"An Analytical study of Crisis Management Decisions in Selected Auto Ancillary Units in Pune (2000-2012)"

A Thesis Submitted To

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Under the Faculty of Management

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Declaration

I hereby declare that the thesis entitled **"An Analytical Study of Crisis Management Decisions in Selected Auto Ancillary Units in Pune (2000-2012)"**

Completed and written by me has not previously formed the basis for the award of any Degree or other similar title upon me of this or any other Vidyapeeth or examining body.

Satyen P Marathe

Place : Pune

C E R T I F I C A T E

This is to certify that, the thesis entitled **"An Analytical Study of Crisis Management Decisions in Selected Auto Ancillary Units in Pune (2000-2012)"** ,which is being submitted herewith for the award of the Degree of Vidyavachaspati (Ph.D.), in Faculty of Management of Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by **Shri Satyen P. Marathe** under my supervision and guidance. To the best of my knowledge and belief, the work incorporated in this thesis has not formed the basis for the award of any Degree or similar title of this or any other University or examining body upon him

Research Guide : Dr. Mukund Dongare

Place : Pune

Date :

Acknowledgement

It gives me immense pleasure to present this thesis, which is a result of my relentless efforts and the guidance, advice of help of so many eminent personalities, my friends and family members.

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Place :- Pune

Date:- **Satyen P Marathe**

Executive Summary

Automobile industry is a lifeline of every economy. Growth of automobile industry contributes directly to GDP in-terms of manufacturing activity and employment generation. All industrial sectors directly or indirectly depend on Automobile Industry in terms of services provided, products consumed, or creation of assets.

Automobile industry creates an impact on lifestyle of people where these companies operate. Sources of income generation are available to nearby localities and direct benefit of long-term employment is available.

Society, is always affected by industrial crises. Crisis is a part of business and the reason can be anything, internal environment or external environment. Crises will change the pattern in which people behave and think. Crises are perceived as growth opportunities by leading business organizations and as a result, major technological breakthroughs are outcome of crises.

This thesis has a specific focus to study this important phenomenon in business units especially operating in automobile industry sector. Researcher has made efforts to give a consolidated view about 'Crisis and Crisis Management'; 'Decision and Strategic Decision Models'; and 'Practical Approach' of various automobile component manufacturing units in and around Pune. Structure of thesis is simple and divided into two major parts, theoretical aspects, and practice of crisis management.

Researcher has made efforts to develop strong interlinking in both sections and readers will enjoy the continuity while reading the pages. This thesis is a value addition for the researchers interested in strategic management. This is step-by-step learning about crisis and practice for crisis management. For beginners in strategic management, this thesis will help to develop the basic concepts and for experts in strategy, it will provide a bird's eye view about various strategies used by other experts in industry. For experts it will help to develop a multidimensional approach for evaluation and assessment of perceived crisis. Various tools and techniques discussed in different chapters are ready reckoners to

find solutions for the problems. The strategies and policies adopted by various automobile component manufacturers have delivered results and one can be sure about the effectiveness of these solutions and can be extended to problems related to their areas. Most important finding of the thesis is that "Under same business environment, the crises perceived by various companies are independent of the product and type of industry" and thus we can confidently say that the "Solutions to these problems are also independent of the products and type of industry".

This thesis is divided into two sections and subdivided in ten chapters.

First section has five chapters, chapter No. one to Chapter No four, comprising of literature review and secondary data collected from various resources.

Second section has balanced chapters, comprising of Primary data collection, case studies and data analysis.

Chapter no 1: Introduction

This is an introduction to thesis and complete background about the research work done by researcher. This chapter explains the rational of the topic and the reasons for selection of the topic. Introduction gives detailed approach used by researcher. This chapter creates a strong foundation for further research under taken by researcher.

Chapter no 2: Crisis Management

Conceptual understanding of crisis, important definitions of crisis, and perception about crisis by various industry leaders are some of the highlights of this chapter. Crisis as an opportunity and 50 lessons learned by various industry leaders in crisis management give us a different perspective of the crisis. Perception of Indian business leaders is also in line with perception expressed by foreign leaders only the way of expression in different. If we observe minutely these perceptions, we get lot of clues and practical insight to manage a crisis effectively. Another important learning from these perceptions is that the organizations, which grow continuously, perceive crisis as an opportunity and not a threat or challenge to existence of the business.

A small introduction about business environment, prepares the reader's mindset for further discussions on crisis management approach given by various experts in the industry. Conceptual clarity about external and internal business environment creates a foundation for better understanding of the subject.

Crisis Management for External Business Environment: Crises management approach given by Harvard Business Press is a ten step universal methodology applicable to all companies. This methodology concentrates on external environmental crisis, which may be sudden and unnoticed. This crisis management approach is important for a company because it directly affects the various stakeholders and failure creates severe negative impact on brand value of the organization. There are other approaches given by different authors but they are variants of approach given by Harvard Business Press.

Crisis Management Framework suggested by William Rick Candell is a perfect model, which explains us the interlinking of business environment, need for landscape survey and strategic planning process, a step towards crisis management and finally noting the learning through entire exercise. This framework gives a practical step-by-step strategy formulation and implementation process for effective crisis management.

Relational model suggested by Tony Jacques, discuss about the pre and post crisis management approach. This model consists of four overlapping segments; Crisis Preparedness, Crisis Prevention, Crisis Event Management and Post Crisis Management. This relational model helps to understand how one can look at entire spectrum of crisis and its effects.

Crisis Management for Internal Business Environment: After Second World War, industry revolution started for up-gradation of product quality and this is ongoing activity in industry. This revolution is broadly segmented in three sections, Japanese Quality Improvement, Toyota Manufacturing System and Current Trends in Management. This section has a brief discussion about theses phases of revolutions related with internal business environment crisis management.

Contribution by quality Gurus, Juran, Ishikawa, Corsby and Deming are important part of any automobile history and innovations in manufacturing systems. These Gurus made life

simple by providing simple but powerful techniques to achieve world-class quality. Their work is included in thesis as an important aspect of crisis management approach. Their contribution is still practiced by various companies to solve their complicated problems.

Toyota Manufacturing system has given 4P Model, Toyota Production System and Problem Solving Methodology for world-class products. Toyota is a benchmark in manufacturing practices. Though Toyota is world-class company, there are component failures in vehicles and making it compulsion for Toyota for vehicle recalls and defect rectifications at free of cost. These important aspects underline the importance of continuous crisis management practice in any industry.

Current trends in crises management have a focused approach for human resources development and emphasis on creating a culture of innovation. Idea Clock and Orbit Shifting Innovation Framework are example of new trends in crisis management. Professor Shoji Shiba talks about Breakthrough Management for rapid growth of business and a unique approach for crisis management.

Chapter No 3: Decision

Decision is an important part of any crisis management approach and tools or techniques used by organization. This chapter is dedicated to learn concepts about decision and decision-making process.

Peter Drucker's view on strategic decisions is an important discussion in this chapter. Peter Drucker explains us the methodology and appropriate approach for quality decisions. Quality of the decisions is measurable after implementation and deriving results but the decision making approach discussed by Drucker will certainly help reader to prepare himself for better decisions in terms of environment analysis.

This chapter has two sections about the theoretical background of various strategic decision making models used by various companies. These models are nothing but environmental scanners and broadly classified as models as External Business Environmental Scanners and Internal Business Environment Scanners.

Strategic models for external business environment are BCG Matrix, BCG 9 Cell model, Porter's Five forces model, Porter's Generic strategy model, Ansoff Model, PESTL analysis and Internal Business Environment scanners are SWOT Analysis, Value chain Analysis, Balanced Scorecard and Mckinsey's 7S model. This discussion gives detailed information about formation and practical utility of specific model. In chapter two, we prepared ourselves by understanding the crisis and move forward for crisis management. After deciding the approach, decision-making models are used for fine-tuning to achieve better results.

Chapter No 4: Published case studies about crises related to Automobile Industry.

This chapter includes already published case studies related with automobile companies. There are six cases, where first three cases are about crises faced by Honda, Nissan and Toyota, world's largest and leading automobile manufacturers. These cases enforce the need for Crisis Management especially in Automobile Industry.

Last three cases, Leyland Truck, MGF Car and Skoda are related with crisis management approach and the strategic decisions taken by these companies to face business challenge.

Chapter No 5: Case Studies, Primary Data

There are in all sixteen case studies prepared by conducting interviews of MD / CFO / Plant Heads of various auto component manufacturing companies operating in Pune. These cases have a balance between global and Indian companies, Dedicated Vendors and Special Product Manufacturing Companies. The companies included are from variety of automobile components required for a complete assembly and efforts are made to include majority of the components, which represent a complete vehicle under study.

All case studies are structured and have sub sections about company profile, product portfolio, organization chart, crises perceived by company, a crises management approach, analysis of decisions taken by company, observations and conclusions. These case studies are practical learning and experiences of various auto component-manufacturing companies.

Chapter No. 6: Data Analysis

This chapter includes overall analysis of various crises perceived by Companies and their generic approach to manage the crisis. Data analysis is done by classifying various crises perceived into functional crises and related approaches are discussed under every functional classification.

Chapter No. 7: Observations and findings:

Important observations in this research are, Indian companies are also becoming aggressive in-terms of growth and ready to take business risk. They are developing innovative strategies for sustenance and growth. They use lot of quality improvement initiatives and investments in latest technology to fulfill customer requirements.

Most important observation is "Nature of Crisis faced by various automobile component manufacturing companies is same irrespective of the type of product"

Chapter No. 8: Further scope of Research:

Researcher has identified various areas for further research and one of the important areas is risk management approach used by various automobile component industries.

Chapter No. 9: Suggestions and recommendations:

Automobile component manufacturing companies face major problems related with Production and deliveries, Quality, Human resources and Finance. This topic includes the various actions suggested for companies to manage these crises.

Chapter No. 10: Conclusions.

Today automobile component manufacturing companies are doing efforts to manage crisis. They are also becoming proactive and they perceive crisis and implement decisions proactively to improve business performance. These companies demonstrate progressive attitude and are coping up with change in business environment.

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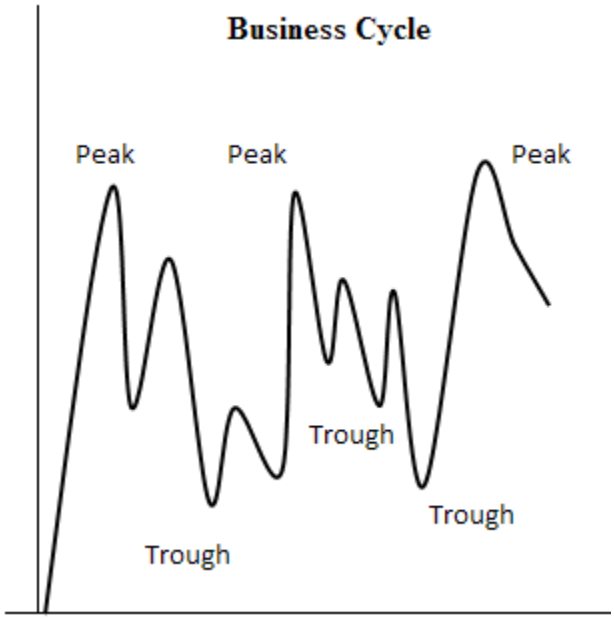
Chapter No. 1

1.0 Introduction:

Business Cycle is a natural phenomenon and ups and downs are of cyclic in nature. Journey through these peaks and troughs is always a challenge. Witnessing the growth and managing the crisis or slowdown is a critical aspect of business and has a major impact on subsequent decision-making process. A business is successful when the journey through these business cycles is with minimum turbulence having in built shock absorption systems. Success or a failure of any business is a function of management capabilities to achieve growth through effective crisis management. Capability to grow and sustain is a function of appropriate decision-making and crisis management approach.

Figure 1.1 : Business Cycle



Crisis management is a process, where efforts are made to develop a solution that will reduce the impact of negative factors on business and people involved. It is a process to develop a workable solution with inbuilt action plan. Aim of any crisis management process is to overcome the disastrous impact of unwarranted situation. Crisis is relative to

observer. A crisis for one business unit may be an opportunity for other business unit. During crisis, sometimes management may have a reactive approach and search for quick fix solutions. This approach may give a temporary solution but business needs more proactive approach to design business solutions and overcome the crisis and reinstate business processes and operations.

Following are some of the important questions; one needs to answer to understand crisis management as a systematic process:

1. Is a crisis perception of observer?
2. What is first, decision making or handling the crisis?
3. Do business operations generate signals for unpredicted crisis?
4. Can proactive decisions avert crisis?
5. Is management deficiency a source of crisis?
6. Does a crisis create rebirth of business process?

Decision-making is an ongoing process in business. Decisions within organizations are of two types; regular functional or operational in nature and strategic decisions. Functional and operational level decisions are related with internal environment of business and are of routine in nature, which are delegated to medium level management; where as strategic decisions are part of corporate function, influenced by external environment of business.

At every level of management, though nature of decisions is different, they are of prime importance for effective and efficient management control having a focus, to contribute for growth of the business. In various management literatures, more emphasis is given on decision making rather than taking accurate decisions. Decision is a collective output of the understanding of situation and relative environment of the situation. Human element plays a key role of fulcrum in decision-making process. Personal ability to understand the business, business environment and capability to correlate decision with expected outcome are important considerations in effective decision process.

Following are some of the important questions; one needs to answer to understand decision making as a subject.

1. Is decision making an individual skill?
2. Can someone develop decision-making ability?
3. What is a quality of decision? Can a methodological approach improve quality of decision?
4. Is it a gut feel or decision support system; which enhance quality of decision?
5. Can a quality of decision be judged unless implemented?

Decisions are required for smooth functioning of the operations. Today, management talks about the proactive approach rather than reactive approach for decisions. Today managers are expected to play a multidimensional role. It is expected, managers will study, evaluate and take decision before the problem arises or intensifies. This process sometimes is called as crisis management.

Decision making in crisis management have a long-term effect on enterprise. Nature of decision will depend upon the severity of the crisis perceived by top management. Perception of management about crisis, and crisis management approach will be reflected in action plan to handle the crisis.

1.1 Rationale and Significance of the study

Understanding of crisis and crisis management process is a focus area of faculty of management. Crisis management through appropriate decisions is an area of expertise expected from today's new generation managers. Crisis management and systematic approach for quality decisions are two sides of a coin and one cannot study only crisis or only strategic decisions of various organizations. To understand the decision perspective one should look at the backdrop of perceived crisis by decision maker.

Automobile industry is most sensitive to the economic development of the country and more responsive to the business cycles. Business activity of automobile industry is an early signal of change in the trend of business cycles. Experts in the business always study the fluctuations in automobile market segments to capture the feel of economy.

Automobile industry is a key growth driver in any economy. Automobile industry has importance in any economy because of its direct or indirect multiplying effect on various

industry segments. Following are some of the examples of industrial sectors, which directly or indirectly depend upon performance of automobile industry.

1. **Manufacturing:**
    - **a.** Capital Goods, Machine tools,
    - **b.** Small and Medium scale companies
2. **Chemical**
    - a. Petroleum Products, Oils, Lubricants, Chemicals, Paints etc
3. **Metals**
    - a. Steel, Aluminium, Brass, Bronze, Special Alloys, Copper, etc.
4. **Leather, Plastics and Rubber**
    - a. Tyres, Plastic Components, Rubber parts, Dash board components, Seat covers,
5. **Electrical and Electronics**
    - a. Instruments, Lamps, Wiring Harness, Control Panels, Fuel Gauges, Music Systems, Electronic components
6. **Services**
    - a. Financial Services, Insurance, Loans and Advances,
    - b. Vehicle Maintenance, Repairs, Garages, Workshops, Machine Maintenance
7. **Consultancy Services**
    - a. Engineering Designs, Drawings, Methods, Tools, Instruments
    - b. Quality Management, Recruitment, Training And Developments
8. **Other Sectors**
    - a. Bearings, Starter Motors, Cutting Tools, Hardware, Chains, Seating systems, Shock Absorbers, Measuring Instruments, Etc.
9. **Information Technology**
    - a. Hardware Items Used In Industry, Communication Devices
    - b. Software Applications, ERP, Database Management
10. **Other Services**
    - a. House Keeping, Transportation, Canteen, hospitality, Tourism

Being automobile industry a key driver in any economy, growth of automobile sector has a major role in economy. Every strategic decision in this sector will have multiple effects in the economy. This repulsive effect needs to be addressed, understood and dealt with critical care approach.

A mass production automobile industry operating in an economy will have both positive and negative effects on economy. A fast growing automobile industry will generate more employment and higher standard of living. At the same time, it may add fuel to inflation in the countries over depending on import of automotive fuels for home consumption. Growth of automobile industry generates multiple capital investments in terms of development of micro, small and medium enterprises working as original equipment manufacturer (OEM) for mass production units. More employment leads to more income and to more consumption and finally economic growth. Vice a versa; more crisis leads to more unemployment to reduced consumptions and finally to negative economic growth.

Automobile Industry is a mass production company. Every product requires few hundreds of components. Automobile companies create the innovations in manufacturing technologies and excellence in manufacturing processes. Considering the number of components handled for a single product, it becomes an impossible task to ensure 100 percent defect free component finally reaching to customer. A small single component failure can create a major crisis for the company and customer as end user of the product. Following are some of the major vehicle recalls for rectification and replacement of defective items assembled in vehicles.

Following are some of the major vehicle recalls for rectification in last decade.

A look at some large recalls in the Auto industry[1]

— Oct. 10, 2012: Toyota announces the largest single recall in its history, 74,30,000 vehicles globally to fix faulty power-window switches that can cause fires.

— April 14, 2011: Ford bows to government pressure and expands a recall of the popular F-150 pickup truck to include almost 12,00,000 vehicles to fix defective air bags.

— Jan. 21, 2010: Toyota announces U.S. recall of 23,00,000 vehicles to fix gas pedals that can stick and cause unintended acceleration. The company ends up recalling more than 14,00,000 cars and trucks globally to fix sticky pedals or floor mats.

— Oct 13, 2009: Ford Motor Co. adds 45,00,000 older-model vehicles to a long list of those recalled due to a defective cruise control switch that can cause fires, pushing Ford's total recall due to faulty switches to 14,30,000. The series of recalls, which began in 1999, becomes the largest cumulative recall in U.S. history.

— Sept. 29, 2009: Toyota recalls 38,00,000 U.S. vehicles to address problems with a removable floor mat that could interfere with the vehicle's accelerator and cause a crash. Recall is expanded to 43,00,000 vehicles on Nov. 25.

— Aug. 2000: Bridgestone Firestone recalls 65,00,000 tires. At least 271 people are reported killed and hundreds more injured in accidents involving Firestone ATX and AT tires, which were widely used on Ford Explorers. Safety officials discover tires were prone to losing their tread, causing rollovers. Ford separately recalls more than 100,00,000 tires, and the crisis leads to congressional hearings and the passage of the federal TREAD Act in 2000 to spot safety defects earlier.

— March 2004: General Motors recalled 40,00,000 - 2000-2004 pickups worldwide because their tailgates can break without warning. The culprit: common cables that hold the gates in place can corrode or fracture. GM officials say they received reports of 134 injuries.

All these are mega recalls and created huge blow to bottom line as well as credentials in the market about product reliability. Companies have to spend more time and money to regain customer confidence rather than repair of defective components. Directly or indirectly, decision-making and crisis management approach of various automobile companies have a crucial role in economy because of its direct contribution in terms of creating multiple effects on various companies.

1.3 Reason to Choose the Subject and Its relevance to study.

Government of India has specific focus on automobile industry. The Ministry of Heavy Companies and Public Enterprises has a vision; "To emerge as a destination of choice in the world for design and manufacture of auto and auto components with a output reaching a level of Rs.7,97,500 Crore (US $ 145 billion at US $= Rs. 55 per dollar), accounting and providing additional employment to 2.5 Crore people by 2016 for more than 10 percent of GDP" [2] This expected growth is from Rs. 1,65,000 Crore in 2006. (Rs. US $ 36 billion at 1$= Rs 46 in 2006) The Automotive Mission Plan (AMP) aims at doubling contribution of automotive sector in GDP, with special emphasis on export of small cars, MUVs, two and three wheelers, and auto components.

Expected growth in automobile sales is, from 1,83,61,000 units in 2010-11 to 2,82,04,000 units in 2015-2016.[3] Auto component industry turnover is expected to grow from Rs 2,19,459 Crore to Rs. 3,64,650 Crore (US$ 39.9 Billion in 2010-11 to US$ 66.3 billion in 2015-16. 1, US$ = Rs. 55). [4] Government support for automobile Industry will generate new opportunities for automobile and auto component industry. These new opportunities will require the decision-making and crisis management skills for these auto component industries.

Considering the vision of government of India and the projection given by ACMA (Automobile Component Manufacturers Association); in this research, focus is duly given to analyze the crises faced and crisis management decisions taken by Auto Ancillary units during years 2000 to 2012. During this business cycle, especially during recession year 2008-09, MSME (Micro, Small and Medium Enterprises) had taken a toll of more than 60 percent of contracting labour and 20 percent of permanent labour. Many large units had been virtually closed and some of them had reduced their production shifts due to drastic cut in their normal orders. There had been a 60 percent cut in schedules in terms of volumes and more than that in terms of value; total amounts to about a huge loss of Rs. 20,000 Crore during especially last two quarters for financial year 2008-09.[5] Even though there are effects of business cycle, ACMA and Government of India have positive outlook about Automobile Industry, which makes this topic more interesting.

There have been so far very few research theses published by universities in Maharashtra State, which make comprehensive study of production operations to tackle the business crisis. There have been many research papers and expert committee reports on the theme of "The Causal analysis of sickness of small companies in India". There has never been any systematic effort to enquire and explore the appropriate managerial solutions to the various crisis of MSME sector.

The researcher is motivated to make the choice of this subject of research, which is exploratory, directly useful and beneficial to auto ancillary units belonging to the automobile industry of Pune, because they will get some practical clues and guidelines to tackle their problems. Taking into consideration, this significant contribution, we have selected topic of research, which is as challenging as gratifying.

1.4 Review of Literature:

Review of literature has focus on following aspects of decision making and crisis management related with automobile companies. The researcher was not able to find out M Phi and Ph.D. research work on the subject under study.

1. Definitions of decision, Theory of decision making as a process. Definitions of crisis and crisis management. Scanning of various environmental factors, external and internal, having impact on the strategic decisions.
2. Study of factors leading to crisis in organization. Approach of various companies towards decision making process and crisis management
3. Study of various strategic decision models such as BCG Matrix, SWOT Analysis, Value Chain Analysis, Balanced Score Card etc.
4. Development of auto ancillary and auto component companies.
5. Various case studies published in books, research reports, newspapers, internet related with strategic decisions in automobile companies.

1.5 Research Problem:

The business cycles in automobile industry are becoming of shorter lengths. Companies are experiencing shorter life cycles not in terms of products only, but in terms of

customer loyalty, market development and to sustain in their business line also. Since they faced the crisis of various natures, it has become imperative to think about the appropriate strategies and tactics to tide over their problem of stagnated growth by the use of proper techniques of crisis management.

This research has analyzed the causes and consequences of various crises in automobile component manufacturing companies in Pune and appropriate management decisions to revive operations for coping up with crisis.

In normal conditions of growth, progress and increasing profits, management decision-making does not face challenges and serious threats; but under the conditions of business crisis, it is very very difficult to take appropriate management decisions. The strategic decisions may involve the plans of diversification and sustained profits by cost reduction, value addition, rationalization, technology innovations, as well as loss reduction. Minimizing the risk and losses is also a more difficult task rather than maximization of profits; therefore, those who have proved guts and acquired intelligence can afford to find appropriate management solutions for coming out of the common crisis. This research therefore is concerned with that kind of "Resourceful Crisis Management".

Thus, the research problem selected is **"An Analytical Study of Crisis Management Decisions in Selected Auto Ancillary Units in Pune (2000 - 2012)**"

1.6 Aims and Objectives

1. To study the various causes of crisis occurrence in Automobile Component Manufacturing companies.
2. To study crisis management and decision making process among the select automobile Component companies.
3. To study the gap between strategic crisis management decisions and its implications.
4. To suggest a model / remedies to overcome the problem in bridging the gap.

1.7 Research Questions

1. What calamities were faced by automobile companies in Pune during recession?
2. What crisis management decisions were taken by management?
3. Whether management was successful to manage crisis?
4. Whether the decisions were effective?
5. How companies have overcome the crisis?

1.8 Hypothesis

The impact of business cycle and effects of common calamity of recession are not likely to be uniform, exactly similar and equiproportional on unit-to-unit basis, because they are likely to vary due to the impact of differences of management skills, management decisions and modified processes & operations. It can be expressed by simpler statement that there will be difference in degrees of losses depending upon the differences in management skills and prudence during a common setback faced by all units suffering from business cycle and subsequent crisis. Therefore, the whole problem of crisis management is an outcome of human intelligence and effort to deal with a problem. This proactive role of modern manager is highlighted in this thesis.

The Statement of Hypothesis: while summing up, categorical statement of proper hypothesis related with decisions and crisis management in auto ancillary units is as follows viz.

1. There are certain external or internal reasons which may have impact on business performance of auto units leading to crisis
2. With the help of crisis management decision-making strategies, crisis can be managed effectively.

1.9 Research Design and Methodology

This research is empirical and diagnostic in nature. The researcher has taken 16 cases by undertaking a survey of the companies and has collected the factual

information from MDs, CEOs, Plant Heads through their interviews. The researcher also participated in discussions of those authorities in their company offices.

Scope of Study- This research is done for auto ancillary units in and around Pune. The companies selected for research are having a turnover between Rs. 50 Crore and Rs 500 Crore. There are around 113 companies in this range. The companies having turnover below Rs. 50 Crore depend upon these companies and they follow the decisions taken by these companies. Companies having turnover more than Rs 500 Crore, are considered as large-scale units, and they dictate the terms and conditions of their business to their vendors. Typically, companies in the selected range perform both roles as buyer and vendor and decision-making is more crucial for them.

Selected auto ancillary units are considered as medium scale companies. **Medium Enterprise** is an enterprise where the investment in plant and machinery (original cost excluding land and building and the items specified by the Ministry of Small Scale Companies vide its notification) is **more than Rs. 5 Crore but does not exceed Rs. 10 Crore.**[6]

Time Span of Study: The researcher has done study of various decisions taken by these companies in a span of Year 2000 to Year 2012. The span of 12 years, considerably is a large span of time and has provided the measurable evidence to perform analysis of various strategic decisions taken by these organizations.

Sources of Data and Data Collection:

Primary Data: primary data is collected from organizations through their reports, personal meetings, discussions and interview. A questionnaire is used for systematic interview for studying the causes and assessment of the crisis management decisions. The researcher has approached the various authorities from the selected establishments and conducted an interview **The basic attempt was to establish a concrete relationship between different variables namely company profile, product profile, organization charts, crises arised, crises management as well in-depth decision making analysis for said purpose**

Companies are selected considering the vehicle structure and cover entire vehicle rather than component Group. Automobile vehicle is divided into five major parts namely

- Chassis Components
- Engine Components
- Body parts
- Electrical and Electronics
- Other components

The distribution of Case studies:

Chassis Components : Bosch Chassis, ALF Engineering, Badve Engineering, Kalyani Lehmerz limited, Total 4

Engine Components :, Eaton, Radheya Machining Limited, Kalyani Forge, Suyog Autocast, Total 4

Body parts: Wadhokar Group of Industries, Gange Pressing, Autoline Industries, Total 3

Electrical and Electronics: Flash Electronics, Lucas TVS, Total 2

Other Components : Victor Gaskets, Saint Gobain Sekuritat, Continental Group, Total 3

16 case studies are prepared considering the vehicle structure. The component variety is also considered while selecting a sample and preparing the case.

Company	**Components Manufactured**
Bosch Chassis	Vehicle Braking Systems
ALF Engineering	Chassis Fabrication
Badve Engineering	Chassis and Exhaust Systems
Kalyani Lehmerz	Wheel Rim
Eaton	Engine valve systems, Transmission systems
Radheya Machining	Gears, Connecting rods, Engine components

Kalyani Forge	Engine components, forgings and machining
Suyog Autocast	Engine components and machined components
Wadhokar Group	Light Stampings and sheet metal body press parts
Gange Pressings	Heavy duty vehicle body press parts
Autoline Industries	Heavy duty sheet metal body press parts
Flash Electronics	Magneto Assemblies, Ignition coils, Flashers
Lucas TVS	Starter Motors, Wiper motors
Victor Gaskets	All types of gaskets
Saint Gobain Sekuritat	Windshield and window glass
Continental	Fuel pump and fuel supply systems

Interview and observation technique is used to collect primary data about the crises faced and crises perceived and crisis management approach used by these companies.

Secondary Data: Secondary data is collected from various published books, journal, research papers, government reports, various commission reports etc.

Sampling Design There are about 113 Auto Ancillary units in Pune whose annual turnover is between Rs. 50 Crore and Rs. 500 Crore. In order to provide due coverage to these auto ancillaries in Pune; a stratified sample survey has been conducted by taking sample units from each product category. A sample of 14 percent i.e. 16 units are taken for study.

Data Analysis: Primary data of 16 Auto Ancillary Units from different groups, is collected, analyzed, processed and interpreted. The findings and conclusions of proposed research are fully based on the factual data and the implications of data analysis. To sum up, this research is done by the use of both secondary and primary data collection methods, and the main findings and conclusions largely are based on the actual primary data collected from these auto ancillary units of Pune. A case study and observation

method of research is used to conduct in-depth study of the various aspects of the management decisions taken by the units.

The required data analysis has been given throughout the chapter no 1 to chapter no 6. Since the nature of data collected is not purely quantitative, statistical tools are not used.

1.10 Contribution of Research Work:

Management effectiveness is measured by ability to manage the situations. In the business, leadership is known by the ability to grow and sustain through different business cycles. This research has added in-depth knowledge in crisis management and consequent effective decision-making process. Industry and academia will get a benefit by having addition of knowledge about the various crisis management decisions taken by companies and the actual effectivity of these decisions. This research work provides a qualitative input in decision-making and crisis management.

The valuable inputs received on

- The best practices followed in various companies for crisis management.
- The thumb rules of experts in industry for effective crisis management
- The commonality between various decisions and crisis management approach
- The new approaches for crisis management

1.11 Chapter-wise Research Plan

1. Introduction

   This chapter explains the basics of decision-making process, crisis management, role of management in decision making, effective crisis management. Need and Importance of Research.
2. Review of Literature and research methodology : The major aspects are covered as follows-
   - Survey of theoretical and conceptual literature related with decision theories, crisis management theories, strategic decision making tools,

decision support systems, crisis management approach, new trends in decision making and crisis management, Various case studies discussed in books, published literature related with automobile industry and crisis management

3. Case studies:

   This chapter includes the case studies of various companies prepared by researcher. There is a presentation of case studies under study with detailed analysis of individual case. The cases are prepared from the data collection and interviews of various authorities in selected companies.

4. Data analysis :

   In this chapter, detailed analysis is done for the various causes of crisis faced by these units and the decisions taken by companies to manage the crisis. Data analysis is a consolidated presentation of various case studies.

5. Observations, findings and conclusions:

   Chapter includes main observation and findings of the research; Conclusions are derived from analysis based on primary and secondary data. Suitable policies are suggested for crisis management in auto ancillary units.

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[1] http://bigstory.ap.org/article/auto-industry-recalls-glance

[2] Automotive Mission Plan 2006-2016, Ministry of Heavy Companies and Public Enterprises, Government of India, 2006

[3] http://www.acmainfo.com/pdf/Auto-Industry.pdf

[4] http://www.acmainfo.com/pdf/Industry-Statistics_23092011.pdf

[5] MCCIA report, on Automobile Industry Jan 2009

[6] RBI Circular RBI/2006-2007/306 RPCD.PLNFS. BC.No.63/ 06.02.31/ 2006-07

Chapter No. 2 Crisis and Crisis Management

2. 0 Crisis Management

Chapter contents

- Crisis defined
- Crisis Management
- Perception of Business leaders about crisis, Interview respondents, foreign successful leaders.
- Crisis Management Theory
- Automobile Crisis Management Practices- Japanese Quality practices by quality Gurus, Deming, Juran, Ishikawa, Toyota Manufacturing, Current trends in Management

2.0 Crisis:

Crisis can be defined in various ways but the most common perception about the crisis is a situation different from normal business environment and which needs to be addressed to avoid future unseen problems leading to losses to company. Loss can be in-terms of revenue, market share or brand image in the market.

Crises for a company can take many forms. Whether they are accidental, financial, legal or otherwise, there is one thing that all affected companies have in common; a critical need for successful managerial and operational response as well as effective communication with both external and internal stakeholders.

Some of the crisis definitions are

'Critical event or point of decision, which if not handled in an appropriate and timely manner (or if not handled at all), may turn into disaster or catastrophe'.[7]

'Situations may result from external factors such as the development of a new product by a competitor or changes in legislation, or from internal factors such as a product failure or faulty decision-making, and often involve the need to make quick decisions on the basis of uncertain or incomplete information'[8]

'The form of management adopted in an emergency or an exceptional situation which focus all the resources of the organization on getting through a temporary period of difficulty, leaving more or long term fundamental issue aside.'[9]

'Crisis is an unexpected event that causes stress to the institution's community or some part of the community. A crisis disrupts the institutions normal operation, requires immediate response and follow-up action once the response is completed.' [10]

'Corporate crisis can be defined as, a loss of equilibrium in one or more of its sub systems, which might affect the company's goals tarnishing the total image of the company that might in turn threaten the existence of the company itself'.[11]

'A good crisis is when you test your team and when the opportunities occur in the market. A constant search of opportunities is a key for success and when appealing opportunity is there, one has to grab it move on it very fast.'

"Crises are situations which threaten the integrity, reputation, and ultimately the viability of a company.**"** Jay G martin

"The easiest period in a crisis situation is actually a battle itself. The most difficult is the period if indecision; whether to fight or run away. And the most dangerous period is aftermath. It is then, with all his resources spent and his guard down, that an individual must watch out for dulled reactions and faulty judgments."

Richard Nixon 37th US President

"When return in Chinese the word "crisis" is composed of two characters – one represents danger and the other represents opportunity"

J. F. Kennedy, 35th US President

"The term "crisis" is often used because it can refer to various events that can disrupt normal business activities. A simple definition of crisis is any event that threatens people, tangible assets, or intangible assets in any way that prevents or slows the normal business process" Glen Trest and G H Guernsey

There are various definitions of crisis as prescribed above. These definitions can be summarized, as

"Crisis is a situation which creates impact on management thinking process, and enforces new strategy development, expects utilization of resources or creating new resources and creates a change"

"Crisis may create impact on the way things are done. It creates a new approach to handle the situation. Crisis creates a bunch of opportunities, where business organizations can create a change from old systems to more effective systems."

"Crisis is a situation where it disrupts the normal situation of the business and demands the quick attention to bring the situation to normal as early as possible. This disruption can create a loss of value for different stakeholders."

"Crisis is a change, sudden or evolving. It results in urgent problem that must be addressed immediately. For a business, crisis is anything that causes serious damage to its employees, reputation or bottom line."

2.1 Crisis as opportunity:

Successful business houses and business leaders perceive crisis as an opportunity available for improving the market share, creating a background for change, introducing new systems and work culture, practicing innovations and introduction on new business models, new products, new concepts etc.

Business Crisis as Opportunity: lessons Learned: Harvard Business press 2009, Giam Swiegers, CEO Deloitte Australia

- Difficult times are opportunities for leaders to demonstrate what they are made off.
- A leader' perceptive on difficult situation can mean the difference between communicating opportunity and communicating paralysis to an organization.

J. W. Marriott Jr. Chairman and CEO Marriot International

- As one studies and learn what is going on in industry, he will discover appealing opportunities.
- Searching, preparing and studying for opportunities can provide a critical competitive advantage in negotiating deals.

Anders Dahlvig, Group president and CEO, IEKA Services

- In times of sustained growth and a strong economy, planning company's responses to eventual downturns is important to future successes.
- Counterintuitively a well-planned growth strategy can distance organization from the competition during an economic downturn.

Mary Cantando, Founder WomenBusinessOwner.com

- It's easy to play a good hand, but a true master can play a poor hand well
- Attitude to look for the good in bad situation, positions to explore hidden opportunities.

Richard Pascale, Associate Fellow, Said Business School, Oxford University

- Conflict is an essential force for creating the disequilibrium that allows people and organization to learn and grow.

- All organizations contain hidden tension that, if identified and embraced, can be powerful catalyst for forward momentum.

David Brandon, Chairman and CEO, Domino's Pizza

- Disruptive changes can be an opportunity for organization to create successful outcomes.

- One of the best ways to prepare an organization for change, particularly when change is perceived as negative, is it to promote mindset that wants to embrace it.

Amelia Fawcett, Chairman Pension first

- The ability to make decisions is truly tested when those decisions are difficult, unpopular and subject to criticism.

- Long term strategic goals can guide and fortify convictions in the rightness of decision

William Johnson**,** Chairman, President and CEO, H. J. Heinz Company

- An understanding of strengths and weaknesses based on facts and sound analysis underlies good strategy and efficient management.

- Counter intuitively, it may be necessary for a company to become smaller, even temporarily, in order to achieve its strategic objectives over the long term.

- In embarking upon new or Counterintuitive strategy, one should over communicate plans to shareholders, stakeholders and constituents who may not understand its benefits.

Clayton Christensen, Professor of Business Administration, Harvard Business School

- What disrupts successful, well-run companies is not the introduction of new and better products from the competitors; it is the introduction of

cheaper, simpler products into the bottom of market, which then takes root in undemanding applications and move up.

Paul Anderson, Chairman Spectra Energy

- While approaching a new situation, do not think that you have all answers.
- One person's knowledge cannot compete with the knowledge that exists within the entire organization.

Robin Chase, Founder and former CEO, Zipcar

- In order to identify and correct failures, as well as to amplify opportunities, it is critical that a company perceive itself as a learning company.
- Do not avoid or ignore mistakes or failures, but correct them as quickly as possible, regardless of short-term discomfort and fear.

Ken Freeman, Former Chairman and CEO, Quest Diagnostics

- In times of poor product performance, getting employees focused on the customer is a key to return to profitability,
- Leaders must act inventively to reach their employees and articulate a vision that encourages their active participation to customer focused change.
- Employee satisfaction produces customer satisfaction, which ultimately yields increased profitability and improved shareholder satisfaction.

2.1.1 Crisis Perceived by various Indian Business leaders

Darshan Shah, CFO Kalyani Lehmerz

- Crisis is failure in long-term investment planning, required for growth and sustenance of business.

S. B. Waghmare, Managing Director Suyog Autocast Pvt Ltd.

- Crisis is an opportunity to change management culture and create a sustainable long-term business opportunity.

Ravi Ketkar, CFO Autoline

- Crisis makes you a hunt for new avenues and business options for survival.

Sachit Nayak, Finance Director Eaton

- Crisis is nothing but understanding of a right time to create a change.

Dinesh Deo, Plant Head Saint Gobain Sekuritat, Chakan

- Crisis is an outcome of mismanagement of various facet of business and failure of weak links in the systems.

Supriya Badve, Director Badve engineering Limited

- Crisis is nothing but failure to understand “Now” and weak response to “Now”

Dilip Palve, Chief Operating Officer, Victor Gaskets India Limited

- Crisis is outcome of priority for unplanned activities, mistrust in supply chain and presence of invisible breaks in systems.

D. A. Bhargav, Radheya Machining Limited

- Crisis is an outcome of understanding the gap between the business potential and our own capabilities.

- Market is always unlimited but our limitations to develop the capabilities to capture the opportunities leads to business crisis.

Vinod Kale, General Manager Corporate, Finance and Accounts

- Crisis is an opportunity to improve balancing skills of various business forces including customer demands and inbuilt internal process hurdles.

S Sridhar, Head Lucas TVS Chakan plant

- Crisis is a negative gap between industry performance and our business performance.

2.2 Crisis Management Defined:

1. Set of procedures applied in handling, containment and resolution of an emergency in planned and coordinated steps[12]
2. Management of business during a period of crisis
3. Actions taken by organization to protect it when unexpected events or situations occur that could threaten its success or continued operation.[13]

Crisis management can be defined as an approach to minimize the negative impacts on business and stakeholders. These include the various actions taken by company and strategies implemented.

2.3 Crisis Management Approach:

Crisis management approach depends upon the crisis, which needs to be addressed on priority. A business unit will face a crisis induced by external business environment or the self-inflicted crisis from internal business environment. Normally the factors, which can be controlled, altered or modified by a business unit, are considered as internal environment, and the factors, which demands adaptation of situation by business unit, are considered as external factors. Normally business decisions can influence internal environment but at the same time, external business environment may enforce some strategic decisions on business unit.

Crisis management can be as routine as the internal financial controls that prevent embezzlement. Crisis management requires an analytical approach to define a tradeoff between cost of avoiding the risk and the cost risk would inflict. In crisis management, contingency plans are normally prepared not to avoid crisis but to ensure normal working conditions as quick as possible.

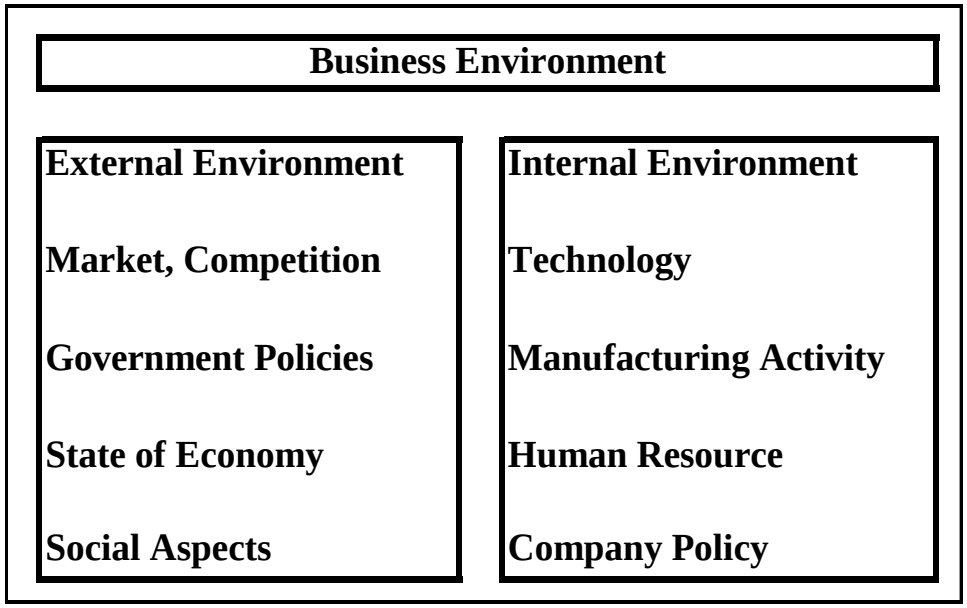
2.3.1 Business Environment:

Broadly, business environment is considered as a combination of external factors and internal factors, controllable and non-controllable factors. Internal environment is nothing but the resources where company has direct control and factors can be managed easily. The internal environment consists of technology, human resource, product and processes, sources of finance, assets, organization structure etc.

External environment consists of fiscal and monetary policies of Government, Political interference and policies, State of economy and purchasing power of consumers, potential market and performance of industry, global competitive forces and types of competitions, Legal and political framework, product life cycles and consumer demands etc.

A figure gives a generic view about business environment and interdependence of these environments.

Figure 2.1 Business Environment



2.3.1.1: Crises related to External Business Environment:

Crises related to Market:

- Contraction in business potential
- Cutthroat competition
- Reduced profit margins
- Higher rate of product obsolescence
- Lower product life cycles
- Dynamic changes in customer expectations
- Threat from global product substitutes
- Large product varieties and small volume demand from customers

Crises related Government Policies:

- Delay in project approvals
- Frequent changes in project specifications
- Uncertainty about future course of action
- Inconsistent fiscal and monitory policies
- Difficulties in tax planning
- Restrictions on growth
- Limited areas for operations
- Restrictions on capital formation
- Restrictions on product varieties and volume of production

Crises related to state of Economy:

- Higher inflation rates
- Stagnation of business
- Higher borrowing costs
- Reduced consumptions
- Shortfall of demand and irregular consumption pattern.
- Sluggish product demand
- Scarcity of infrastructure

Crises related to social aspects of business:

- Products and services rejected by society.
- Products are mismatch with culture prevailing in society
- Some sections of society are dominant and decide product consumption trend.

2.3.1.2: Crises related to Internal Business Environment

Following are various crises faced by Automobile Industry related to change in internal environment. Internal business environment is a combination of various resources utilized by company for production of components.

Crises Related to product development, Research and Development

- Delayed product development cycles
- Lack of product development and testing facilities
- Shorter life span of products
- Shortfall of investment for research
- Government restriction on product development

Crises Related to Technology:

- Underutilization or idle capacity of machines and equipments
- Shortfall of financial resources for changeover to new technology
- Shortfall of technical skills to operate latest machines and equipments
- Higher maintenance costs because of use of high-end technology
- Frequent changes in technology and time lag to cope up with new technology.
- High cost of cutting tools and inspection equipments associated with new technology.
- Volume requirement for complete utilization is very high.

Crises related to Manufacturing Activity

- Old and worn-out machines and equipments
- High breakdowns and downtimes
- Intermittent production cycles.
- Process rejections and wastages
- Operational inefficiencies
- Quality issues

Crises related to Human Resource:

- Inadequate technical skills
- Resistance to change and acquire new skills
- Vibrant industrial relations.
- Labour strikes and non cooperation movements

- Discriminative and unfair HR policies and practices.
- Exploitation of workforce.

