal as well as informal discussions. These hidden factors are contradicting to ‘motivational’ factors as stated by the respondents themselves. The organization needs to take enough cognizance of those, and try to eliminate or reduce those hidden factors to motivate employees to a large extent and help them to achieve ‘cost reduction’ goals whole-heartedly.

The following suggestions would help organization to take appropriate steps.

• ‘Cost reduction’ achieved should clearly get reflected in performance appraisal of every employee. The target, actual achievement, variance if any and reasons for the same should be clearly spelt out. Efforts put by the team or an employee requires being underlined.

• Incentives specially kept for such ‘cost reduction’ program should be spelt out clearly and the policy for disbursement for such incentives.
Validation of cost reduction achieved requires transparency. Team/employees are required to be involved during validation program. Management needs to remove if any ambiguity.

A necessity to create an ‘approachable environment’ where seniors are available to have heart to heart discussions with their employees- especially team /employee from ‘cost reduction’ program. This will certainly take care of ‘emotional’ part of an individual. Pleasures and dis-pleasures expressed by employees will throw more light. Management will get insight of an employee’s side. It may help for taking future actions.

Eventually, it is not management versus employees; it is what we can achieve together. It is time that the organization acknowledges and applauds the efforts of employees. Management is not only acknowledging the talents but also skills.

Organizations face high attrition rate mainly due to not taking care of ‘Emotional part’ of employees. One to one talk will take care of itself to a large extent.

Cost reduction program is required to be projected as a vision by the top management aligning with its corporate strategy. All functions need to be involved and all doubts, objections, constraints to be cleared at the beginning itself. Top management should provide necessary fillip to the initiative.

Cost reduction program should give a ‘feel’ of significant benefit potential. This will motivate employees intrinsically.

If ‘Cost Reduction’ program is initiated in totality under head of ‘Materials management’ across the organization, with different cross functional teams can foster better culture, motivating entire employees, disciplining activities, creating more conducive atmosphere.

To tap benefits potential, tapping employees’ talents, motivating them, transparency, and culture are more important. Organization can get more benefits. In true sense employees would get involved and come out with better ideas for more & more cost reduction programs.
• Many organizations assume that all employees are well trained and do not require training in ‘cost reduction’ program. However, this is far from the truth. Organizations require to train employees on cost reduction, the reasons behind, approach, tools/techniques used, how to use them, reasons for using specific tools, validation, long term effect, effects on other activities etc. Training will certainly help employees to participate whole-heartedly.

E: OTHER DEPARTMENTS & COST REDUCTION.

All respondents have candidly opined that other than Materials Department, there are other departments in the organization contributing to cost reduction. Especially, Finance, followed by R&D, Production, Product development departments can contribute a lot.

• Even though the aforesaid departments are capable of contributing to cost reduction, often lack cohesive approach to the entire cost reduction program. These departments also require formal training in cost reduction program.

• Cause & effect, Pareto’s law, PDSA, Brainstorming are preferred techniques by these departments. However other techniques like TQM, TPM, and SIX-SIGMA are not being practiced or preferred with low priority. On the contrary, these techniques should be practiced throughout the organization to bear the fruits for long term sustainability point of view and not from one time cost reduction program.

• Some of the organizations have started TQM/TPM for last many years. However, the returns of such programs are not ‘felt’ in the industry. These organizations have used these techniques only from cost reduction point of view and not from its fundamental reasoning point of view of changing culture. This has reflected in US-FDA banning their plants and manipulation of records at ‘Quality control’ and at production level.
(III) SUMMARY OF RESULTS
HYPOTHESES AND CONCLUSIONS:
(IV) LIMITATIONS:

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<th>Sr. No.</th>
<th>Statement of null hypothesis Ho</th>
<th>Decision</th>
<th>Conclusion</th>
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<td>1</td>
<td>Use of tools &amp; achievement of cost reduction are independent of each other</td>
<td>Accepted</td>
<td>Cost reduction has no correlation with the tools used. They are independent of each other.</td>
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<td>2</td>
<td>Use of techniques &amp; achievement of cost reduction are independent of each other</td>
<td>Accepted</td>
<td>Cost reduction has no correlation with the techniques being used. They are independent of each other.</td>
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<td>3</td>
<td>Behavioral pattern of employees &amp; efforts of motivation put by the management are independent of each other.</td>
<td>Accepted</td>
<td>Motivational efforts put by the management have no correlation with behavioral pattern of employees.</td>
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The study “Cost Reduction in Materials Management in Pharmaceutical Industry” depends on the availability of true & adequate data from the industry & the adequacy of literature on the topic. Since such type of research demands an intensive study in various aspects, including product-mix, pricing policy, costs behavior, approaches taken by the top management which are of strategic nature, culture of the organization, authority granted to Materials Department etc., the ‘responding’ Pharma organizations have found to be reluctant to unveil the secret & confidential information & relevant data on cost reduction achievements and failures to the outside researcher.
In fact, MNCs are more reluctant & having stricter policies in this context. The ‘proprietary’ organizations were totally reluctant to part with information. However, top Indian Pharma organizations were very cooperative and enthusiastic to part with information and to a certain extent more candid in approach, barring confidential financial figures/ information related to an achievement of cost reduction &/or failures.

The perimeter of the study suffers to some extent due to this reason. Hence I feel personally and very humbly that this research is not at all a destination but a beginning of the journey. There is a large scope of further research in this area. The scope of the study can be extended by conducting an empirical study to validate & correlate the findings of the study in form of challenges faced by Pharma Industry in different countries. Persons engaged in Industries, Professionals & other academicians & future researchers may get benefits from this study.

(V) FUTURE SCOPE

i) The research was limited to only MUMBAI region. However, Pharma Industry from other states and other nations can be studied in depth.

ii) Small scale & medium scale organizations from Indian Pharma industry is another scope. Since, most of these organizations are ‘owner driven’, professionals will have limited scope. Culture of these organizations is different, their issues, constraints are totally different than top Pharma organizations.

iii) Confidentiality and sensitivity areas limit further scope. If organizations reveal true matters, many more things will throw light and would help other organizations and especially new brash organizations to avoid certain issues or would show a limelight to improve further upon.

iv) Hidden factors demotivating employees could be captured and how it really affects an achievement of cost reduction can be proved.

v) Innovations and creativity in true sense; how it helped the organization can be captured. It can be a separate subject altogether relating to cost reduction. How it helped in enhancing market share or profitability and how it can be related to cost reduction can be shown with illustrative examples.

vi) How cost reduction achievements as a trend for some years for the organization helped in getting ‘competitive advantage’ in the market &/or industry is another scope for research.
vii) Different tools/ techniques used and cost reduction achieved, targets & actual achievements, variances, reasons for variances can be another scope.

viii) Materials Department and achievement of cost reduction for some period of time say for the period of 5 years and gaining ‘competitive advantage’ in the industry could be other topic. This will prove importance of ‘Materials Management’ in the organization and related benefits to gain competitive advantage.