Crises related Company Policy:

- Higher attrition rates
- Higher costs of productions
- Shortfall of financial resources
- Financial loss
- Contraction of business opportunities
- Cot overruns and delayed completion of projects

2.3.2 Crisis Management Approach for External Business Environment Crisis:

A crisis induced by external business environment is uncertain. The reaction is very fast and it can create a severe long lasting impact on business. It may create a threatening situation and a question mark about the survival of business enterprise. Normally there are very few and weak signals about the crisis and people fail to recognize these signal. Failure to receive signals and response induce severe crisis for the organization.

A crisis management approach requires a proactive team, well trained to handle the crisis and reduce the impact on people affected and involved. Harvard Business School has given a generic approach for crisis management.

Crisis has many sources and these are often unique to a company's line of business. A major crisis will affect the entire organization and may lead to collapse. The managers must act quickly to recognize its source, contain it and resolve the crisis with least amount of damage.

Some crises are like a fire and they start in small-unobserved area. If the smoke is smelt and identified early, the fire can be averted. If unnoticed these small fire can grow into catastrophic infernos.

Every crisis is a costly affair. Even the crisis is resolved and managed effectively; there will be a cost overrun in terms of money, market, public image and employee morale. These costs are learning opportunities for organizations. Smart organizations learn for every experience and apply the leanings to future challenge. Learning helps to become wiser and effective. These learning should be a base for avoiding and / or preparing for future crisis.

Crisis management, master the skills to prevent disasters, Harvard Business Essentials III series, 2012

Crisis Management Approach Given by Harvard Business Essentials is an approach to manage the crisis related with external business environment. External environment can create a long lasting effect on company and as a result, stakeholders may be dissatisfied. Continuous evaluation of changes in external business environment and projecting the probable impact on business performance should be ongoing activity in any organization. This approach will help to reduce the impact of unseen perils on business.

The steps suggested to develop proactive approach for external environment crisis management are:

1. Taking stock of potential perils.
2. Avoiding the avoidable
3. Contingency Planning
4. Crisis Recognition
5. Containment.
6. Crisis Resolution

7. Mastering the media

8. Learning from own experiences

Taking stock of potential perils

Sources of potential crisis

- Industry specific changes in business environment can induce crisis. These changes may be change in government policy, legal environment, fiscal and monitory policies of government.

- Price control mechanisms imposed by government, changes in tax structures can create impact on profitability of a product line and it will be difficult to sustain in competition. Government taxes on automobile industries depending upon the size, weight, ground clearance are some of examples, which have direct impact on product design. Boarder line cases are more exposed to these environments and can create a crisis for company.

- Economic and market forces- " A rising tide lifts all boats", all business do well during good economic times and when the tide goes out, all the boats go down. The fortunes of all businesses are to some extent bound to the up and down of the economic cycle. Down phases are particularly dangerous to the companies having high fixed costs. Some companies find themselves exposed to an in favour / out of favour cycle.

Identifying Potential Crisis

- Business environment audit should be a regular activity like other statutory audits conducted by company.

- Market research should be conducted to identify predominant change in market forces and customer expectations.

- Close watch on government policies and proposed changes in legislative systems should be studied thoroughly.

Prioritizing Potential Crisis-

It is said that people are not very good at dealing with risk. They are afraid of so-called severe risky events having less probability of occurrence but they have ignorance attitude towards risks, which have higher probability of occurrence. A systematic evaluation of risks and measurement of probable impact will help to develop crisis management approach.

Simple mathematical function called as expected value can be used to prioritize the crisis management actions.

E(X) = expected value is the anticipated outcome of an event (E) times the probability of the event occurring (X). This simple equation weights the anticipated outcome by the probability that it will happen.

Avoiding the Avoidable-

Crisis avoidance can be as regular as the internal financial controls that prevent embezzlement or the squandering of corporate resources. It can be as complex as a product design. Manufacturing companies can avoid costly lawsuits customer boycotts and bad press by giving greater attention to product design.

Prepare a systematic program of crisis avoidance. A proactive approach about crisis, regular business environment audit, market research and understanding changes in legal systems will help to prepare crisis management plan and impact on business can be minimized.

Contingency Planning:

Contingency planning involves organizing and making as many decisions as before a crisis occurs. Precrisis planning gives people the time required to consider all options. They can think through, discuss merits and demerits of various reactions, and test their preparedness. Some risks are potentially more dangerous or costly than others. Use probability adjusted risk assessment to determine which risks can effectively neutralized through managerial actions or insurance. Many crises began as a small

problem. By heeding the signal of creeping crises, one can neutralize them before they grow dangerous and expensive. Some crises are self-inflicted. These can be avoided by thoughtful anticipation of the consequences of company policies and actions. Contingency planning can be done by using simple steps-

- Organizing a planning team-
- Assess the scope of the problem-
- Develop a plan-
- Test the plan-
- Keep the plan up-to-date.

Crisis Recognition-

Crisis recognition is an important aspect of any crisis management. The teams can work more effectively in the early recognition of crisis rather than midway of crisis. Team will be prepared to address before the too much damage is done. Many crises begin as small embers that grow hotter, eventually ignite everything around them. It is quite normal experience, when crisis start small, people may fail to recognize but by the time they notice what is happening, the crisis has grown the point that it is dangerous and difficult to contain.

Some of the warning signals to recognize the crisis are-

- A technical discontinuity.
- Public resistance for introduction of new technology,
- Persistent rumors and speculations about company and employees

The situation and business environment generate early signals both positive and negative. Reading these signals is a business skill. Recognition and interpretation of these signals certainly is an important aspect of business. Knowingly or unknowingly, these signals may be ignored.

Crisis Containment preventing a bad situation from becoming worst:

Unaddressed crisis and left unchanged, some crisis will move from bad to worst. A crisis in one area can create a crisis in another area if not checked promptly. Crisis containment is defined as the decisions and actions that aim to keep crisis from growing worse. Containment of crisis is identification of problem and figure out the initial plans to stabilize the situation and prevent the crisis from growing worse.

Crisis Resolution:

Crisis resolution an important part of crisis management is a sequential approach, which a crisis management team needs to understand and implement. The approach includes

- Move quickly
- Gather facts continually
- Communicate relentlessly
- Document action
- Use project management techniques when appropriate
- Be a leader
- Declare the end of crisis.

Mastering the Media:

Communication is an important tool for every crisis management team, in every stage of crisis. Communication through the media – newspapers, television and radio must also be used to accurately frame the crisis in the stakeholders' mind the message should be accurate and candid. It should present company's point of view and include facts that support it.

Learning from Own Experience:

Learning during the crisis management should be a continuous process. The record should be maintained at each level of crisis management about the problems faced, solutions suggested and implemented. The document should also record what went right and what went wrong in the entire process.

Harvard Business School has given a generic approach and it is universal for all types of companies. Most of the successful companies use this universal approach by doing some modifications as per their expertise and requirements. There are other variants of this approach but majority of the contents are same.

2.3.2.1 ICFAI Approach:

A simple model is proposed by ICFAI University publication on Crisis Management.

Crisis Management Approach:[14]

1. Appointment of a Crisis Management Team
2. Brainstorming
3. Fact sheet on Crisis
4. Official Spokesperson
5. Crisis team should demonstrate Honesty, Speed and Solution.

This Crisis management approach is simpler to understand and implement. Major focus is on team activity and interactive sessions on brainstorming. In case of crisis related to external environment, team should consists of experts from various sections of society, who can contribute for better results during crisis management. The fact sheet on crisis elaborates the definition of problem and suggested action plan to avert the problem.

2.3.3 Crisis Management Framework:[15]

Figure 2.2 Crisis Management Framework

	Landscape Survey	Strategic Planning	Crisis Management	Organizational Learninng
The Internal Land Scape	Identify the organiztions weakness	Form crisses management team	Return the organization to an operational Status	Evaluate success and failure outcomes of the crisis maangeent process
	Determine Enthusiam for Crisis Management	Develop Worst case scenarios	Manage the priority Stakeholders	Strive for organizational learning
	Overview the organizational Culture	Formulate crisis management plan		Strive for organizational Renewal
	Asses the environment	Conduct mock Diasater training		
	Evaluate Company safety policies			
The External LandScape	Determine the industry vulnerability	Consider exisiting governemnt regulations	Manage reactions of external stakeholders	Reap the benefits of industry renewal
	Determine the political stability	Consider current industry standards	Negative Media Coverage, Public outcry	Be ready for new Government regulations
	Asses the organization in relation to globalization implications	Develop working relationship with media	Web-based criticism and copany hate websites	Be awrae of new stakeholder outlooks
	Asses the technological implications		Impending Government regulations	

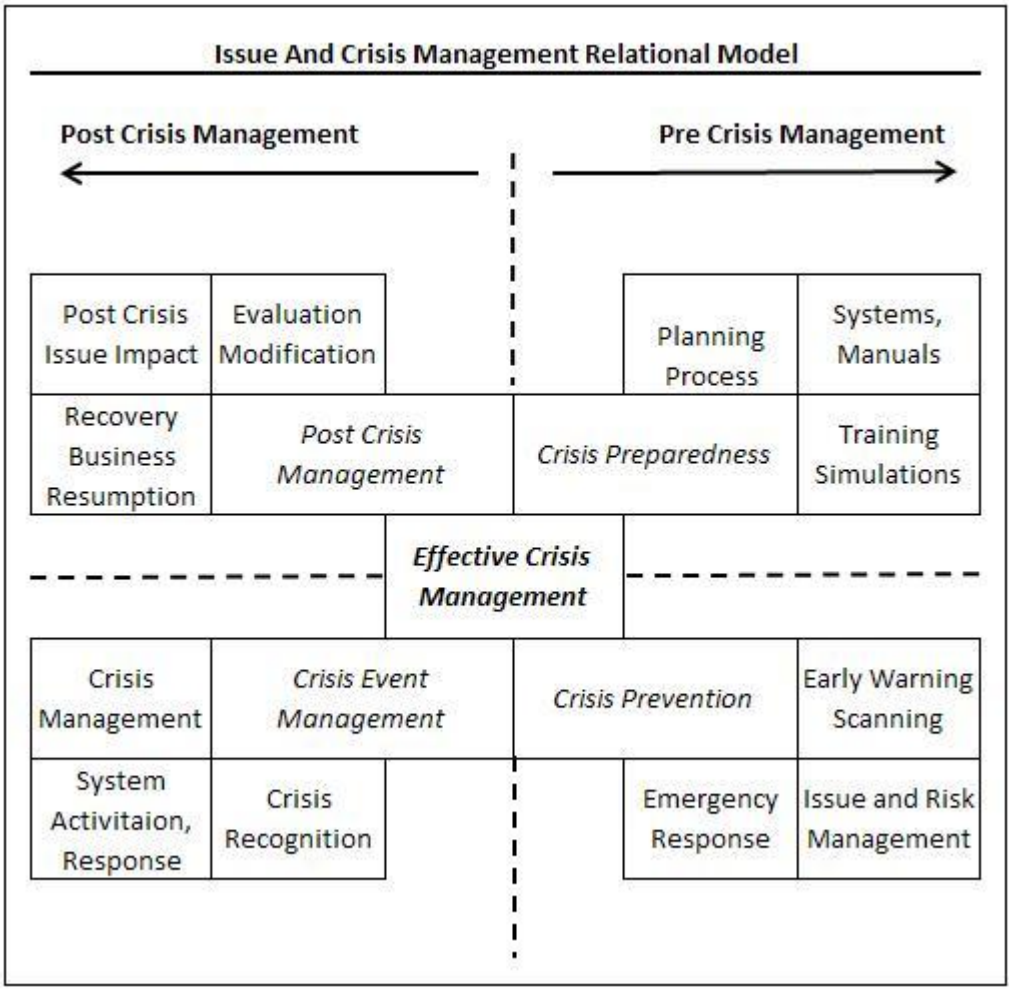
Crisis Management framework suggested by William Rick Candell and other authors is a consolidated approach for internal and external business environment analysis and subsequent crisis management approach. The framework has added organizational learning as important aspect of Crisis Management. This framework gives the action plan and strategic linkages for effective crisis management. This framework helps to create linkages between the external or internal business environment, and provides a systematic action plan for effective crisis management.

Landscape survey gives a broader view about the crisis and one can explore the various related or unrelated areas to identify the potential sources of crisis. This landscape survey is base for further action plan. The strategic plan for each factor considered in landscape survey creates step by step activity plan to minimize the effect of crisis. The strategic plan may include functional level decisions for internal environment crisis and corporate intervention to manage external environment business crisis. Establishing the business operations to normal situation is a top priority. This also includes satisfaction of various stakeholders. Organizational learning should be documented and used as a reference to enhance crisis management skill. The learning should improve understanding of impact of business environment and develop a team to manage crisis effectively to create better opportunities for business

2.3.4 Relational Model for Crisis Management[16]

Harvard Business School has given a generic approach but this model is prepared on the holistic view of crisis management, that crisis prevention and crisis preparedness are as important as the overall process and the tactical steps to take once a crisis strikes. Furthermore, that the post-crisis cluster of activities has a critical function looping back to preparing for and managing future crises. This model represents group of ideas and not mere sequential steps in the process. The processes are interdependent and sometimes overlapping also. The model is non-linear and there is a sequential loop for refinement of crisis management process.

Figure 1.3 Issue and Crisis Management Relational Model



Crisis Preparedness

- Includes putting planning in place, assigning roles and responsibilities, establishing process ownership.
- Includes crisis management infrastructure, equipments, war-rooms, resources and documentation.
- Includes training programs, demonstrations, exercises and live simulations.

Crisis Prevention

- Includes processes such as audits, preventive maintenance, issue scanning, environment scanning, anticipatory management, future studies.
- Include identification, prioritization, strategy development and implementation.

- Includes infrastructure, documentation and training.

Crisis Event Management

- Includes the transition from emergency, objective assessment, early recognition.
- Includes the activation process, system for callout, availability of back-ups, system redundancy.
- Includes strategy selection and implementation, damage mitigation, stakeholder management, media response.

Post Crisis Management

- Includes operational recovery, financial costs, market retention, business momentum, share price protection.
- Includes coronial inquests, judicial inquiries, prosecution, litigation, reputational damage, media scrutiny.
- Includes root cause analysis, management assessment, process review, implementation of change.

2.3.5 Evaluation of Crisis Management Approaches for external business environment.

Crisis management approach " Master the skill to prevent the disaster" Harvard Business Essential broadly describes disaster management. The disasters are not frequent happenings in the industry but the impact is long lasting and demands dedicated efforts and a thoughtful remedies to overcome the disaster. In MSME sector the impact of external business environment depends upon type of a company. External business environment have major impact on product companies than component manufacturing companies. This approach is effective and it may not be necessary to follow all the steps.

Crisis Management approach given by ICFAI is a generic than Harvard Business Essential. This model have a focus on corrective action rather than proactive approach to identify and prevent the crisis. For public companies, communication to stake holders is necessary to gain confidence in business. For private companies, confidence in internal stake holders is more important to manage the crisis.

Crisis management framework is a better approach, where it considers both internal and external factors. This frame work is more suitable for automobile component manufacturing industry. The external environment landscape largely depends upon customer but internal environment depends the technology and culture of company.

Issue and Crisis management relational model presents effective crises management model. This model have a focus on planning aspect of crisis management. This model suggects planning and actions to be taken in Precrisis management situation to post crisis management situation. It helps to create a linkages for complete damage control and handle pre and post crisis management issues.

These models provide certain methodologies and insight for a crisis management. If we critically examine these models we can identify their advantages but the major limitations are the applications for medium scale and small scale industries. These models have a prerequisite of experienced work force to understand the crisis and impact of crisis. These models also demand a separate team to manage the crisis. In medium scale and small scale industries employee engagement is a major problem.

2.4 Crisis Management Approach for Internal Business Environment Crisis.

Crisis management approach related with internal business environment, or self inflicted crises or the sudden breakdown in internal systems or system failures is much different than the approach for external business environment related crisis. Internal business environment normally relates to the factors where organization have direct or indirect control and these factors can be modified or altered easily as compared to external business environment, where organization doesn't have any control.

Automobile and auto component manufacturing companies are doing consistent efforts to improve quality of the product. Automobile industry has seen lot of change in last 60 years precisely after Second World War when Japanese quality revolution was started. These three phases are

- Japanese quality movement
- The Toyota way
- New trends after 1996 such as six sigma, lean manufacturing, quality awards, International quality systems and certifications such ISO, TS etc

2.4.1 Japanese Quality Movement:[17]

After Second World War American auto companies were enjoying the advantage of their production capacities and a boom in market. It was a seller's market and American companies were ready to supply the market demand. After Second World War, Japan was in a state of shock because of nuclear bomb disaster. Japanese were having scare resources and shortage of technical skills. Japanese products were not up-to the mark and products were not accepted by customers.

This Japanese quality revolution was a first systematic approach for internal system crisis management. The contribution of four Quality Gurus namely, W. Edwards Deming, Joseph M. Juran, Philip B. Corsby and Kaoru Ishikawa; changed Japanese industry in nearly 20 to 25 years and Japanese products were considered as symbol of Quality. JUSE (Japanese Union of Scientist and Engineers) played a major role in the crisis management.

Contribution of quality Gurus created a change in thinking pattern about the quality of product. Their contribution has helped all automobile industries to improve product quality by continuous improvement. It has changed work culture in Japan. Japan made a dramatic change to manage crisis related to process improvement, use of resources and product quality improvement and finally cost effective products for customers.

2.4.1.1 Contribution of W. Edwards Deming:

Deming has given two most powerful approaches for internal process and product development crisis management. PDCA cycle and Quality Philosophy. PDCA cycle; "Plan – Do- Check – Act" is continuous improvement tool to achieve better results every time. Today lot of variants of this cycle is used in companies for internal crisis management.

Deming's Guiding Principles

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive, stay in business and to provide jobs.

2. Adopt the new philosophy.
3. Cease dependence on inspection to achieve quality. Eliminate the need for massive inspection by building quality into the product in the first place.
4. End the practice of awarding business on the basis of a price tag.
5. Improve constantly and forever the system of production and service.
6. Institute training on the job.
7. Institute leadership to help people to do better jobs.
8. Drive out fear, so that everyone may work effectively for the company.
9. Break down barriers between departments.
10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity.
11. a. Eliminate work standards (quotas) on the factory floor. Substitute with leadership.

    b. Eliminate management by objective. Eliminate management by numbers and numerical goals. Instead, substitute with leadership.
12. a. Remove barriers that rob the hourly worker of his right to pride of workmanship. b. Remove barriers that rob people in management and in engineering of their right to pride of workmanship
13. Institute a vigorous program of education and self-improvement.
14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

2.4.1.2 Contribution of Joseph M. Juran:

Juran's Message on quality- "Intrinsic is the belief that quality does not happen by accident, it must be planned". Juran gave a powerful 'Quality Planning Roadmap'

1. Identify the customer.
2. Determine the needs to those customers.
3. Understand those needs and develop a product that can respond to those needs.
4. Optimize the product features so as to meet customer needs.
5. Develop a process which is able to produce the product

6. Optimize the process
7. Prove that process can produce the product under operating conditions
8. Transfer the process to operations.

2.4.1.3 Contribution of Philip B Corsby:

Corsby is well known for the concepts' Do it right first time' and' Zero defects'. He considers traditional quality control, acceptable quality limits, and waiver of substandard products to represent failure rather than assurance of success.

Corsby suggested 14 steps for quality improvement

1. Management commitment for process improvement.
2. Quality improvement team for process improvement.
3. Measurement of process improvement.
4. Cost of quality and process improvement.
5. Quality awareness as it relates to process improvement.
6. Corrective actions for process improvement.
7. Zero defect planning.
8. Zero defect day impact on process improvement.
9. Employee education creates process improvement.
10. Goal setting for process improvement.
11. Error cause removal in process improvement.
12. Recognition of process improvement efforts.
13. Quality council for process improvement.
14. Do it all over again for process improvement.

2.4.1.4 Contribution by Kaoru Ishikawa:

Ishikawa made a particular attention on statistical techniques used in quality assessment. At the simplest technical level, his work has emphasized on good data collection and presentation, use of Pareto diagram to prioritize quality improvements, cause effect diagram or Ishikawa or Fishbone diagram. Ishikawa was involved in Quality Circle Movement in Japan. He used seven magnificent tools for quality

improvement and his quality circle movement and seven tools created miracles in the Industry. Quality circle activity involved all people at different levels and provided a platform for every person to contribute for improvements. The seven wonders of quality movement are

1. Pareto Charts
2. Cause and effect diagram
3. Flow charts
4. Check sheets
5. Histograms
6. Scatter diagrams
7. Shewart's control charts and graphs

Japanese quality movement was a miracle and created world-class products. All these methodologies and concepts developed these quality gurus for internal process and quality improvement crisis are still practiced in various companies. These have become universal approach to improve the quality and manage performance crisis.

2.4.2: 2nd phase of Crisis Management Approach for Internal Business Environment Crisis:

Quality gurus created work culture and dedicated teams, which developed Japanese production systems through group activities. Toyota Corporation developed a new philosophy to create major change in manufacturing systems and delivered world-class products with internal benchmark for quality of vehicles. Toyota success story is considered as 2nd phase of development in internal business environment crisis management. In reality, Toyota changed external business environment for competitors and created a long-lasting impact on automobile industry.

The Toyota Way is a set of principles and behaviours that underlie the Toyota Motor Corporation's managerial approach and production system. Toyota first summed up its philosophy, values and manufacturing ideals in 2001, calling it "The Toyota Way

2001." It consists of principles in two key areas: continuous improvement, and respect for people

The Toyota Way: this book gives in-depth methodology and internal environment crisis management approach practiced by Toyota Corporation

Jeffrey K. Like, "The Toyota Way", Tata McGraw Hill Publication, Nineteenth Edition, 2008,

Fuji Cho President of Toyota motor company explains Toyota Way and its uniqueness, as 'The key to the Toyota Way and what makes Toyota Stand out is not any of the individual elements…. But what is important is having all the elements together as a system. It must be practiced every day in a very consistent manner – not in a spurts'.[18]

Toyota use operational excellence as a strategic weapon. Company places the highest value on actual implementation and taking action. By constant improvement based upon the actions, one can rise to the higher levels of practice and knowledge.

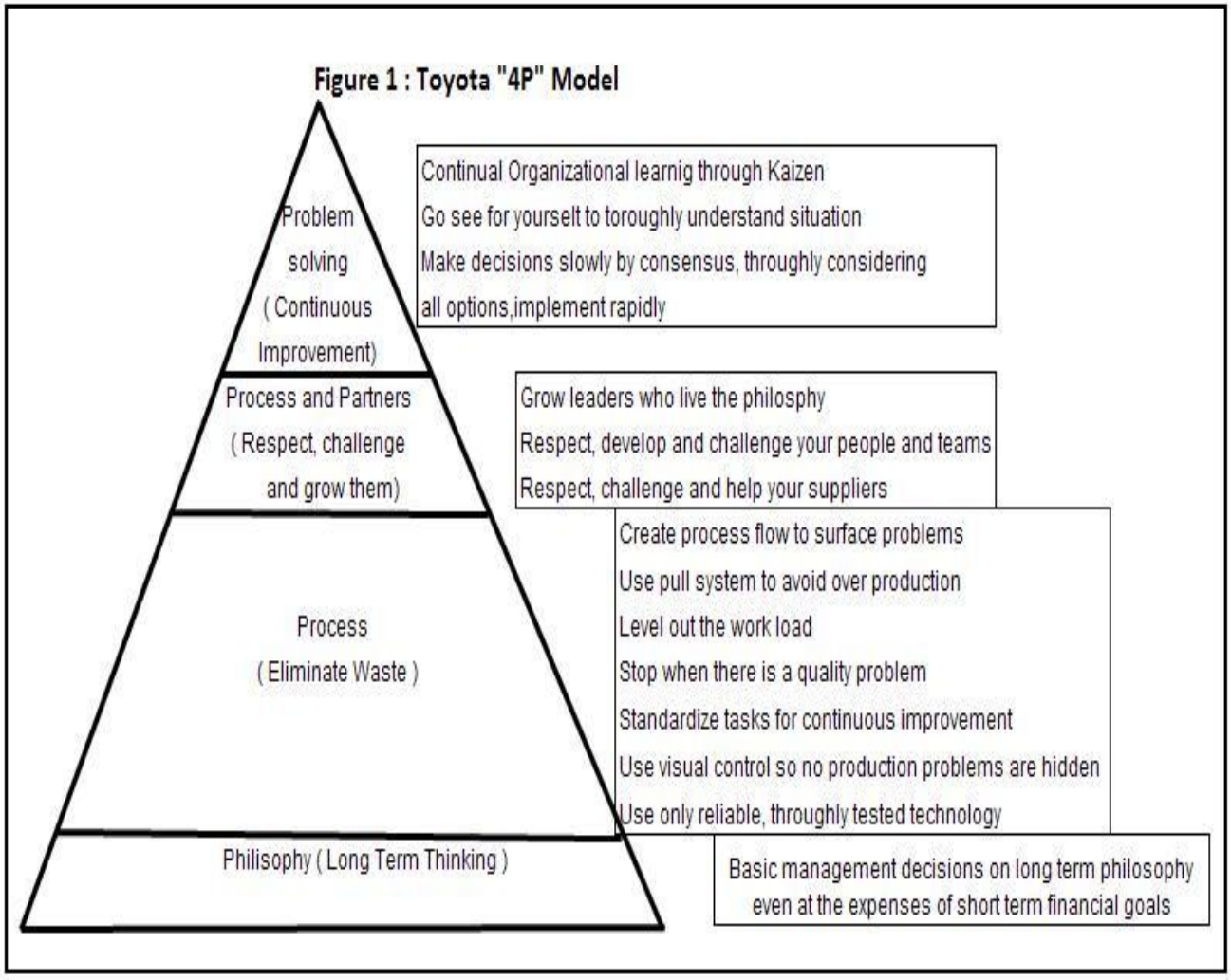
Toyota success story can be summed up by using three models, which are used by Toyota Corporation. These models are

1. 4P Model
2. Toyota Production System
3. Toyota Problem Solving Process.

2.4.2.1 4P Model:

Toyota has developed 14 principles for performance improvement. These principles are guiding thumb rules in Toyota. These 14 principles are divided into four sections and a unique 4P model is developed. Major thrust is given on teamwork and a systematic approach is developed by using these principles. These 4Ps are Problem Solving, Process and Partners, Process, Philosophy.

Figure 2.4, Toyota 4P Model[19]



P1- **Long Term Philosophy**: Toyota is serious about long-term thinking. The focus from the very top of the company is to add value to customers and society. This drives a long-term approach to building a learning organization, one that can adapt top change in the environment and survive as a productive organization. Without this foundation, none of the investments Toyota makes in continuous improvement and learning would be possible.

P2- **The Right Process:** Toyota is a process-oriented company. They have learned through experience what processes work, beginning with the idea of one-piece flow. Flow is the key to achieving best quality at the lowest cost with high safety and moral.

At Toyota, this process is built into company's DNA, and managers believe in their hearts that using the right process will lead to the results they desire.

P3- **Add value to the organization by developing people and partners:** The Toyota way includes a set of tools that are designed to support the people continuously improving and continuously developing. One-piece flow is very demanding process that quickly surfaces problems that demand for solutions or production will stop. This suits Toyota's employee development goals perfectly because it gives people the sense of urgency needed to confront business problems. The view of management at Toyota is that they build people not just cars.

P4- **Continuous solving root problems:** The highest level of the Toyota way is organizational learning. Identifying root cause of problems and preventing them from occurring is the focus of Toyota's continuous learning system. Tough analysis, reflection and communication of lessons learned are central to improvement as is the discipline to standardize the best-known practices.

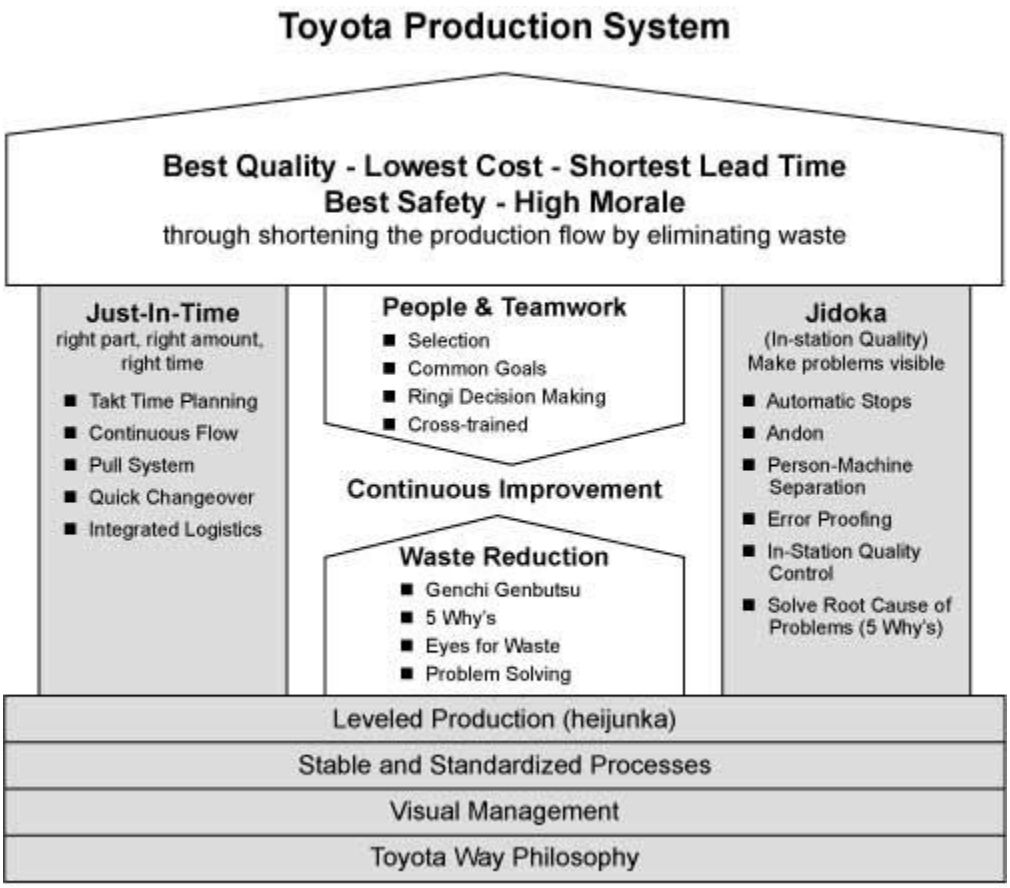
2.4.2.2: Toyota Production System:

This is a concept similar to construction of a house having a strong foundation and pillars supporting final goal of having a strong roof, which will protect everybody in the house. The figure shows the strong foundation of a production house. The foundation for best production system is laid by commitment of top management by developing Toyota philosophy. This philosophy supports visual management and, stable and standardized processes. Aim of stable and standardized processes is to have leveled production. Toyota production system has two strong pillars of JIT concept and In Station Quality. JIT system ensures thorough planning, continuous flow and pull system for production. Company believes in customer satisfaction and lowest through put time. Quick changeover and integrated logistics are key areas for success of JIT. Toyota has a major thrust in inbuilt quality of products. Production line is stopped until problem is resolved.

Toyota production system protects people in the organization, and has a principle 'People First'. Company believes in Team Work, and people are trained in cross-

functional areas to handle the problems and develop innovative solution. Toyota Production system has one important aspect of Waste reduction. Identification and elimination of waste is ongoing process. Waste is nothing but identification of non-value adding elements, which can be avoided to reduce through put time. Toyota Production System is dedicated to complete customer satisfaction. Performance measurement parameters for customer satisfaction are best quality, lowest cost, least throughput time, best safety and high morale.

Figure 2.5 Toyota Production System



Source: J. Liker (2004). The Toyota Way. McGraw-Hill. pg. 33.

2.4.2.3 Toyota Problem solving Process

Toyota has developed a unique funneling model to develop better solutions for the problems faced. The process starts with conceptualization of the problem to standardization of the solution.

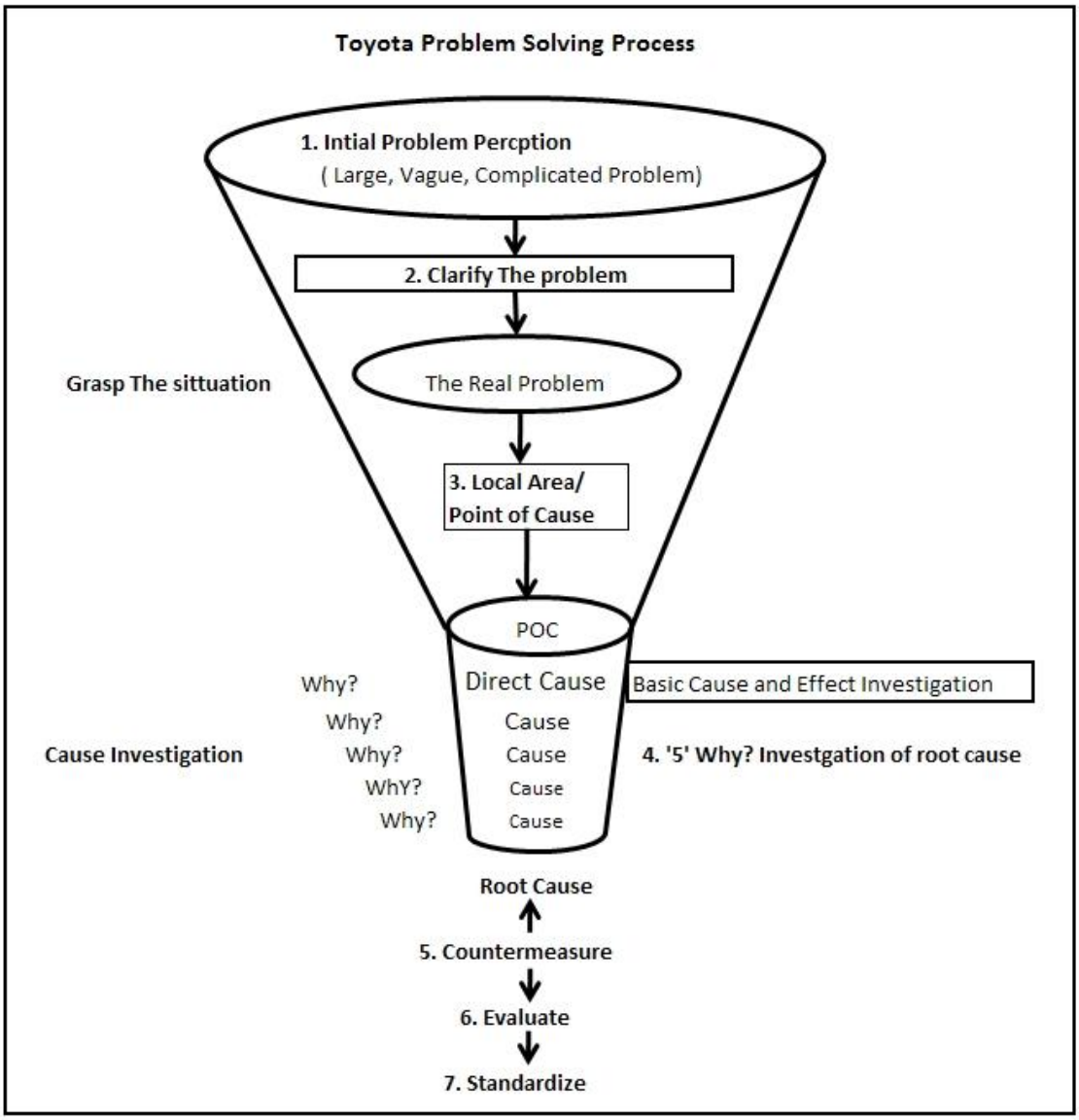
People at all operating levels are encouraged to use this model. People are trained continuously to develop mastery on the model. This five-step model generates a solution for the problem by using systematic approach. This model now a day is used in marketing to convert prospects to loyal customer.

In built capability to follow a systematic approach and arrive at a better solution is a unique character of this problem solving methodology. The process has a sequential approach, which provides an insight for resolution of problem. At the initial stage, a vague, large complicated problem is formulated. Through the process, problem is further clarified and a precise definition of problem is made.

Basic cause and investigation is done by applying '5 Why' questions in continuation with previous questions. Series of Why questions generate more insight of the problem. With a series of questions, root cause identification and understanding of the situation is improved. This may lead to reformation of the problem itself.

After identification of root cause, solutions are derived by performing brain storming sessions, counter measure actions are initiated and finally process is standardized. The process looks simple but it requires a complete attitudinal change to master the process.

Figure 2.6 Toyota Problem Solving Process



2.4.3 Current trends in Crisis Management.

Today industry experts practice a consolidated approach to handle various crises. This consolidated approach is “In-Out” thinking. Today in global competition, crisis related to external or internal business environment cannot be resolved in isolation without considering the interlinking impact on business performance.

Automobile industry has witnessed two major revolutions in crisis management approach. This has changed life in major automotive manufacturers and many buzzwords are created in organization. Understanding of these concepts has become a prerequisite to master the art of manufacturing and create leadership in market. Companies have accepted these concepts and are practicing to improve their performance.

Today business environment is dynamic and global forces create impact on business decisions. The technology transfer is very fast and cutthroat competitions are created. Today business leaders need to be innovative and dynamic in nature. Business houses are developing new methodologies and techniques to stay ahead in a race. Lot of management consultancy firms, leading business schools and Management Gurus are coming out with new model and methodologies to support and provide Crisis Management solutions to these companies. Today quick fix solutions will not work. Management perceptions are changed and people want quick but long-lasting solutions. Today environmental Change is fast and leaders need to respond it very fast.

Current trend in crisis management approach is to develop systems, which can absorb external business environmental shocks, and ensure minimum internal breakdowns and system failures. Today corporates talk about agile organization, to create a competitive edge in the market.

There is a shift in focus in current trend in crisis management approach. Leaders talk about long-term sustainable growth and market leadership. Leading business organizations and global companies have focused to develop best business practices and create own benchmarks for higher performance. Organizations talk about innovations, people development, strategic focus and Break through Management.

These current trends in crisis management provide solutions for crises related to internal as well as external business environment. The approach is to develop a solution which will create a positive impact on organization. Current trends have a focus on people development and use their creative energy, work experience and innovative ideas for enhancing company performance.

2.4.3.1: Crisis management approach through strategic linkages

Chong J. and Escarraz D. proposed a simpler model by interlinking the strategic management and crisis management. In their paper 'Anticipating and Dealing with Financial Crisis" a simple frame work is suggested. The Crisis management steps are the extensions of various methodologies in practice. The important part of this framework is deciding the interlinking of each stage in crisis management with strategic management. This interlinking approach helps user to define and establish close relationship between crisis and related strategy formation to avert the crisis.

Application of this model may change with perception of individual strategist. Coping up with the crisis will provide inputs for new strategies to be formulated. The success of this model depends upon understanding the crisis management as step-by-step process and initiating a thought process at every step, how one can overcome the crisis and generate long-term solution and gives an opportunity to initiate a thought for developing strategy.

Table: 1 Relating Crisis Management to Strategic Management[20]

Relting Crisis Management to Strategic Management

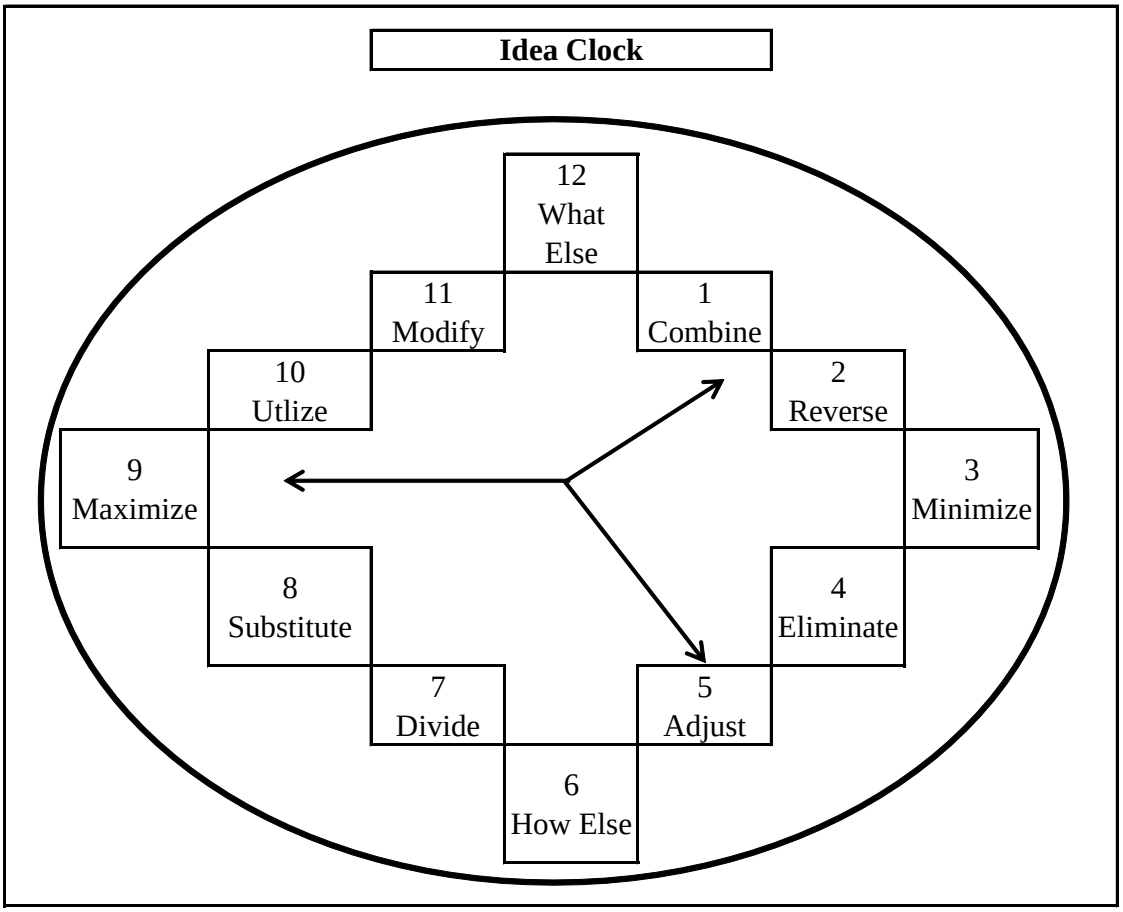
		Process of Strategic Management	
Steps in Crisis Management	Strategy Formulation	Strategy Implementation	Strategy Evaluation / Control
Coping		✓	✓
Rethinking	✓		✓
Initiating	✓		✓
Sensing	✓		✓
Intervening		✓	✓
Sandbagging			✓

✓ Indicates Strong Relationship

2.4.3.2 Crisis Management approach by initiating Culture of Innovation: A concept - Idea Clock

Management Guru in India Pravin Rajpal has developed An 'Idea Clock'[21] an innovative concept to master the innovations. The clock depicts the permutations and combinations of innovation techniques to stimulate the thought process to generate innovative ideas.

Figure 2.7 Idea Clock



All innovations are triggered by IDEAS. So far, there were no scientific ways of generating ideas for new product development, creativity, innovative design thinking and concept development. They were usually left to the spark of a genius or intuitive

abilities of select few. In the absence of a systematic approach, the organizations resorted to 'Trial and Error', which resulted in many good companies being wiped off.

'IDEA CLOCK' is a scientific method of generating new ideas. It s a real time clock on the computer which shows the 10 scientific principles of 'Creativity and Innovation' along with 2 questions 'What Else?' and 'How Else?' These principles and questions are written side by side on each of the 12 numbers of the clock.

2. Why Idea Generation On A Clock?

Time and innovation must go together. Right ideas at the right time make all the difference. The INNOVATION principles on the clock also emphasize the importance of speed in generating and executing the ideas for competitive advantages. The continuously rotating needles make it a perpetual process for new ideas – a good reminder that one cannot stop at any point of time to stay ahead. All innovations evolve over a period of time. As the clock needles show the actual time, they also point out on the different principles mentioned alongside – forming unique combinations at different times of the day to spark new ideas.

For example at 11:40:20 in the idea clock picture on the right, the 'Hour' needle is pointing on 'What Else', the 'Minute' needle is pointing on 'Substitute and the 'Second' needle is on 'Eliminate'. This sparks a new idea - What else can we substitute or eliminate?

At different times of the day, the needles keep shifting from one principle to another to form hundreds of permutations and combinations to spark creative and innovative ideas in unprecedented manner.

2.4.3.3 Crisis Management approach by initiating Culture of Innovation: Orbit Shifting Innovation:[22]

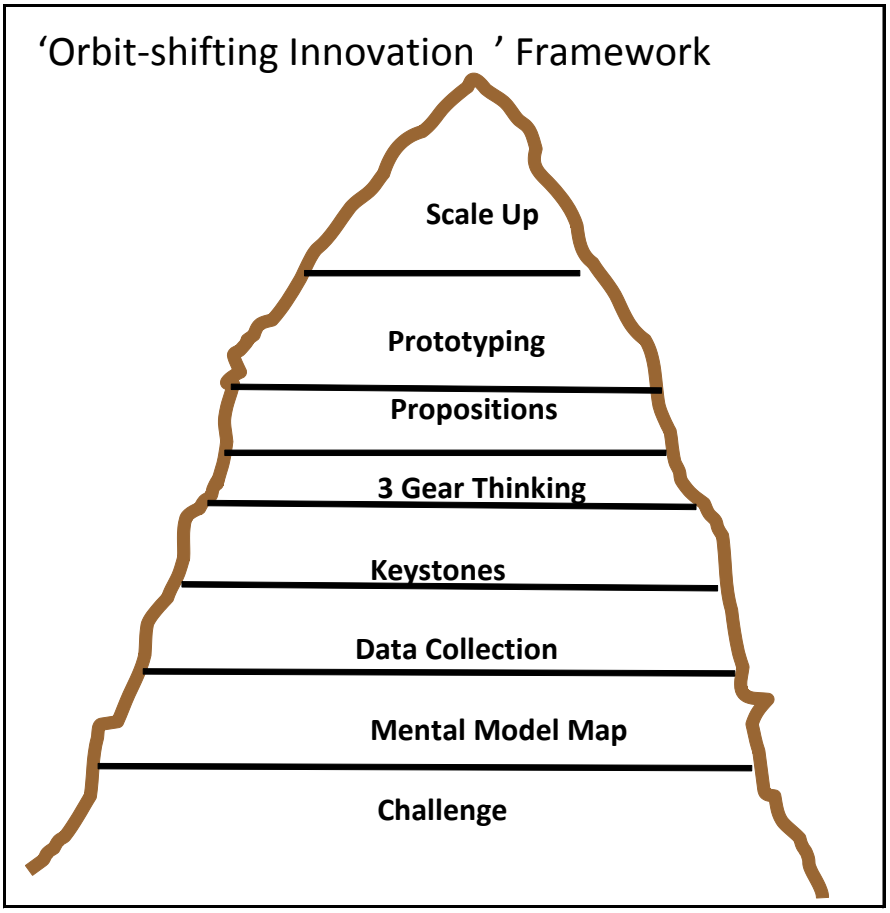
Orbit Shifting Innovation is a Human skill development methodology, which transforms the thinking process and takes a person to the next level of thinking process. Human resources are practically shifted out of its current orbit or boundaries and are empowered with new level of creative thinking. In India, this concept is used

by Anand Group for all their plants. Employees are grilled through rigorous training and continuous evaluation of training.

Starting with a 'Breaking through Gravity Diagnostic' followed by an ORBIT-SHIFT Workshop, this intervention is designed to achieve breakthrough for physical, emotional and intellectual inertia of the current orbit. It fuels the co-creation of the next orbit with intrinsic ownership, commitment and a 'positive action bias'.

Orbit-Shifting Interventions can be deployed to breakthrough 'Stagnation and Saturation' in a team, department or organization, to build and activate the 'Next Leap' drive in an organization/team that is doing well; but there is a positive dissatisfaction and an aspiration to move to the next orbit.

Figure 2.8: Orbit Shifting Framework



Process	Orbit Shifting Frame Work Process Details
Challenge	OSI starts with an out-of-the-box challenge which seems impractical with current means & ways of doing things. Yet meeting that challenge would impact the company significantly. The challenge is articulated as a quantified aspiration that would force the team to think breakthrough.
Mental Model Map	Map out all possible solution streams on a given challenge. The MMM organizes this layered directional thinking in a single visual. It then becomes the baseline to both identify current boundaries of our thinking, as well to identify the 'high leverage' areas we ought to focus on.
Data Collection	Collect data to understand the challenge from different angles and directions as identified in the MMM. Then analyze the data to gain key insights that help in more effective ideation
Keystones	3 to 4 high leverage areas where if we focus all our efforts, we could achieve the big shifts required to meet our challenge.
3 Gear Thinking	<u>For generating potential solutions to the challenge:</u> Gear 1: Use own thoughts to generate some potential solutions and apply. 'Think Frame - Shift Frame' Concept to generate more solutions Gear 2: Identify & challenge all fundamental assumptions that we would be making in our current ways. Gear 3: Learn from other industries that may have solved a similar problem in their own context.
Propositions	Some key or a set of ideas that together can be potential solutions to achieve our aspiration.
Prototyping	Trials undertaken to test, refine and evolve the proposition to a fully scalable solution. To also understand the full quantam of benefits and investments required to implement a solution
Scale Up	Scaling-up the version of the proposition(s) that will enable us to achieve our aspiration.

In a world that is changing constantly and at even greater speeds in the 21st century; governments, businesses and communities are facing unprecedented and unknown challenges. Disruptive challenges demand non-linear solutions. Discovering, deploying and scaling non-linear solutions is the core strength of Orbit-shifting Innovation. 3-gear thinking is the prime important part of this model. It enhances thinking capability and create a new thinking pattern. Orbit shifting innovation is a

journey creating a transformation in organization. It starts with creating a challenge and reaches to create new highs for participants.

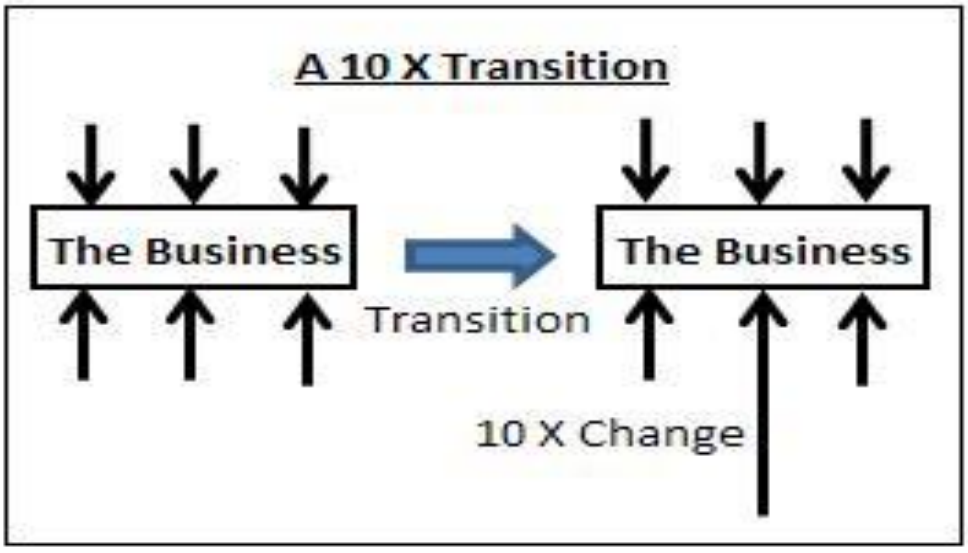
2.4.3.4 Crisis Management Approach Break through Management:

Today world is changing fast. There is a need for organizations to focus on Breakthrough- a fundamental change in an organization's direction as a response to an abrupt, radical change in the business environment.

Shoji Shiba and David Walden in their book 'Break Through Management'[23] have given new concepts and models to create a breakthrough for crisis management.

The 10X Change:[24] Andrew Grove of Intel has introduced 10X Change Concept, indicative an order of magnitude change in one or another factor in the environment. Andrew Grove added a sixth element to Porter's five-force model; the company's situation with regard to other companies whose business complement the company's business.

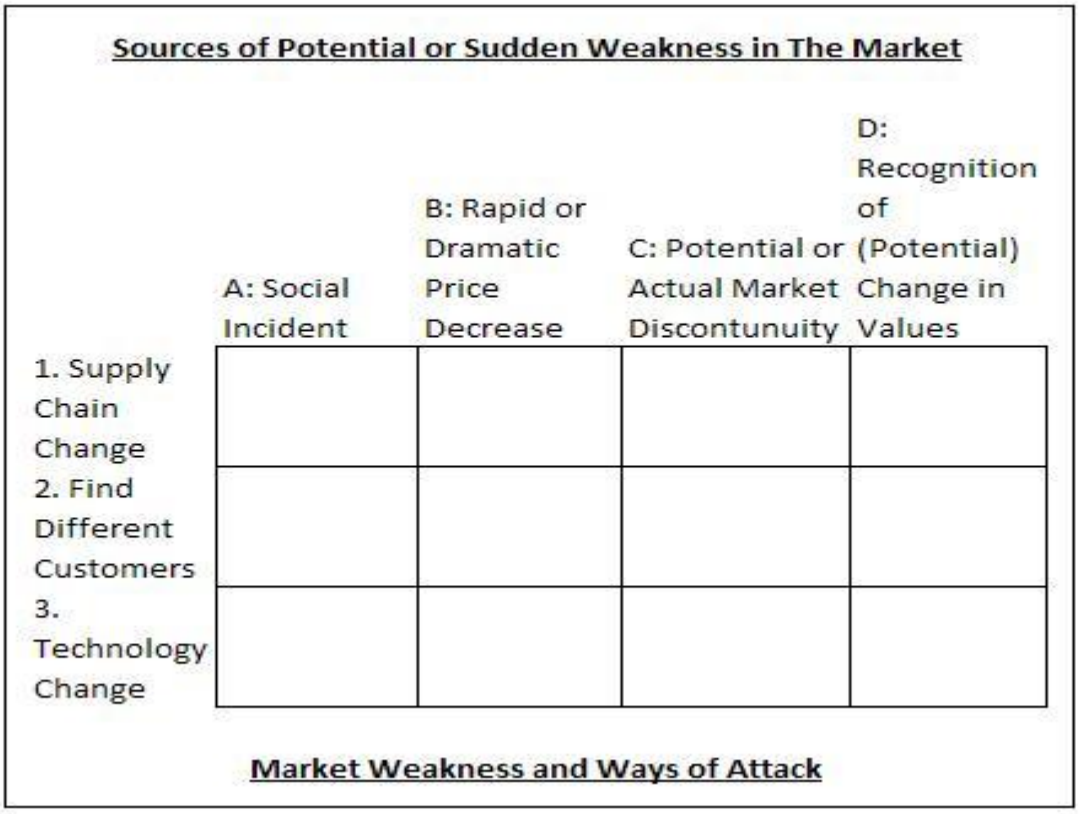
Figure 2.9: Andrew Grove six forces model



The six forces can be sufficient to deal with normal business pressures. However, one of the six forces is suddenly increased by a factor of 10, the organization may have closedown the business. To be prepared for this situation there are three ways to create a new business. 1. Technology change, 2. Finding different customers 3. Supply chain

change. Market weakness grid is used to analyze source of potential or sudden weakness in the market. This grid shows market weakness and helps to develop ways of attack.

Figure 2.10: Market Assessment Grid[25]



Market assessment grid helps to determine sudden or potential loss in the market, at the same time provides an insight to create attacking plan.

In today's Breakthrough era, companies are sometime forced to seek new businesses. A company can switch business, but then the company has to deliver its products and services in a reliable, controllable way if it is going to succeed in getting and keeping customers. Also, eventually, it will likely have to provide incremental improvements to its products and services to remain competitive with other companies that are trying to expand in the same business area.

The connection between making money and survival is shown in following figure.

Figure 2.11: Business Logic, Money and Survival[26]

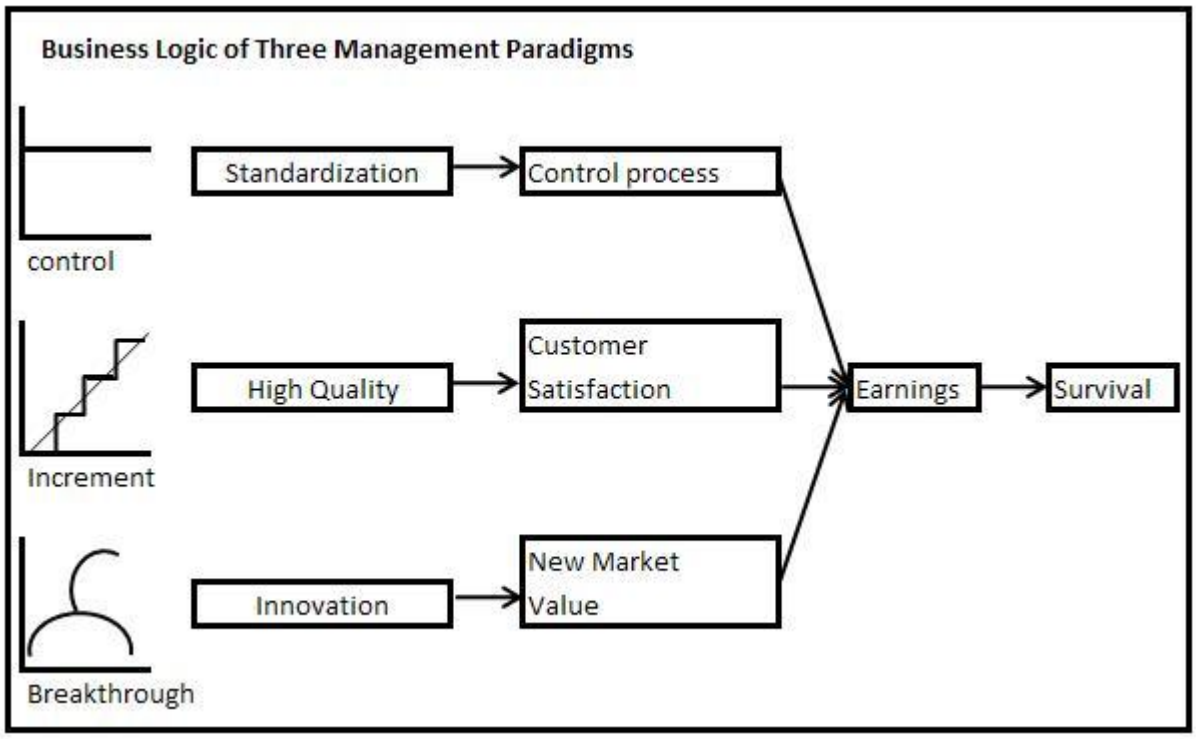


Figure illustrates the necessity of having elements of all three paradigms: Process Control with its emphasis on standardization, Incremental Improvements with its emphasis on continuing customer satisfaction based on ever improving levels of customer perceived quality, and Breakthrough Management with its emphasis on attaining new markets with innovation.

Today management often must be done in new way. A business starts with Breakthrough, producing the new product exactly as developed and getting it under control. From there one improves the product using the method of incremental improvement getting each change under control. But surprisingly soon it becomes necessary to jump to the next Breakthrough.

2.5 Evaluation of Crisis Management Approach for Internal Business Environment Crisis.

Crisis management for internal business environment is a complex process and the approach depends upon the nature and leadership of the company. Especially in automobile industry four distinct phases are observed. If we critically examine these phases, it is evident that the crises management techniques are developed over a long duration with practical experience. The philosophies developed by quality gurus such as Edward Deming, Joseph M. Juran, Philip B. Corsby, Kaoru Ishikawa were successful in Japan because there was complte support form various industries and employees of the companies. It was a need for Japanese industry to improve quality of products. Japenese products were discarded in world markets. The tools and techniques developed by these Quality Gurus were successful because of to major reasons-

1. vendor development and outsourcing concept was not practiced and majority of the components were manufactured in company and manufacturing excellence was considered as prime focus.

2. The market players were limited and product development cycles were considerably large. Which provided a cushion to experiment and improve the manufacturing practices.

Today in auto component manufacturing industry, product development cycle is very short and companies need to be agile for component supply. Today crisis is not only related with manufacturing excellence but it has engulfed entire supply chain. In this scenario, though these tools and techniques are useful, crisis management approach requires evaluation of another dimension to manage the crisis.

In Toyota Manufacturing Revolution, company developed their own crisis management philosophy. For Toyota Corporation, complete support from top management and market leadership were two major plus points. Involvement of employees have created a miracle in manufacturing and it established a new benchmark for other industries. Toyota competed with their own benchmark for

manufacturing excellence. If we look at the resource requirement and technology support to implement Toyota model, it is not possible for a medium size company to implement it Time and money investment is another major dimension which limits practical approach for Toyota model. For auto ancillary units understanding and training on Toyota model is a costly affair. Various companies try to develop their own models or implement Toyota model in bits and pieces. The argument against Toyota manufacturing excellence is that Toyota has to pay huge amounts on major failures and supply of defective vehicles to customers. There is always something extra requirement in the system to avoid failures.

Current trends in crisis management have created a paradigm shift from manufacturing excellence to employee excellence. Today people talk about employee as an asset and organizations are giving more emphasis on employee development. There is shift from technology to human resource. Today efforts are done to explore employee potential and companies have changed their approach from skill development to self development. These new trends may not be observed in medium and small scale industries because of their infrastructure limitations. These companies have limitations of business and thus recruitment of best talent. These organizations do agree importance of hiring best talents but they have to operate with their financial boundaries and some time training and development may be a luxury for them.

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Chapter No. 3 Decisions and Strategic Models

3.0 Decisions:

External and Internal business environment have effects on business operations and various strategic decisions taken by organizations. If organizations are not aware about the change in business environment or if they fail to predict the change, it may create crisis for the organization. Decisions and decision-making process has important role in crisis management approach.

Decision making is important role for long term success of the Business. Lessons of Newell highlight the importance of strategic decisions and corporate strategy.[27] Lessons are

- Corporate strategy should be guided by vision
- Corporate strategy is system of interdependent parts
- Corporate strategy must be consistent with opportunities outside the company
- Benefits of corporate membership must be greater than cost.

Strategic planning is an important aspect of crisis management. Peter F Drucker defined strategic planning as" The continuous process of making present entrepreneurial decisions systematically and with the greatest knowledge of their futurity; organizing systematically the efforts needed to carry out these decisions; and measuring the results of these decisions against expectations through organized systematic feedback."[28]

Rudy A Champa also discussed critical decision-making process dealing first with strategy and then innovation necessary for business growth. He spoke of the "Development of strategic blueprint for the future look of the business, which can be used as decision making filler to help focus resources and determine choices for future products and markets."[29]

What is a decision?

According to Ducker "A decision is a judgment and choice between alternatives. It is rarely a choice between what is right or wrong, at best it is a choice between 'almost right' and 'probably wrong'- but more often choice between two courses of actions neither of which is probably more nearly right than the other"[30]

Decision-making is a dynamic process, a complex search of information, alternatives and choices. There are two approaches to modeling human decision-making; 'The Outcome Oriented Approach and the Process Oriented Approach'[31].

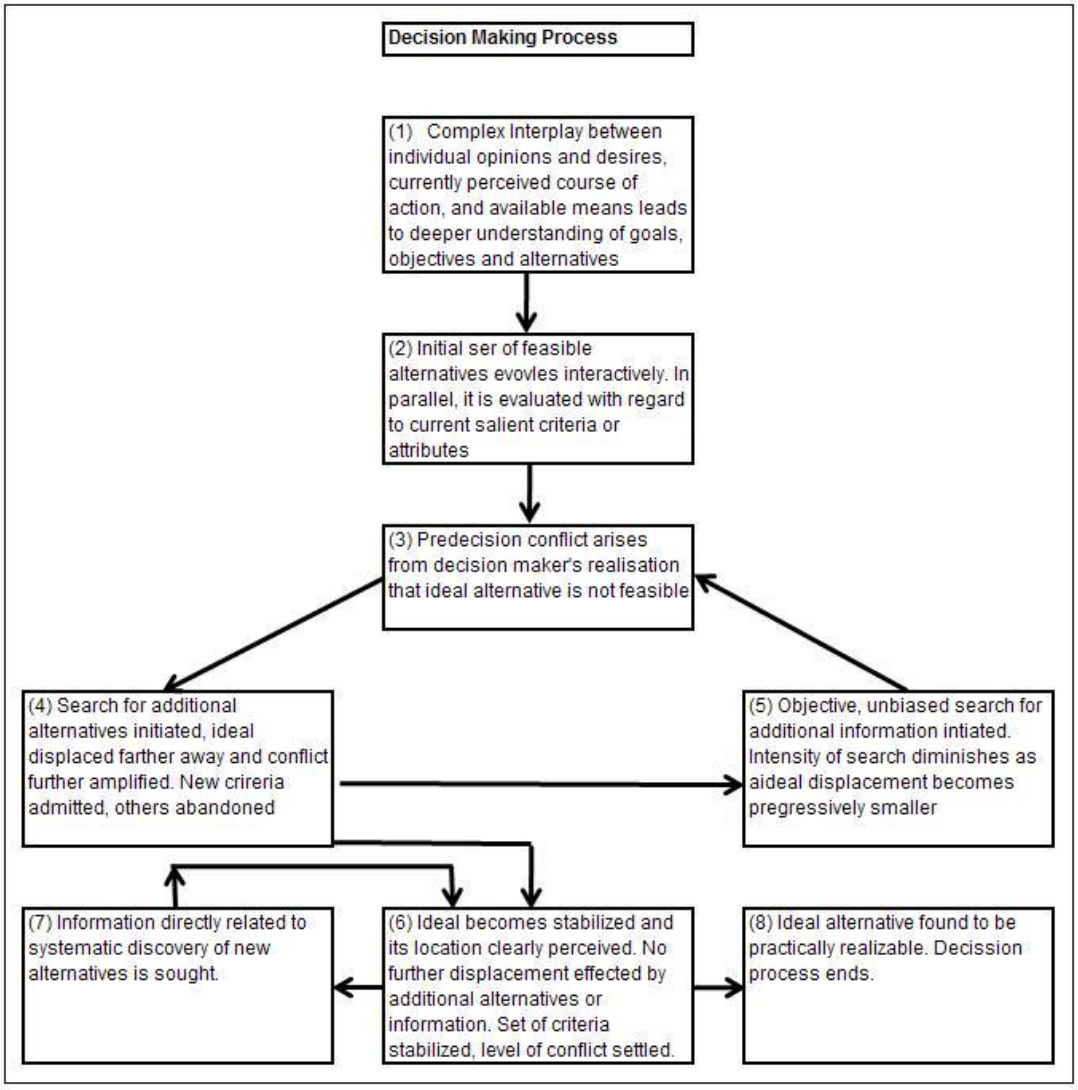
- The Outcome Oriented Approach, based on the view that if one can correctly predict the outcome of the decision process, then one obviously understand the decision process. The decision outcome and its correct prediction are at the centre of this approach. Normative decision analysis and multiattribute utility theories etc are examples of this orientation, which asks questions like what and when rather than how.
- The Process Oriented Approach, based on the view that if one understands the decision process, one can correctly predict the outcome. Essentially descriptive, this approach has prescriptive and normative features as well. Knowing how decisions are made, can teach how they should be made.

The decision making process consists of pre-decision, decision and post-decision stage. These stages are interdependent. The post-decision phase often coincides with the pre-decision preparation for the next decision. Each decision stage is itself composed of series of partial decisions, characterized by their own pre and post decision stages.

In crisis Management, Predecision Stage normally consists gathering information about the crisis and understanding the impact of crisis. First, there is a sense of conflict and underlying source of conflict is the nonavailability of suitable alternatives and particularly the infeasibility of the ideal alternative to manage crisis. Experiencing conflict, decision maker starts searching for new alternatives preferably, for those approximating the ideal. The evaluation of alternatives become more systematic as the decision maker realizes that a choice among alternatives already generated, rather than a

discovery of new alternatives will dominate the process towards the conflict resolution. Decision stage is exploring the partial decisions and deriving the final concluding long-term strategic decision. Decision stage includes a series of short-term decisions channelized to long-term solutions. Post decision stage is a combination of pre and post decision, where evaluation of decisions implemented is done and a preparatory groundwork is done for future decisions. All phases are overlapping and interlinked. It is cyclic and continuous process to arrive at better decisions. There are different approached for decisions and methods to take a decision. Following figure shows a simple decision making process.

Figure 3.1 Decision Making Process:[32]



In a crisis management approach and decision making one needs to understand situation and should make efforts to find out answers for following questions.

1. What is crisis and what is relevant to business?
2. What will be a state of business?
3. What should be a state of business?

The decision makers should try to unfold the answers by collecting information and processing it. These answers will generate a new approach and appropriate quality decisions.

3.1 Peter Drucker's View on Decision: "Good decision makers know that the decision to be made about the right problem, therefore they know how to define the problem"[33] "Good decision Makers also know that a decision is a commitment to action, it must get people to act and be implemented"[34]

Elements of Decision Making: In the Effective Executive Drucker described the following elements of decision-making.

1. Determining if decision is necessary and classifying the problem / situation as generic or unique.
2. Defining the problem
3. Satisfying the boundary conditions and specifications for the decisions
4. Deciding what is right
5. Converting the decision into action
6. Feedback: Is the decision being implemented and is the problem being resolved?

Essential steps in any decision making process are[35]

1. Deciding objectives of the decision
2. Create a context for success
3. Frame the issue properly
4. Generate alternatives
5. Evaluate alternatives
6. Choose the best alternatives

Organization has a vital role in decision-making. Organization consists of various subsystems and one has to understand interlinking of organization subsystem. Interdependence of subsystems create a dilemma for a decision maker. As a decision maker one has to consider the impact of decision on effective utilization and performance of these systems. Organizational subsystems provide a structure and a link between various business environments and help decision process to select appropriate decision. Following figure gives a generic view of organization subsystems.

Figure 3.2 Organization Subsystems[36]

Elements Of Open System		
Organizational Subsytems	Task Environment	General Environment
Mission And Vission	Customers	Legal and Regulatory
Management	Suppliers	Natural Resources
Human, Social and Cultural	Competitots	Economic, political and Society
Structural	Technology	Culture, Values, Beliefs
Technological		Climate

Experts in management and management gurus have developed a set of strategic decision models, which help the decision makers to understand the situation and it create a path of for better decisions. Application of these models helps the decision maker to take knowledged decisions. Selection and application of model depends upon the situation to be managed and the expected impact of the decision. It is well known fact that a crisis cannot be managed by using a single decision making model but it will help to gather the information for in-depth analysis before arriving at a decision. The outcome can change with use of different models. Some models are useful for crisis management related to external business environment. Other models are exclusively for crisis related with internal business environment.

Strategic Models for external environment crisis management are:

- GE-Mckinsey Matrix
- BCG Matrix
- Porter's five force model
- Porter's Generic Strategic Model
- PESTL
- Ansoff Matrix

Strategic Models for internal environment crisis management are:

- SWOT
- Value Chain Analysis
- Balanced Scorecard
- Mckinsey '7S ' Model

3.2 Strategic Models:

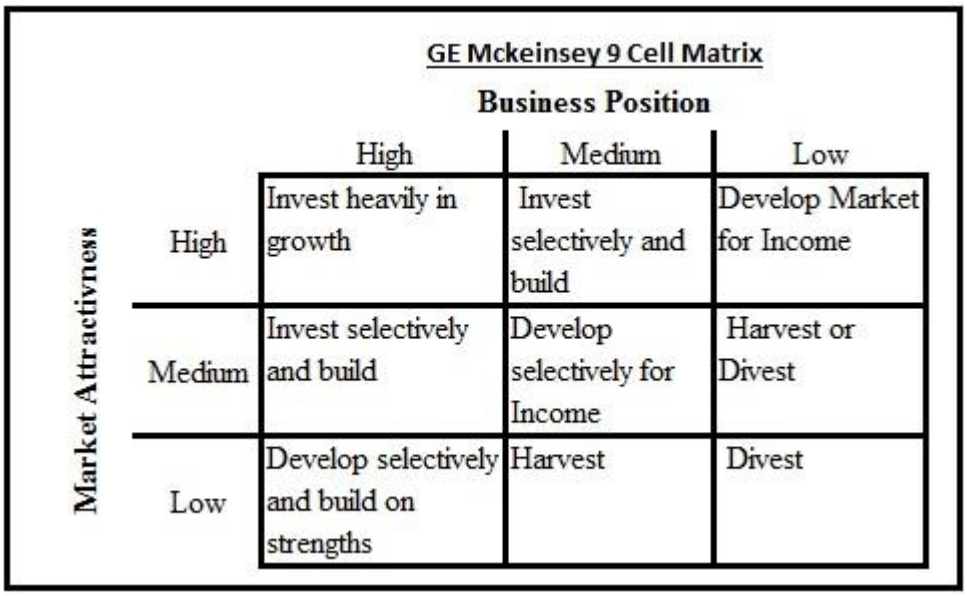
3.2.1 GE-Mckinsey Matrix (9 Cell Model)

- GE Matrix is a derivation of BCG Matrix. It was developed by Mckinsey & Co. for General Electric Company.
- BCG Matrix is not flexible where as GE 9 cell model consider all the factors related to market attractiveness.
- A large corporation may have many SBU's, which are distinctive and individual. Overall strategy decision about development of Market and further investment decisions is based on GE 9 cell Model.
- GE Matrix refers to Market attractiveness Vs Business position in terms of strength and weakness and further this is divided into three categories Low, Medium and High, forming 9 cells.
- Each of the nine cells is indicative of decisions regarding market and investment.
- This model is used to manage crisis related with external business environment especially for crisis related with the market for products and services offered by

company. In automobile industry and subsequently for auto component manufacturing companies, these market force play a dominating role and can create a severe crisis. Growth of market is a function of industry attractiveness, i.e. possibility of generating higher revenues.

- Industry attractiveness depends upon the response of customer for specific products. Determinants of industry attractiveness are, Market Growth rate, Market size, Demand Variability, Industry Profitability, Industry Rivalry, Global Opportunities, Macro environment factors [PEST]

Figure 3.3 BCG 9 Cell Model Business Position (Strength and Weakness)



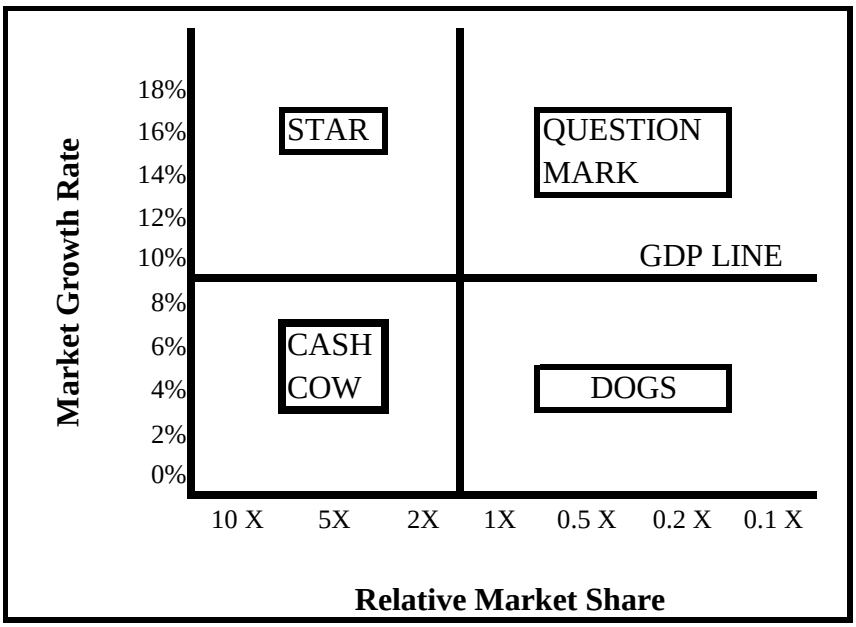
Decisions required to manage crisis related to market can be derived by application of this matrix. Nine cells give various combinations of business strength and market attractiveness. These combinations also suggest probable strategic actions to overcome the crisis. Company can change a product portfolio by selecting appropriate strategy related to a specific cell of model.

To overcome the crisis, company should focus on its strengths such as Market share, Productive Capacity, Profit Margin relative to competitor etc and develop a solution to avert the crisis.

3.2.2 BCG MATRIX

- Boston Consulting Group (BCG) Matrix is a tool to evaluate a company's position in terms of its Product portfolio.
- BCG Growth Matrix considers two variables namely
    - Market Growth Rate
    - Relative Market Share
- This technique is particularly useful for multidivisional or multiproduct companies.
- This divisions or products comprise the organisation called "business portfolio."
- The Matrix was popularised by the use of symbols mainly representing animals, such as 'dogs, question marks, star and cash cow'.
- This matrix is useful to develop a business portfolio strategy when company is facing a crisis because of economic business environment and when resultant economic forces are creating pressures on business performance.

Figure 3.4 The Boston Consulting group's Growth Share Matrix



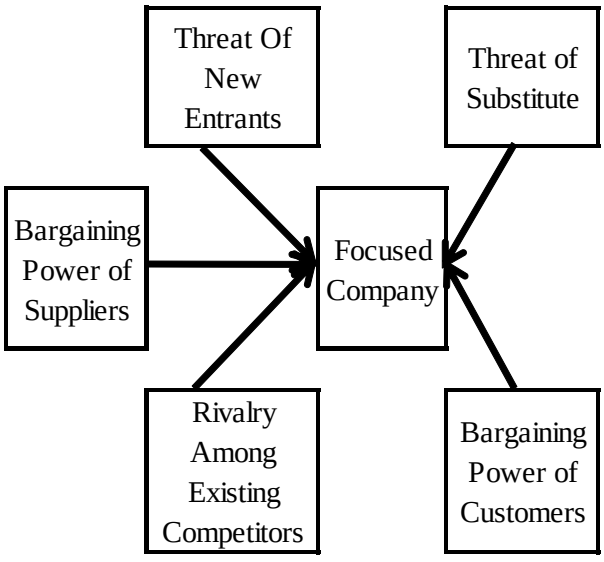
Economic environment of business will create different impact on various business portfolios of a company. This impact may be favourable or a disaster for various businesses. This impact depends upon the current status of business unit in a specific environment.

In BCG matrix the product or business portfolio is broadly classified in four categories, "Stars high Performers with higher cash flow", "Cash cows higher cash flows with lower market growth", "Question Mark, indecision state and can be a Star or Dog in future", "Dogs a non performing unit".

BCG matrix helps to understand the impact of crisis related to economic environment and create a base to design a strategy for a business. Company can take decision for investment or withdrawal from business unit. Economic crisis can convert stars to cash cows or question marks. Economic environment analysis will help to identify opportunities for business unit and with turn around strategy, dogs and question marks can be converted to cash cow and Star performer.

3.2.3 Porter's Five Forces Model

Figure 3.5 Porter's Five Forces Model



Porter's five forces model is used to identify the potential sources of crisis from external business environment but the span is limited within the industry sector. This model is very useful automobile industry and auto component manufacturing companies. These companies operate in same business environment and they create a crisis for one another. The crisis related to this business environment is related with strength and weaknesses of individual players in the same industry sector.

In automobile component manufacturing companies, Porter's five forces can be identified easily and a company can create action plan to manage the crisis resulting from development in these forces.

Source of potential crisis can be:

Threat of new entrant: In automobile component manufacturing industry, there is not any entry barrier for a new competitor. Technology required and skills required are available and anyone who has a requisite capital can start an industry. FDI also create opportunities for players to enter the market.

Bargaining power of Supplier: In automobile industry, the companies who produce a niche product, will always have a bargaining power. Companies like SKF, Bosch, MRF Tyres, Asian Paints, Tata Steel supply special products to various automobile companies. These firms dictate their terms to these companies. The bargaining power can create a direct threat of material prices and volume consumptions and inventory management.

Bargaining power of Customer: All automobile companies have dedicated suppliers as automobile component manufacturers and OEM suppliers. These mass scale production companies use their bargain power and generate maximum benefits from component manufacturers. The dedicated suppliers fully depend upon these customers and there is always a threat from customer arising out of change in business policies or business models.

Threat of substitute products or Services: In automobile component manufacturing companies, the entry barriers are minimum and a new competitor can enter into market with better technologies and low cost products. This creates a threat of survival for the company. Entry of global players in India has created a threat for various automobile component manufacturers.

Rivalry among existing competitors: Large scale Automobile manufacturers have multiple dedicated suppliers and they create artificial rivalry among these suppliers. They always create a threat for all competitors by frequent changes in delivery schedules and volume of consumption. The rubber manufacturers like TVS, MRF, Dunlop, Ceat is a best example of rivalry for supply of tires and tubes to these mass scale automobile manufacturers.

Application of Porter's Five forces Model: This model helps us to identify the potential sources of crisis from external environment and helps management to take strategic decisions to have a proactive approach for crisis management. This analysis provides a strong support for strategic decisions to reduce the impact of this business environment.

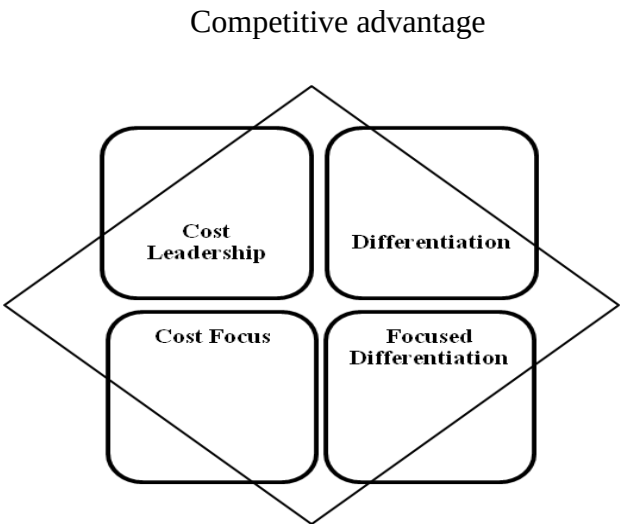
3.2.4 Porter's Generic Strategy model

Michael Porter suggests that firms' ultimate strength is into three factors.

a) Cost advantage
b) Differentiation
c) Focus.

They are called generic strategies because these are applied at the business unit level and are not dependent on industry or firm.

Figure 3.6 Porter's generic strategy model:



Cost leadership: A company can mange the crisis resulting from price war in a market by creating a cost leadership advantage to offer better products to customers. Cost leadership can be achieved by taking strategic decision in various areas such as

a) Economics of scale
b) Proprietary technology
c) Cheaper raw material
d) Lower cost of processing
e) Lower product delivery cost

Organizations that achieve cost leadership can benefit either by increased market share or by maintaining average price. In both the cases, the firm achieves higher profits.

I. **Differentiation:** The strategy of differentiation involves offering a different product, a different delivery system or using a different marketing approach. It is upto management of the company to decide which factors it wants to emphasize in order to gain competitive advantage. Companies that apply differentiation strategy in the market share by offering unique services to customer. Company projects itself as a different company in terms of products, services, policies, technology etc. to retain market share and increase market penetration.

II. **Focus:** The third strategy, focus strategy involves achieving cost leadership or differentiation within niche market. Firm chooses a narrow segment within industry and tailors its offerings. Focus strategy has its two variants

a) It cost focus a firm achieve a cost advantage in its targeted segment.
b) Differentiation focus a firm achieves differentiation in target segment.

Overall porter's generic strategy devices following strategies:

- Differentiation strategy- unique competency
- Cost leadership strategy- low cost competency
- Segmentation strategy- focus on narrow section

Porter's Five Forces Model and generic strategies can be used in combination for better decisions and to develop better crisis management approach. The Matrix is formulated by combining Porter's five force and generic strategy. Generic strategies each can provide action plan to defend against competitive forces

Figure 3.7 Porter's Generic Strategies

Generic Strategies →			
Industry forces ↓	Cost Leadership	Differentiation	Focus
Entry barrier	Ability to reduce prices to avoid potential entrant	Customer loyalty can discourage potential entrant	Core competency can avoid potential entrant
Buyer power	Ability to offer lower price to main buyer	Large buyers have very few alternatives to negotiate	Large buyers have less power to negotiate
Supplier power	Alternate sourcing for powerful suppliers	Ability to pass supplier price increase to customer	Supplier has power because of low volume
Threat of substitute	Low price can defend substitute	Customer focus differentiation than substitutes	Specialised product and core emergency protect against substitute
Rivalry	Ability to compete on price	Brand loyalty keeps customers from rivals	Rivals cannot meet differentiation focused customer needs.

3.2.5 PESTL Analysis:

External business Analysis- Political, Economic, Social, Technical and Legal

Economic conditions affect both capital availability and cost of capital. In-turn it affects profitability, growth and sustenance of the organization. External environment is always unpredictable. Economic conditions influence timing and success of a particular strategy. When economy is growing, the demand may exist for a product, and services, which would not be when there is stage of depressed economy. Economic conditions are influenced by Government policies and political situation in the country. PESTL analysis is a logical approach to understand the impact of External Business environment on a business and provides insight to adapt with the situation.

Socio cultural environment influence the demand and tests, which vary with the fashion, disposable income and general changes. Technology is widely recognized by various literatures on strategic management as a part of organization and it is used for creation of competitive advantage. PESTL analysis incorporates perspectives of Macro Environment Analysis, which provide a framework and a logical structure for proactive decision-making.

P- Political Factors:

- Structure of federal Government
- Stability of government
- Policy decision making process
- Speed of decisions
- Political interference
- Monetary and fiscal policies

E- Economical Factors

- Government approach for economic development
- Growth of industry sectors

- Purchasing power of buyers
- Surplus available for consumption
- Consumption patters
- Homogeneity and heterogeneous market
- Potential growth of market
- Global factors

S-Social Factors

- Culture of society
- Education standard and literacy level
- Population growth rate
- Demography
- Social security measures
- Focus on development
- Life style
- Ethical and religious factors

T-Technological Factors

- Research and development activity
- Automation
- Systems
- Technology incentives
- Rate of technological change
- Technology advancement
- Innovation potential
- Technology access, licence and patent procedures

L – Legal Factors

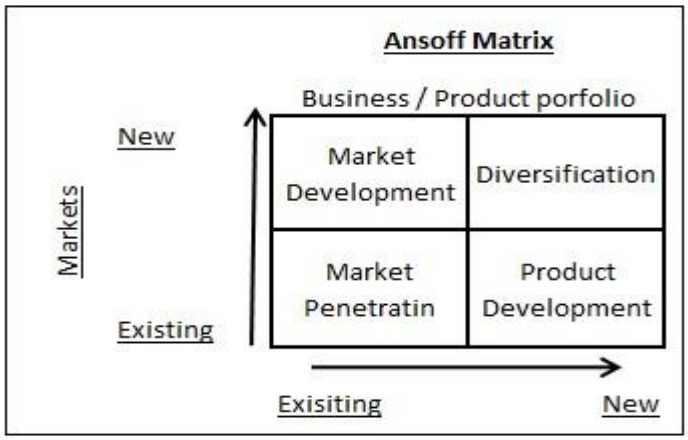
- Company laws
- Labour laws

- Payment and wages act
- Financial reporting and statutory compliance
- Judiciary systems
- Financial regulators and regulatory systems
- Banking structure

3.2.6 Ansoff Matrix:

Ignor Ansoff presented a matrix that focused on firm's present and potential products and markets. This matrix was first published in Harvard Business School in 1957 and has given simple solution about growth of business for organization. It is also called Product / Market Expansion Grid. The matrix shows four ways the business can grow and also helps executives to ascertain the risk associated with each option.

Figure 3.8: Ansoff Matrix



Market risk is involved in all strategies whether company introducing a new product or going for market expansion of existing product portfolio. Diversification is high-risk business proposition where as to stay in existing market is of lower risk. Aim is always to have a lower risk for business but it is very difficult to expect same level of market potential for life of the product. Radical changes in product development and subsequent market will be always there. The firm has to understand the impact of these changes and prepare strategic approach to face the situation.

Ansoff presents four different market growth strategies

I. Market Penetration: Firm can achieve growth in the current market with existing product portfolio through penetration. This strategy is having least potential risk. This strategy is used to expand customer base by using various product promotion tools.

II. Market Development: Introduction of existing product portfolio in new market. This strategy has higher risk. This is market expansion strategy and has a focus on creating different market segment, new geographical markets and different consumer groups.

III. Product development: New product portfolio for existing market. This strategy has moderate risk. Efforts are made to enhance existing product portfolio by upgrading the products, adding more quality features, better services etc.

IV. Diversification: New business with new product portfolio with new market. This strategy has very high risk. This strategy is used to reduce overall risk for business in down turn or slow down of economy. Efforts are made to ensure one of the product line is always a revenue machine for organization

3.2.7 SWOT Analysis:

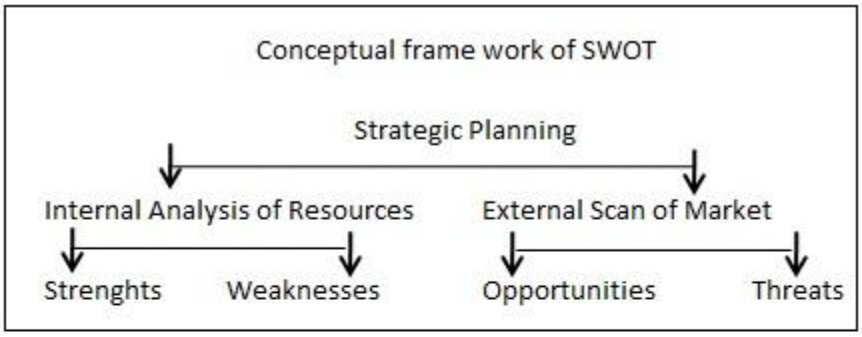
SWOT , (Strengths, Weaknesses, Opportunities and Threats) is a most commonly used matrix as a decision making process. SWOT is a study to identify the linkages between internal capabilities and external forces creating pressures on business performance. SWOT is a powerful tool perform self audit about the business policies, business strategies and related resources creation.

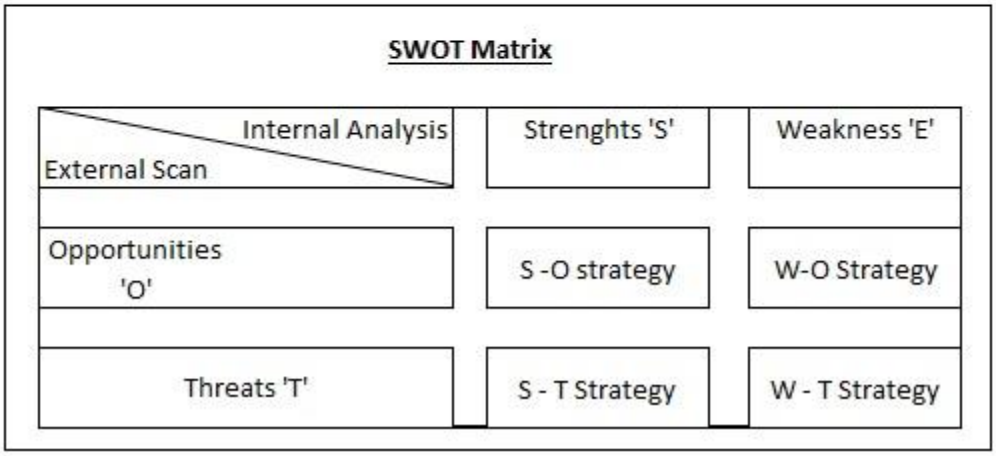
In automobile component manufacturing companies, SWOT can be very effective to create a growth potential for the business. Majority of these companies work as suppliers for large scale automobile companies. Automobile component manufacturers are well acquainted with expectations of their customers. These companies can develop there strengths to grab the opportunities offered by their customers.

SWOT is a double sword and any biased analysis about own weaknesses or strengths can create a crisis for the company. It should as sincere as third party audit for perfect outcome from the analysis. It should be a part of management audit system for better results.

A figure shows a conceptual frame work for effective use of SWOT. This frame work provide a base for better understanding of business environment, analysis of potential threats which may lead to crisis and at the same time search for opportunities which are offered by environment.

Figure 3.9 Conceptual Framework of SWOT





Firm can build four strategies before strategic planning.

- S-O Strategy
    - To study the opportunities that can be filled with company's competitive and core competence and resources that can be utilised.
    - To Add or Improve resource capabilities with respect to additional opportunities.
- W-O Strategy
    - To improve weakness to pursue opportunities.
    - Overall review of weaknesses for Improvement (review with competitors

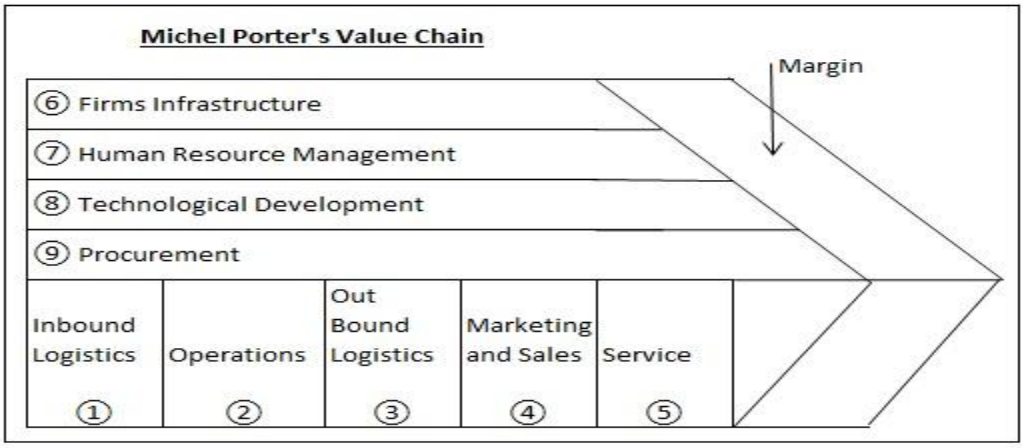
- S-T Strategy
    - Identify the ways the firm can counter the External threats with the help of strengths resources and competitive advantages.
    - Action plan for the anticipated external threats that cannot be counter (diversifications, Innovation, Acquisitions etc.)
- W-T Strategy
    - Establish defence action plan to prevent weaknesses from external anticipated threat
    - To review such weakness to be able to counter the External threat.

SWOT is a method of categorization and has its own weakness. It only list the categories rather think about what is important to achieve objectives. The entire list is without clear prioritizing in relation with objective.

3.2.8 Value Chain:

Michael Porter's value chain concept: Value chain consists of chain activities in a specific industry in order to deliver valuable product and service to the customer. Michael Porter first derived the concept of value chain for business management in his bestseller book "Competitive advantage creating and sustaining superior."

Figure 3.10 Michel Porter's Value Chain



Value chain is a decision making model used to improve the performance of individual value adding elements in a manufacturing company. Every activity in manufacturing has a scope for improvement and deliver a better value for customer. Internal processes are the potential sources of crisis and company needs to avoid this self inflicted crisis.

Value chain elements in a typical automobile component manufacturing company can be

1) Inbound logistics-Purchasing, sourcing

2) Operation- (Manufacturing and allied activities)

3) Out bound activities- (Distribution and logistics)

4) Marketing, sales- Communication & persuading customers

5) Service - After sales

6) Infra structure – Management, planning, finance A/c etc

7) HRM – Staff

8) Technology - New technology

9) Procurement – Other than Raw material

Automobile component manufacturing companies work on low margins and over expenditures on any value chain element can create a direct impact on bottom-line of the company. Value Chain analysis is very effective management control tool for these companies. Value chain is a strategic cost management tool to derive cost advantage for the company. It adds value in decision making because-

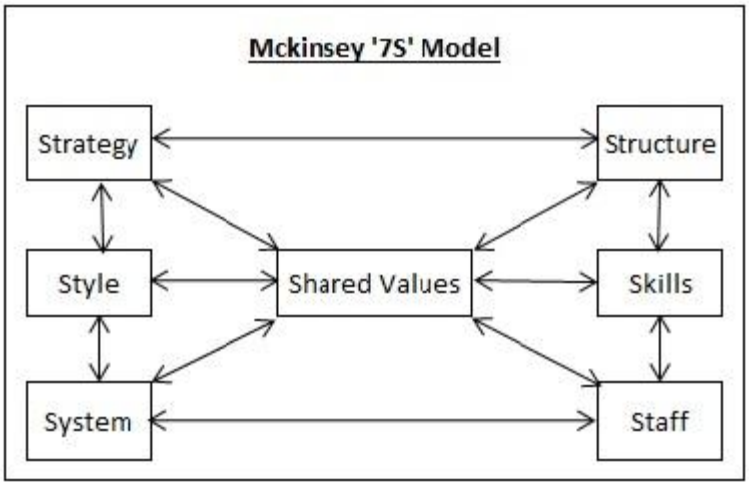
- Value chain consists of designing, producing, marketing, delivering and supporting a product and services.
- Value chain is the linkage of set of activities and functions a firm performs with the supply chain.
- Value chain includes profit margin as a mark up over cost of operations.
- Value chain is relevant to the activities & processes of company's cost structure.
- Most often, various elements in supply chain are elements of value system.

3.2.9 Mckinsey '7S ' Model

7S model was developed at Mckinsey & Co Consulting Firm in 1980. This model describes how efficiently one can organize a company. This model is based on the theory that, for an organization to perform well and achieve its objectives, all seven elements must be aligned mutually. 7S model can be used to analyze the current situation and prepare for future goals, and then identify the gaps and inconsistencies between them. It is then action of adjusting and tuning the individual elements to ensure organization works efficiently.

Definition: A model of organization effectiveness that postulates that there are seven internal factors, that needs to be aligned and reinforced in order to be successful.

Figure 3.11 7S Model



7S model specifies seven factors that are classified into hard and soft elements. Hard elements are easily identified and influenced by management while soft elements are more intangible and are influenced by corporate culture.

Hard elements are Strategy, Structure, and System

Soft elements are Shared Values, Style, Skill and Staff

In crisis management related to internal business environment, 7S model can be used effectively to create a balance between various internal subsystems. This model is methodological approach to design strong internal balanced and supportive systems.

Getting the balance right in this model means getting culture right. In addition to central value alignment, each of the seven elements has definite role in the designing correct organization.

1. Strategy- A corporate plan to create competitive advantage.
2. Structure – Line of reporting, task allocation coordination and supervisory levels.
3. System – The supporting system and processes of organization like information system, financial reporting, payment systems, resource allocation etc.
4. Shared Values – These are core values of the company and form underpinning culture and how the business behaves in wider context of the community.
5. Style – The style of leadership adopted by the organization.

6. Staff – The number and types of employees with the organization.
7. Skills - Skills and competency available with the company.

The decision process by application of 7S Model –

- Understand current state where company stands now
- Understand future state, where company want to go
- Create 7S model review on the current state by examining all elements and understand current values of each element
- Create 7S model on future state, and expected values of each elements.
- Compare the future frame with the current state. Identify the gaps and create action plan to bridge the gaps.

3.2.10 Balance Scorecard:[37]

Balanced Scorecard is internal value creation model and works on principle of interlinking and interdependence of various functional perceptive. Balanced scorecards are becoming a vital tool for the management control. Balanced scorecard is a format for describing activities of an organization for each of four perspectives. It is developed in 1992 & since then the concept has been widely accepted as a new approach for developing management control systems and performance management.

Every company has four major areas of focus; Customer, Financial Results, Internal processes and learning and development attitude of the organization. These are the basic foundations of any business. These four areas are major source of internal crisis. Overemphasis or negligence on establishing performance standards for these focus areas can create imbalance in system and may lead to severe crisis.

Balanced Scorecard is a strategic decision model and useful for communicating strategic intentions, discussions on activities that are evolved by strategic aims and monitoring and rewarding such activities. Balanced Scorecards are used as customized communication tools within management control system.

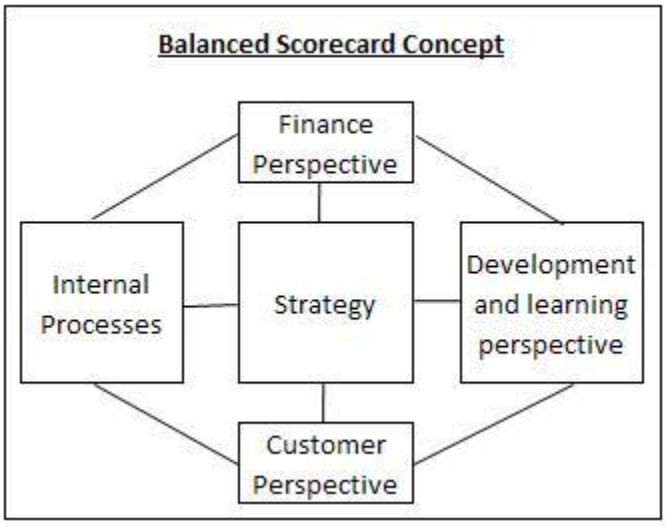
Various strategic decisions such as customer focus strategy, functional strategies for finance and operations, new product and process development can be derived by formation of Balanced Scorecard.

Decision process followed by creating balanced scored card-

Prepare a scorecard indicating four perspectives and design quantitative performance parameters for each perspective.

- Finance perspective - Critical success factor of finance function such as profitability, cost of manufacturing, budgets, cost f capital and sources of funds are considered.
- Customer – Customer satisfaction Indices and the general idea that was important to monitor value as perceived by customer.
- Internal Processes – It is necessary to improve processes as a critical business success promoted through TQM (Total Quality Management) & BPR (Business Process Reengineering).
- Development and learning perspective – As a means to provide satisfaction for internal and external parties stake holders with improved products and services.

Figure 3.12 Balanced Scorecard Concept



Balanced Scorecard is a flexible model where organization can create their own templates for management control and performance enhancement. Most important aspect of creating a template is to establish a link between various perspectives. This interlinking of perspectives helps to understand interdependent role of various functions and helps to minimize the conflicts. People will come together for a common goal to balance each other's performance and achieve common goal set by the organization.

To enhance the performance decision making approach can be fine tunes by scientific utilization of scorecards. As shown the sample template, company can perform internal environment assessment and establish performance standards.

The decision process that can be followed to improve performance is-

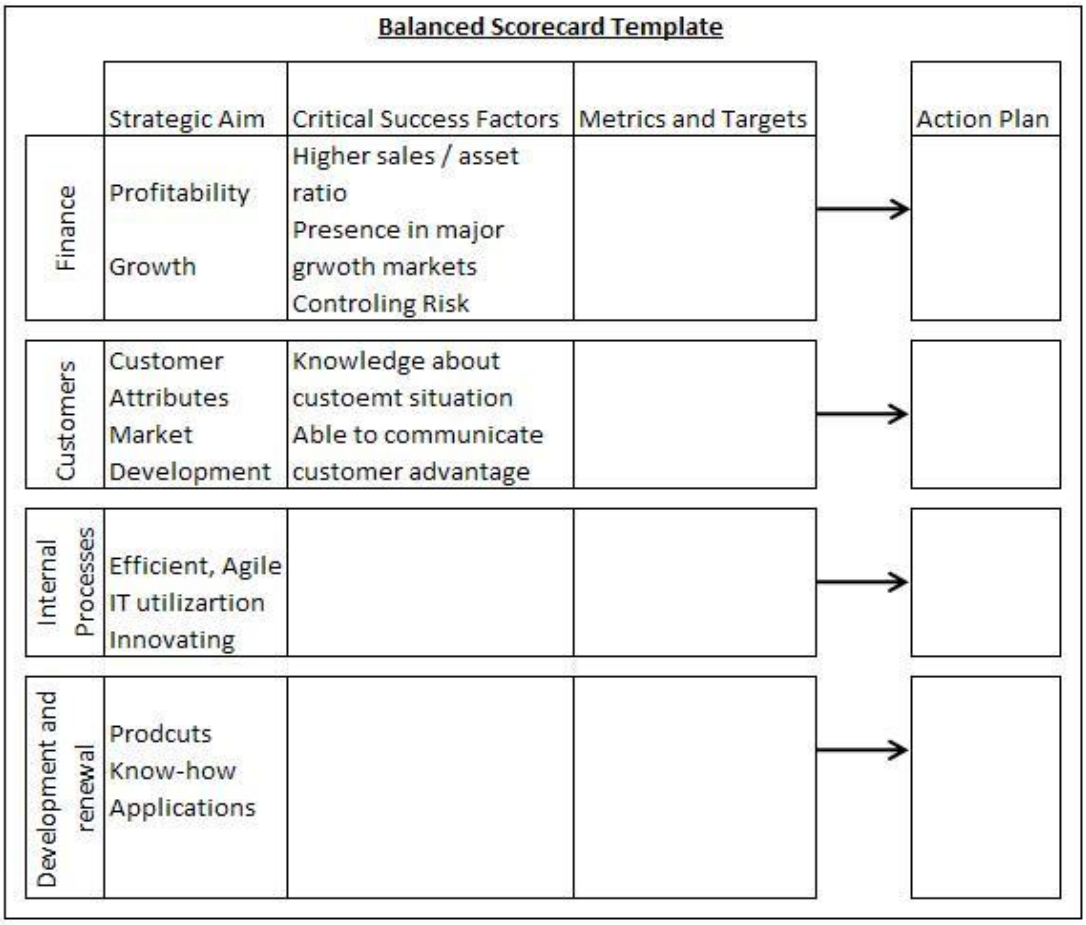
- Create a strategic aim and focus for every perspective.
- Identify critical success factors for each perspective.
- Develop performance measurement metrics and set goals and target.
- Create action plan to achieve goals and targets.
- Monitor performance regularly through internal audits and establish control mechanism.

Balanced score card template shown in figure is one of approaches to use balanced scorecard effectively.

Procedure to use template:

- Analyze the strategic goals for each balanced scorecard perspective
- For each strategic goal establish performance indicator
- Balance the strategic goals with the perspectives
- Balance the performance indicators
- Decide the action for performance indicators and strategic goals.

Figure 3.13 Balanced Scorecard Template for manufacturing Industry.



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Chapter No. 4 Published Case Studies

4.0 Published Case Studies

These case studies are from various large automobile companies. These cases are selected because they are relevant to study. All automobile companies are dependent on component manufacturing companies and crisis faced by these companies have a direct impact on component manufacturing companies. There is a strong link between the business environment for mass scale automobile companies and OEM suppliers for these companies.

Various crisis management approach used by these giants in automobile industry have direct impact on component manufacturing units. Component manufacturers may have to apply turn around strategy to adjust with approach taken by their customers.

4.1 Honda Recalls 11,500 CBR bikes in India[38]-

Japanese auto giant Honda announced recall of 11,500 units of standard variant of its premium motorcycle CBR 250R due to defective break system. The company's wholly owned subsidiary, Honda Motorcycles and Scooters India, recalled the bikes, which were manufactured from March 2011 to September 2012.

"In accordance to company's global commitment to provide maximum customer satisfaction, and highest quality products, Honda Motorcycles and Scooters India has recalled the vehicles" HMSI statement.

Recall of these vehicles is a crisis related to failure in internal quality assurance systems. There was a possibility of limited effectiveness in front breaking systems which may crate a disaster for customer during urgent breaking. Corrective action initiated by Honda will have impact on the supplier who supplies the braking system. There will be in-depth manufacturing process analysis and action for process improvement. Supplier may have to rectify, rework or reject the existing stock in pipeline, depending upon the severity of

problem. This can create a huge financial blow for the component manufacturing company.

4.2 Nisan to Recalls 22,000 Cars to rectify fault breaking system[39]

Japanese car maker Nissan is calling back over 22,000 units of its small car Micra and the Sedan Sunny in India due to faulty braking system. Recall happens as apart of global exercise that the company has undertaken to rectify the problem. Vehicles produced between June 2012 and March 2103 will be called back to the workshop by the company's wholly owned subsidiary Nissan Motor India.

"Nissan is conducting voluntary recall campaign on approximately 67,089 Micra and Sunny vehicles in Africa, Asia, Europe, India, Latin America, Caribbean and Middle East market to replace the master break cylinder" A Nissan India spokesperson said. The spokesperson added that the company has not received any complaint in India due to faulty part.

"Nissan plans to begin notifying customers soon. Nissan retailers will replace the master cylinder at no cost to customer. Nissan is committed to a high level of customer safety, service and satisfaction and is working with its dealers to promptly address this issue."

Failure in break cylinder for a Car is a life threatening situation and can create a disaster. This component failure will create a pressure on supplier of component. This is internal system failure for both Nissan and their supplier.

4.3 Toyota Major Recall in Jan 2010[40]

The case study is about crisis management at the Japan-based Toyota Motors Corporation, one of the largest automakers in the world. In January 2010, Toyota was forced to recall millions of cars after problems with braking, floor mats and acceleration pedals in its vehicles. The recalls even led Toyota to halt sales and production of eight of its most popular models. Due to growing number of recalls, sales plummeted thereby affecting the company's position in the global automotive industry.

In April 2010, Toyota Motor Corporation (Toyota) agreed to pay a whopping US $ 16.4 million fine imposed on it by the National Highway Traffic Safety Administration (NHTSA) in the US. The fine related to sticky accelerator pedal defects in its vehicles, which resulted in the company recalling approximately 2.3 million vehicles in the US in late January 2010. According to industry observers, the fine was the largest civil penalty ever levied on an automaker by the NHTSA.

Over the years, Toyota witnessed dramatic growth and emerged as the number one automaker in the world mainly because of its quality products. The company had set a standard for manufacturing, product development, and process excellence in the automotive industry..., According to analysts, Toyota's quality problems began in the mid-2000s when the automaker began to use the same components across its different models, reduced assembly quality, and ignored customer complaints in order to increase its production volumes...

Industry experts considered the spate of recalls as a major crisis for the company as it not only led to financial loss but also became a significant threat to the reputation of the company. The suspension of the sales of eight of its popular models cost the company sales of 20,000 cars and light trucks, accounting for over US$ 500 million in lost revenue in the last week of January 2010, based on average vehicle sale prices...

4.4 Leyland Trucks Continuous improvement within an organisation[41]

This case study is important because it discusses how crisis related to external business environment and market forces can be resolved by creating a change in internal business environment. Leyland Trucks continually makes improvements to everything it does based on the Japanese principle of Kaizen.

In 2006 DAF's three manufacturing plants in Europe, including that at Leyland, produced a record 56,700 trucks of between 7.5 and 44 tonnes (the heaviest vehicles on the road). One in every four trucks sold in the UK is by DAF. New truck registrations in Europe

were almost 268,000 in 2006 and DAF currently has a 15 percent share of this European market.

Leyland Company had the business objective to increase the market share to 20 percent. Company decided to achieve objective by using continuous improvement to satisfy customer by offering enhanced values and increasing production capacity from 18,000 to 25,000 units.

There were number of major reasons why Leyland Trucks practised continuous improvement:

- to meet the production and sales growth plans
- to meet customer demands for more reliable trucks
- To stay ahead of the competition.
- To offset rising labour costs.

A culture for continuous improvement

The culture at Leyland Trucks is based on trust. It involves everyone in the continuous improvement process. The company's culture relies on a set of values.

Leyland's values support continuous improvement and include:

- Training for everyone for example, identifying ways in which people can contribute to continuous improvement such as by eliminating errors and waste
- Team-building for Kaizen
- Involving everyone from top to bottom in decision-making
- Empowerment giving responsibility and power to everyone in the organization, encouraging them to make decisions and to take on responsibility for continuous improvement
- Innovation encouraging everyone to be prepared to think, communicate and try out new ideas.

Continuous improvement in action

Leyland Trucks has clear targets for continuous improvement and clear processes for building teams and encouraging involvement. More than 200 ideas for improvement were suggested by ground-level employees. The changes they suggested led to:

- A reduction in truck hours of over 17 percent
- 20 percent reduction in line-side materials (inventories)
- 23 percent reduction in walking (the distance that employees had to cover to carry out their work 57 miles per day in total).

At Leyland, over 10 percent of the 1,000 workforce consists of qualified continuous improvement practitioners.

Benefits for Company in 2006, there have been:

- A rise in on-time delivery to over 95 percent
- 10 percent reduction in mechanical defects per unit
- 45 percent reduction in reportable injuries and 10 percent in minor injuries in the same period.

4.5 The rebirth of the MGF A MG Car Company [42]

Introduction

This case study focuses upon the rebirth of a much-loved brand with a unique British heritage - the MG.

Seventy years after Cecil Kimber had adopted the acronym ‘MG’ the brand had reached a low point in its existence. Its life had been distinct and memorable and, though it appeared to be dying, it was not yet dead

In early 1991, the Rover Group Executive Committee gave approval to the concept. Shortly afterwards styling properties were researched amongst owners and potential

owners of sports cars and at the same time the information was updated upon the value of the MG Marque. By the end of 1992, the research and engineering feasibility work had reached a stage where the project could now be recommended to the Rover Group Board for approval. Approval was granted and a team of experts assembled to bring MG back to life.

To create a brand image and repositioning of MG sports car Marque values were created Following a process of research five Marque Values were developed:

- FUN 'To drive an MGF is to experience the ultimate.
- ROMANCE 'The ROMANCE, the desire. Memories of affection, of warmth, of respect. Remember the look; revel in the heritage and the beauty of line.'
- AGILITY 'The AGILITY of the MGF is simply breathtaking.
- OPENNESS 'With its classless, straightforward appeal,
- AUDACITY 'Be proud.

Brand strategy

Customer targeting

Main driver profiles such as marital status, children in the household and multi-car households became a focus for attention. The findings indicated that a well executed sports car would conquest business from other market segments and identified the following as the key target audience:

- Stylish people
- 25-45 years of age
- Single or childless couples
- 70 percent male/30 percent female
- More than one car in household

Communication strategy

Prior to the product being revealed, the strategy was that the company would continue its 'no comment' stance. The product was finally revealed at the Geneva Motor Show in March 1995 and was accompanied by a press statement and product briefing. During September 1995 an International press event was held for key journalists in the markets where the MGF was to be sold. At that time, press packs were released to a wider audience.

Overseas, MGF launches followed product reveals at the major motor shows, including Tokyo, in order to maximise PR opportunities. Throughout this time, press statements were issued to maintain its high profile. Press demonstrators were available for the local press ahead of product launches.

Franchising plans

It was decided to franchise the car selectively, laying down a number of minimum standards such as a trained sales specialist, point of sale (POS) merchandising, trained service technicians, to which the successful dealer would need to comply. The right to distribute the MGF would follow the submission of a business plan. A different approach to selling was important when distributing a car with such a unique heritage.

Detailed work on the launch of the MGF started soon after the programme to develop the product was approved! The strategy needed to recognise that the introduction of the MGF was more than a new model launch; it was the revival of a famous motoring marquee which would attract world media coverage. It was important to create an awareness of the product to provide dealers with the chance to pre-sell the car. Pre-launch objectives were:

- To achieve clear brand positioning
- High profile exposure
- Demonstrator/display cars at dealerships for launches
- Co-ordinated world-wide approach
- To optimize PR coverage

- To optimize sales and profit opportunities
- For networks to take advance orders.

In 1995, the MG brand was reborn. A project team of 30 engineers and technicians spent three years bringing the car into production. Over that time they changed location on three occasions. Their reward has been the building of a car with a character to revive the marque and to provide customers with what they set out to build, quite simply: 'The World's Most Enjoyable Car to Drive'.

4.6 A Skoda SWOT analysis in action [43]

This case study has a relevance to research topic considering the various strategic decision models used in Automobile industry. Strategic decisions taken by mass production automobile company will have direct impact on component manufacturers.

To improve its performance in the competitive car market, Skoda UK's management needed to assess its brand positioning. To aid its decision-making, Skoda UK obtained market research data from internal and external strategic audits. This enabled it to take advantage of new opportunities and respond to threats.

Strengths

To identify its strengths, Skoda UK carried out research. It asked customers directly for their opinions about its cars. It also used reliable independent surveys that tested customers' feelings.

Skoda adopted a strategy focused on building cars that their owners would enjoy. This is different from simply maximising sales of a product.

As a result, Skoda's biggest strength was the satisfaction of its customers. This means the brand is associated with a quality product and happy customers.

Weakness

Analysis identifies areas of weakness inside the business. Skoda UK's analysis showed that in order to grow, it needed to address key questions about the brand position. Skoda has only 1.7 percent market share. This made it a very small player in the market for cars.

Whilst the brand no longer had a poor image, it did not have a strong appeal either.

The car-buying public and the car industry as a whole needed convincing that Skoda cars were great to own and drive.

Opportunities and Threats

Opportunities

Skoda noted that its competitors' marketing approaches focused on the product itself. Many brands place emphasis on the machine and the driving experience:

Skoda UK discovered that its customers loved their cars more than owners of competitor brands, such as Renault or Ford.

Threats

The UK car market includes 50 different carmakers selling 200 models. Within these, there are over 2,000 model derivatives. Skoda UK needed to ensure that its messages were powerful enough for customers to hear within such a crowded and competitive environment

Outcomes and benefits of SWOT analysis

Skoda UK's SWOT analysis answered some key questions. It discovered that:

- Skoda car owners were happy about owning a Skoda
- The brand was no longer seen as a poorer version of competitors' cars.

However:

- the brand was still very much within a niche market
- A change in public perception was vital for Skoda to compete and increase its market share of the mainstream car market.

The challenge was how to build on this and develop the brand so that it was viewed positively. It required a completely new marketing strategy.

Unique selling proposition

Skoda UK has responded with a new marketing strategy based on the confident slogan, 'The Manufacturer of Happy Drivers'.

The campaign's promotional activities support the new brand position. The key messages for the campaign focus on the 'happy' customer experience and appeal at an emotional rather than a practical level.

Customers were able to book test drives and order brochures online. The result is that potential customers will feel a Skoda is not only a reliable and sensible car to own, it is also 'lovely' to own.

Analysing the external opportunities and threats allows Skoda UK to pinpoint precisely how it should target its marketing messages. No other market player has 'driver happiness' as its USP.

By building on the understanding derived from the SWOT, Skoda UK has given new impetus to its campaign. At the same time, the campaign has addressed the threat of external competition by setting Skoda apart from its rivals.

Skoda was able to identify where it had strengths to compete. The structured review of internal and external factors helped transform Skoda UK's strategic direction.

The case study shows how Skoda UK transformed its brand image in the eyes of potential customers and build its competitive edge over rivals. By developing a marketing strategy playing on clearly identified strengths of customer happiness, Skoda was able to overcome weaknesses. It turned its previously defensive position of the brand to a positive customer-focused experience.

The various awards Skoda has won demonstrate how its communications are reaching customers. Improved sales show that Skoda UK's new strategy has delivered benefits.

Relevance of Case Studies:

These various case studies discussed about world leader automobile companies are relevant to Pune MIDC and especially with automobile industries. Majority of World's leading automobile brands have operations in Pune and thus Pune is globally connected as automobile hub though these companies. Crises or growth experienced by these companies have direct linkages and impact on automobile industry in Pune. Since 1960, Pune is known for development of MIDC, with establishment of auto giants like Tata Motors, Bajaj Auto, and Force Motors etc. Swedish Companies like SKF, Atlas Copco, Forbs Marshall, Sandvick, and Alfa Laval have contributed a lot for development of manufacturing sector and small-scale companies in Pune. Capital Goods companies like Themax, Cooper Companies, Greaves, Thysen, have added a dimension to Pune manufacturing sector.

There are more than 12500 manufacturing units operating in formal sector in Pune. They are from various industry segments such as forgings & castings, electrical & electronics, dies & moulds, machineries & parts, defense establishments and dependent units, machine tools, chemicals, pharmaceuticals, plastic & rubber components, food processing and the lion's share goes to automobile industry and its ancillaries. Out of the total turnover of @ Rs. 50,000 Crore of all industrial units in Pune, automobile and auto components industry has more than 60 percent share (being more than Rs. 30,000 Crore) of the total turnover of Pune Companies. More than 4500 units in Pune (more than 30 percent of total units) are directly or indirectly dependent on the automobile and auto component sector.[44]

MSME (Micro, Small and Medium enterprises) sector employ more than five Lakh labours. Their share in total no of units is more than 60 percent and in total employment in Pune is more than 60 percent.

Major Industrial Houses Belonging To Automobile Group Having Their Operations in and Around Pune

1. Tata Motors,
2. Bajaj Auto (2&3 wheelers),
3. Mahindra and Mahindra
4. Force Motors
5. Mercedes Benz,
6. General Motors,
7. Volks Wagen,
8. Cummins,
9. Hundai,
10. Toyota,
11. Fiat,
12. Piaggio.

Some of Major Auto Component Suppliers in Pune Are

1. Bharat Forge
2. SKF bearing
3. Autoline
4. Endurance,
5. Panse Auto Components,
6. ZF Stearing,
7. Ganage Pressings,
8. RSB Transmission.
9. Mahale pistons
10. Exide Battery
11. Spaco Carburettors

12. Badve Auto Comp

Some of Global auto component manufacturers operating in Pune are

1. Eaton
2. Maxion Wheels
3. Continental Group
4. Bosch India
5. Saint Gobain Sekuritat
6. HUF India limited
7. Lear India limited

If we look at the composition of various automobile compnies operating in Pune, It is a clear fact that all major components required for a vehicle are manufactured in Pune. All types of automobile component manufacturers and OEM suppliers have their establishments in Pune. These establishments being suppliers for all large scale automobile companies can face severe crises if there is a drastic change in world Automobile business. Existence of cutthroat competition and expectation of customers; demands crisis management as additional business skill for these automobile component manufacturing companies.

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[38] Times Business, Thursday November 20, 2012, page13

[39] Times of India, Sunday, 26th May 2013, page 7

[40] http://www.icmrindia.org/casestudies/catalogue/Marketing/CrisisManagement-Toyota-Case Studies.html

[41] http://www.icmrindia.org/casestudies/catalogue/Leyland-Case-study.html

[42] http://www.icmrindia.org/casestudies/catalogue/MGF-casr-study.html

[43] http://www.icmrindia.org/casestudies/catalogue/Skoda-Case-Studies.html

[44] MCCIA report, on Automobile Industry Jan 2009

Chapter No. 5: Case Studies

1 Kalyani Hayes Lemmerz Limited

1.1 Company Profile:

Kalyani Lemmerz limited was incorporated on 18th January 1996 and was jointly promoted by Kalyani Group and Lemmerze Werke GmbH(part of the Hayes group) with 75 percent and 25 percent equity participation respectively. The Company acquired Wheel Rim division of Bharat Forge Limited and commenced its commercial operations from 4th June 1996. The principal business of the Company is to manufacture wheel Rim for commercial vehicles. The manufacturing facility of the company is situated in Pune, India. In August 1998, the Hayes Group increased its holding in the company to 85 percent by acquiring additional 60 percent f the equity held by Kalyani Group.

As a part of expansion with diversification of product line, the company has entered into Passenger Car segment and has successfully started its new manufacturing product line as "Car Wheels" with effect from the 15th February 2010 at the company owned premises, adjoining to the existing Truck Wheel plant having installed capacity of 2 million wheels per annum.

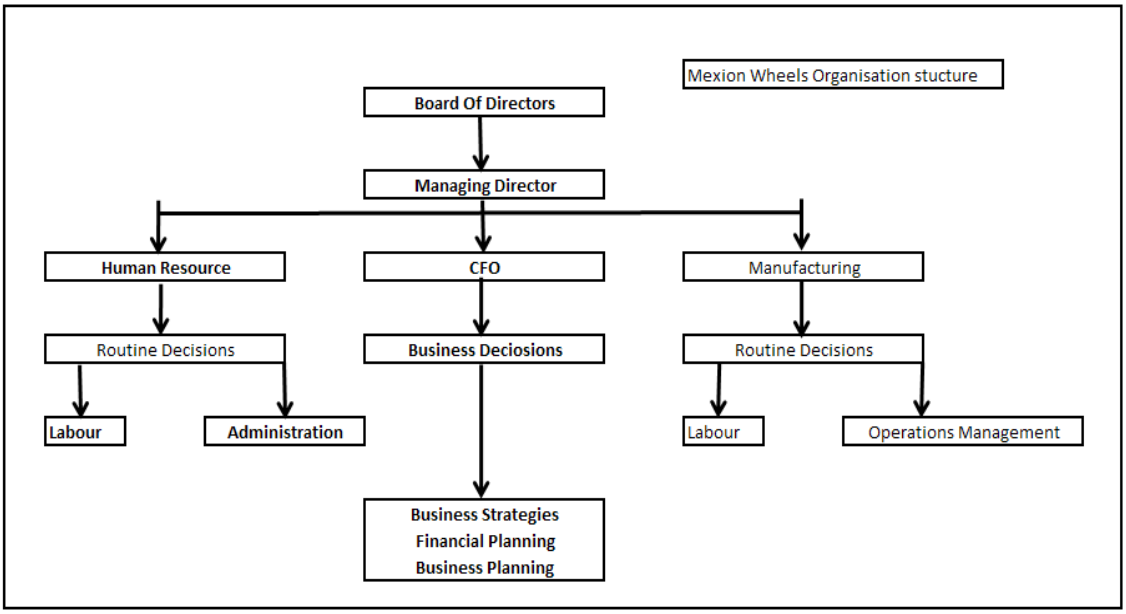
Kalyani Hayes Lemmerz is one of the fastest growing Auto component Manufacturing Company . Company has shown a growth from Rs. 150 Crore (Approx. 33 MI USD @ 45 Rs per USD) during 2005 to Rs. 400 Crore (Approx 80 MI USD @ 50 Rs per USD) in 2011 and is expected to achieve a turnover target of Rs 650 Crore (Approx 130 MI USD @ 50 Rs per USD) in 2014. Company's profit was in a range of Rs. 22 Crore to 45 Crore during the period year 2005 to year 2010. The business cycle impact and global automobile recession in 2008-09 have declined profits to Rs. 25 Crore in 2009-10. Company has experienced business cycles in 2000-2003, 2008-09 and witnessed a tremendous growth after 2009.

Product Portfolio:[45]

Wheel rims range from 5.5 – 16 to 8.5 – 20, and drop centre wheel rims of 5.5 x 15 and 4.5E x 16 to 8.25 x 22.5 that are designed to reduce weight. The specially designed disc with a back bending effect imparts more durability, while the 2 –piece design for HCV's give a better grip on the gutter and are easier for removal and fitment. The 8 hole design improves cooling of the brake drum – critical in hilly terrains.

1.2 Organization Structure

Figure C-1.1: Kalyani Hayes Lemerz Organization structure



1.3.1: Crisis Faced by Company:

1. In economic recession cycle during 2003, company faced a crisis of under utilization of capacities and reduction in demand from customer. This crisis was an outcome of overdependence on one customer i.e. Tata Motors. 75 percent of sales turnover was from Tata Motors.
2. In 2010, when new car plant was ready, permanent employees went on strike and company suffered a production loss.

1.3.2 Impact of Business Environment:

1. Because of overdependence on one customer, during 2003 recession cycle, company faced problem of generating expected revenues and bottom line as well as top line were hampered. Profit margins were very low and capacity was underutilized.
2. The strike by permanent operators crated a problem for production deliveries for new customers of car plant.

1.3.3 Perceived Crisis:

3. Low margins with high turnovers leads to financial crisis in inflationary environments
4. Negligence on cost reduction is losing a cost competitive advantage.
5. Lost business opportunity is sowing a seed for stagnation.
6. Avoiding Timely Investments in technology leads to productivity crisis.

1.4 Crisis Management Approach:

Company has managed crises successfully and also developed a proactive approach to manage the perceived crisis.

- Investments: Reinvest the profits in business for increasing product portfolio and customer base. Add new product lines, expansion in business.
- Financial: Establish return on Investment, Maintain critical financial ratios such as ROCE, Inventory turnover, Fixed Asset Turnover, Current Ratio etc.
- Product development: New product development , supported with qualified team
- Cost control: Offset the inflation with proportionate cost reduction
- Industrial Relations: Avoid IR problems, Deploy contract labour force.

Company has taken following important strategic decisions in line with crises faced and crises perceived. These decisions were implemented and company has generated real-time benefits and long term growth. The span of these decisions is from 2004 to 2011.

1. **Investment decisions:** Rs 40 Crore investment in 2005 for truck plant expansion, Rs 75 Crore for passenger car new business portfolio in 2008, Rs. 45 Crore for truck plant expansion in 2011 and proposed Rs. 80 Crore for passenger car expansion in 2014.
2. **Financial Decisions:** Company's cumulative Earning before Depreciation Interest, Taxes and Amortisation (EBDITA) between 2005 and 2010 was Rs. 250 Crore. Cumulative Projected EBDITA for 2011 to 2015 is Rs. 400 Crore. Fixed asset turn over ration is ranging from 2 to 2.5 since 2005 and will be in the same range in 2015. Inventory turnover ratio is between 8 and 9 and is expected to increase to 13 to 14 in 2015. It is expected ROCE will fluctuate because of planned investment but net profit will show an upward trend. Current ratio will be optimised to industry standards.
3. **Product Development:** Since the incorporation of business, company was dependent on one customer having 75 percent of sales revenue for organization. With high volumes the margin was low which resulted in lower revenues. As a policy to invest from retained earnings, company decided to increase the margins and new product lines are added. The product portfolio has increased from 40 to 80 varieties and customer base has increased from 20 to 40. The overdependence of one customer from 75 percent production capacity utilisation reduced to 50 percent production capacity utilisation. Increased product portfolio and customer base have contributed higher margins and added momentum for desired growth. New skills are developed and recruited to support product portfolio development.
4. **Cost Control:** Company is successful to maintain the cost of Goods sold (COGS) at constant level for last 5 years. The goal to offset inflation with cost reduction was achieved through continuous process improvements. Manual operations were converted into automated robotic operations. 50 percent of manual operations are automated. Company have invested Rs 7 Crore for installation of new robots to enhance productivity.
5. **Industrial Relations:** With increased investment and need for large product folio and customer base, there was need to increase number of operators in the company. Company recruited people in a planned phase and they were taken on

permanent role of the company. When the investments were complete and new plant was ready for operations, workers went on strike. Workers were working with lower efficiencies to create a pressure on management. The operating efficiency was 50 percent of installed capacity and this situation resulted into lockout for the company. Company decided to be tough with union and legal action was initiated. 50 people were suspended and lockout was withdrawn. After lot of negotiations, compensation was paid to retrenched employees. It was an out lay of Rs 6 Crore to company but the production efficiency was increased by 130 percent. The total compensation paid was recovered within a span of a year with increased capacity. Company have developed flexible operation plan in factory. The production cycles are set in such a way by adjusting the 2nd shift working, the overheads on 2nd shift are saved and margins are increased. A trade off between 2nd shift operations and production targets is calculated for maximum profits and any shortfall in deliveries is fulfilled by addition of contract labours.

1.4.1 Decision Making tools used:

Company has installed SAP R3 ERP system. All decisions are taken by use of this system. Company has predefined reporting formats to monitor performance of each product line. These reports form are used for routine as well strategic decisions. Company has established a project management module for investments in technology and robots.

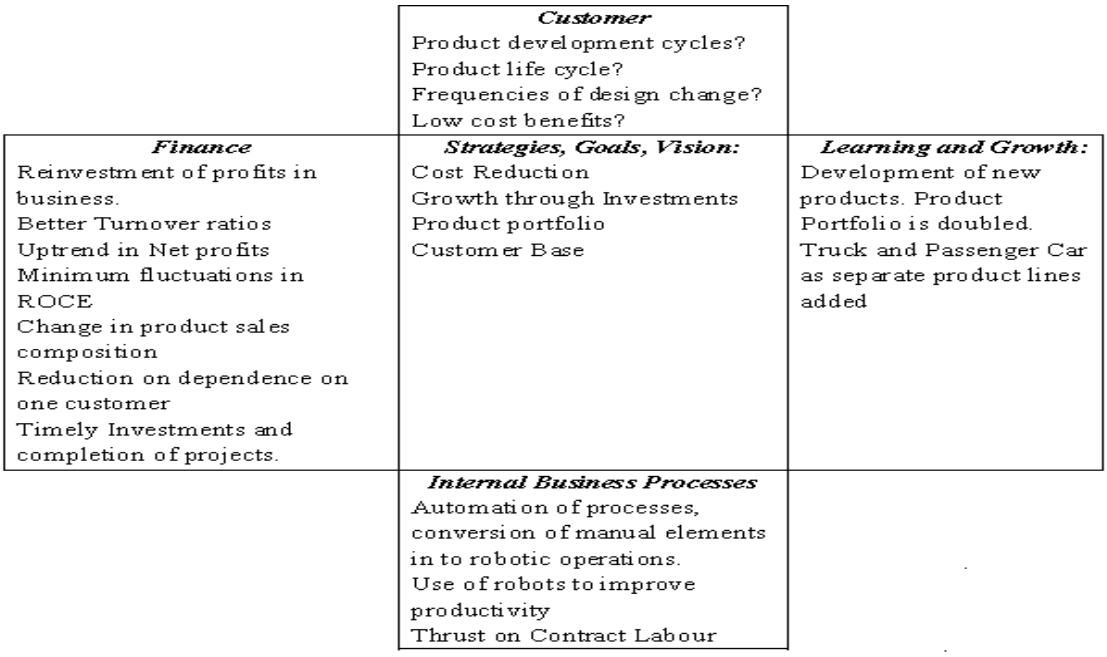
1.5 Observations:

1. Company has well defined organization structure and the roles and responsibility areas are clearly identified. Other than CFO, MD and Board of directors, other Head of Departments are involved in day to day and routine decisions.
2. Company is projecting continuous upward trend in coming next five years at the same time the operational risk is also increasing because of continuous investments.
3. Leveraging the resources for optimum profitability will be a major concern when investments are complete and assets are put to operations.

1.6 Analysis of Decisions:

Company's Decision making process can be analyzed by using Balance Scored Card, a strategic decision support Tool. Decisions are scanned through four perspectives namely Customer, Finance, Learning and Growth, Internal Business Process. Use of balanced scored card is to evaluate interdependence of the various factors and underline their importance in strategic decisions or developing Vision, Goals etc for organization.

Figure C-1.2 Kalyani Hayes Lehmaerz Balance Scorecard



The various decisions taken by the organization when scanned through Balanced Scorecard, following important points are can be noted down

1. In decision making process customer perception is not reflected. Decisions are more concentrated on business growth rather than customer satisfaction. Company can increase market share by addressing various customer expectations in terms of satisfaction.
2. Company has successfully reduced over-dependence on one customer. Company can tactfully transfer the low margin business to competitors and acquire high margin business from them by developing appropriate product promotion strategy

3. Fixed asset turnover ratio is constant, which is an alarm for long-term sustenance with continuous ploughing back profits into business. During the phase of stagnation, Slow down or reversal in business cycles, the lower fixed asset turnover ratio will erode the profits generated by continuous process improvements. It may also increase the total cost of production. There should be more emphasis on upgrading the benchmark performance of new assets.
4. With due reference to Maruti Manesar plant incidence, there may a need to revisit the strategy of having combination of Robots and contract labour to optimize the cost of production.
5. New product development cycle, flexibility to adopt new designs for manufacturing processes are some of the key areas contributing to bottom line of the company.
6. A BCG matrix also can be used to decide various categories of the products namely Stars, Question Marks, Cash Cow and Dogs. This assessment can be done considering the contribution of individual products in net earnings of the company.

1.7 Conclusions:

The Company is having well set project appraisal procedures and has expertise in project implementations. There are very few examples of cost or time overruns for the project. Company is able to manage finances and product portfolios efficiently. There is a need to have a product ranking system on the basis on net contribution to earnings.

From decisions taken by company, there is a feel that human aspect of business is neglected. It is quiet possible that there may be an unsatisfied workforce at all levels of employees and that may be one of the reasons to have range bound fixed asset turnover ratio. Employees may have developed there own thumb rules for utilisation of assets, restricting the asset turnover to a limited range.

Customer perceptions about the business, may be addressed to improve return on investment and minimizing fluctuations in ROCE.

Overall company is progressing very fast with its strong decision making capability. The decision making capability may have inbuilt process to create enough financial cushion to provide a support in business stagnation, business slowdown or business reversal cycles.

[45] http://www.bharatforge.com/company/kalyani_Lemmerz_ltd.asp

2 Continental Auto Components

2.1 Company Profile:

Continental corporation is a worldwide auto component manufacturing company. Group turnover is 30 billion Euro (Rs. 2,10,000 Crore at conversion rate of Rs 70 per Euro). Company has two main product lines.

Table C-2.1: Continental Global Business Portfolio.[46]

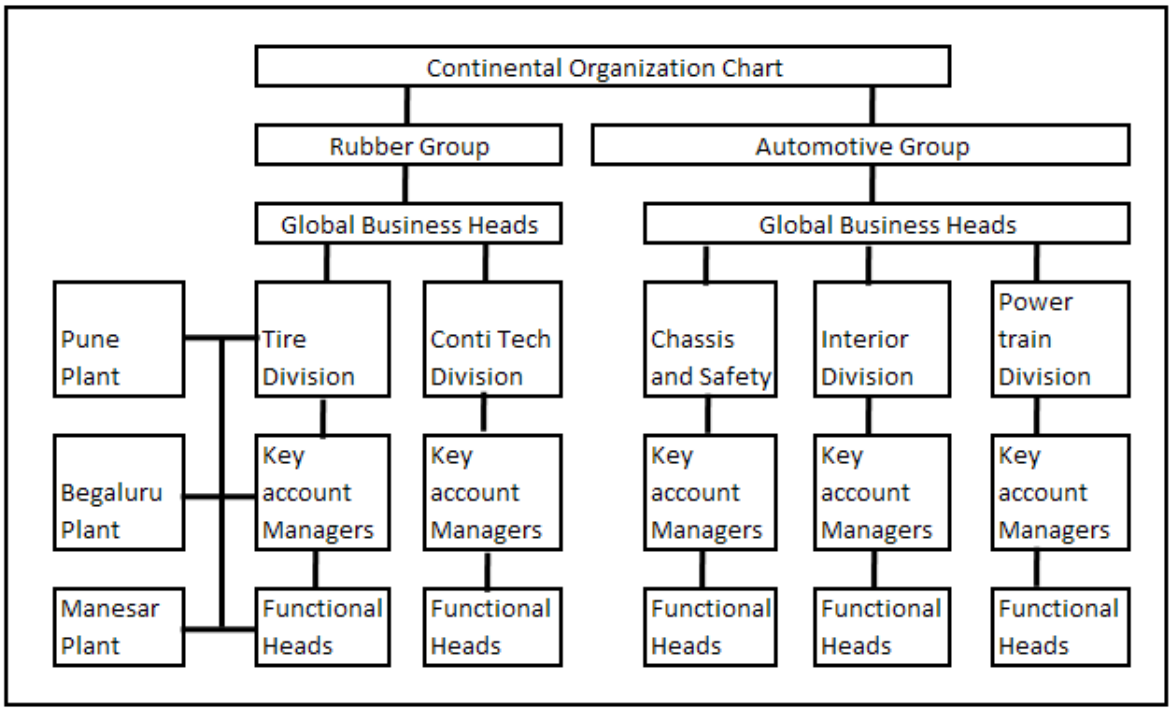
Continental Global Business Structure				
Rubber Group		**Automotive Group**		
Tire Division	**Conti Tech Division**	**Chassis And Safety Division**	**Interior Division**	**Power Train Division**
Original Equipment Replacement Europe & Africa Replacement The Americas Replacement Asia Two-Wheel Tires Truck Tires Industrial Tires	Air Spring Systems Benecke-Kaliko Group Conveyor Belt Group Elastomer Coatings Fluid Technology Power Transmission Group Vibration control	Electronic Brake Systems Hydraulic Brake Systems Sensorics Passive Safety & ADAS Chassis Components	Instrumentation & Driver HMI Infotainment & Connectivity Body & Security Commercial Vehicles & Aftermarket	Engine Systems Transmissions Hybrid Electric Vehicle Sensors & Actuators Fuel Supply

With preliminary sales of €32.7 billion in 2012, **Continental** is among the leading automotive suppliers worldwide. As a supplier of brake systems, systems and

components for powertrains and chassis, instrumentation, infotainment solutions, vehicle electronics, tires, and technical elastomers, Continental contributes to enhanced driving safety and global climate protection. Continental is also an expert partner in networked automobile communication. Continental currently has approximately 170,000 employees in 46 countries..

2.2 Continental group Organization Chart

Figure C-2.1 Continental Organization chart



2.3 Continental Automotive division India

Continental Corporation: India Plant : Chakan 2

History

Continental current plant is located in Chakan. This plant was used by Yankee Instrument Manufacturing company specialized in two wheeler control panel instruments. This business changed hand at least 4 times from 1986 to 2000. In 2000 Siemens VDO

business took over the plant and they started manufacturing electrical and mechanical power train components for passenger cars. In early 2007 Siemens decided to sell this plant and plant was taken over by Continental India a fully owned subsidiary of Continental.

Continental India also has same business structure parallel to global structure. Corporate office for continental India is in Bengaluru and has production units at three different locations Bengaluru, Manesar and Chakan Pune.

Continental has strategically distributed product portfolios in three different locations. All electronic components are produced in Bengaluru and Mechanical components are produced in Pune. Manesar produce combination of electro mechanical components. Siemens VDO unit was taken over by Continental with all existing assets and same management team. Continental decided to close the product portfolio taken over from Siemens during the economic crisis of 2008.

Crisis Faced by Company:

In 2008, company faced a severe problem to maintain market share for portfolio taken over from Siemens and Continental has to close the portfolio.

Impact of Crisis:

Continental has to close the existing portfolio and start a new product line.

2.4 Strategic decisions taken by company are:

1. Close down existing portfolio taken over from Siemens. Continue with management team and introduce new product portfolio and develop existing plant as a start-up company.
2. Introduce mechanical component product line in Pune as required manpower and technical skills are available in Pune.
3. Develop production capacity with three shift utilization considering future market potential available in Pune.
4. Technical support for design and product development will be from Bengaluru.

5. Invest in assets for power train business in Pune having initial concentration on fuel supply units including fuel pump and transfer lines required for cars.

Company has a business vision to grow in Indian Market as OEM supplier for Fuel Supply systems. Continental India has a growth plan for automotive unit to make a 1Billion Euro company by 2020. Company's automotive units have turnover of 20 Million Euro (Rs 150 Crore at conversion rate of Rs 75 per Euro)

2.5 HR Strategic Decisions

To manage the startup company and develop it on fast track, structured organization is developed. Company has a Matrix organization and hierarchy in reporting. There are department heads and well define reporting procedures. Currently total manpower is 120 employees including 40 managerial staff. In the process of development of Start-up Company, experienced people for all functions are recruited by offering competitive salary prevailing in Pune MIDC. Top management is same working with Siemens VDO unit.

2.6 Product Development Focus

Company has a specific product development and market penetration strategy. Company projects the product as low cost and reliable products. Low cost is offered with continuous efforts for import substitution and reliability of product with proven record of accomplishment of manufacturing capabilities of Continental as a global auto component supply company.

Continental Pune auto component division is an OEM supplier for Tata Nano for fuel supply system. They have proved their capability by offering low cost and reliable product desired by Tata Nano as a basic requirement to qualify as an approved supplier for Tata Group. As a startup company Continental was working for Tata Nano and in 2009 they have increased their customer portfolio by wining confidence of Volks Wagon, Maruti Motors and Mahindra group.

Company has growth plan for Pune units as 50 million EURO IN 2015 , 100 million Euros in 2017. Considering this business plan Spare capacity required is considered during installation. Currently company is operating at 35 percent of capacity utilization and is successful to achieve break even.

2.7 Product Promotion Strategy:

Continental has a matrix Organization and dedicated business development managers for each product line. Company is promoting India Automotive Division by using Existence of Global brand, Capability to provide low cost solutions with assured product quality, specific focus on import substitution and dedicated manufacturing capacity to fulfill the customer requirements.

2.8 Strategies for Growth

- Investments: Reinvest the profits in business for increasing product portfolio and customer base. Add new product lines, expansion in business.
- Financial: Establish return on Investment, Maintain critical financial ratios such as ROCE, Inventory turnover, Fixed Asset Turnover, Current Ratio etc.
- Product development: New product development , supported with qualified team

2.9: Decision Making Tools Used:

Company follows the global reporting systems used by continental group. Company use SAP R3 ERP system for reporting. Strategic decisions are taken by considering global business plan and inline with local business requirements.

2.10 Observations:

1. Company have well defined organization structure and the roles and responsibility areas are clearly identified. Other than CFO, MD and Board of directors, other Head of Departments are involved in day-to-day and routine decisions.

2. Company is projecting continuous upward trend in coming next five years at the same time the operational risk is also increasing because of continuous investments.
3. Leveraging the resources for optimum profitability will be a major concern when investments are complete and assets are put to operations. Currently company has achieved a break even but small negative trend in business can lead to losses.

2.11 Analysis of Decisions:

Company's Decision making process can be analyzed by using Porter's Five Forces model, a strategic decision support Tool. Continental's decision to invest for a new start-up company can be well analyzed by using five parameters used porter's model. Decision is scanned through five parameters, Barriers to Entry, Determinants of Supplier Power, Determinants of Buyer's Power, Threat of Substitute, and Rivalry among the Competitors.

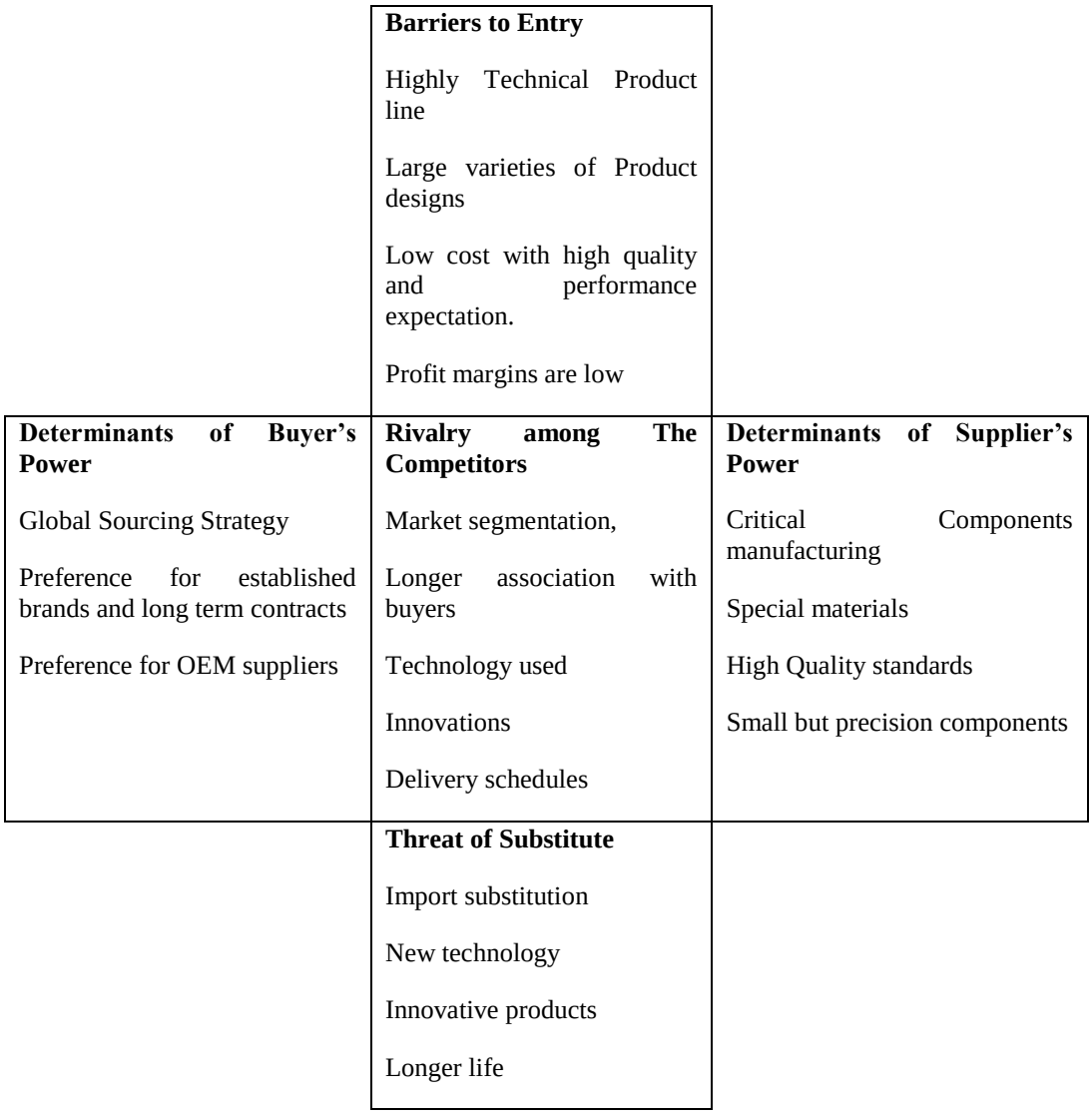
Barriers to Entry:

The fuel supply system consists of a fuel pump and transmission line to supply fuel from fuel tank to engines. This is highly technical component and requires precise machining. This requires specialized technology and designing skills to satisfy the customers. Being a low cost but high technology product there are very few players in the market. Continental is established brand as largest auto component supplier with proven technology capabilities, company can create a threat to other players in market.

Determinants of Buyer's Power:

Today product life cycle of automobile products is shrinking every year. Frequency of new launch is increased to satisfy dynamic change in customer requirements. This demands the high responsive suppliers for the car manufacturer. High responsiveness in terms of new product design and supply are Key Performance areas for suppliers. With Hands on experience of new product development Continental can satisfy new customer needs.

Figure C-2.2 Continental Porter five forces model



Determinants of Supplier Power:

Continental has installed machines required for complete manufacturing of fuel supply system. Currently company is operating at 35 percent of installed capacity on single shift basis. Company can work in three shifts to satisfy the demand requirements. The human skill can be recruited easily depending upon demand requirements. Company is not depending upon the suppliers and sub contract for manufacturing. Practically there is not any threat from supplier.

Threat of Substitutes:

Fuel supply system is technology driven product line. The threat of substitute is from established competitors who have technology to manufacture. A perfect combination of Quality and cost can create a threat of substitute. Continental is promoting their products with a major thrust on import substitution and provides low cost quality solution for Indian markets.

Rivalry Among the Competitors:

Bosch from Germany, Delfi from US and Denso from German are the major players in fuel supply systems. These players are operating in India as a global sourcing strategy adopted by their buyers. Denso is OEM supplier for all Maruti Motors, Delfi is for US companies operating in India and Bosch for European manufacturers in India. There is clear market segmentation for market players. Continental has won the confidence of Indian auto giants on cost advantage. All leading brands have 13 to 14 percent of market share in Indian automotive market. Continental has a challenge to compete with all these global players operating in India.

2.11 Conclusions:

Continental corporation has implemented a decision to start a new company by introducing a fuel supply system in Indian automobile market. The strategic choice of Pune as a manufacturing location is a well though decision. Company has achieved a tremendous growth since inception and achieved a break even at 35 percent of installed capacity utilization is really commendable. Pune unit is well supported by Continental Corporation in terms of technology and design aspects of product.

Company has future business expansion plan to achieve Rs 1000 Crore turnover in 2020 a great leap from Rs. 150 Crore today in 2013. The critical aspect of business expansion is market segmentation in terms of global companies and their global vendors. Company has to work very hard to create a potential market to achieve global quality and cost leadership in business sector.

[46] http://www.conti-online.com/www/automotive_de_en/

3 Eaton

3.1 Company Profile:

Eaton is a global engineering company and operates in different industrial manufacturing fields. Eaton is known by its business values and Ethics. Global group turnover was $16.2 Billon (Rs 90750 Crore at a conversion rate of Rs 55 per Dollar) in 2012.

Eaton is a diversified power management company providing energy-efficient solutions that help customers effectively manage electrical, hydraulic and mechanical power. Eaton is a global technology leader in electrical products, systems and services for power quality, distribution and control, power transmission, lighting and wiring products; hydraulics components, systems and services for industrial and mobile equipment; aerospace fuel, hydraulic and pneumatic systems for commercial and military use; and truck and automotive drivetrain and powertrain systems for performance, fuel economy and safety.

Table C-3.1: EATON Global Business Portfolio. [47]

Aerospace	**Automotive**	**Electrical**	**Filtration**	**Hydraulic**	**Hybrid Power**
Aerospace systems and components. Electrical Sensing And Control Ground Fuelling AOG Support	Engine Valves and valve systems Transmission systems Advanced Machining Gears	Customized electrical designs, systems and products, Equipments, Control mechanisms	Bags and Cartridge Self Filtration Gas liquid separators Portable Filtration Oil filters	Accumulators Clutches and Brakes Connectors Cylinders Motors Power units	Electric Hybrid Hybrid Applications

3.2 Eaton Business System

What makes Eaton distinct is, power management focus, values-based culture and philosophy to run the enterprise as an integrated operating company. The Eaton Business System (EBS) is the embodiment of integrated operating company philosophy.

The Eaton Business System (EBS) in Eaton – it is how Eaton runs company in a common way.

- It is based on belief in standard processes and a teachable point of view
- It ensures that transfer best practices and key learning across the organization
- It encourages continuous improvement

The Foundation of the Eaton Business System is a single vision and mission, shared set of values and a common philosophy. EBS also includes a standard set of processes that are used to run company within these areas:

- Planning
- Growth
- Operational Excellence
- Functional Excellence
- Assessment
- Learning

The Eaton Business System is source of competitive advantage and, when effectively deployed, leads to superior performance.

Uniting the power of many into the Power of One – that's the Eaton Business System.

3.3 Eaton : India Operations

History

Eaton India Operations were started in 2005. Vickers manufacturers of hydraulic systems and components ,was taken over by Eaton Corporation. Vickers product line was same as

Eaton. It was a start of first plant in India to have presence in India. This plant is operating at Pimpri.

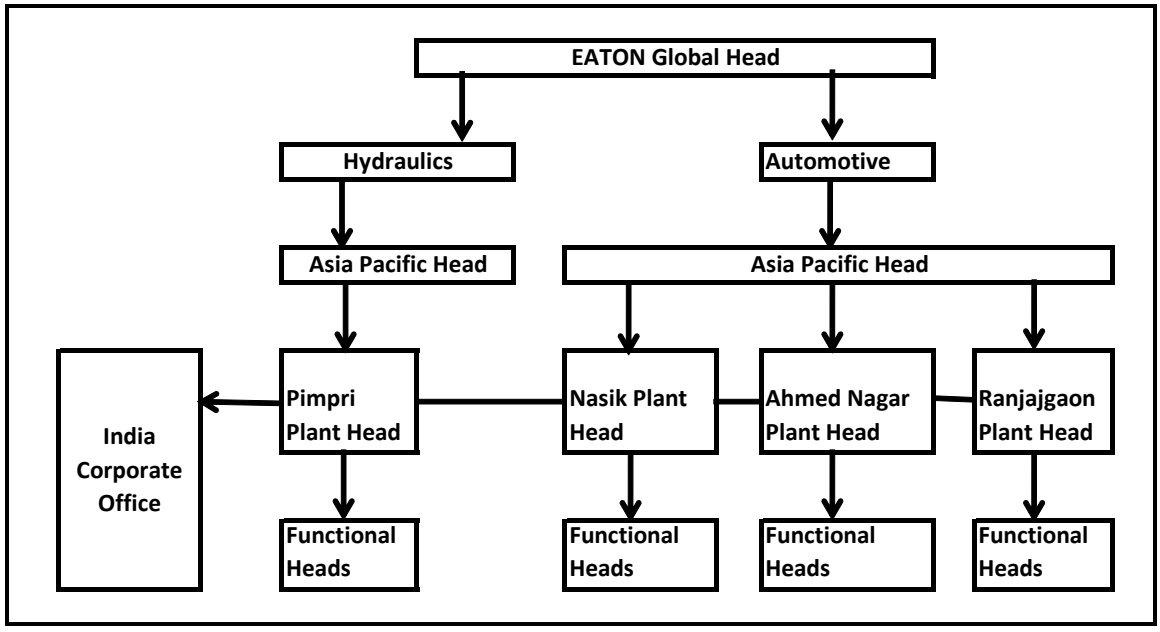
In 2007 Kirloskar Oil Engine plants at Ahamadnagar and Nasik were merged in Eaton. Company started green field project in Ranjangaon in 2005 which came in operations in 2007.

Eaton's Indian manufacturing portfolio consists of Hydraulic Systems at Pimpri, Value and value systems for automotives in Nasik and Ahamadnagr, Vehicle Transmission systems at Ranjangaon.

3.4 Organization structure.

Eaton has Matrix Organization.

Figure C-3.1: Eaton India Organization Chart



Eaton worldwide follows same business practices and has standard business operations. The roles and responsibilities are specific and well defined. Matrix organization normally creates a problem of duel reporting but in Eaton the areas are specified. The plant heads are responsible for development of business and they report to Asia Pacific Heads for business decisions. Business strategic decisions are taken by Asia Pacific Business Heads. India Corporate office is responsible for ensuring Eaton global standards across

the functions and businesses. Plant heads report to India Corporate Office for matters related with Systems Development and Implementation, HR policies, Performance Appraisals, Training and Development, Legal and Industrial Relations

Crisis Perceived:

- Failure to create a brand for manufacturing critical engine components such as engine valves and valve trains
- Failure to create a potential market for patented engine transmission products in India.

Impact of Business Environment:

Company created focused brand development strategy to promote as experts in critical engine component manufacturing and leader in engine transmission systems.

3.5 Strategic decisions taken by company are:

1. Have same policies for Eaton India, in line with global policies.
2. Implement and ensure Eaton Business Systems
3. Grow by merger and acquisitions in related business areas.
4. Invest in green field project to manufacture patented transmission system products for Indian automotive industry
5. Wait and watch policy for appropriate business valuations for merger and acquisitions.
6. Training and development of people to mould them Eaton Business Systems and Work Ethics

Company has a business vision to establish Eaton India in Indian Automotive sector as a global quality component manufacturer with proven products and technologies. Project Eaton as business partner for Indian Auto giants with technology and patented products for improved product reliability and life cycle. Offer low cost and high quality technology driven products best suited for Indian Environment.

3.6 HR Strategic Decisions

1. To continue with existing employees of merged companies and mould them to Eaton Business System and work ethics by continuous training and development.
2. Develop work culture matching with global expectations.
3. Recruit skills to fulfill the skills gaps.
4. Transparent appraisal and promotion policies.

3.7 Product Development Focus

Company has a specific product development and market penetration strategy. Green field project started at Ranjangaon MIDC to manufacture patented Transmission System products. Eaton has monopoly in these products and use latest technology as per Eaton Global Standards to increase market share in India. Eaton has a continuous product development focus on critical engine components used in Automotives. Transmission systems, Engine Valves and Valve operating systems, hydraulic components and systems are critical components for manufacturing and require high quality manufacturing process to achieve desired performance. Focus on these critical components projects Eaton as technology driven company.

3.8 Strategies for Growth

- Mergers and Acquisitions in related business areas. Wait and watch for appropriate business valuations.
- Promote patented products in India
- Reversal of Export Oriented Status (EOU) of merged companies to promote products in Indian Market.

3.9 Observations:

- Company have well defined matrix organization structure and the roles and responsibility areas are clearly identified.

- Company strongly believes in Eaton Business Systems and Work Ethics. Employee development is priority to mould them into Eaton work culture.
- Focus is on technology and strong product development. High quality standards and proven products is major thrust in India.

3.10 Analysis of Decisions:

EATON perceived crises related to external business environment specifically with market share and brand promotion. Company has taken decision related with new product and market development. These Decisions can be well examined by using Ansoff Matrix.

Figure C-3.2: Ansoff Matrix for Eaton

	Existing Products	**New Products**
Existing Markets	**Market Penetration** Hydraulic Components	**Product Development** Global products in Indian Markets
New Markets	**Market Development** Engine valves and valve chain components	**Diversification** Patented transmission system products

Ansoff Matrix is used to portray alternative growth strategies applied by corporate. This matrix is used to decide the priority for product development and promotion in different market segments. Eaton corporate strategies are well placed in Ansoff Matrix.

Market Penetration: Take over of Vikers Systems plant located in Pimpri is horizontal integration for Eaton Hydraulic division. Vickers was already operating in Indian markets and Eaton has developed it as quality manufacturer for critical hydraulic circuit components. Application of new technologies and training and development of

employees has improved Eaton's market share in existing market acquired by Vikers Systems.

Market Development: Merger and Acquisition of Kirloskar oil engine plants at Nasik and Ahmadnagar by Eaton is market development strategy. After merger Eaton applied for reversal of EOU status of these plants to promote the products in Indian Automobile manufacturers. Specialization in engine valve technology and capability to supply Indian Auto Industry are the drivers for cancellation of EOU status for merged plants. This was better trade off for Eaton than EOU status.

Product Development: Eaton global market strategy is to promote products in all possible potential markets by way of distribution channels or by creating own establishments. Eaton is highly research oriented global company and they promote various innovative products in India. Eaton is focusing on solar energy and wind mills business options in India.

Diversification: Eaton has a range of patented products in transmission systems. The green field project in Ranjangaon is a product diversification strategy in Indian markets. The manufacturing of patented products for Indian Auto Industry has generated a leadership in transmission system in Indian Market. Company is successful to operate at full installed capacity at Ranjangaon plant. Introduction of patented products create easy acceptance in Industry and fast growth in market share. Today company is operating in nine step and twelve step transmission systems. Eaton has future plan to supply all categories of transmission systems to Indian Auto Industry.

3.11 Conclusions:

Eaton is technology driven company having a strong foundation of Eaton Business Systems. Eaton follows a global standard at all business location. Company has a large product range in every business sector. Use of Matrix organization with clear identification of roles and responsibilities has helped Eaton to create a transparent organization. Eaton has a corporate strategy for growth by mergers in related business

areas. A possible mergers will be considered only with appropriate business valuation and company follows a wait and watch strategy for mergers.

Eaton is successful to grow in India by producing niche market components. Technological competency, product quality and critical engine components are key performance areas of Eaton in India. Hydraulic system components, Engine valve and valve chains, transmission systems are most critical components in any automobile vehicle. These critical components provide an opportunity to earn premiums on quality products for established companies. Eaton is well set to acquire higher premiums in Indian Market.

Company's major thrust on Eaton Business Systems and Eaton work culture are important points as growth strategy in globe. Company will grow and acquire Indian companies, which are best fit in this strategy. Waiting for appropriate business valuations may give better buying price but at the same time may have to compromise on growth opportunities.

[47] http://www.eaton.in/EatonIN/index.htm

4 Autoline Companies Limited

4.1 Company Profile:

Autoline is listed company on BSE and NSE since January 2008. Autoline Companies Ltd (AIL) (incorporated on December 16, 1996, as Autoline Stampings Private Ltd.) was initially set up in January 1995 as a partnership firm known as "Autoline Pressings" under Indian Partnership Act 1932, with a capital of Rs. 0.30 million & term loan of Rs. 0.15 million from State Bank of India and Cash Credit limit of Rs.0.05 million. AIL has grown into a medium sized engineering and auto ancillary company, manufacturing sheet metal components, sub-assemblies and assemblies for large OEMs in the Automobile Industry. Autoline is engaged in Manufacturing various auto parts / sheet metal components for Passenger cars, Sports Utility Vehicles (SUV), Commercial vehicles, Two wheelers, Three wheelers, Tractors, etc.

Autoline is one of the prime vendors to various Automobile Companies like, Tata Motors Ltd. (Earlier Telco), Bajaj Auto Ltd, Kinetic Engineering Ltd, Mahindra & Mahindra Ltd., Fiat (India) Pvt. Ltd., Walker Exhaust (India) Pvt Ltd (A Subsidiary of Tenneco, a fortune 500 U.S. company), etc. AIL is also exporting auto parts i.e. brake shoes for Mercedes Benz Trailers to Saudi Arabia,

Autoline company has:

- Twelve state of the art manufacturing facilities located in Pune, Maharashtra, Pantnagar, Uttarakhand, Dharwad, USA (Butler, Indiana State) and South Korea.
- Four Design Units in Pune, Chennai, Troy - Michigan, USA and Milan, Italy
- State of the art Tool Room Facility at Chakan, Pune.
- Unique capability of offshore Designing and Manufacturing model.
- Diversified product range with a portfolio of over 1,000 products ranging from PVs, SUVs, MUVs, LCVs, MCVs, HCVs.
- A strong Clientele – leading OEMs like - Tata Motors, Mahindra & Mahindra, General Motors, Volkswagen, Ashok Leyland Nissan, Bharat Benz (Daimler India), Ford to name a few.

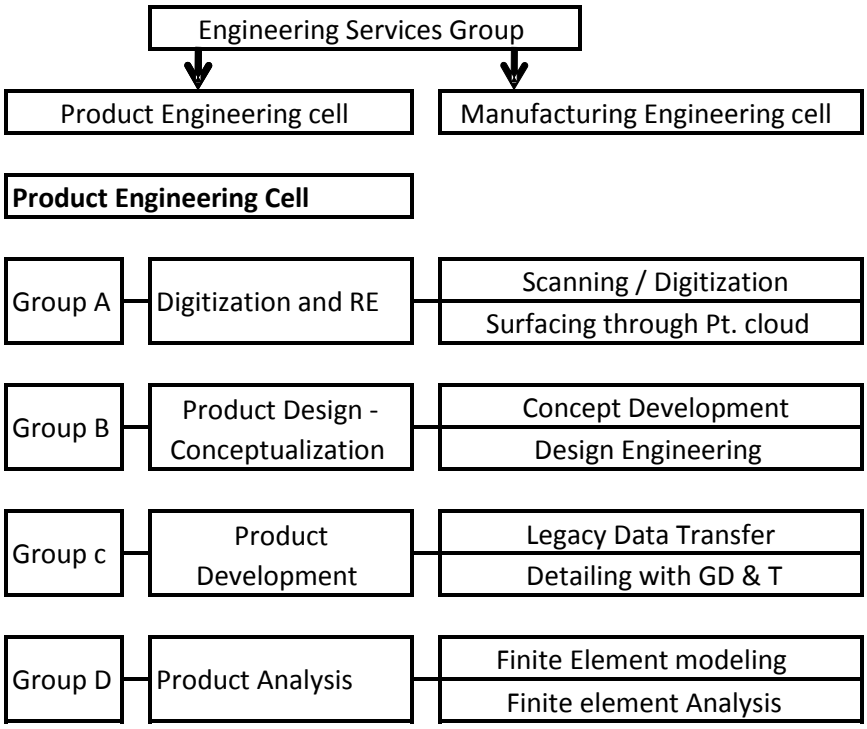
4.2 Product Portfolio[48]

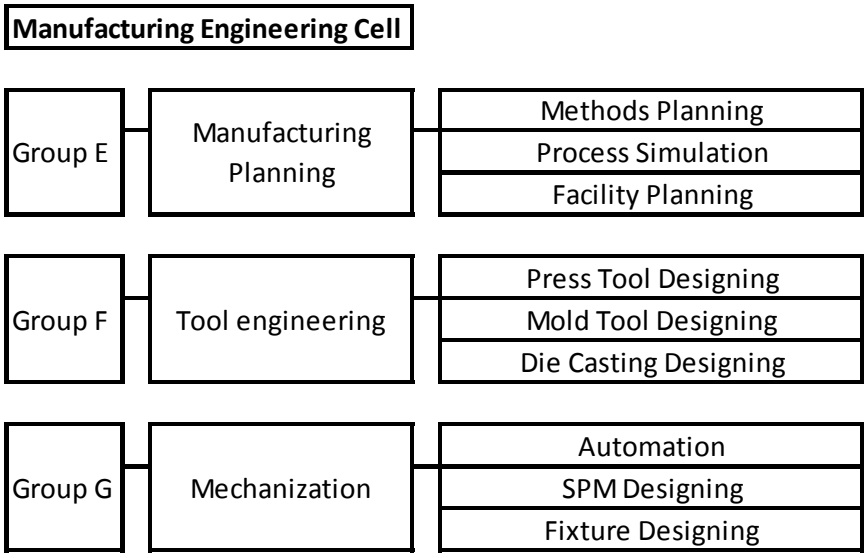
Pedal Assembly, Park Brake assembly, Bottle jacks, High Deck Load Body, Brake and clutch assembly, Jack assembly, Load Body, Composite Vehicle body, Cab stay, Cabin floor structures, Drive control systems Assembly floor, front panels and various press components for automotive companies.

4.3 Company Growth Story:

In 2004 turnover of was Rs 51 Crore, 2008 Rs 260 Crore, 2010 Rs 495 Crore and in FY 12-13 Rs 687 Crore. Autoline has increased customer base and added various products in portfolio. Today company has seven manufacturing plants in India and two plants abroad one in Dubai and one in Germany. Company has developed two different specialized capabilities, manufacturing services and Engineering Services. Autoline has patented products and provide value added services to customers.

Figure: C-4.1 Autoline Organization chart





4.4.1 Crisis Faced by Company

Autoline is dependent on Tata Motors for majority of the turnover. 90 percent of the revenue is from Tata Motors. After the recession cycle of 2003, Tata Motors came out with new products and introduced new policy for vendor development. The labour jobs were converted to with material jobs and for new components, vendors were responsible for development of entire job. Only technical support was provided by Tata Motors. This change in policy by Tata Motors, created a pressure on Autoline and for new product development.

It was a challenge for Autoline to develop engineering and designing capabilities as per the requirements of Tata Motors.

4.4.2 Impact of Business environment:

Autoline has to develop complete component solution capabilities. It was mandatory to add tool engineering and process design capabilities.

4.4.3 Crises Perceived by Management:

1. Failure to understand customer requirements
2. Failure to connect customer

3. Negligence for growth opportunities

4. Failure to develop interdependence with customer.

4.5 Strategic Decisions taken by company

1. To establish **"Art to Part** "Service Provider for Key Customers.

2. Project company as End to End solution provider right from conceptualization, styling, designing, proto typing, tooling and mass manufacturing of auto components

3. Grow by mergers and acquisitions in related businesses

4. Focus on research capabilities for patented products and as solution provider to auto giants.

5. Establish two strategic business units namely Engineering Services and Manufacturing Services.

6. Convert organization from dependent on customers to interdependent with customers.

7. Establish manufacturing units as "Wagon Development" to provide better services to key customers.

4.6 Impact of Strategic Decisions:

Autoline is consistently doing efforts to achieve customer satisfaction and establish as End-to-End OEM component manufacturing company. A company has grown from a single unit to twelve manufacturing units. As a Wagon Development strategy, Autoline has established manufacturing units at every location of Tata Motors manufacturing units. This has helped to transform the company from dependence to interdependence for Tata Motor and Autoline. Today Autoline manufactures in total 1200 components covering practically entire range of vehicles manufactured by Tata Motors. Autoline has developed a heavy duty pressing capacity specific for Tata

Motors. Today company has wide range of hydraulic presses as high as 3000 tonnes. This unique heavy press capability projects Autoline as partner for Tata Motor's heavy duty manufacturing activities.

Wagon development strategy requires continuous investments for establishing new manufacturing facilities at different locations. Creating a long-term partnership with Tata Motors also create some restrictions in decision-making. Tata motors have a global sourcing policy and it is compulsion for OEM component manufacturers to buy the components from Tata Motors specified global Vendors. It creates a pressure on margins for company.

A welcome step to transform company form 'Part' to 'Art to Part' company has helped to develop complete engineering capabilities. This change has created a confidence among the customers and new long-term contract are signed by valued customers. End-to-End solution capability has helped to develop a dedicated team contributing in top line and bottom line results of the company.

Complete engineering solutions from concept to component manufacturing has generated a cost advantage with reduction in product development cycle.

Autoline has SAP system for management control and production scheduling for all plants. All plants are centrally connected through SAP. It helps management for better control on costs and delivery schedules.

4.7 Observations:

1. Autoline is over dependent on Tata Motors. 70 percent of revenue is from Tata Motors.
2. Following global sourcing strategy of Tata Motors is a compromise on profitability for Autoline.
3. Company needs to explore their engineering capabilities for tapping other automotive companies for OEM supplier.

4. Because of interdependence, Tata Motors provide a financial help in crucial times for Autoline. It creates a relief from financial crisis.

5. Backward integration for 'Art to Part' solutions is a good move for company. The Mergers and Acquisitions done by company have helped to create international presence for Autoline.

6. Design, development and manufacturing of press machine tools and equipments generate a cost advantage and develop a confidence for employees to excel.

4.8 Analysis of Decisions

Autoline is strongly working on developing core competencies to provide qualitative 'Art to Part' solutions for the clients. Backward integration of product line by adding design services, tools and dies manufacturing for own products have certainly helped to promote company as a guanine business partner specially for Tata Motors. Wagon development strategy adapted by Autoline adds value for customer satisfaction.

Manufacturing capability achieved by investing in heavy duty presses of 3,000 ton capacity is a long term sustenance strategy for the company. Autoline is successful in developing interdependence with Tata Motors. A large portfolio of 1,200 components only for Tata Motors may be a risk for both Autoline as well as Tata Motors. Any business crisis or slow down of Tata Motors will have direct impact on profitability and long term sustenance of the company. Being a listed company, this is high risk for stake holders.

Utilization of heavy duty press may not be optimum and can create impact on return on capital employed. There is a need for evaluation of product portfolio. Autoline can use BCG matrix for the products and clearly define the strategy for each category of products. The backward integration and investment in heavy duty press can be utilized for star performers and converting the question marks to star performers.

4.9 Conclusion:

Autoline is growing very fast at an exponential rate. The fuel for growth is 'Wagon development' strategy to support Tata Motors as a reliable OEM component supplier. Company is having combination of strategies for growth. Mergers and Acquisition, Backward Integration and capital investments to increase production capabilities with value added services to customer.

Company is also exploring the opportunities in diversification to add value to share holders. There is need to increase customer base with enhanced production capacities and "Art to Part' approach. Major auto giants of the globe have manufacturing units in Pune and this is global opportunity for Autoline, which can be enchased by appropriate marketing and product development strategies.

Application of BCG matrix analysis will help to focus on selected product portfolio to enhance profitability and reduce the business risk. The assets can be better utilized and customer portfolio can be increased.

[48] http://www.autolineind.com/

5 Badve Engineering Limited

5.1 Company Profile

Badve Engineering limited was started as a small company in 1986 by the proprietor to manufacture small-machined components for Bajaj Auto ltd, Aurangabad plant. With commitment for quality, Bajaj Auto offloaded more components to Badve Engineering. This opportunity was well accepted by the proprietors and they decided for investments and expansion of the plant. A small scale unit having a turnover of Rs 8.0 Lakh in 1986, grow exponentially because of opportunity offered by Bajaj Auto and achieved annual turnover of Rs 50 Crore in year 2000. Company enjoyed this exponential growth by adding more capacities and production capabilities. Today there are 13 manufacturing units operating at various parts of Maharashtra and Pantanagar. Group turnover has crossed annual turnover of Rs 600 Crore in 2012. Employee strength is more than 3000 employees including staff and managers.

Badve Engineering has developed a full manufacturing capacity and technical capability for fabrication, and press components required for Bajaj Auto and other automotive companies. Company has major turn over share from Bajaj Auto. Badve Engineering is OEM supplier for two wheeler chassis and range of silencers and exhaust systems for all variants of motorbikes manufactured by Baja Auto.

5.2 Product Portfolio: [49]

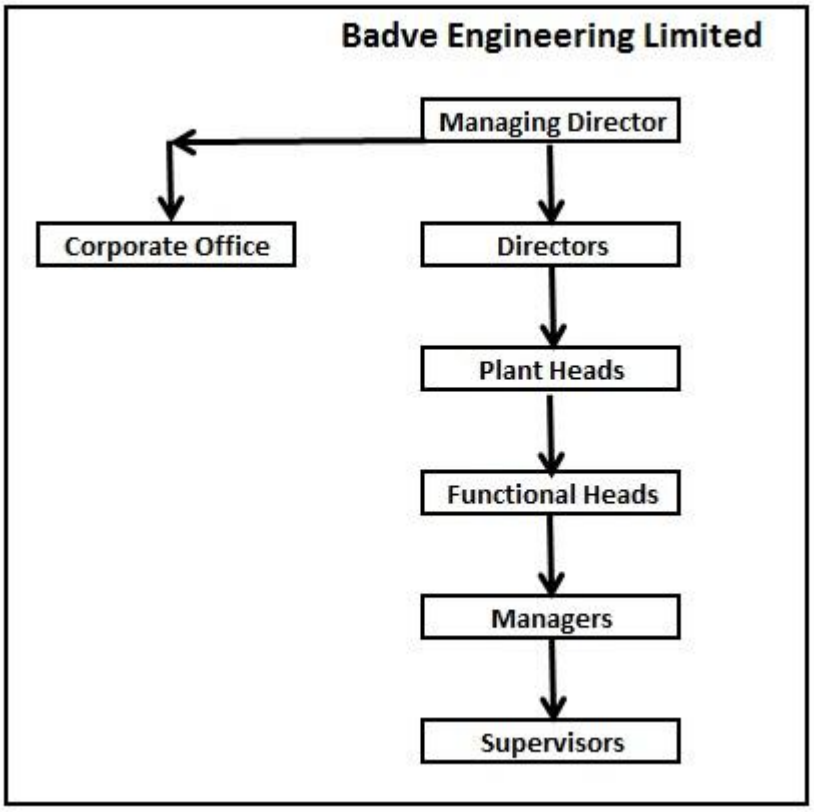
Company is exclusive OEM supplier for motorbike chassis, silencer, exhaust systems and other press components for Bajaj Auto, Tata Motors, Honda Motors, Volvo and Ingersoll Rand. Company has added plastic moulding facilities for exclusive supply to LG electronics for washing machines.

5.3 Organization Structure:

Company has typical Indian Management organization structure with various levels of hierarchies. Plant heads are responsible for efficiency and quality output to full fill

customer requirement. Corporate office has specific role and is responsible for business growth, development, and implementation of various policies to achieve desired growth. Corporate office consists of corporate Human Resource, Finance and Engineering Heads. Identification of new business opportunities is a major expected contribution from corporate office. Plants heads have freedom for day-to-day functional decisions but they should refer to corporate office for policy decisions.

Figure C-5.1: Organization structure



Proprietor of Badve Engineering Mr. Shrikant Badve is a very dynamic person. For him Quality is a way of life. His commitment to quality is the only factor in exponential growth of the company. He has received TPM award from Prime Minister of India. He is recipient of many other prestigious awards because of demonstration of higher level of entrepreneurship skills. This quality approach is a guiding principle in Badve Engineering. Company strongly believes in quality in every action in business.

5.4.1 Crisis faced by Company:

In year 2004 Baja Auto came out with new variants of Pulsar Motorbikes. There was a requirement for faster prototyping of various components required for exhaust system. The decision for accepting the proposal was delayed by company considering the time constraints and technology development.

5.4.2 Impact of business environment:

As a result of delay in analysis of proposal and acceptance turnout as a cancelled proposal from Bajaj Auto and Badve Engineering lost opportunity for long term business for new products.

5.4.3: Crises Perceived

- Failure to acknowledge our own potential.
- Failure to understand the value of "Now"
- Negligence in Quality systems
- Negligence towards customer requirements

5.5 Crisis Management Approach:

Speed: Organization believes in speed and they practice fast decisions. Company is successful to develop a strong corporate group capable of performing in depth project analysis and provides inputs for fast decisions. Company's philosophy is "NOW" always aims for speedy actions in every part of organization. Belief in fast decisions and implementation is a key success factor for company's growth.

Quality policy: Quality is way of life and TPM is motive in Badve Engineering. Company has successfully implemented TPM in Pune and Aurangabad Plants. They encourage healthy internal competition between various sections for quality and process improvement. The participants with innovative ideas are encouraged with non-monetary benefits. Company has successfully implemented the TPM. Company is self-certified OEM supplier for all components supplied to Bajaj Auto Ltd.

Investment is done for automation and new welding robots are installed to improve welding quality and production efficiency for chassis and silencer products. It has created in saving person-hours.

Human Resource Policy: Company has developed HR manual and procedures are well documented. Processes at all plants are standardized and strictly monitored. Company have annual performance appraisal for all staff and managers. Plant heads and functional heads have Key Performance Area related to business growth and 15 percent to 20 percent business growth is expected from each plant. For middle management and junior level staff goal setting is done to improve their operational efficiency. Performance goals are set from their functional areas and it includes qualitative and quantitative measures. Contribution in process and quality improvements is one of the important performance areas for annual appraisal. Company has strong HR systems and corporate HR is responsible for implementing the systems in all plants of Badve Engineering. Company believes in retention of employees and majority of work force is permanent employee. Only unskilled jobs, helpers, fitters, are on contract.

Women Empowerment: Company strongly believes in fulfillment of social obligations and work for Women Empowerment. Rs 100 Crore worth new plastic moulding plant is started in Ranjangaon near Pune. This is a state of the art plastic moulding company. Women employees work in this plant on all plastic moulding machines and for painting operation. Badve is first company having female industrial painters for engineering jobs.

Work "NOW" for business growth: As a part of growth strategy, company has entered into diversification in non-auto component industry sectors.

- Plastic moulding plant for LG electronics
- Joint venture with Cellino, Italian company for components required for Volvo company
- Export promotion unit for components required for Ingarsoll Rand Company engaged in capital goods manufacturing company.
- Vermar Helmets diversified product range manufacturers various types of helmets.

Corporate Social Responsibility:

Health and safety measures are provided to all employees. There are annual health checkups for all employees. Company organizes Blood donation camp in all units and collects 1000 bottles every year for blood bank. To promote rural employment for poor families, company has invested in Floriculture Park and fifty families are provided employment opportunities. All amenities including residence are provided to these families. The income from floriculture is used for upkeep of these employees and their families.

5.6 Observations:

- Company's 80 percent turnover depends upon the key account, Bajaj Auto Limited. Growth of Bajaj Auto is fuel for exponential growth of Badve Engineering.
- To acquire this growth 'Wagon Development' strategy is followed. This strategy has increased the investments and created short-term pressure on return on investments
- The components manufactured by Badve Engineering are fabrication and welded components. Some press parts are also produced. These processes are labour intensive processes. Badve Engineering has more employees than Industry standards.
- Internal TPM competition is a good approach to develop team building culture and working in teams for common goals.

5.7 Analysis of decisions:

Company strongly believes in Speed and "Now" for growth. This approach may have worked because of the need of Bajaj Auto for faster offloading of components to increase the product varieties and production capacities. The requirement of Bajaj Auto has helped Badve engineering in fast growth. Badve Engineering is self-certified quality OEM supplier for Bajaj Auto. The expectations from Bajaj Auto are increasing and it may create pressure of performance. The new product development cycle is becoming short in

two-wheeler industry and it demands rapid product development at OEM suppliers. Company is following very generic strategies for growth.

Company has stated exploring opportunities for diversification. This will help to sustain when Bajaj Auto faces a crisis. It will reduce overdependence on Bajaj Auto and give extra confidence to move faster.

Company has higher No of employees as compared to industry standards. Investment in automation is started late. This is creating double pressure on company as additional cost of investment and high wage bills for employees.

5.8 Conclusion:

Quality as a way of life and Speed, these characteristics of proprietor has transformed the Badve Engineering. Normally it is observed, in 'Speed' companies compromise on Quality. Company is really on fast track of growth but there is need to revisit the policy of Speed and Now. It may become very crucial for a company to grow and sustain at exponential growth. Over recruitment of permanent employees may create pressure by way of heavy wage bills when growth is stagnant and there is reversal of business cycles.

[49] http://www.badvegroup.com/

6 Saint Gobain Sekuritat:

6.1 Company profile:

Saint-Gobain, the world leader in the habitat and construction markets, designs, manufactures and distributes building materials, providing innovative solutions to meet growing demand in emerging economies, for energy efficiency and for environmental protection. Company is constantly innovating to make homes more comfortable, cost-efficient and sustainable worldwide. Saint-Gobain solutions span from self-cleaning windows and photovoltaic glass to smart insulation systems, water supply systems, solar solutions and building materials distribution.

Being market leader in all businesses; Saint Gobain offer solutions to the major challenges of energy efficiency and environmental protection. No matter what new needs emerge in the habitat and construction markets, the future is made of Saint-Gobain.

Since 1665, Saint-Gobain has consistently demonstrated its ability to invent products that improve quality of life. As one of the top 100 industrial groups in the world, Saint-Gobain continues to deploy its technological know-how, often in partnership with the most prestigious universities and laboratories. To give an idea of commitment to innovation, 20 percent of Saint-Gobain products did not exist five years ago.

Fact file: € 43.2 billion sales (Rs 3,00,000 Crore at conversion rate of Rs 70) in 2012. 1,93,000 employees, presence in 64 countries, 12 research centres and 101 units, world leader in all of its activities.

6.2 Product portfolio:[50]

Saint-Gobain's activities are either European or world leader.

Focusing on the habitat and construction markets has make it possible to implement major growth synergies within a more integrated Group, thereby optimizing operational performance via cost savings.

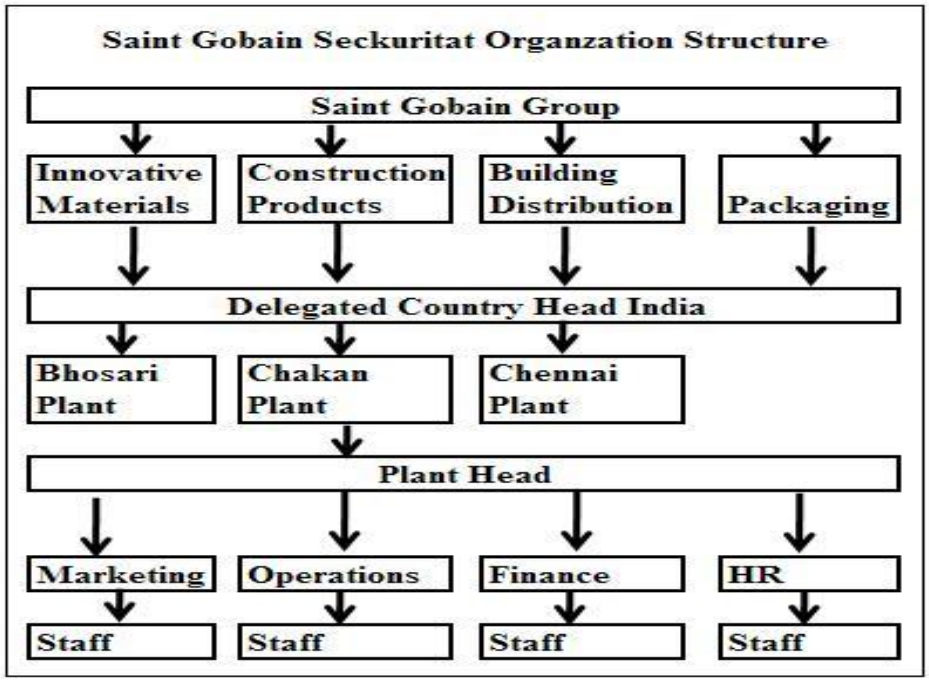
Construction Products include the Insulation, Gypsum, Exterior Products, Pipe work and Industrial Mortars activities. Their complementary nature allows the Group to meet the needs of every field of activity in both the new construction and renovation sectors.

Innovative materials cover Flat Glass (flat glass manufacture, transformation and distribution of glass for the building industry, automotive glazing and specialities). These also include High-Performance Materials taking in the Ceramics & Plastics, Abrasives and Textile Solutions activities with developments in the fields of housing, energy and the environment.

Building Distribution, which grew out of the two subsidiaries POINT.P and Lapeyre acquired in 1996, is Europe's leading building materials distributor and the No.1 distributor for tiles in the world.

Packaging, the world's second-ranking producer of glass containers, makes bottles and jars for foodstuffs and beverages.

Figure C-6.1 Saint Gobain Sekuritat Organization Structure



6.3 India Operations

There are three plants operating in India. Bhosari Plant manufactures Tempered Glass, Car door glass, backlit Glass. Chakan Plant manufactures windshield glass and laminated glass. Chennai plant manufactures all types of glass. Float glass for Chakan plant is manufactured in Chennai and is used for making windshield glass.

All major car manufacturers including commercial vehicles, passenger cars, luxury cars, three wheelers are customers of Saint Gobain Sekuritat. Company derives the advantage of global leadership in product development and innovations. Company is successful to increase the turn over from Rs. 80 Crore in 2001 to Rs. 450 Crore in 2012.

6.4 Environmental Objectives

- Reduction in consumption of natural resources
- Reduction into solid / liquid waste generation
- Reduction in paper consumption
- To improve environmental awareness amongst suppliers and employees
- Increase in green belt development
- Compliance to legal statutory requirements
- Continual improvements in environmental performance
- Elimination of Asbestos and CFC item
- Recycle / reuse of waste
- Optimistic conservation of raw materials

6.5 Key issues for the company

Uncertainty of take off and variations in volumes, Panic reactions from customers and too safe approach by customer. These issues are specifically related with the nature of product and possibility of breakage during handling and storage. Glass breakage is a loss for the person who is holding it. Breakage is always uncertain and creates shortages in product line. Customer wants to avoid loss during handling and storage and adopts too safety approach.

To overcome this issue company follows an inventory management policy, manufacture to stock for key customer. Company maintains a stock of one-week consumption for key customers.

6.6.1 Crisis Faced by company

During 2007 to 2009, global automobile companies started their operations and manufacturing activities in Pune. This was an opportunity for Saint Gobain for growth. This new opportunities created pressure on product development. Considering the nature of product, inventory management, Handling and storage created a problem for company. Handling rejections were increased and deliveries were delayed.

Impact of business environment:

To increase production efficiency and reduce inventory levels, company invested in CNC profile cutting machines and computer aided design facilities.

6.6.2 Crisis Perceived by management:

1. Health safety issues for employees due to peculiar nature of product.
2. Shorter product development cycles
3. Labour union problems
4. Inventory management for large product varieties.

6.7 Approach for crisis Management

HR Policy: Company believes in caring attitude and has strong EHS (Environment, Health and Safety) policy and is considered as a base for training and development of employees. Glass being highly brittle, can create accident at any moment and it can create severe damage to human being. Company follows a strong guideline for reporting of every accident at global levels. Safety training is ongoing activity and stringent safety norms are followed in production process. A team of senior managers is responsible for implementation of EHS policy and norms.

Company has unique performance appraisal parameters for employees. These parameters are environmental performance parameters and Safety performance parameters.

Environment performance parameters include Rate of accident incidences, Reduction in water consumption and energy saving. Safety parameters include the safety audit and corrective actions taken. Every employee must do at least two safety audit in a month. He can conduct audit of any work place and follow the prescribed audit procedure. All employees are instructed for cooperation for safety audits. The corrective actions are decided for deviations observed and the actions taken are considered in annual performance appraisal.

To avoid industrial relation issues, company has permanent employees only for few selected and critical operations. All non value-adding activities are done by contract labour. Safety norms are same for both, permanent and contract employees.

Technology Policy. Glass manufacturing is a technology driven product. The quality of product cannot be improved after completing production process. There are only two options either acceptance or rejection of the product. No reworks and rectification of finish products. Company is doing investment in technology up-gradation demanded by product quality requirements. Company has CNC profile cutting machines and computer aided design facilities.

Product development policy: Glass manufacturing is highly technical process. Being global leaders in industry, Saint Gobain offers extended support to their automobile manufacturing clients. Saint Gobain works as a development partner from the conceptual stage of new product development. Today product development cycles need to be shorter and reliable. A dedicated team works with client designing team for in detail analysis of the new product. There is continuous interaction till actual product is developed and fitment trials are through. Glass design activity is a simultaneous activity with body design and requires close interactions with clients. Working with clients avoids cost overruns in product development. It also provides an advantage of defect free product development and ensures long term business.

Process development policy: Current production yield for company is between 87 percent and 92 percent. The overall rejection is 10 percent of finish products. Today company have large product portfolio of 90 varieties and includes all major automobile manufacturers. Company has a target yield of 95 percent. The loss of 5 percent should include design loss, Process loss and material handling loss. To achieve this goal efforts are being made to improve material handling processes. New investments are done for up-gradation of equipments. Through continuous training and development for employees, quality awareness programms are initiated.

6.8 Observations:

- All three plants produce different varieties of glass. It is a focused strategy for development and quality improvement of the product. It helps to satisfy customer requirements with high product varieties and volume variations for delivery schedules.
- Collaboration with clients from the conceptual development helps Saint Gobain to create a defect free product and ensures long term business relationship with the client.
- Environment, health and safety are the policy drivers for the company.
- Company has a potential for after sales market and the products with minor defects are supplied to after sales market.

6.9 Conclusion:

Saint Gobain Sekuritat is concerned about environment, health and safety of employees and plant as a whole. Companies all policies are derived through EHS. Inclusion of EHS in annual appraisal and defining as KPA (Key performance area) is an unique approach in the industry. This approach certainly adds value to all stakeholders and contributes directly to top line and bottom line of the company.

[50] http://www.saint-gobain.co.in/

7 Suyog Auto Cast Pvt Ltd

7.1 Company Profile:

Suyoug Auto Cast private limited is a proprietorship company. Company was started in 1981 a small-scale unit working for Bajaj Auto Ltd. Company was initiated with a subcontract labour cost job. Initially company was doing the rework and deburring of various aluminum casting produced in Bajaj Auto. This was a totally unskilled job and contract labours were employed.

Proprietors started investing slowly in low technology and general purpose machines as more operations were given to them. Bajaj Auto asked them to invest in simple machining operations. With support from Bajaj Auto and continuous work load, company slowly progressed to achieve a sales turnover of Rs 2 Crore in 1994, 10 Crore in 1998 and 18 Crore in 2004. Today company's turnover is Rs 60 Crore and in 2015 It will cross Rs 100 Crore.

7.2 Crisis Faced by Company

Since inception Suyog Auto Cast was dependent on Bajaj Auto and till March 2004 entire sales turnover was depending on Bajaj Auto. There was a growth of company but over dependence on only one customer. Number of product varieties were large and there was a single customer.

On 12th March 2004, proprietors were having meeting with MD of Bajaj Auto and the efforts of Suyog Auto were misrepresented to Managing Director of Bajaj Auto by vendor development department and meeting was not fruitful.

Impact of business environment:

This meeting gave a signal to proprietors of Suyog Auto Cast and a turnaround phase started in Suyog. Signals from the meeting were the driving force behind the turnaround story of Suyog Auto Cast.

After the meeting, Managing Director of Suyog Auto Cast called a meeting of department heads and announced the new strategy for business and a turnaround approach for growth of the company. This meeting have created a "Change Process" and initiated a change management culture in the organization.

Important Decisions taken during the course of various series of meetings in Suyog Auto Cast include:

1. To become versatile manufacturing unit.
2. To develop engineering company rather than auto component company.
3. To reduce overdependence on Bajaj Auto
4. To introduce diversified fields and components for different sectors of Industry
5. To develop an export capability
6. To create a change and manage a change
7. Invest in diversified assets to develop capability for flexible batch sizes of components.
8. To project company as OEM supplier rather than subcontract vendor.

7.3 The Change Management Approach

Step 1: Create strategic Business Units:

Four Strategic business Units are created to manage a change. Four business lines are created and these strategic units are developed

Table C-7.1: Suyog Auto Cast Business Profile[51]

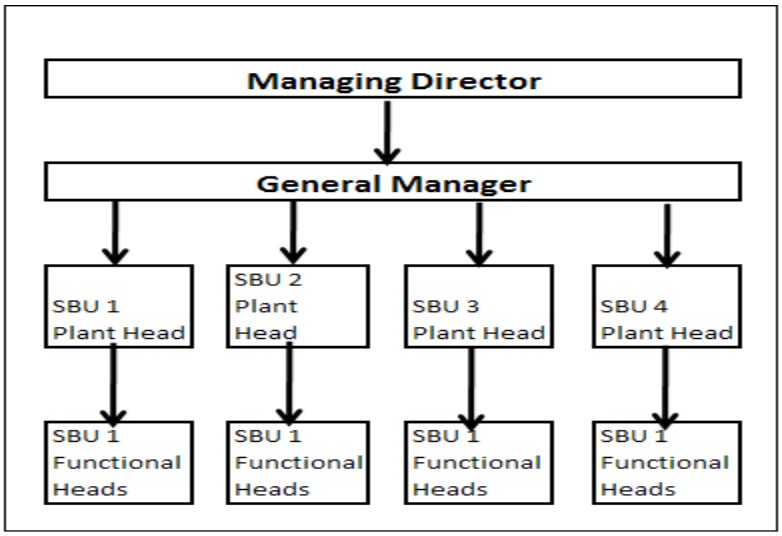
SBU 1	SBU 2	SBU 3	SBU 4
Bajaj Auto Components Dedicated unit to care of Existing Bajaj Auto requirements	**Casting Components** Expertise in all type castings; Aluminum, SG Iron, Sand, Pressure Die Casting	**Engineering Business other than auto component.** Engineering Products required for Railways, Shipping, Earth Moving, Food technology, Capital Goods, Pumps and High tech components	**Export Product development** Export orders from any field of engineering, Manufacturing, Auto Industry with end to end solutions and OEM suppliers

Step 2: Create Organizational Structure

Every Strategic Business Unit has organization structure. Suyog Auto cast has created well defined organization structure to create a change management organization. All SBUs have plant heads. Budgetary control mechanism is established to ensure effective utilization of resources. Financial budget is prepared for every unit at the start of financial year. Every plant heads is asked to prepare a production budget depending upon the in hand and projected orders for coming year.

Financial incentives are given to plant heads depending upon their performance. Company has a growth strategy and performance target of increase in sales turn over by at least 20 percent is set for all plant heads. Financial incentives to plant heads depend upon their achievement.

Figure C-7.1: Suyog Auto Cast Organization Chart



Step 3: Create a Learning Organization

To achieve the growth plan and successful diversification, company created a recruitment programm and efforts were made to recruit required skills in terms of technology and change management. Currently total group have 250 employees including 50 managerial staff. As a part of human skill development activity, In-house training sessions are organized regularly and experts from industry are also called to develop competency and managerial skills. Company has a policy to recruit the retired and experienced people from large scale manufacturing and multinational companies on contract basis as mentors to support the change management and competency development of junior and middle level management.

Step 4: Create Strong Support Functions

To support change management following actions were taken by Company.

Market Research: professional market research consultants were hired by company to support the development of goals and objectives of company. The focus of market research was to identify the business expansion opportunities in non-automobile manufacturing sectors and the opportunities for export of engineering products. The

extensive market research was done. The recommendations of research reports were implemented. Company identified hi-tech components and pump components to diversify and develop manufacturing competency.

Quality System: To develop competency for quality product and create acceptance in export market, quality systems were implemented in organization and company got international Quality Certification TS 194 a gateway for export promotion. Internal audit is well implemented to ensure effective implementation of quality systems and ensure quality products acceptable in international competition.

HR policy: Labour welfare policy was redefined. Wages are upgraded regularly to retain skilled employees. Labour health welfare scheme was introduced. Regular medical checkup of employees is done. Incentives schemes are introduced for critical operations and key employees.

Technology and Plant Layout: Continuous investment is done in infrastructure and installation of new technologies. New machines are purchased which will provide flexibility in manufacturing. New CNC machines are purchased to take care of variable production order quantities. New product design centre was developed to support production function and optimize utilization of resources. New soft ware for machine design was installed and employees were trained by external experts in the field. ERP system is installed to ensure effective and efficient material and production planning.

Vendor Development: Suyog Auto Cast believes in dedicated vendors and company has a policy to provide complete support for up-gradation of vendors. Company provides technical and financial support for dedicated vendors. A lease or Rent arrangement is made for machines and equipments for vendors who cannot invest in assets.

7.4 Impact of Change Management:

In year 2004 change process was initiated and focus was to develop diversified skills to support expected growth of organization. As initial reaction the turnover of Bajaj Auto Components was reduced gradually from Rs 18 Crore to Rs 12 Crore from 2004 to 2006. Strategic business units were developed and group turnover increased from 12 Crore in

2006 to Rs 60 Crore in 2013. Today company has developed 500 components and added 45 clients. Company has developed a strong export business and contribution of export turnover is 50 percent of Total turnover. 100 percent turn over from Bajaj Auto in 2004 is reduced to 30 percent in 2013. With the diversification in manufacturing activity the Impact of automobile recession on company is drastically reduced. Today Suyog Auto cast have clients from US, Germany, Australia, France, Italy and China. Company is successful to develop versatile manufacturing competency and is able to serve customers from different industrial sector. In 2012 Company have invested Rs 5 Core in fully automated aluminium pressure die casting plant. This plant will be operational in July 2013 and it is expected that the group turnover will cross Rs 100 Crore by 2016. Company has done investment in training and development of employees but retention of skill employees is a concern for organization.

7.5 Observations

1. Suyog Auto Cast is very successful in creating a change by using a turnaround strategy. The over dependence on one client is drastically reduced by adding additional 45 clients.

2. The impact of business fluctuations in Indian business environment is well reduced by creating well established export market

3. Company is successful in developing versatile manufacturing competency and is able to cater demands of different industrial sectors. More than 500 components and components from more than 8 industrial sectors is a commendable achievement.

4. Company's policy to recruit experienced and retired people as mentors for junior managers has produced fantastic results.

5. Use of professional market research services, development of quality system and TS 194 certification are key drivers of success for company.

7.6 Analysis of Company's Decisions and Change Management Process.

Suyog Auto Cast has taken strategic decisions for turnaround strategy and create a change Management process for desired goals of the organization. Company has worked on various activities simultaneously and these processes can be well examined by application of Value Chain Analysis approach. Value chain Analysis is a strategic tool used to derive the expected value addition of different functions in organizations. The value adding elements are normally grouped into Primary Value Adding Functions and Support Functions. Primary functions are Inbound Logistics. Operations, Outbound logistics, Marketing and Sales, service. The support functions are Procurement, Technology Development, Human Resource and Infrastructure.

Figure C-7.2: Suyog Auto Cast Value Chain

<table>
<tr><td colspan="4">Suyog Auto Cast Value Chain</td></tr>
<tr><td rowspan="2">Primary Value Chain elements which have created impact on business</td><td>Research and Design:

Company has invested in New software for design and development of products.

Experts from industry are recruited as mentors for junior

In house design of tools, fixtures and gauges</td><td rowspan="2">Support Function Value Chain elements which have created impact on business</td><td>Procurement:

Company is providing financial and technical support for dedicated vendors.

Major thrust is purchase of raw material rather than components.

Sub contract is done on labour cost basis, Raw material is supplied to vendors.</td></tr>
<tr><td>Operations:

New machines are purchased for diversified manufacturing activities.

End to end solutions with supply of complete component with material

Flexibility to match batch to mass production customer demand.</td><td>Technology Development:

Competency in manufacturing for different industrial sector.

Advance machinery and quality system. TS 194 certification

Application of ERP for material and production planning

Versatile manufacturing processes</td></tr>
</table>

	Distribution: Supply is directly to product manufacturing companies. No need of distribution channel. Only B to B distribution		**Human Resource:** Well defined organization structure Recruitment of technical skills Support from industry experts as mentors Incentives for key persons Labour welfare and regular health check up
	Marketing and Sales: Use of market research to create export market		**Infrastructure:** Investment in building, New plant layout, new equipments and technologies, material handling equipments
	Service: After sales service is not required is only components are manufactured and sold to product companies Replacement of defective components		

7.7 Conclusions:

Suyog Auto Cast as taken positively the threat created by Bajaj Auto for supply of components. This has changed the management approach for business. The perceived crisis arising from complete dependence on one customer and one product line was well addresses by company. A positive approach to accept the challenge is a well learned lesson for other companies also. Using technical and manufacturing capabilities, on the job work experience of promoters has created a real change in the organization. Creating a change environment and achieving a change in medium scale company where resources are always short is commendable job.

Product diversification, Industry sector diversification, product resources diversification and creating a right team to handle change are the extra-ordinary achievements of the company. Companies projected growth in coming years to cross a turnover of Rs 100 Crore will be certainly achieved with qualities of leadership of Suyog Auto.

[51] http://www.indiamart.com/suyog-autocast/profile.html

8 Victor Gaskets

8.1 Company Profile, Anad Group

Victor Gaskets is one of the group companies of Anand Group. Anad Group is Industry leader in Automotive Solutions in India. 21 longstanding Global Partnerships. 15 Joint Ventures. 6 Technical Collaborations. 19 Companies. 49 locations. 13000 people.

Provider of the widest range of solutions to the Indian Automotive Industry. Anand is among India's leading manufacturers of Automotive Systems and Components making it the country's leading OEM supplier. Anand has a major presence in the Indian Aftermarket as well, with some of its major brands being Market Leaders, The group supplies to every major vehicle and engine manufacturer in the country.

An Industry leader in automotive solutions, the group recorded a sales turnover of INR 52.5 Billion in 2012, targeting to achieve INR 100 Billion by 2015. Today, with nineteen companies spread across 49 locations and 11 states of the country, Anand also has a business vertical operating in the area of Luxury Hotels. Anand has built up a sizable export market, currently about 13 percent of the total sales of existing products but targeted to reach 30 percent over the next few years.

The group has provided a number of technology firsts to the Indian Automotive Industry over the six decades of its existence starting with being the pioneer of Ride Control products in the country.

8.2 Victor Gasket

Victor gaskets is Rs 80 Crore turnover company. Company manufactures 4000 varieties of sealing products used in almost all vehicles manufactured in India. It operates as OEM supplier for vehicle manufacturers and after market for vehicle servicing centers.

As a leading supplier of high quality Engine Sealing products, Victor Gaskets India became the country's first asbestos-free Gaskets Company when it led the way in eliminating the use of asbestos from the Gasket manufacturing process. Victor

manufacture a wide range of Heat shields and Gaskets for a variety of applications - automotive, industrial, agricultural, refrigeration, compressors and stationary engines.

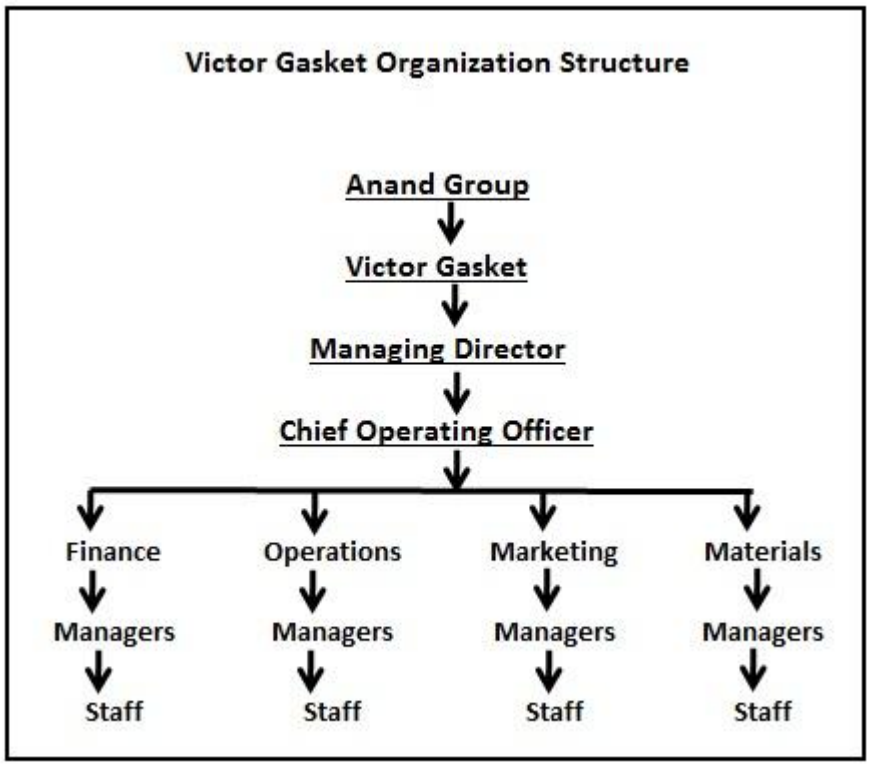
Victor Gaskets India ranks among the best-known names in India's engine component industry and is recognized as a high quality sealing technology supplier to both the Original Equipment Manufacturers as well as the Replacement market in India and abroad. Products are marketed under the brand names of 'iSEAL' and 'Victor'.

Large number of patented products[52]

Known for the quality of products, Victor has developed a number of patented products indigenously over the years, specially designed and developed in line with customer requirements.

8.3 Organization Chart

Figure C-8.1 Victor Gasket Organization Chart



8.4.1 Crisis Faced by Company

From year 2002 to 2006, company was under growth stage and variety products were developed for Indian automobile Companies. After 2007, Global auto giants started their operations in India and offered accelerated growth to victor Gasket. Product varieties were increased drastically and it became a serious problem to mange inventories and production schedules to take care of all customers.

Impact of business environment:

Company faced difficulties in production planning of large varieties and maintain delivery schedules for these orders.

8.4.2 Crisis Perceived:

- Servicing of after markets.
- Reducing through put time for deliveries in after sales market.
- Developing long term relations in after sales market.
- To improve operating efficiency to international bench mark of 90 percent.

8.5 Crisis Management Approach:

Anand Group and Victor Gasket strongly believe, mistrust in supply chain and artificial internal breaks in systems are the root cause of internal crisis. If these causes are not handled or addressed properly, they could lead to serious crisis. These causes are opportunities to break the barriers of communication in teams and the stepping stones for future growth of company.

During the times of recession, management simply have focus to ensure top line and bottom line. Cost reduction, material optimization, identification, and elimination of non-value adding elements and wastages, help to reduce loss in profit. It creates a shock absorption mechanism and creates a foundation for strong growth.

Company use ‘MOST’ technique for standardization of work.

Learning Attitude:

1. Victor Gaskets manufacture 4000 varieties of products to cater the requirements of automotive manufacturers and automotive service centres located all over the country. Quantity requirements are varying as low as 20 to as high as 20,000 in a particular production cycle. Inventory Management was a serious issue for company. Victor gaskets came out with an innovative approach and they visited various retail chains to study their inventory management process. Inputs from retail chains were practically converted to manage huge varieties of gaskets.
2. Servicing after sales market is a major business area for Victor Gaskets. The servicing time was as high as 52 days for the end user and they were building the inventories to take care of erratic supply from Victor Gaskets. To handle this issue company came out with innovative idea and discussed with various media channels how they capture any event in India within an hour of happening of the event. With lot of discussions and brain storming sessions, Victor Gasket came out with a software development proposal for communication with after sales market consumers. The new software is in place and automobile service centres can submit their requirements through mobile applications. This communications are linked to company's system to collect the various requirements from the different parts of country. This mobile order processing has reduced the servicing time for customers and there is a drastic reduction of through-put time from 52 days to 12 days.
3. After reduction in through put time for after sales market, company is helping these consumers to reduce their inventories in stores and release their working capital for other productive use. This inventory reduction at consumers end is creating a long term relation with after sales market consumers. Victor Gasket Brand is enhanced in market. Company discuss with customer their consumption pattern for optimum inventories and plan for production schedules.

Employee Empowerment:

Victor gasket has different approaches for crisis management.

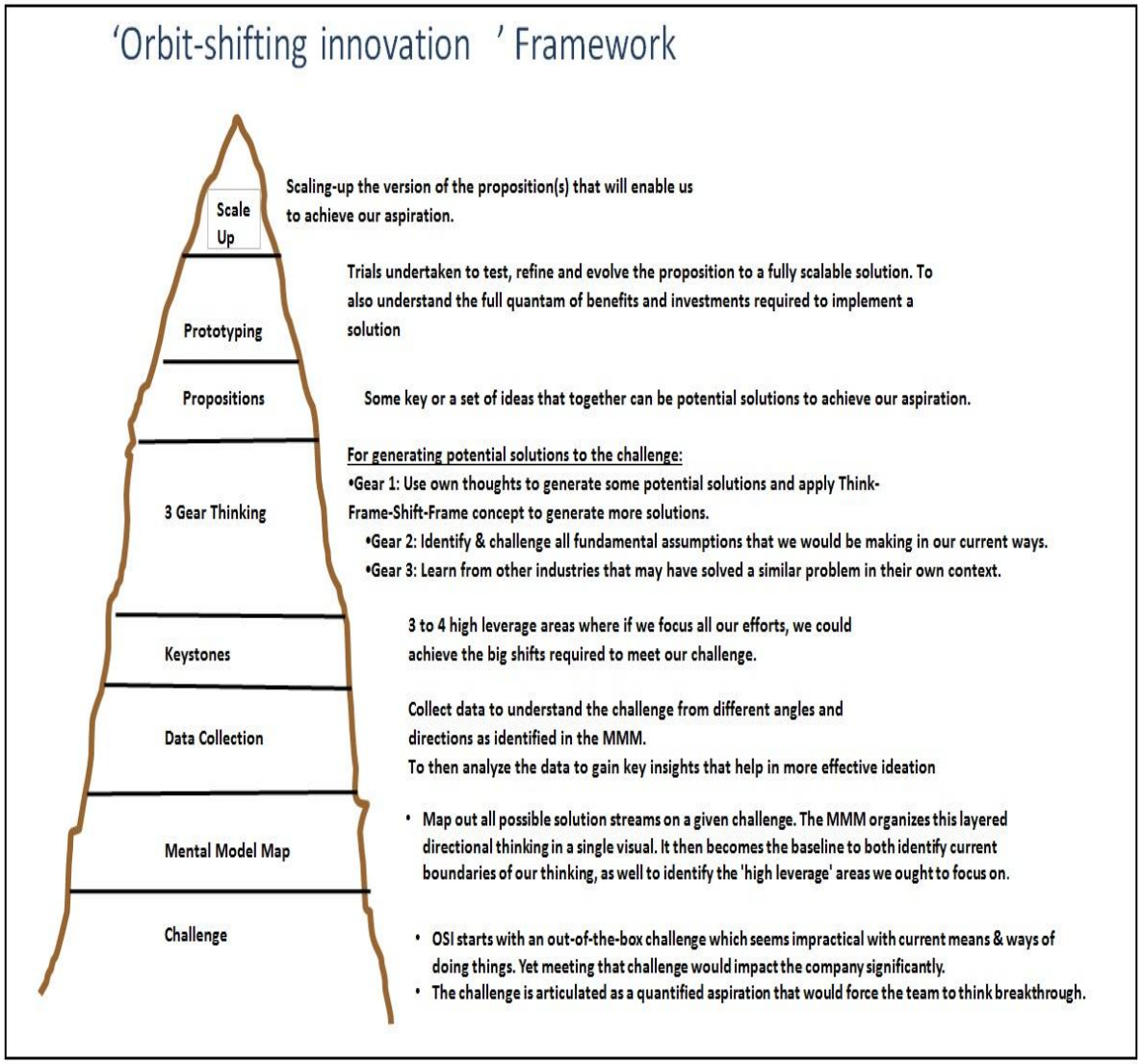
- **CFT Mechanism**: Problems at corporate levels are handled by formation of a Cross Functional Team (CFT) mechanism. Functional experts come together and form a team. Regular meetings are conducted for containment of crisis. Analysis of the problem is done by various analytical tools, techniques and models. Detail discussion is done with application of strategic tools and models. Brain storming sessions are conducted. Detailed recording of every meeting is done. The records include the various views discussed, the techniques, tools and model used for addressing the correct issue and the outcome of this exercise. These records are used to master the skills of using various tools and techniques, methodologies to solve the problem. These documents are used as reference material for various in-house trainings for employees.
- **War Room**: To address the problems related with production plan and customer requirements, customer complaints, every morning at predefined time, all functional heads come together in a War Room Meeting. War Room meeting have a focus on process rather than a person. The transparency is maintained in the meeting. Various issues addressed are noted down and priorities are fixed with assigned responsibilities for resolution of problem. Focus is on settling the issue and action plan is prepared. For the problem of serious nature, detailed 'Why Why' analysis is done.

Continuous Learning and Practicing Innovations:

'Orbit shifting Innovation' Frame work is a long term learning process to master the skills of innovation. Victor Gasket is continuously investing in this training module for employee empowerment. The Industrial experts in Innovation conduct regular training sessions at all levels in the organization. This model has a capacity to change the attitude of the employees, change the way they think and change the behaviour they behave. Experts believe that, if genuine efforts are done to work on this model, it is a game changer in the industry. People who say 'I Can't' are changed to 'Yes I Can'. Victor Gaskets have experienced a noticeable change in employee's behaviour and their

willingness to contribute for excellence in performance. Company has achieved benchmarking performance of 90 percent efficiency of production resources with involvement of employees.

Figure C-8.2 Orbit Shifting Innovation



As a part of employee empowerment and continuous improvement, innovation methodologies are practiced in company. Some of the techniques used are

- Externalization to internalization: What I could have done in the situation.

- Challenging the fundamental and boundaries: The way things are done and why the way things are done.
- INJ: 'I – Information' , 'N – New things, New facts', 'J – Judgement'
- TDS: ' T – Think', 'D - Discuss', ' S – Share'

Developing innovation culture is not an easy task. To cultivate innovation a separate model is used by Victor Gasket.

8.6 Observations:

- Company is practising employee empowerment and continuous training at all levels in the organization.
- CFT is a standard approach in various organizations. The innovative way is to use various decision models, record the details of meetings, and use the records as a reference material for further trainings.
- War room meeting and focus on purpose and process rather than person is difficult to practice. Normal experience is avoiding the responsibility by giving new excuses every time. Everybody expects someone else should shoulder the responsibility.
- Working on long term innovation models is a tedious job. Making it interesting for employees is a tough job.

8.7 Analysis of Decision:

Employee empowerment and creating a team is long term approach. This approach works normally when there are loyal employees and who are engaged for longer duration with the company. People who have witnessed the growth of company normally easily accept the change and support the company. Continuous training and practicing innovation may seem initially a costly affair but in longer run it will generate sustainable benefits for organization. There may a hurdle to mould a new employee in 'Innovation' culture of the organization. It may create some mental blocks for realignment of new employee and probably HR will need more efforts to mould him.

Learning from non related companies and extrapolation of their best practices for the company is a new approach, which has generated fabulous results for the company. The

leadership plays a vital role in adopting these approaches to achieve long-term goals of the company.

8.8 Conclusion:

Victor Gasket has demonstrated application of trust in people for long-term growth and increase in top and bottom lines of company. Reduction of throughput time for after markets from 52 days to 12 days and increasing the production efficiency to international benchmark of 90 percent efficiency are the real long-term benefits generated for organization. Company's employee empowerment and 'innovation' culture has truly worked for the organization. This also shows commitment of top bosses towards creating "Innovation" culture in organization.

[52] http://www.victorgasketsindia.com/

9 Wadhokar Group of Companies

9.1 Company profile:

Wadhokar group of companies is supplier of various press and fabricated components for Tata Motors. This group was started by Dattatraya Wadhokar in 1986-87 with small investments in press machine. Small press components were manufactured and supplied exclusively to Tata Motors. Quality of components and delivery scheduled were adhered even though the simple components were produced.

With growth of Tata Motors, more jobs were offloaded to Wadhokar Group and Wadhokar group started growing. Today there are 13 companies under the group. The expansion is done only in related business. Expansion is done by acquiring some small units operating in Chinchwad MIDC and new units are started by doing investments from internal accruals only.

Group has manufacturing units at Pune, Lucknow, Jamshedpur and Dharwad to supply components for Tata Motors. All units under the group are started by involving family members.

This is a family owned business, grown from Rs 64 Crore Turnover Company in 2001 to Rs 450 Crore Turnover Company in 2012. Company's turnover has fluctuations in-line with Tata Motors Business Cycle.

9.2 Product Portfolio:

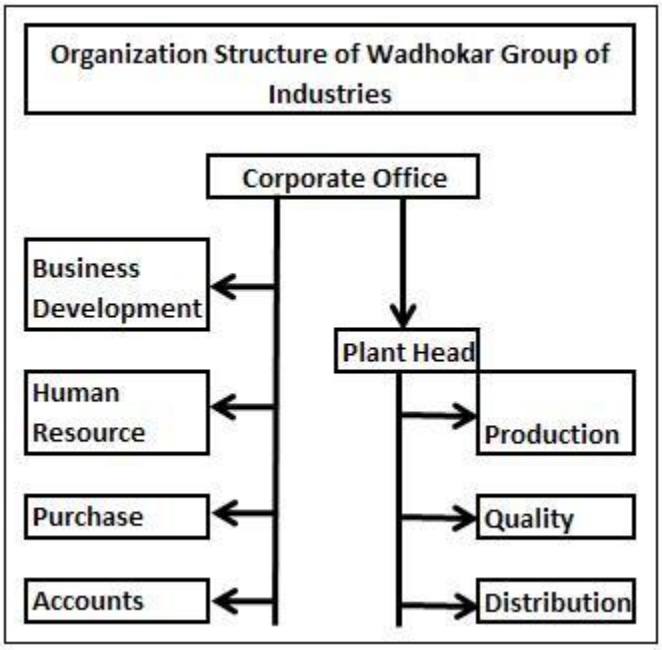
Group as a policy, manufactures exclusively for Tata Motors. 750 varieties of press components are manufactured and supplied to all plants of Tata Motors practically for all products of Tata Motors. The components manufactured are primarily low technology and semi skilled or unskilled labour jobs. Majority of the components are finish products and directly used for vehicle assembly. Product portfolio includes a small business from Piagio, Force Motors and LG Electronics for plastic moulded components.

Group is self certified vendor and enjoys special payment terms of 30 days from Tata Motors.

9.3 Organization Structure:

Group has a simple organization structure. Corporate office controls all administrative departments including Business development, Human Resource, Purchase and Accounts. Plant heads are responsible for production and quality and distribution functions. Corporate office conducts weekly meetings with unit heads for next week production schedule and reporting of current activities. Continuous and close monitoring for group activities is a part of corporate policy.

Figure C-9.1 Wadhokar Group of Companies Organization chart



9.4 Crises Perceived by Group:

- Group manufacturing focus is on simple and low technology jobs. Simple and low technology jobs have low profit margins. Desired profit is always a concern.

- Manufacturing costs are increasing every year because of inflation but the margins are not increased in same proportion. There is always a pressure on cost reduction to achieve desired profits

- Low margins cannot absorb cost of financing and debt finance is a costly affair. Low cost financing is a concern.

- Growth and investments are only through internal accruals. Growth rate may not match industry expectations and new opportunities are lost.

Impact of business environment:

Material cost control is always a pressure, Managing financial resources and retaining people is crucial part of the business.

9.5 Crisis Management Approach

Cost Reduction: Company strongly believes in cost reduction to compensate the inflation to achieve desired profitability Cost reduction is done through various techniques.

- Quality improvement programs are practiced by providing continuous training to employees. TPM culture is being developed and implemented to reduce rejections. Focus is always on self certification to ensure long-term relations with customer.

- Material Cost reduction is an important factor for the company. Material cost contributes 50 percent to 55 percent in press components. Increased material prices create pressure on margins. Group has entered a tri-party agreement with material suppliers and Tata Motors. Company follows a practice of three months forward contracts for supply of material as per production schedule at all production units. This has helped to improve material quality and reduced rejections and indirect contribution to bottom line.

- Material is procured in desired size in coil form and is cut to required size for optimum utilization.

- Group is doing continuous efforts to reduce scrap. Offcuts in process are used for manufacturing small components. Scarp generation is reduced and input material cost is reduced. Because of quality of input material, there is better realization for disposal of scrap.

- To reduce administrative cost, Purchase, Accounts, Human Resource functions are controlled by corporate office. Centralized material purchase generates quantity buying advantage with better payment terms.

- For better production control and utilization of capacity, all units have unique products and duplication of production is avoided. Entire requirement for a specific component will be manufactured in one of the units and supplied to all locations of Tata Motors.

Investment Policy: Group focus is on simple and low technology components. Considering the market requirements and cost reduction in manufacturing cost, group has started investments in more sophisticated equipments which will improve productivity and add value to customer in-terms of delivery and quality. New generation in management is accepting some business risk for faster growth and market opportunities.

Finance Management: Because of low margins on components, group cannot afford high cost of capital. Group is very conservative on cost of capital and application of funds. All investments are done through internal accruals and debt financing is avoided. Group is debt free group. Group has special payment terms of 30 days credit accepted by Tata Motors, provides a strong financial support. Group has successfully linked all payments with cash inflow cycles. Cash inflow and outflow cycles are synchronized with consistent support from Tata Motors. Working capital finance is done by taking loan against fixed deposits with the banks to reduce cost of working capital.

Human Resource policy: Employee satisfaction and welfare is a guiding principle of Wadhokar Group of Companies. Group has following guidelines for all units under group, and thrust is given for compliance of these guidelines.

- No union in the group. Major work force is contract labour.

- All facilities for contract workers such as safety shoes, uniform, medical checkup, canteen, Providend Fund, ESI, General Insurance with Mediclaim policy, Annual Bonus
- Wage rates above the industry prevailing rates.
- Wage revision every three years, payment of salary on 1st of every month.
- 100 percent fulfillment of statutory requirements. Group ensures benefits are received by all employees. Group ensures monthly payment of PF and other benefits to all employees. It is compulsion for contractors to deposit money in their contract employee accounts. Contractor payments are released only after verification of all statutory compliance.
- In case of emergency, group offers interest free Rs 1 Lakh personal loan, to all employees.
- Duty hours 8+4, 4 hours overtime with double payments as per law.

9.6 Observations:

Group is conservative in nature and avoids adventures in business. Growth of company fully depends upon support from Tata Motors. A very conservative approach may have lost potential growth opportunities offered by market. Company's focus on cost reduction and employee welfare is supporting the business management. There will be a time when customers will pressurize to change a conservative approach and be aggressive in business development. That will be a real test for Group for survival.

9.7 Analysis of Decisions:

Crisis management approach of group can be well studied by performing SWOT analysis for the group.

Figure C-9.2 Wadhokar Group of Companies SWOT Analysis

SWOT Analysis

S- Strengths Group is well aware of their strengths. - Self certified vendors - Long-term relations with Tata Motors - Financial Support from Tata Motors - Low cost simple products - Debt free company - Family owned business for better control	**W – Weakness** Some of the potential weaknesses are - Over dependence on cost reduction - Focus on low technology products - Conservative approach
O – Opportunities Opportunities available for group - Global Automobile companies coming to India - Availability of High margin components from these companies. - Exponential growth opportunities with investment in technology	**T – Threats** Self developed threats are - Negligence in technology advancement - Lost growth potential because of conservative approach - Limited business potential for simple and low technology components.

9.8 Conclusion:

Wadhokar Group has progressed within their technological limits. This growth is possible only because of support from Tata Motors. If Tata Motors is under severe business crisis, they may revive the payment terms for group which is a direct threat for existence of Group. Entire financial planning of group is linked with cash inflows from Tata Motors and there is not a cushion to absorb the shocks if payments are delayed or payment terms are changed. 100 percent compliance to statutory requirements is well thought approach to avoid disturbance in business by the outside government agencies. Labour welfare and better salaries than industry practices is a rare example in family owned businesses when low skilled employees are available at lower costs.

Group is performing well within their preset boundaries, but group can grow faster if they add some aggressive attitude for their business.

10 Kalyani Forge Limited

10.1 Company Profile:

Kalyani Forge Ltd established in 1979, is one of India's oldest and most established manufacturers of precision forged and machined components. Technical capabilities include hot, warm and cold forgings as well as precision machining. With TS 16949 certified facilities in Pune, India, Kalyani Forge is ideally located near raw material sources as well as the seaport of Mumbai. Customer base includes global leaders in automotive and non automotive segments. With over thirty years of experience and deep technical expertise, Kalyani Forge today provides 'design-to-launch' capabilities which are critical for its customer's success. Company has developed an in-house **die designing** facility to manufacture Dies and Tooling to high levels of accuracy. Company is able to produce **complex, critical profile forgings** of high accuracy.

Company has consistently managed to be a globally competitive company taking a lead in quality and technology. Company has gained a reputation of being a preferred source of forged and machined components and is a leader in manufacturing of close tolerance precision forgings. Company has constantly innovated in Hot, Warm and Cold forging technology over 30 years.

As an organization company has evolved through continuous innovation and technology tie-ups. In 2011 successfully implemented a partnership with Zenotech, Japan, to increase cold forging expertise. Company has achieved a consistent growth in terms of technological capabilities and sales revenue. Company's turnover is increased from Rs 54 Crore in 2001 to Rs 280 Crore in 2012.

10.2 Product Portfolio:[53]

The company has developed **in-house research** activities, achieved marked improvements in design and production technology to specialize in manufacture of a variety of intricate profile forgings such as connecting rods, crank shafts, shifter forks,

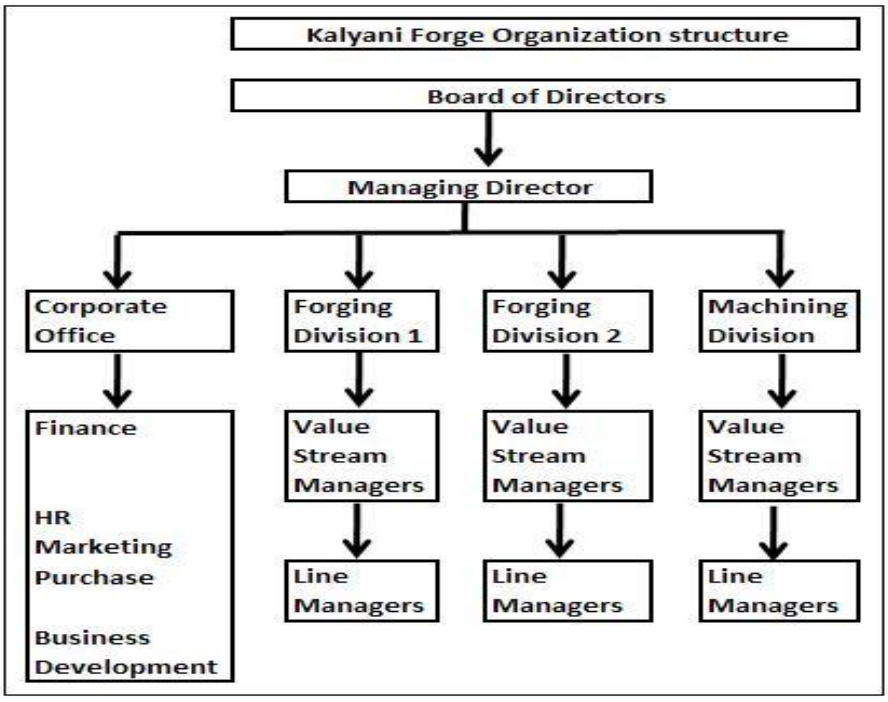
under brackets, valve rocker arms, rotor claws, tulips, shafts, and kidney gears which find application in several companies, Front and rear axle parts, Steering parts, Transmission system parts.

10.3 Organization Chart.

Company has a simple organization structure. Corporate office controls all administrative departments including Business development, Human Resource, Purchase, Marketing and Accounts. Plant heads are responsible for production and quality and distribution functions.

Company has three divisions, two divisions for forging production and one for machining components. All products are divided into 16 groups and every group is considered as a value stream for company. These 16 value stream are further grouped in three divisions depending upon the nature of products. These value stream managers report to plant head and are responsible for goals and sales targets for the stream. Value stream management and strategic business units are created for effective control and reduction in wastages.

Figure C-10.1 Kalyani Forge Organization Chart



10.4 Crisis Perceived:

Kalynai Forge was not experiencing a severe competition in initial years of business. Since 2000 growth opportunities were available because of globalization. These opportunities were coupled with higher customer expectations in terms of quality performance and through put times. Company perceived following crisis to acquire growth potential.

- Increased quality standards and product performance
- Reduction in throughput time
- Capacity expansion associated with return on investments
- Shorter product development cycles.
- Rising costs

Impact of business environment:

- Company made continuous investments in up-gradation of technologies and product design solutions.

10.5 Crisis Management Approach

Manufacturing policy: To satisfy increased customer demands and acquire potential market, Kalyani forge has taken planned action with time bound targets. Some of the major milestones achieved by company are.

- 2010 – Entered into technology transfer alliance with ZenoTech Corp. Japan
- 2007 – Supply of Fully Machined Fracture Split Connecting Rods
- 2006 – Forging and Machining Capacity Expansion
- 2005 – ISO/TS 16949:2002 Certification
- 2004 – Forging Capacity Expansion
- 2003 – Machining Capacity Expansion

- 2002 – Upgraded Technology for CAD/CAM Facilities
- 2001 – QS 9000 Certification
- 2000 – Acquired Technology for Constant Velocity Joint Parts – Tulips from GKN (UK)

Company has developed an in-house **die designing** facility to manufacture Dies and Tooling to high levels of accuracy. This supports flexibility in designing, production and reduced design time with improvement in quality. Company is doing consistent efforts to improve installed capacity and set higher targets for performance. Knowledge acquisition through collaborations is another strategy for growth.

The **thermal refining** of own products is achieved by employing the Continuous Heat Treatment lines equipped with facilities for oil/polymer/water quenching and tempering. For thermal treatment of the 'Near Net Shape' products, controlled atmosphere furnaces are installed.

A state of the art phosphating and bonderising facility is installed to take care of special processes that need to be carried out before cold forging operations.

Cost Control Policy: Company has started a change management process to match with customer demands. Identification of non value added activities is ongoing process. Efforts are made to eliminate wastages at all levels. Company is implementing"5S" principles to improve overall productivity of the organization.

As a part of cost control focus, efforts are made to avoid IR problems and expert consultant services are taken as and when required to sort-out the issues. Company has launched profit sharing group incentive scheme to improve productivity of employees.

10.6 Observations:

Kalyani forge is following very generic strategies for growth by capacity expansion and quality improvement programs. Continuous investment is creating a pressure on return on capital employed. Forging industry is capital intensive industry and requires sophisticated

manufacturing equipments. The Die design and manufacturing cost along with toolings is also high. Forging industry requires long term relations with customer and consistency and continuity of demand for faster recovery of investments. Any change in product demand can create non-moving inventories and higher investments in working capital. Product development cycle is comparatively longer as compared to machined components, there are always restrictions on exploring new markets.

10.7 Analysis of Decisions:

Kalyani Forge is following proven strategies of growth and expansion. In line with customer requirements, additional capabilities are developed including design of dies, manufacturing and machining processes to supply complete machined components. Company seems to be rather conservative on decision making and follows safe path. The decisions are taken after lot of precautions to avoid major risks arising out of market fluctuations and dynamic customer requirements.

10.8 Conclusions:

Kalyani forge is very conservative company and follows cautious path for growth. The capital investments in expansion and higher working capital requirements are the major concerns for the company. The varying business demands and product life cycles are basic reasons for reducing return on capital employed and asset utilization. Customer loyalty is a major consideration in forging industry and requires long term commitment from customer. The investments in terms of time and capital are higher in forging industry. Even though operating efficiency is high, short run batches and low production volumes will reduce fixed asset turnover and under recovery of overheads. This may lead to pressure on bottom line for the company.

[53] http://www.kalyaniforge.co.in/

11 Ganage Group of Companies.

11.1 Company Profile:

Ganage pressing ltd was started in 1986 as small press shop for Tata Motors press components. Initially was started as partnership firm and was converted into a Pvt limited firm. Company was exclusively working for stamping and press parts for Tata Motors. Company improved on quality requirements and quantity supplies as per production requirements. Tata Motors started offloading various components as a strategic move to offload low technology and laborious job to small companies in MIDC area. This was an opportunity for various small scale companies in MIDC. Gangae pressings captured this opportunity of guaranteed business from Tata Motors. Company has grown from Rs 100 Crore turnover in 2000 to Rs 425 Crore in 2012.

Owners approached Tata Motors with a proposal for investment in heavy duty press machines if Tata Motors is ready to offload heavy press components. It was an opportunity for Tata Motors to reduce inventories and cost of heavy components used in commercial vehicles. Tata Motors and Ganage Pressing came to a joint agreement for offloading of heavy press components. This decision changed life at Ganage Pressing and company started growing very fast and earnings increased drastically. Automotive Metal and Poona Tools Pvt ltd, these two companies were acquired by Ganage Pressing in 1996 to increase production capacities. Ganage became cash rich company in 1996 and reverse brain drain started from Tata Motors to Gange Pressings. People were eager to join Ganage Pressing and ready to quit Tata Motors because of pay packages offered by Ganage Pressing.

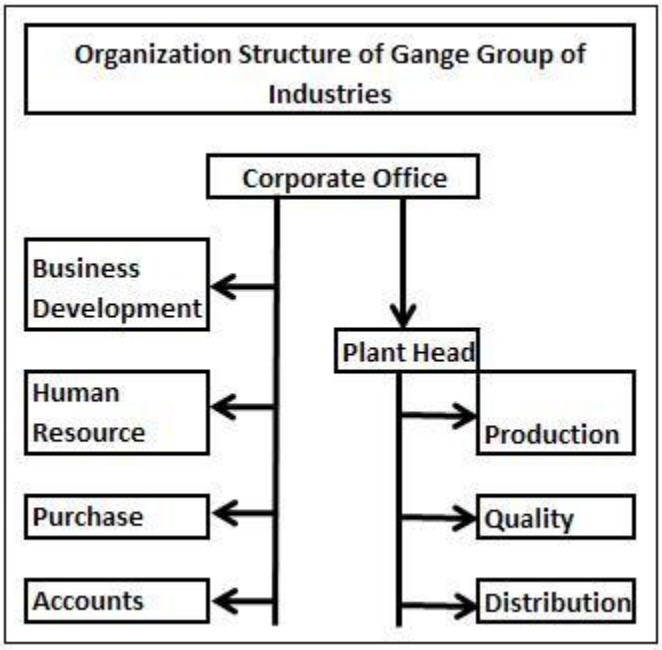
11.2 Product Portfolio:

Company is exclusive supplier of Tata Motors for heavy duty press components and stampings. Company manufactures heavy duty commercial vehicle and passenger car body parts, chassis frame, containers, and other 400 different components for all product varieties for Tata Products. Company is specialized in heavy duty press components and has wide range of press machines ranging from 100 ton capacity to 2,200 ton capacity.

11.3 Organization Structure:

Company has a typical Indian management structure. There are four divisions and each division has a plant head. He reports to corporate. HR and Finance are controlled by corporate office.

Figure C-11.1 Gange Group Organization Chart



11.4 Crisis Perceived

Currently Company is facing following crisis-

- Labour cost reduction
- Financial management
- Working capital management
- Return on investment
- Debt servicing

Company faced severe labour crisis in 1996 and it changed life at Gange Pressings. All union members were suspended from operations. This event created a financial setback to company. Company again recruited contract workers to start normal production. This transition period was of three years and three important productive years were lost. 1996 to 2004 were normal production years and growth was stagnant. In 2004 company made investment for Pantnagar plant in Uttarakhand. Rs 70 Crore from internal accrual were invested. This created a truly financial crisis for company. The project was completed in 2006 and came in operations in 2007. 10 Acres of land was purchased and 3.5 acres are used for construction. Borrowed capital was used to complete project.

Impact of business environment:

Increased production requires more working capital and company made arrangements for working capital loan. New investments and loans created financial pressure for company. Debt service ratio became crucial.

11.5 Crises management Approach:

Cost Reduction:

WC reduction -To reduce working capital requirement, company converted some of the major jobs from bought items to labour subcontracted jobs. It helped to reduce investment in material but at the same time overall profitability of the firm was reduced by 4 percent to 5 percent.

Head count reduction -In depth manpower audit was conducted to reduce head count. Job specifications and job requirements were analyzed. Restructuring of manpower was done. Head count was reduced including high paid top bosses also.

Material cost reduction -Material Cost reduction is an important factor for the company. Material cost contributes 50 percent to 55 percent in press components. Increased material prices create pressure on margins. Group has entered a tri-party agreement with material suppliers and Tata Motors. Company follows a practice of three months forward contracts for supply of material as per production schedule at all production units. This

has helped to improve material quality and reduced rejections and indirect contribution to bottom line

Group is doing continuous efforts to reduce scrap. Offcuts in process are used for manufacturing small components. Scarp generation is reduced and input material cost is reduced. Because of quality of input material, there is better realization for disposal of scrap.

Financial Restructuring:

Fixed asset turnover ratio and debt service coverage ratio are two major concerns of the company. Investment of internal accrual in new factory has created fund management crisis for firm. Heavy debts for fixed assets and working capital have increased interest cost for the company. Poor debt service coverage ratio and f lower fixed asset turnover ratio has affected credit ratings in financing institutions. Offered lending rates are higher.

Financial Model- with help of Tata Motors, company has raised a Letter of Credit (LC) for three month amounting Rs. 25 Crore from bank. Company has a unique model of balancing cost of LC. The material is purchased on credit and Hundi payment is received from Tata Motors. Company discounts the Hundi with Tata Motors for immediate cash and entire cash is reinvested in business to reduce burden of LC. This cycle is followed. Company is trying to create a balance between Hundi and use of LC. Circulation of cash in business is 4 to 5 times in one cycle of LC. End result of this model is company enjoys cash and support of LC. Even after discounting Hundi, there is considerable saving on interest payments for LC. 2 percent to 3 percent interest cost is saved for every cycle of using LC.

Restructuring of Fixed Assets: To improve fixed asset turnover ratio, Balance Sheet assets are converted to non Balance Sheet assets. Assets mortgaged with bankers are sold out to leasing firms and are converted into operating lease for seven years. Company has taken a bank guarantee or operating lease. Funds received from sale of assets, are used for repayment of debts. There is not any production loss, as assets are in factory premises. Company is confident that this scheme will generate cash for operations by reducing debt servicing. It will increase debt servicing coverage ratio and fixed asset turnover ratio. It

will also provide option, to decide the repurchase or disposal of assets at the end of lease period.

11.6 Observations:

- Company works only for Tata Motors and entire cash flow management depends upon the support from Tata Motors.
- Heavy duty press machine is added advantage for production capabilities at the same time it require huge investments
- Use of internal accruals for business expansion has created pressure for financial management.
- Green field project started at Pantnagar was beyond financial capabilities. Of the firm. Being dependent on Tata Motors, it was compulsion for Gange pressings to adopt Wagon Development Strategy for sustenance of business.

11.7 Analysis of Decisions:

Complete dependence on Tata Motors has given benefits as well as limitations for Gange group of Companies. There is limited scope for cost reduction and savings through process improvements in press components. Company's profitability depends upon financial management skills and effectiveness in restructuring sources and application of funds. Cost of financing is higher than offered to other companies and it creates pressure on bottom line. It will take some time to realize actual benefits after restructuring the finance. Major risk in optimizing the LC and Hundi payment model is delayed payment by Tata Motors and failure to revive LC on scheduled date. The failure may create another financial trap for the company.

Group was cash rich and there was unanticipated labour crisis in the company. Group was not prepared for managing labour crisis and it has created major setback for company.

From the situation it looks like that company's approach is reactive rather than proactive.

Restructuring of assets may compensate the risk involved in balancing Hundi and LC interest cost. It will help to improve cash flow for the group.

11.8 Conclusions:

Company needs to be more proactive and anticipate the crisis. Group has very little scope for process improvements and labour cost reductions. Group is trying to generate a sum of cash benefit by adding savings in interest cost of financing for fixed assets and working capital by doing financial restructuring. The final tradeoff between compromise on profitability by converting bought-out items to labour cost and benefits derived from financial modeling is a key for success in long term. Current solutions are of short term in nature and there should be serious thought for long term financial planning. Company should work seriously on exploring market opportunities other than Tata Motors. Improvement in credit rating and improving debt service coverage ratio may give relief in-terms of cost of financing but it may not add fuel for long-term growth of the group.

12 Radheya Machining Limited

12.1 Company Profile:

Radheya machining limited was started as green field project in 2001 having a specific focus on machined components for various automobile engines. The proprietors of company have vast on the job work experience and technical capabilities and expertise in machining processes used for critical component manufacturing. They decided to explore their technical expertise to start the venture and Radheya Machining Limited was started. In the early phases of business, focus was on manufacturing of critical engine parts and gear transmission systems.

Company has a philosophy to accept difficulties of the customer and produce quality products. Company is consistently working on this guideline and has successfully developed various product lines. A small company started in 2001 has now four manufacturing units located in Pune, Nagar and Solapur. Radheya Machining limited followed a planned growth plan with specialization in critical machining processes with higher quality standards. Company has invested in developing complete manufacturing facilities including Coordinate Measuring Machine (CMM) a computerized measuring instrument.

Radheya has machining capabilities and are used for diversified critical product manufacturing. The technical capabilities are used to manufacture wide variety of engine components, used in automobile, stationary engines, tractors, generators, special vehicles. Company has diversified production facilities and has four manufacturing divisions. Company has grown from a green field project to a complete machining solution provider of having annual turnover of Rs. 140 Crore in a short span of 12 years. Since inception company is growing at 40 percent CAGR. Company's growth is restricted because of three business cycle slow down and short supply of adequate sources of fund.

Company has created a vision to change over from additive model to multiplicative model and has a target turnover of Rs. 1000 Crore in next five years. Company has vision

for growth of connecting rod division from 20,000 units to 1,00,000 units per annum. Company has mission of developing a business as low cost but perfect and reliable solution provider for manufacturing difficulties of customers.

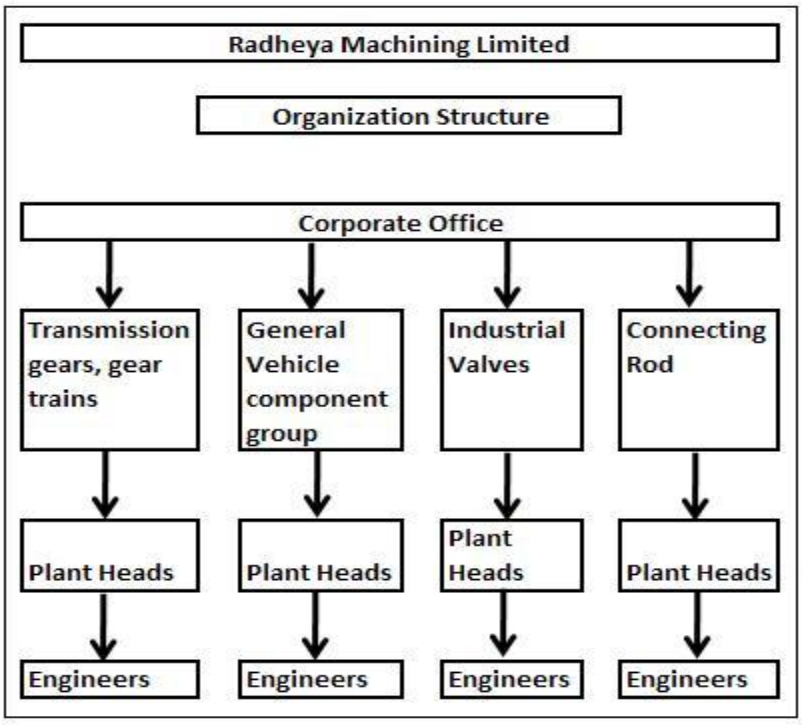
12.2 Product portfolio:

Radheya Machining limited is using full machining excellence in manufacturing various engine and transmission parts such as all types of Gears, Gear shafts, Crank shafts, connecting rods, Main shafts, Engine valves, Hydraulic and water pump valves, Non Auto and non engine components etc.

12.3 Organization Structure:

Radheya Machining has simple organization structure. Corporate office takes care of finance, Business development and recruitment. Plant heads report to corporate office and are responsible for production and distribution of components as per production schedule to customers.

Figure C-12.1 Radheya Machining Ltd Organization chart



12.4.1 Crises Faced by Company

Since formation of Company, it has faced two major economic downtrend cycles in 2002-2003 and 2008-2009. During these years customers were asking for cost reductions and cost saving. Company faced a crisis for cost reduction proposals given by key customers. Critical component were opportunities but supply chain was a crisis.

Impact of business environment:

Company invested in backward integration and introduced forging manufacturing. With forward integration a supply chain company with own transportation fleet was started to improve deliveries.

12.4.2 Crises Perceived:

Company strongly believes that crises are created because of failure to explore the capabilities.

- Market is unlimited, crisis is failure to capture opportunities
- Customers have difficulties, crisis is failure to provide solutions to these difficulties
- Customer should be satisfied. Crisis is failure in supply chain
- Customer is in hurry, crisis is delay in creating customer support initiatives.
- People are assets, crisis is failure to create net worth out of it
- Business requires market and finance, crisis is shortfall of both.

12.5 Crisis Management Approach:

Company strongly believes in following business principles

- Take difficulties of customers
- Work with customer to resolve his crisis
- Work together and grow with customer and competitor

- No Boughtouts in organization

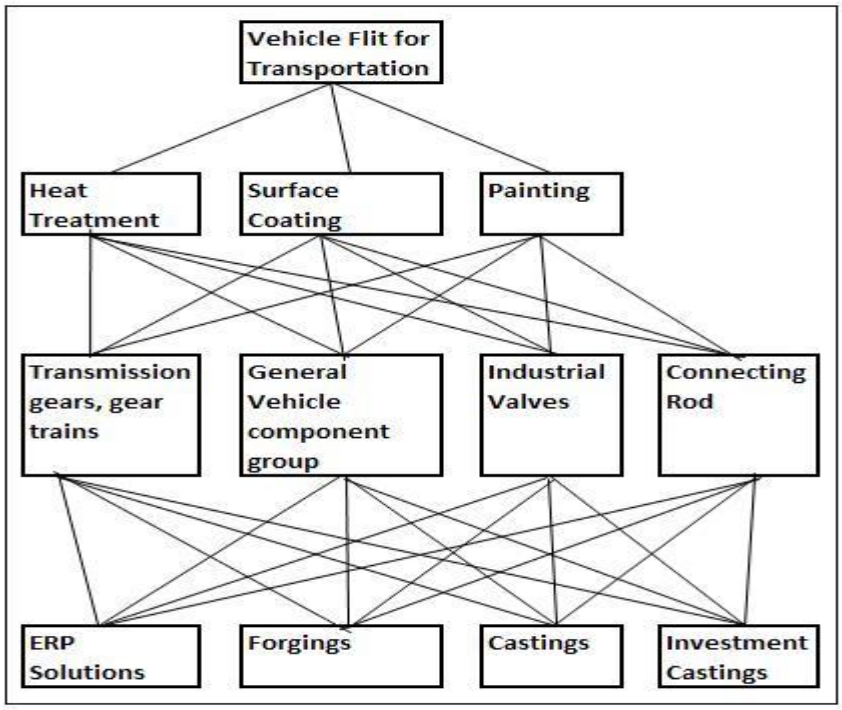
Industrial Relations policy: Company is firm and against of any Labour Union activity in all plants. In November 2012, there was a strike by union members and as a corrective action; all union members are terminated from the employment. Management strongly believes that union leaders are hurdles in employee's personal growth and indirectly growth of organization. Gates are open to all employees to rejoin the organization only if they stop union activity. Company's firm stand has worked and 50 percent of employees **have agreed to stop union activity and have rejoined the organization.**

Human Resource policy: company consistently follows the principle, "No Boughtouts" in recruitment also. Management have a strong focus on development of unskilled or semiskilled employees through on the job training, classroom training and prepare them for shouldering higher responsibilities. Company gives higher weightage for longer service and learning attitude. All supervisors are developed from machine operators and are working as group leaders for various production lines. Company doesn't recruit a readymade person for higher posts. Senior people recruited at managerial positions have a specific role as a mentor and guide to develop people in the organization. Company believes in creating DNA for organization rather than individual. There are separate defined career paths for engineers and machine operators. Company follows annual salary increment policy for all employees.

Complete solution provider: As a principle "No boughtout" company has added all support functions as shown in figure.

Radheya Machining limited has added all support functions to become a cost effective and complete solution provider. The support system includes the ERP development team and transportation flit for product supply also. All IT systems are in-house developments. Benefits derived are; system integration is very fast and specific to business requirements. It is cost effective and reliable solution.

Figure C-12.2 Radheya Machining Ltd. Facility Integration



12.6 Observations:

- Radheya machining limited has focus on critical machining components and developed capacities in manufacturing components for all types of engines.
- Related diversification is done for captive consumptions only
- Cost control and cost reduction is a major focus
- Up-gradation of technology is a continuous focus.

12.7 Analysis of Decisions:

Radheya machining limited has focus on continuous and fast track growth. Company has changed philosophy from additive model to multiplicative model. Focus on exponential growth will always crate a financial crisis. There will be always a negative gap for the requirements of funds and sources of funds. Company's 'no boughtouts' policy requires more investments in terms of resources considering future expansion plans. There will be always unutilized capacities and pressure on recruitment and development of required skills. On the job skill development program may not catch the speed of growth and at

certain time there will be a threshold point for company and will create serious issue for company. Manufacturing capabilities developed for captive consumption cannot grow as independent organizations because of shortfall working capital.

Having ERP capabilities and logistics solution really provides a cost effective advantage in-terms of time and money. Systems can be more effective and complete aligned with business requirements. Company's tough and firm stand on labour union activities is a short term loss but long term win-win situation for employees and organization. On the job training and skills development program will increase attrition rate because of potential opportunities available in same industry sector for skill employees.

12.8 Conclusions:

Developing manufacturing capabilities for critical machined components requires strong process controls to minimize the wastages and reduction of overheads. Machining processes require process controls to avert in-process rejections. Machining companies are capital intensive companies and working capital requirement is also high. Working capital is required for various consumables like cutting tools, measuring instruments, coolants, oils, cleaning materials etc. It requires additional manpower for quality assurance and system developments. Machining activity demands recruitment of technically qualified people who can operate various machines. Winning a customer confidence is a lengthy and time consuming process. Major productive time is invested in trial run of small batches for approval from customer.

The peculiar characteristics of machining factory has inbuilt slow growth rates because of requirement larger investments in lateral activities. Radheya machining limited is facing a resources gap crisis between opportunities available and potential to grab the opportunities. No boughtouts philosophy will create certain restrictions for growth and prime machining business will face a financial crisis. Company should think about tradeoff between investments in backward integrations and the growth opportunity lost because of shortfall of working capital for machining business.

13

Flash Electronics

13.1: Company Profile

Established in 1989, Flash Electronics is at the forefront of cutting-edge technology in the automotive industry.

Flash Electronics promises excellence in service and quality product for every customer, and has earned the reputation for reliability and is proud to have esteemed customers in the global automotive industry like Bajaj Auto, Bosch, Dell'Orto, Honda, Renault, Tata Motors etc.

Flash is the First Indian SME in Automotive Electrical & Electronics to get R&D House Recognition from the Ministry of Science and Technology, Government of India.
Flash was awarded Emerging India award in 2010 for best Indian Engineering SME Company.

Flash has grown in the automotive parts sector as a total service provider and have two major technical collaborations with Novotechnik, Germany and SonceBoz, Switzerland.

Core competencies consist of development and production of automotive electrical and electronic products. With focus on innovation, Flash believes in building brand as best in class and quality, and exceptional service is key to success.

Up to 2006 Company was operating in Delhi. In 2006 Bajaj Auto gave offer for product vendor development as OEM supplier for various electronics items used in motorcycles. Condition was to start manufacturing unit in Bajaj Auto Cluster in Chakan MIDC. Offer was accepted by company and Chakan Plant was started. Company was having a turnover of Rs 50 Crore in 2006 and has crossed Rs 400 Crore in 2012. Since 2006 company has achieved 25 percent CAGR. Chakan plant was started as venture capital with SIDBI having 20-80 investment ratio.

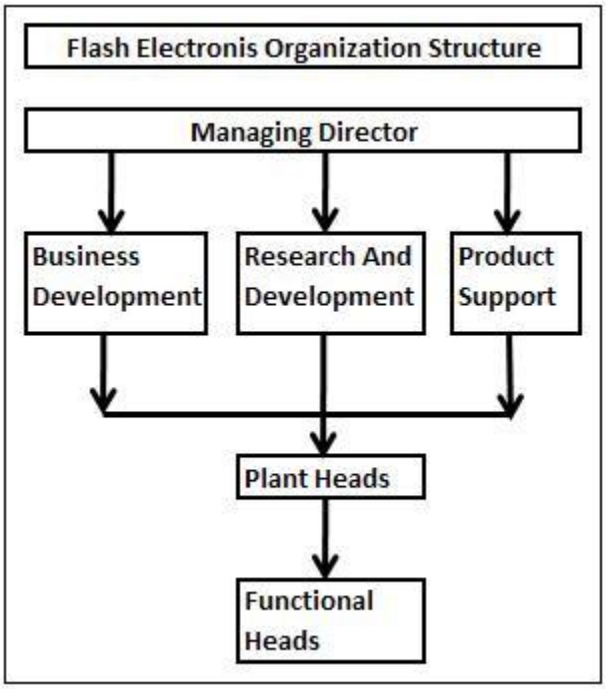
13.2 Product Portfolio:[54]

Company has developed product portfolio for all type of vehicle ranging from Two and Three wheelers, Passenger cars, Light commercial vehicles and heavy commercial vehicles Product range include Starter Motors, Magneto Assembly, Ignition Coils, Spark Plug Caps, Line Actuator, Thermostat, Sensors, CDI, Flashers, LED Modules, Wiper Motors, EGR Valves, Alternators, Regulators,

13.3 Organization chart:

Company has simple organization structure and has completely demarked the authorities and responsibilities of various functional heads in all plants. Company has 4 plants, 3 located in Faridabad and Haryana and one in Chakan. Company has three distinguished functions, Business development, Research and Development, Product support.

Figure C-13.1 Flash Electronic Organization Chart



13.4: Crisis Faced by Company:

In year 2006, A green field project started for Bajaj Auto Limited and requirements were high volumes of production with certified quality. There was urgency for Bajaj auto for starting production and supply of high volumes. This growth opportunity was coupled with various crises. Crisis faced during initial years 2006 to 2009 by company are

- Product development
- Establishing production processes for mass volume production as per Bajaj Auto Requirements.
- Perfect Quality systems for defect free products.
- Recruitment and retention, current labour turnover is approximately 25 percent to 30 percent because of opportunities available for experience people in same industry belt.

Impact of business environment:

Company has to recruit people at higher costs and pay additional incentives for development of products. Company implemented TQM to improve quality of product. Employee development drive was a must to achieve higher efficiencies.

13.5 Crisis Management Approach:

Manufacturing policy: Bajaj auto was on fast track of transformation from scooter manufacturing company to motorcycle manufacturing company. Reliable and quality vendor development was a crisis for Bajaj Auto. This crisis generated an opportunity for Flash Electronics. The production requirements given by Bajaj were,

- Magneto assembly for all variants of motorcycles
- Starter Motors for all motorcycles
- Wiper motor for three wheelers, 25,000 units per month

- CDI units 50,000 per month
- Ignition coils and flashers 1,00,000 units per month.
- Spark Plug caps 1,00,000 units per month.

Flash Electronics accepted these production challenges with opportunities for long term sustainable business. New investments were done with financial restructuring. Finance was taken from ICICI bank an aggressive bank. Cost of finance was high but availability was easy. Company installed state of the art manufacturing facilities to achieve desired production targets.

Starter motors for Motorcycles was new business opportunity to fetch premium in two wheeler segment. Wiper motors for three wheelers was a challenging product development and it opened new business options for Flash Electronics. With production capabilities for high volumes, company gained business from Mahindra two wheelers, Greaves and Piagio for three wheelers, Royal Enfield for starter motors.

Customer Retention Policy: The business from other customers is not in volumes as compared to Bajaj Auto, but Flash also accept lower production levels to retain customers for long term relations. There are resistances from production lines for small orders to avoid frequent change in production setups, but issues are managed with transparent communication. Flash electronics follow a policy of customer retention rather than concentration on only dedicated customers.

International Customers: Company is doing continuous efforts to have international tie-ups for product up-gradation. To maintain these relations, offers with very low product volumes are accepted and delivered. Flash electronics also accept challenges of doing risky businesses for international clients. Some German clients route their business to Iran through Flash Electronics and company earns a premium on this. This also creates international standing and global partnership for long term business development.

Quality Policy: A high volume with quality was a real challenge. Electronic components cannot be reworked. In-process quality assurance is of prime importance in electronic component manufacturing industry. Company has implemented TPM and continuous

improvement work culture to achieve desired quality standards. On the job training, classroom training is ongoing activity in Flash. Customer complaints are addressed immediately. Strong Research and development support is an added advantage for Flash electronics.

HR Policy: In the initial phase of green field project, recruitment and selection of skilled people was a major concern. Company recruited employees at higher salaries for faster development expected by Bajaj Auto. Large investments were done for product development and training for employees. Company has a professional approach and complete demarcation of roles and responsibilities at various levels. Company is doing improvements in HR policy to reduce labour turnover. This labour turnover has reduced salary packages for new recruits as compared to initial development phase but cost of recruitment and training and development is increased.

Product diversification: As a growth strategy Flash electronics have a focused approach on new product development. Company has developed Energy Consumption meters for household applications and started commercial production. Current contribution of this segment is 15 percent of total turnover.

13.6 Observations:

- Company has strong research ability which generates diversified business opportunities. Most neglected three wheeler wiper motor segment is developed and acquired by Flash. It has helped company to create confidence in various automotive companies and generated new customers.

- Retention of employees will be ongoing issue for electronics industry and training costs will be higher.

- Quality systems need continuous monitoring and improvements because of specific nature of finish products.

13.7: Analysis of Decisions

Accepting a high volume and low cost product range was a good approach of Flash Electronics. It has created a confidence to manufacture high volume quality products. This is a prerequisite for growth of company in two wheeler automotive segments. This will create business opportunities with other players in two wheeler market segment.

Initial recruitment at higher salary has paid back in-terms of desired production growth and customer satisfaction.

Tapping new business opportunities and handling critical components like three wheeler wiper motors is better growth strategy in electronics component business. An innovation is a key for success in electronics components.

Complete demarcation of authorities and responsibilities avoid personal clashes and ensures smooth functioning with better performance of employees.

13.8 Conclusions:

Flash electronics has taken right decision to materialize the opportunity generated by crisis faced by Bajaj Auto. Strong Research and Development team is added advantage for the company. Today company is well posed with high volume manufacturing capacity, diversified product, a wider product range and fast new product development. These will be selling points for Flash Electronics to capture larger opportunities in global automotive markets.

Company's approach to retain all customers irrespective of production volumes will help to create a cushion in tough times or slowdowns in economic cycle. Relationship with international partners and providing extended support is an added advantage for the company.

Company will always face shortfall of skill employees because of knowledge gap between academia and industry requirements. These gaps are much wider as in electronics industry as compared to manufacturing industry.

Quality System improvements and employee empowerment will be always stress points for company.

[54] http://www.flashgroup.in/

14 Lucas TVS

14.1 Company Profile

The TVS Group traces its origin to a rural transport service, founded in 1911 in Tamil Nadu, India. Today, this renowned business conglomerate remains faithful to its core ideals of trust, values, service and ethics. The TVS Group is India's leading supplier of automotive components and one of the country's most respected business groups. With a combined turnover of more than USD 5 billion, (Rs 30,000 Crore at exchange rate of Rs 60 per US$) the TVS Group employs a total workforce of around 25,000. Charting a steady growth in terms of expansion and diversification, it currently comprises around 43 companies. These companies operate in diverse fields ranging from two-wheeler and automotive component manufacturing to automotive dealerships, finance and electronics. Uniting these multiple businesses is a common ethos of quality, customer service and social responsibility.

Lucas - TVS established in 1961 as a joint venture between Lucas UK and T V Sundram Iyengar & Sons (TVS), India to manufacture Automotive Electrical Systems. Lucas-TVS is the Leader in Auto Electricals in India today with 50 years experience in design and manufacturing. 4 out of 5 vehicles rolled out daily are fitted with Lucas-TVS products.

Lucas TVs group have distinguished product lines, Auto Electricals, Diesel Fuel Injection Equipment, Electronic Ignition System and Lightening systems.

Lucas - TVS is a TS16949 and OHSAS 18001 certified company. Lucas-TVS has bagged the Deming application price in 2004 from the Japanese Union of Scientists and Engineers (JUSE).

14.2 Product Portfolio:[55]

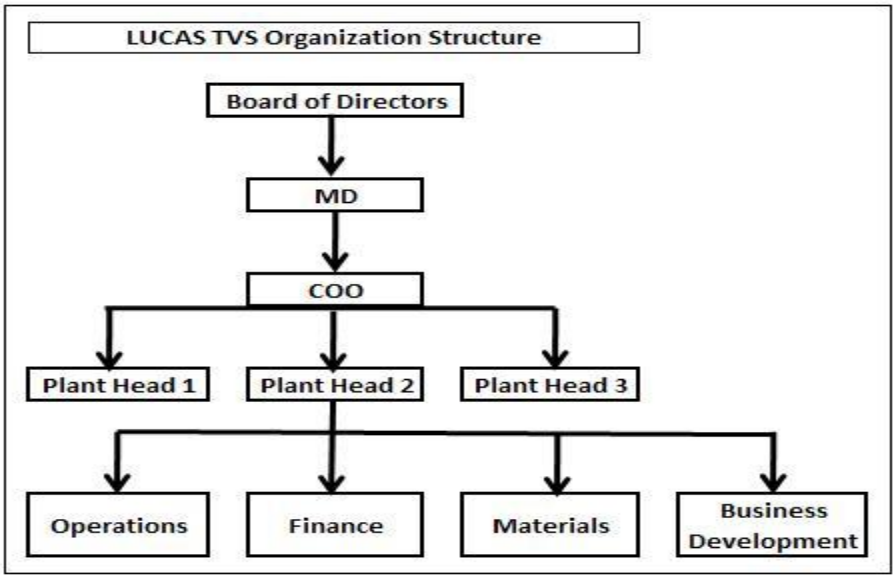
Company is specialized in auto electrical components and has a wide range of products used by all automobile manufacturers in India. The product range consists of Starter Motors, Wiper Motors, Ignition Systems, Alternators, Gear Reduction Starter Motors,

Power Window Motors, Internal Fan Alternator, Engine Cooling Fan Assembly, Ignition Coils, Blower Motors,

Chakan Plant was started as green field project in 2006 to cater requirements of automobile manufacturers in Pune and also improve after market servicing in Pune. Pune is largest automobile market in India and provides better after sales market opportunity. Company has crossed Rs. 125 Crore turnover in 2012.

14.3 Organization Chart:

Figure C-14.1 Lucas TVS Organization Chart



14.4: Crisis faced by company:

Chakan Plant was started as green field project in 2006. During Initial years of establishment company faced following crises.

1. Inventory Management because of large varieties and low production volumes
2. Quality of the products. Most of assembly are critical and play crucial role in vehicle performance
3. Developing a work culture

4. Servicing of after sales market.

Impact of business environment:

It was important for company to have focused recruitment considering critical assembly requirements of products. Recruitment of technically qualified women was a problem and company adapted on the job training program for these employees. It was necessary to establish quality standards and Kaizen concept is practiced by company. Company developed manufacturing excellence model to achieve higher efficiency.

14.5: Crisis Management Approach:

Inventory Management Policy: Company has installed SAP system for effective inventory management. Efforts are made to ensure adequate inventory at customer levels. Lucas TVS in Pune is assembly shop and all components are outsourced. Company has taken extensive efforts to develop dedicated suppliers with education and technology transfer. Vendor development has provided reduction in lead times and improved inventory management. Company provides extended technical support to upgrade the quality of products at source of manufacturing.

Design Policy: Company has a mission to design, develop and manufacture of Auto Electrical / Electronic products to world class standards at competitive price through applying lean product development.

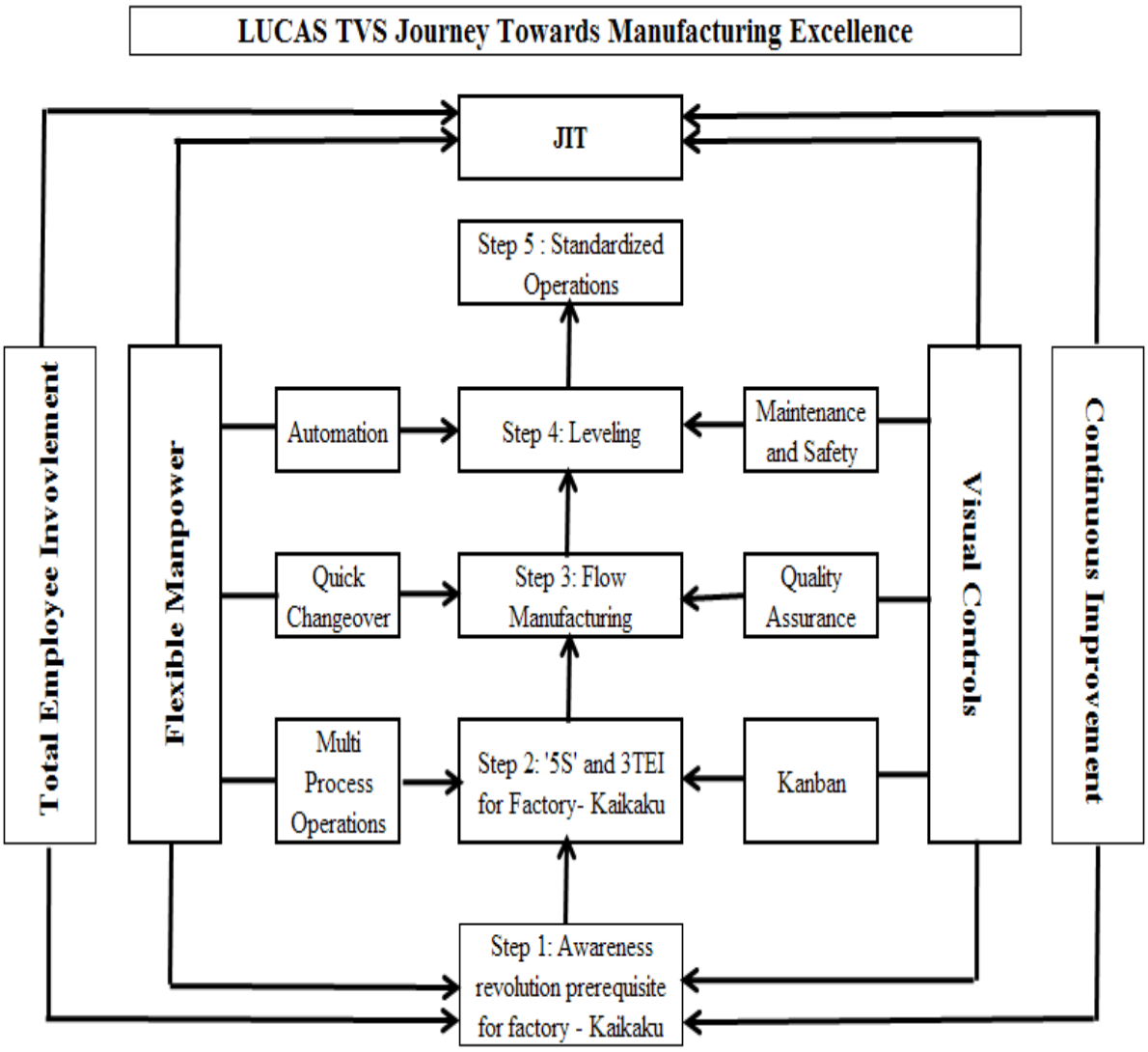
Quality and Manufacturing Policy: Lucas strongly believes in in-built product quality and makes efforts to achieve quality in every process. Company use JIT and LEAN practices in manufacturing to improve quality standards. Various techniques developed and practiced in company are-

- Flow manufacturing
- Standardized operations
- SMED techniques
- Level Production

- Multi process manning
- TPM
- QA systems supported by Pokayoke, Kanban, Automation.

Company has developed five step manufacturing excellence model for world class quality. Continuous training and updating is done to all employees to develop expertise in using manufacturing excellence model.

Figure C-14.2 Lucas TVS Manufacturing Excellence Model



HR and Recruitment policy: Lucas TVS is well known for promoting women employment. In Chakan plant also major thrust is given for women empowerment and providing various job opportunities for technically qualified women. TVS experience at Pondicherry plant about women employment has given better results as compared to men employees.

TVS Lucas products are critical by design and require complete attention and sincerity during all stages of manufacturing to ensure correct quality for each and every product produced. Any small negligence can create severe quality problems.

TVS believes in women employment because women by nature are sincere and follow the perfect systems when they are trained properly. They are methodological and systematic during the processes. Normally they are not negligent towards their job and have positive attitude for completion of their responsibilities. Women are more committed and contributive sincerely. They don't bypass the systems and use shortcuts to complete their assignments. Women are having as special quality of multitasking abilities and it is proved women can acquire multitasking skills faster than men employees. With this all experiences, unless otherwise demanded, company strongly promote women empowerment in Chakan Plant. Company has developed women supervisory staff to handle specific issues. Company ensures safety during transportation, pickup and drop facility, in all shifts. Special medical care centre is established for women employees. Company also provides mentoring and counseling sessions by calling successful women in the society. Company is facing a retention problem; after marriage of women employee. There is a shortage of technically qualified women to take up the responsibilities. Company provides on the job training to fulfill production requirements.

14.6 Observations:

Following are important observations-

- From the initial phases of development of company, management has taken manufacturing excellence as a way of life.

- Manufacturing excellence model is used a path for continuous journey for world class quality standards and customer satisfaction.
- Dedicated vendor development approach is a key success factor for inventory management.
- Belief on women employees and their capabilities is a plus point for company's uninterrupted production.

14.7 Analysis of Decision:

Manufacturing excellence model should be continuous process. It will require consistent commitment from top management to avoid any deviation from excellence model. It is a long term approach and will require refinement or up-gradation in the model. Company should follow a time bound review mechanism for further modifications or alterations in the model. Employees practicing excellence model should be trained for higher levels of decision making processes.

Women employment certainly generates a quality and sincerity advantage, but at the same time it will add additional recruitment cost. Retention of women employees after their marriage is a major concern.

14.8 Conclusion:

Lucas TVS is practicing learning from previous experiences. The experience in other plants is shared with Chakan Plant to create fast track implementation of quality systems. Introduction of Manufacturing Excellence model from the start of manufacturing activity has helped to develop organization culture and efforts are saved to create a change in a fully operating manufacturing plant. Employees are tuned for new work culture from the day one when they join the organization.

Quality and reliability is ensured in the system by creating atmosphere of manufacturing excellence and vendors are also part of the system. Company demonstrates quality consciousness and takes all actions required for world class quality.

Women employment with specific consideration for quality is a good approach and can be a set example for other companies.

[55] http://www.lucas-tvs.com/

15

Bosch Chassis Systems Pvt. Ltd

15.1: Company Profile:

Bosch group has various manufacturing units in India. The manufacturing sectors include Automotive Technology, Consumer Goods, Industrial Technology, Energy and Building Technology. Bosch India group turnover is Rs. 12,190 Crore in 2012. Bosch was started in India in 1951; has employees more than 26,000. Group global turnover €52.5 Billion (Rs 3,67,500 Crore at exchange rate of 1 € = 70 Rs.)

Established in 1985, Bosch Chassis Systems India Limited is a subsidiary of the Bosch Group in India. The Bosch Group holds a stake of 98 percent in the company. This company was taken over from Kalyani Brakes. Company purchased entire stake in 2005 and Kalyani Brakes was converted to Bosch Chassis Systems Pvt ltd. Company has achieved a turnover of Rs 484 Crore in 2012.

The Corporate office is in Chakan (near Pune) and the state-of-the-art manufacturing plants are at Chakan and Manesar (near Delhi).

The Chassis Systems, Brakes Division develops and manufactures innovative braking systems for the automotive industry within a global network. As part of the world's largest independent parts supplier to the automotive industry company offer customers advanced technology, quality and excellent services, all from a single source.

Full Brakes System Competence is strength of Chassis Systems Brakes. It offers all products and services around braking systems. That includes: Noise Vibration And Harshness, Integration Of The Newest Simulation Models, Competence In Hydraulic Braking Systems, Disc Brakes, Rotors, Friction Material and Close Coordination with Brake Modulation Like ABS And ESP.

15.2 Product Portfolio:[56]

Business areas include actuation and modulation of the Braking System. The company manufactures products to comply with the stringent requirements of the leading OEMs in the automobile industry as a manufacturer of brakes for 3-wheelers, Passenger Cars, Utility Vehicles, and Light Commercial Vehicles. Company uses its system engineering capabilities to suggest the right kind of brake system for the OEMs.

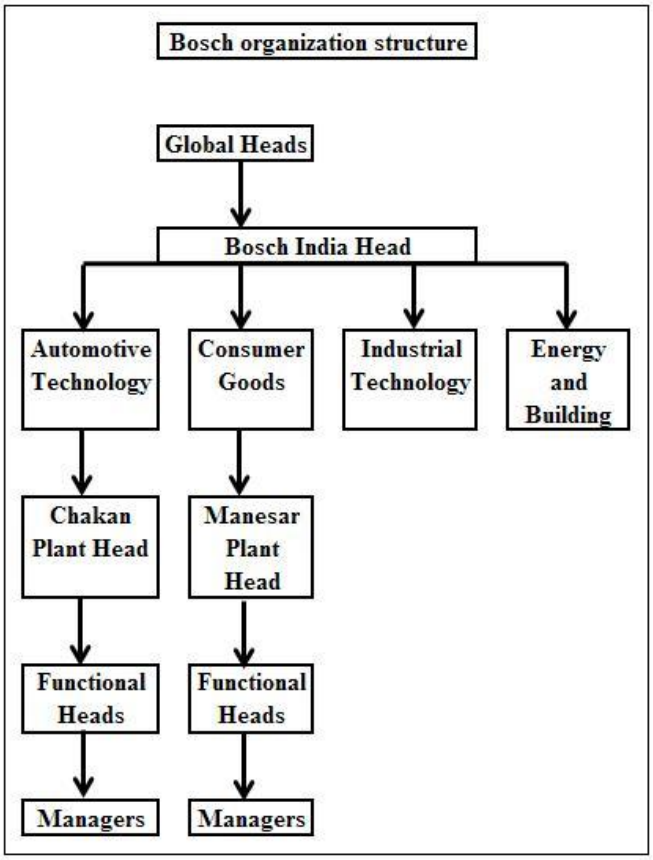
- Brake modulation like Antilock Braking System (ABS) and Electronic Stability Program (ESP®)
- Passive Safety Systems like Airbag Electronic Control Units (ECUs)
- Driver Assistance Systems
- Solutions for Electric and Hybrid Electric Vehicles
- Hydraulic braking systems: Brake boosters, master cylinders and brake-assistance systems
- Wheel brakes: Disc brakes, drum brakes, parking brakes and rotors

The continual improvement of driving safety and comfort supports company's aspiration to be the preferred partner of customers.

15.3 Organization chart:

Company has simple organization structure and has completely demarked the authorities and responsibilities of various functional heads in all plants. Company has 10 plants and 7 research centers in India. Bosch India has a hierarchy of managerial levels at all functions in a company. India heads reports to global business heads for all business operations.

Figure C-15.1 Bosch Organization Chart



15.4.1 Crisis Faced by Company

In 2005, Bosch Chassis Systems purchased entire stake from Kalyani brakes. Kalyani brakes was having Indian Management style of working. Bosch faced a real challenge to install global work standards and processes; develop employee attitude and change work culture to match with global reporting systems.

Impact of business environment:

Company is still in the transformation phase of developing work culture matching with global expectations. Training and development efforts are continuous activities. Company is doing lot of expenditure to establish Bosh best practices.

15.4.2 Crises Perceived:

Bosch group globally technology driven Product Company. Company offers innovative solutions to customers and sets a new market trend. Company focus on following crises

- Instantaneous events- temporary break downs in production systems
- Short term crisis – Market fluctuations arriving because of change in consumer demands and business cycles
- Long term crisis – Obsolescence of products and investment arising out of new product developments and technologies available in market.
- Integration of company to group policies and excellence model.

15.5 Crisis Management Approach:

Bosch globally is a system driven system. There are manuals for all business operations, which detailed insight about the systems that are followed globally in all Bosch group companies. There are instruction manuals to perform various business activities in structured way. Bosch Chassis Systems is undergoing a transition phase. Company is passing through phase of implementation of systems and creating a change in work culture to adopt the systems. Company has retained employees from Kalyani Brakes limited. There is vast difference between organization culture of Bosch and Kalyani group. Bosch needs to remould these employees for Bosch Systems.

Communication policy: Bosch believes in transparent communication. There are regular meetings at different levels of managements. The minutes of meetings are recorded for all types of meetings. Main agenda of meeting is focus on continuous improvements, identification of potential problems in systems and doing risk analysis for identified problems.

Town hall meeting is a special type of meeting conducted once in a month. This is open meeting and any employee can participate in meeting. This meeting is conducted for open discussions and for direct communication with senior management and employees.

Employees are free to put their concerns directly to senior management. All genuine concerns are addressed by management.

CLT Weekly Meeting:- Central Leadership Team is a concept used in Bosch to handle critical issues. Very few top officials are part of this CLT. They meet weekly to add value by giving different facets about the problem.

HR Policy: Company provides continuous training to employees to mould them into systems. Company has competency mapping process at all levels of employees. Skill set requirements at all functional levels are defined. Competency mapping has a focus to identify the existing gaps and knowledge management requirements to reduce these gaps. A systematic approach is defined to fulfill the requirements. Competency mapping is a simple four step model – 'Define role, Perform Gap Assessment, Reduce Gap by training and development, Fulfill the requirement'

Employee skill matrix is displayed at his work place and updated regularly. This visibility helps management to use available resources efficiently and in the emergency it helps for better solutions to tackle instantaneous events.

Manufacturing and Quality policy: Company is system oriented and believes in best practices and excellence in operations. Guidelines and ingredients are driving forces for business for generations. Bosch best production systems are uniform across the group. The best practices of different factories are derived together to ensure quality of products. Continuous improvement in manufacturing processes is ongoing practice.

Company performs regular audit for Excellence model EFQM (European Foundation for Quality Management) . EFQM Model consists of

- Vision - Long term for Group
- Mission - 3 year Milestones
- Strategy – Multiple facetted; Leadership, Processes, People, Resources and partnership with society.

Business Development policy: Bosch has defined systems for business development.

- Rolling business plan is prepared yearly and two year plan is a guide line. Considering the dynamic market three year guide line plan is now considered for two year. This is very intensive activity and all plant heads are involved to develop a global business plan.

- Deriving market potential and business opportunities is a joint activity done by all groups and divisions. All divisions give their inputs to decide growth and market volume planning for next six months. Business planning is reviewed four times in a year.

- Business continuity plan and risk assessment is a structured process and a rigorous activity. A predefined matrix is used by all functional heads to identify various risk levels and to identify the impact on business plan.

- Flexibility in business plan is developed by considering economic indicators and market indicators.

15.6 Observations:

After takeover of Kalyani Brakes, Bosch Chassis Systems is passing through a transition phase. Bosch is highly system oriented company and it is a time consuming task to change people and make them system oriented. Company believes in technology development, best practices for manufacturing and quality as a brand.

Bosch has a systematic business planning and risk management methodology. Businesses planning as a group activity, add value and perspectives for appropriate decisions. Team efforts, motivation, participation and reactive management are key aspects in transition phase.

15.7 Conclusions:

Bosch is highly system driven group. Company is doing investment to ensure complete implementation of systems. HR policy is guided by systems and is focused on developing system oriented human resource. It takes time to change mindset of a new employee and training cost is added.

Company has systematic business planning process and risk management approach. The group activity ensures flexible business plan to grab maximum market potential and create long-term growth.

Study of economic factors and market indicators, cost controls and tightening the budget control on fixed costs and non-value added items are some of the key performance areas for managers.

Transparency in communication and town hall meeting is a specific approach adopted by Bosch. It helps to create confidence and team building in organization. Recording, updating and communication of skill inventory is an added advantage to manage short term crisis and emergencies in regular production process. It is ready reference for optimum utilization of human resource. This also helps to identify efficient and multitasking people which can be developed for higher responsibilities.

[56] http://www.boschindia.com/en/in/startpage_5/country-landingpage.php

16 ALF Engineering Pvt. Ltd.

16.1: Company Profile:

Starting in suburban Mumbai in 1980, in a small 2500 sqm facility, ALF now operates 8 plants across the country. Alf Engineering Pvt Ltd is a leading OEM manufacturer of automotive Chassis, and currently manufactures over 1200 frames/day from its plants across India. Alf Engineering has integrated facilities for the manufacture and assembly of chassis frames. All required fixtures & Tools are developed and produced in house. Currently about 150 variants of chassis are part of the manufacturing mix.

Alf Engineering Pvt Ltd is also making strides in the indigenous design and development of hydroformed components for the automotive industry, and sees this space as an emerging area of strength. A Hydroforming facility is operational at Nasik, with a design centre to support customers in design & development. ALF offers a complete solution in hydroforming, from concept to production and has proven over many development cycles of products for different automotive manufacturers. ALF has a dedicated design center for this purpose in Nasik, and has currently four hydroforming presses ranging from 1000 Ton to 5000 Ton.

ALF also manufacturers and supplies assemblies and parts for suspensions - both front and Rear. They include cradles, control arms & links.

ALF has developed and supplies assemblies and components:

- Mahindra & Mahindra
- Leyland Nissan (new development)
- Tata Motors
- Reva
- Bajaj Auto
- Ford India
- GM India

16.2 Product Portfolio:[57]

Company is specialized in manufacturing of chassis and frames for various vehicles manufactured in India. Company has developed extraordinary fabrication and engineering skills to manufacture heavy duty fabricated parts such as:

Chassis for SUV's, LCVs, Pickups, 3 Wheeler

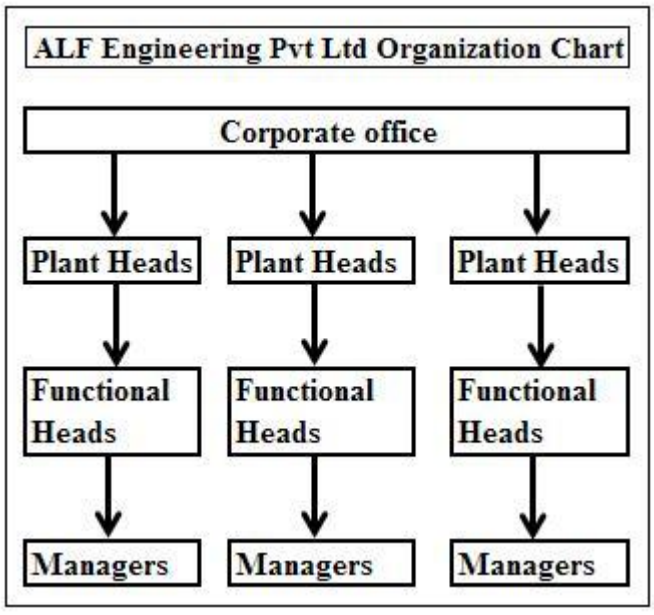
Hydroformed Parts including Side Rails, Trailing Arms, Engine Cradles, Rear Cradles . Cross Members

Suspension Assemblies / Parts Upper Control Arms . Lower Control Arms . Links

16.3 Organization chart:

Company has simple organization structure and has completely demarked the authorities and responsibilities of various functional heads in all plants. Company has 9 plants and design center in Nashik. ALF Engineering has a hierarchy of managerial levels at all functions in a company. Plant heads reports to corporate office for all business operations.

Figure C-16.1 ALF Engineering Organization Chart



16.4 Crisis Faced by company:

ALF Engineering is a heavy duty fabrication company and manufacturers primarily chassis for Mahindra vehicles. Chakan plant was started as a green field project in 2008 in Mahindra cluster. Crisis faced by company are:

- Recruitment of employees for heavy duty jobs
- Political interferences in factory operations
- Establishment of product quality and production targets
- Qualification as quality vendor by Mahindra Group.

Impact of business environment:

Company transferred temporary operators from Nashik to Pune to match delivery schedules as per Mahindra expectations. Company paid incentives to operators to work on heavy duty fabrication jobs.

16.5 Crisis Management Approach:

HR Policy: In the initial phases of green field project, company faced a serious problem of employees for heavy duty jobs. There was a shortage of technically qualified welders. Company offered incentives and extra benefits to retain the people for continuous production. It was not possible to complete the production targets as operators from Pune area were not available. Company took a strategic decision to employ people from Nasik plant to Pune Plant. Temporary operators and contract labours working in Nasik plant were asked to work in Pune and company offered them permanent job. Hundred and ten operators were transferred from Nasik to Pune. Company provided complete support for establishment of these operators and their families. Additional incentives were given and overtime is offered to complete the production targets.

Company offers in-depth product training and technology training to all operators. A mandatory training of sixteen hours for every six months is provided to all operators. Continuous communication with operators to impart new skills and improve their skills is ensured. Efforts are made to address their issues at right time.

Manufacturing and Quality policy: Company is system oriented and believes in best practices and excellence in operations. In a green field project, efforts are done to install latest technologies and advanced machineries for quality outputs. Installed capacity is of 800 chassis per day and currently operates at 500 chassis per day. A single piece flow concept is established and a production rate of one chassis per six minutes is achieved. For critical operations robots are utilized to ensure welding quality of long run welds. Material handling cranes are provided at every stage to reduce fatigue on operators. Efforts are made continuously for converting manual operations into automated operations.

Company is OEM supplier to Mahindra Group and Mahindra provides extensive technical and system improvement support to ALF Engineering. ALF is part of Mahindra Supplier Evaluation System (MSES), a ranking designed by Mahindra for various suppliers. A score is derived by conducting quality system audit by Mahindra Auditors. A score of 60 percent is a minimum performance level for long term business. Currently ALF has achieved a score of 55 and will achieve the target figure 60 percent in December 2013.

Every morning a meeting is conducted with operators to communicate, various problems observed by customer and concerned people are informed. The recording is done about the problem discussed and the solutions sought. This meeting helps to avoid miscommunications and involves operators for better solutions.

Company has installed online electronic inspection gauges and each component is verified to these gauges. A component must answer the gauge. If any problem is identified, corrective and preventive action is initiated for all other components in production line. Single flow helps company to reduce reworks and rejections in production line.

Political Interference Management: In the initial phases of green field project, there was unbearable political interference by the active supporters of various political parties. The pressure was mounted by these supporters for various contracts such as transport, labour supply, canteen, raw material supply. Practically they wanted share in every business activity and they threatened the existence of company. ALF approached Mahindra for their help to sort out the issue. Mahindra production line was also suffering because of these disturbances. Mahindra top management took active part in resolution of crisis and a top level meeting was conducted with Ministers in Maharashtra Government. Government assured full support to industry and the police action was initiated to avert this problem. Party supporters were punished and peace was ensured in the Mahindra cluster.

16.6 Observations:

Company has taken a right step to transfer temporary and contract labours from Nasik to Pune. This has helped ALF to minimize the training and development time for new operators recruited from Pune. Company has given full support to employees and established the desired production levels in a short span of time.

ALF is working consistently for quality improvement and customer satisfaction. A complete designing solution has generated results for process improvements.

16.7 Analysis of decisions:

Job opportunities available in Nasik as compared to Pune are limited and people accept the opportunity available to them in Nasik. This may be a reason why ALF is not facing labour crisis in Nasik as compared to Pune. A gut fill of ALF to transfer employees from Nasik to Pune is a outcome of job market in Pune and Nasik. ALF is well known company in Nasik and people accept employment easily. A green field project started in Pune, a new establishment in new city, may be another reason for shortage of skilled operators.

Efforts to create transparency in communication with first line operators will pay in long term and major contributions will come from the team. Active participation in Mahindra

Supplier Evaluation System (MSES) has helped to establish process and product quality as desired by Mahindra. Improvements in process is ongoing activity but ALF has demonstrated their strengths in heavy duty fabrication.

16.8 Conclusions:

ALF is heavy duty Fabrication Company and highly labour oriented organization. There are certain limitations for automation of production systems and operator requirement cannot be reduced below certain limits. Employees are always reluctant for heavy duty jobs thus skilled employee shortage will be ongoing crisis for the company. Incentives and overtime wages will be an additional cost for the company. This will reduce a retention cost for ALF in long run. ALF will require a dedicated HR team to motivate people for long-term loyalty of employees. Every occasion it may not be feasible for ALF to recruit people from Nasik and provide support for establishment in Pune. This maybe a costly affair for company.

ALF's commitment to quality is a must factor for long-term commitment for business from Mahindra Group. Mahindra has provided land to ALF considering their technology and focus on process and product improvement approach. This will generate premiums for ALF in-terms of consistent growth in bottom line and business portfolio.

[57] http://www.alfengineering.com/

Chapter No. 6 Data Analysis

Automobile vehicle is divided into five major parts namely

- Chassis Components
- Engine Components
- Body parts
- Electrical and Electronics
- Other components

The distribution of Case studies:

Chassis Components : Bosch Chassis, ALF Engineering, Badve Engineering, Kalyani Lehmerz limited, Total 4

Engine Components :, Eaton, Radheya Machining Limited, Kalyani Forge, Suyog Autocast, Total 4

Body parts: Wadhokar Group of Industries, Gange Pressing, Autoline Industries, Total 3

Electrical and Electronics: Flash Electronics, Lucas TVS, Total 2

Other Components : Victor Gaskets, Saint Gobain Sekuritat, Continental Group, Total 3

16 case studies are prepared considering the vehicle structure. The component variety is also considered while selecting a sample and preparing the case.

Company	**Components Manufactured**
Bosch Chassis	Vehicle Braking Systems
ALF Engineering	Chassis Fabrication
Badve Engineering	Chassis and Exhaust Systems
Kalyani Lehmerz	Wheel Rim

Eaton	Engine valve systems, Transmission systems
Radheya Machining	Gears, Connecting rods, Engine components
Kalyani Forge	Engine components, forgings and machining
Suyog Autocast	Engine components and machined components
Wadhokar Group	Light Stampings and sheet metal body press parts
Gange Pressings	Heavy duty vehicle body press parts
Autoline Industries	Heavy duty sheet metal body press parts
Flash Electronics	Magneto Assemblies, Ignition coils, Flashers
Lucas TVS	Starter Motors, Wiper motors
Victor Gaskets	All types of gaskets
Saint Gobain Sekuritat	Windshield and window glass
Continental	Fuel pump and fuel supply systems

Interview and observation technique is used to collect primary data about the crisis perceived and crisis management approach used by these companies.

Categories of Companies

Product companies; Lucas TVS, Bosch Chassis, Eaton, and Continental are global companies and they have dedicated product development infrastructure. These companies supply their products to automobile companies and these products are adopted in the final vehicle design by various manufacturers.

Special Products OEM suppliers: Victor Gaskets, Kalyani Lehmerz , Flash Electronics and Saint Gobain, they produce a specific customized products as per the design given by various automotive companies. These companies have a peculiar production setup of large varieties and small batches for various customers.

Dedicated suppliers: ALF Engineering, Badve Engineering, Wadhokar Companies, Gange pressing, and Autoline Companies are the dedicated suppliers for mass production automobile companies such as Bajaj Auto, Tata Motors, and Mahindra etc. Only one customer contributes a major share of turnover and may be as high as 90 percent to 95 percent.

Opportunistic Manufacturers: Suyog Auto cast, Radheya Machining limited, Kalyani Forge, are companies giving services to all type of customers and variety of related products. They have long-term relations with some of dedicated customers but they have larger customer base than dedicated suppliers. These companies require inbuilt flexibility and manufacturing capability to handle large variety of products.

6.1 Crisis Management Approach of Companies:

Interviews of MD / CFOs/ Plant Heads of various organizations are conducted. Open-ended questions were used for interview. Interview was focused on, how these leaders perceive crisis, what crises they have faced and how they have managed the crisis. Various crises perceived by these companies are generalized and various crisis management approaches for specific functional areas are clubbed together for better understanding of the subject.

Functional Area	No. Of Companies.
1. Business Operations	3
2. Business Strategy	4
3. Customer Relations	4
4. Human Resource	8
5. Technology	4
6. Investments	2
7. Finance	5

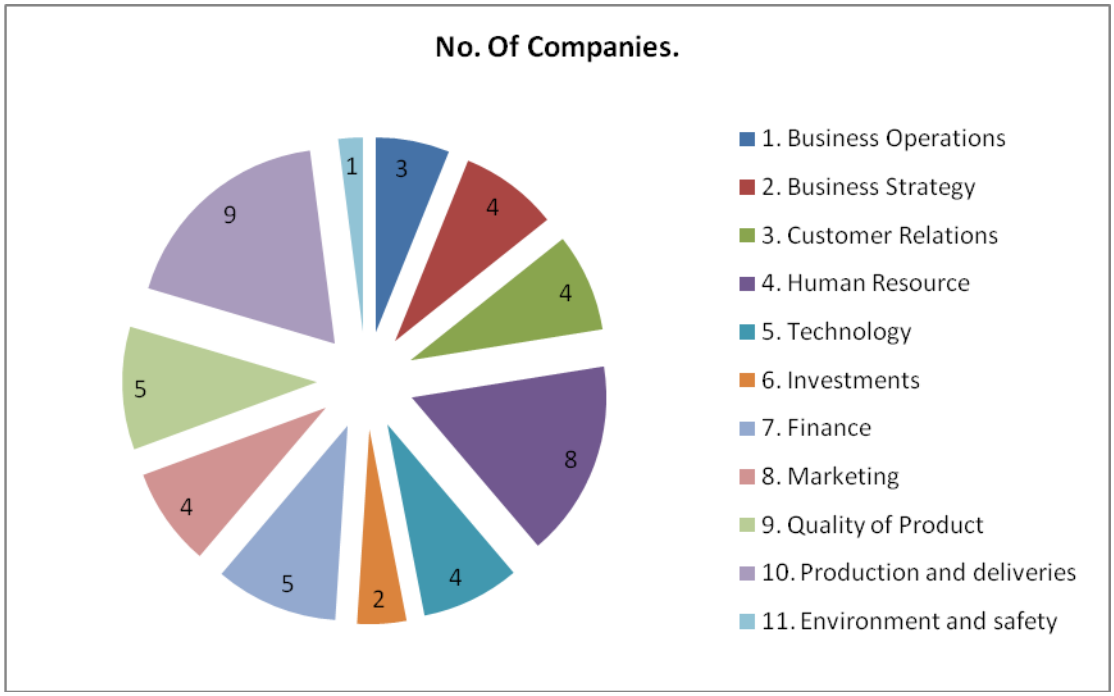
8. Marketing 4

9. Quality of Product 5

10. Production and deliveries 9

11. Environment and safety 1

The crises perceived by companies are:



6.1.1 Crises related to Business Operations:

1. Overdependence on one customer is threat to long-term sustenance.

2. Lost business opportunity is sowing a seed for stagnation.

3. Negligence for growth opportunities.

4. Failure to develop interdependence with customers.

Approach: The respondents perceive business in different perspective. Three respondents specifically perceived crisis related with business operations. Frankly

speaking, all crises are interlinked and are interrelated with business operations. These respondents feel specific crisis to be managed for long-term growth and sustenance of the business.

1. Creating a new market by adding more customers and increasing product portfolio is a proven approach for handling Business Operations related crisis.

2. Companies working as dedicated vendors and OEM suppliers followed a "Wagon Development Strategy" a phrase coined by these companies, an approach to start new manufacturing units as per the requirement of customer, nearer to customer's plant at different locations. This strategy helped to create more guaranteed long-term business and automatic expansion of the group.

6.1.2 Crises related to Business Strategy:

1. Failure to acknowledge our own potential
2. Failure to understand the value of "Now"
3. Failure in Speed
4. Under performance of growth rate as compared to industry expectations
5. Market is unlimited, failure is to capture opportunities
6. Obsolescence of products and investments arising out of new product development and technologies available in market.
7. Political interference in factory operations.

Approach: Strategic decisions are required for appropriate crisis management to generate long-term benefits. Some of the respondents feel that, failure to develop strategy considering own capabilities also leads to crisis in the company. These crisis expressed by respondents are closer to business development but there is a thin line as expressed by respondents. Strategic approach is a primary consideration for developing appropriate strategy. Respondents believe that they have to use their full potential and act "Now" to

grab the “Market Potential”. They also feel market potential is always unlimited and our own potential decides achievements in terms business growth.

One may have a difference of opinion regarding “Obsolescence of technology or products and handling of political interference”, as crises related to business strategy but respondents considered it as a strategy failure and they managed them by improving their own strategic solutions.

6.1.3 Crises related to Customer Relations

1. Failure to understand customer requirements
2. Failure to connect customers
3. Negligence towards customer requirements
4. Failure in developing long-term relation in aftermarket

Approach: Global companies have niche products and most of the time customer depends on these companies. Dedicated vendors do not have any problem of customer relations.

Customer retention and customer relations are always important for every company. Companies manufacturing special products and opportunistic manufacturers face a major crisis if they fail to connect customers. These companies require a special customer relations management team. Approach adopted by the respondents is also same and they have developed a Customer Relations Management (CRM) team. This team consists of various functional experts who contribute from the stage of product conceptualization to final product delivery. For special component manufacturers, Customer interaction plays a major role in business growth. These companies have an approach to work as a partner and solution provider for customer. The team works closely with customer from the stage of inception of product idea. This close association helps both customer and company to improve product features and quality from design stage itself. Both teams work jointly to offer better product to customer and create a win-win situation for them.

6.1.4 Crises related to Human Resource:

1. Permanent employees and union create Industrial Relations problem.
2. Labour unions are hurdles for individual and company growth.
3. Employees are assets and crisis is failure to create net worth out of it.
4. Recruitment and Retention of skilled employees
5. Higher labour turnover
6. Developing a work culture
7. Integration of people to global group policies
8. Recruitment of employees for heavy duty jobs.

Approach: Human resource always is a concern for all the companies. The nature of problems will be different depending upon the type of company. Global companies are system driven companies and they face a crisis of developing a work culture and aligning people to global group policies. Alignment is a continuous activity and a fixed time frame is not possible for perfect alignment. Global companies follow stringent recruitment norms and work on continuous training for employees. Training needs are identified and skill inventories are measured, monitored and updated regularly.

Victor Gasket, Anand Group Company follows group strategy for human resource development. Anand Group strongly believes an approach for crisis management through human resource development. They consistently work on innovations, team building and developing an Organization DNA.

Companies, those who adapted a “Wagon Development” strategy, faced a severe Human Resource crisis to capture the projected growth offered by customers. Green field projects started by these companies were underperforming in initial phases. A planned investment was done but production levels were not achieved. These company adopted higher wages

than prevailing wage rates in same industrial belt to attract employees and fulfill the commitment. They offered incentives, bonus and financial support to retain the employees.

Lucas TVS has a specific focus on Women Employment and they recruit women employees from rural area nearer to industrial belt. They provide on the job training to enhance operating skills to match product quality requirement. Women employee's safety, Doctor on Call, Transportation facility are additional facilities provided by company. Women supervisors are recruited to ensure smooth functioning of team and eliminate communication problems.

Opportunistic manufacturers face s peculiar problem of shortfall of multiskill operators, who can operate various types of machine tools. To avoid Industrial Relations problems and production interruptions created by union, these companies avoid permanent employees and work with contract labour. Opportunistic manufacturers, provide permanent employment for operators, especially who are multiskilled and are required for critical processes and operations.

6.1.5 Crises related to Technology:

1. Failure to provide 'End to End' solution to customers
2. Shorter product development cycles
3. Shorter product life cycles.

Approach: Today all automobile manufacturers have offloaded majority of components required for final assembly of the product. During the initial phases of development of outsourcing, some of the operations and processes were off-loaded and suppliers were called as subcontractors. Today outsourcing concept is changed and majority of automobile manufacturers expect complete component ready to use in final assembly. This has changed perception from subcontractor to OEM supplier and added a special status for manufacturers.

Global companies are leaders in technology and they change a perception of customers. The companies working as dedicated vendors or special products manufacturer face this crisis related to technology. It becomes a compulsion to provide 'End to End' solution to customer. These companies have invested in technology, installed machine design software and are recruiting qualified engineers in design department. They have established a product and process design department to tackle technical problems and provide better solutions to customer. This approach has helped to add extra competency and edge over other competitors. This approach also helps to reduce cost of manufacture and develops flexibility in operations. Through put time from product development to actual production is also reduced. Decisions are fast and effective which generate cost savings for company.

6.1.6 Crises related to Investments

1. Avoiding timely investments in technology, leads to productivity crisis.
2. Failure to achieve required capacity expansion and return on investments.

Approach: Understanding customer requirements and planning for future growth is a area of focus for majority of companies. The desired growth is achieved by doing investments in capacity expansion to satisfy increased product demand. Kalyani Lehmerz looks investment in assets as a cost reduction approach and solution to avoid union problems. Automation of manual work reduces workforce requirement and unskilled jobs can be easily performed by contract labour. Investment crisis is major concern for special product manufacturing companies and Opportunistic Manufacturer. They have to invest for flexible production capabilities to handle variety of components.

Global product companies started their activities in India with a strong business plan, niche products, technology and systems. These companies have investment plans for long-term perspective in Indian market. They do not have any crisis related with investments in terms of capacity building and source of finance.

Dedicated OEM suppliers follow a ‘Wagon Development’ strategy and they do not have option other than investment. These companies do invest for expansion considering assured business from customers.

6.1.7 Crises related to Finance:

1. Negligence on cost reduction opportunities is losing a cost competitive advantage
2. Simple and low technology jobs have low profit margins. Attaining a desired level of profit is always a concern
3. Manufacturing costs are increasing every year because of inflation but the margins are not increased in same proportion. There is always a pressure on cost reduction to achieve desired profits.
4. Lower margins cannot absorb cost of financing and debt finance is costly affair. Low cost source of finance is a major concern.
5. Rising costs erode profits.
6. Control on labour cost is a major concern.
7. Financial management in limited resources is a crisis.
8. Shortfall working capital.
9. Return on investments.
10. Debt servicing.

Approach: Finance is most important aspect of any business. Financial management is a key performance area for long-term profitability of the organization. Cost reduction, Working capital management and source of finance are major concerns for organization.

Kalyani Lehmerz has policy for cost reduction and efforts are made to offset inflation by proportional cost reduction. This approach helps to maintain cost leadership in market. Reduction in manufacturing cost is associated with investment in technology and robotics to enhance capacity utilization.

An investment from internal accruals is a most used approach to reduce cost raising the capital. It restricts the growth options but ensures lower pressures on fund performance.

Dedicated vendors working for Tata Motors face financial crisis as compared to others because of investments in 'Wagon Development Strategic' Plant. They are successful with the financial support provided by Tata Management from time to time. These companies have to adjust their operating cycle and cash management in line with expected cash flow from Tata Motors. Sometimes this becomes a tricky situations for them but a timely financial supports from Tata Motors help them to overcome the financial crisis.

Gange pressing has converted" With Material components' to Labour jobs to manage working capital crisis. This approach created pressures on net profitability but debt servicing is improved and working capital requirement is reduced drastically. Gange pressing also use a financial model to generate interest cost saving, by utilizing a time lag between Letter of credit and discounting of bills to reduce cost of capital. Conversion of own assets into operating lease assets is another approach practiced by companies. Operating lease provides multiple benefits and improves various balance sheet ratios such as fixed asset turnover ratio and debt service coverage ratio. It also helps to fetch lower cost of financing for working capital finance and project finance.

6.1.8 Crises related to Marketing:

1 Introduction of niche products in OEM market.

2 Introduction of patented products in OEM market.

3 Servicing aftermarkets., secondary markets Product sales

4 Servicing after sales markets. Product sales, rectification and repairs.

5 Managing fluctuations in demand and absorbing changes in business cycles.

6 Market is unlimited, our potential is limited

Approach: Eaton and Continental introduced the patented and niche products in India. Initially they faced a crisis to create a market. Approach used was creating a technical sales rather than a product sell. Companies used their technological advancements and product features with manufacturing technology as a product features to create a sales and customer base. The global standing of these groups created easy market penetration in Indian Auto Component Industry.

Bosch is a system driven company and they have predefined methodological approach for market development. Bosch group companies in India perform joint exercise to get a feel of market and group market strategy is developed. This team approach gives multiple inputs and market views to develop correct insight of the market.

Dedicated OEM Manufacturers do not face a market creation crisis. Their growth and market share is proportional to market share of their large customers. There is no need of after sales servicing and aftersales market.

Companies manufacturing special products need, hard-work to create a market. They face a problem of large varieties and small offtakes in batches.

6.1.9 Crises related to Quality:

1 Negligence in quality systems

2 Increased quality standards and performance expectations

3 Implementation of quality systems

4 Quality of products for critical assemblies

5 Qualifying customer quality verification system and audits

Approach: Quality of products and services play a major role today for all companies. Badve engineering is practicing TPM, (Total Productive Maintenance) to enhance product quality. They have internal TPM competition and performers are recognized with some intangible benefits. Top management is highly committed to quality and organization is self-certified supplier for Bajaj Auto Ltd.

Kalyani forge has introduced a concept of value stream manager to improve quality of products. ALF engineering is a part of Mahindra Quality Drive and performs quality system audit as per Mahindra system requirements. ALF has installed in-process inspection and automatic gauging systems to ensure quality of production. Morning meetings are conducted regularly to discuss quality issues and initiate corrective actions.

Lucas TVS and Flash electronics believe on women employees for quality of jobs. Women employees are more committed and quality conscious. They have special preference for women for quality and precise jobs.

6.1.10 Crises related to production and delivery schedules:

1 Large varieties and small batches of production

2 Reduction of order processing time for after sales market

3 Reduction in throughput time for production

4 Improving operating efficiency to international benchmarks

5 Customer should be satisfied even though there is breakdown in supply chain

6 Customer is in hurry, Crisis is delay in creating customer support initiatives.

7 Right product at first time, every time

8 Establishing production targets with product quality.

Approach: As compared to global companies, Indian companies face more crises related to production and inventory management. The reason is difference between the systems and technology procurement capacity and availability of resources. Global companies start their projects with technology transfer and from day one they use latest technologies for production.

Indian auto component manufacturing companies are also doing investment in technology and there is a change in perception about use and investment in technology.

Kalyani Lehmerz and Saint Gobain manufacture to stock and normally a stock of one-week consumption for key customers is maintained. Saint Gobain has drastically improved manufacturing processes and achieved production rate of one glass per minute. Companies are also increasing use of robots in critical operations and heavy duty machining processes.

Victor Gasket has developed a mobile application for reduction in throughput time for order processing of aftermarket. The customer can place order through mobile and required products are delivered within 10 working days. Victor gasket welcomes any product and any quantity demanded by customer. Company has developed manufacturing process and a drastic reduction in operating cycle from 52 working days to 12 working days is achieved. Innovation culture adopted in Victor Gasket has improved operating efficiency from 48 percent to international benchmark of 90 percent.

Lucas TVS has developed manufacturing excellence model to produce right product at first time and every time.

6.1.11 Crises related with Health and safety:

Only Saint Gobain Seckuritat perceived health and safety related crisis. The nature of product, i.e. Glass for automotive vehicles demands higher priority for health and safety of employees as well as environment. Company has derived all policies related to EHS – Environment, Health and Safety.

Approach: Company has systematic approach, every accident is reported globally, company conducts safety audit and is a key performance area for all mangers. Environment protection is policy of company. Company gives emphasis on saving of natural resources and reduction in wastages.

6.2.0 Crises Management – Multidisciplinary Approach

During interviews, respondents have discussed their views and the crisis perceived by them related to various functional areas. Actually, the crisis related with one functional area has impact on other function also. The crisis management approach requires broader

approach rather than function specific approach. Even though during discussions and interviews, specific crisis is highlighted, the solutions provided are multidimensional and reflect overall strategy of the business. These crises management approaches are interdisciplinary and have integration with all business areas. These approaches are for business development and for future long-term growth of company. The overall crises management approach of these companies can be summarized as follows.

6.2.1 Kalyani Lehmarz:

Company is doing continuous Investment in technology and automation by using internal accruals. Benefits expected are expansion of product and customer portfolio, cost reduction to offset inflation effect, reduction in manpower and maintaining cost competitive edge.

6.2.2 Continental:

Concentrate on niche and highly technical products to create acceptance in market. Project company as low cost producer and substitute for expensive technology driven products. Benefits expected are penetration in market and creating a platform for introduction of other global products in Indian Markets.

6.2.3 Eaton:

Focus on Eaton business systems, company policies and business ethics. Work for critical engine components and promote patented products for Indian Automobile Markets. Benefits expected are long-term business with premiums by creating specialization in critical and highly technology driven components. Take complete advantage of entry barriers in industry segment.

6.2.4: Autoline Companies:

Adopt ‘Wagon Development Strategy’ and create dependence for customer. 1200 component varieties for Tata Motors, for all variants of automobiles manufactured by Tata Motors. Investment in heavy-duty presses as specific customer requirement.

Benefits expected are long term business, customer loyalty and priority vendor for new product developments.

6.2.5 Badve Engineering Limited:

Act 'Now', work with speed and deliver quality. Badve Engineering believes in Speed and they take decisions very fast. " Now" is nothing but immediate response to situation to avoid further complications and grab the opportunity which available. The benefits expected are confidence development in corporate team for projected growth, Strong message of being proactive rather than reactive and develop decision-making skills and ability to understand risk. Create fastest growing company with stability and a priority vendor for new developments.

6.2.6 Saint Gobain Seckuritat:

Company has focus on EHS, Environment, Health and Safety of employees. Every small accident is also reported globally. Inclusion of EHS in Annual performance appraisal is unique approach. Benefits expected are minimum accidents, improved handling of glass and glass manufacturing processes, enhanced team functions and team building and safety awareness. Minimum breakdowns in systems and smooth flow of production.

6.2.7 Suyog Auto Cast Pvt Ltd

Company realized the overdependence on one customer as a threat for survival and accepted a challenge of creating a change. Change management initiatives were taken to increase the manufacturing capabilities and diversification in services and products. Company has done efforts to develop manufacturing capability to cater the requirements of various industry segments ranging from ship building to automobiles, pumps to earth moving equipments in all more than 400 component varieties. Benefits expected are driving force for growth, creating dynamic team, minimum business cycles shocks and long-term sustenance with exponential growth. Today company has demonstrated capability to manufacture complicated gearbox assemblies.

6.2.8 Victor Gaskets:

Company trusts employees and their innovation skills to contribute in top-line and bottom-line growth of the organization. Company adopted crisis management approach through human resource development and created a culture of innovative thinking. 'Orbit Shifting Innovation' Technique is practiced. Company learned inventory management techniques from retail industry to handle large varieties and learned from media to capture live data from different parts of country to satisfy aftermarket requirements. Benefits expected are change in attitude of employees, change in their thinking pattern, inventory management and efficiency improvement to international benchmark.

6.2.9 Wadhokar Group of Companies:

Management is completely aware of their strengths and weakness and the approach they should adopt for business development. Company has focused on simple and low technology press components required for Tata Motors in various products. These products have low margins but are in bulk requirement. The volumes handled by company crates an extra edge for competitors. Company has a policy of zero debt and compliance to all statutory requirements. Benefits expected are guaranteed returns from lower investments in resources, minimum disturbances from outside agencies and slow but steady growth. Company avoids duplication of production facility and component are manufactured only at one unit and supplied to all locations.

6.2.10 Kalyani Forge Limited:

Continuous investment to upgrade manufacturing and services facilities. Company has added manufacturing division to provide complete solution to customer. In-house design facility for rapid prototyping as demanded by customer. Implementation of value stream concept to exercise better management control systems. Benefits expected are identification of responsibility centers, recognition for performance and system transparency. Design solutions provide confidence as reliable product company rather than Component Company.

6.2.11 Ganage Group of Companies:

Adopt ‘Wagon Development Strategy’ to supply components at various locations. Focus on finance management to improve different ratios such as ROCE (Return on Capital Employed) DSCR (Debt servicing coverage Ratio) Fixed asset turnover ratio, Working capital management and cost of capital. Benefits expected are improved financial management and control, reduction in cost of financing, improved credit rating and better fixed assets turnover ratio. Improvement in financial ratios helps to generate funds at lower interest rates and lower cost of capital.

6.2.12 Radheya Machining Limited:

Management has a focus on critical machining components and always looks for difficult jobs for manufacturing. Company has a focus on handling the difficulties of customer, and provides better product solutions. Radheya has a philosophy “No Boughtouts” in organization. Company believes in complete solution to customers and have a capability of end to end solution starting from raw material stage to dispatch through own supply chain mechanism. Benefits expected are development of multilayer business organization, fast track growth and development of DNA of organization. Better market potential with record of accomplishment of competency in critical components, close tolerance and high process control components. Business development opportunity in all industry sectors, which use critical components for various products.

6.2.13 Flash Electronics

Focus on high volume, low cost electronic components required by two wheeler-manufacturing companies. Research and development focus for new product development, identification of neglected product segments, long-term relations with international customers, accepting risky businesses. Benefits expected are better optimization of resources, higher margins and consistent business. International relations will help to develop global products and risky business options generate higher profit margins.

6.2.14 Lucas TVS

Focus on niche segment of auto electrical such as engine starter motors, wiper motors, electric sensors, etc. Quality ensured products and technical products, system development and women empowerment. Use of manufacturing excellence model, and dedicated vendor development program. Benefits expected are higher production efficiencies with quality, minimal rejections, better inventory management and cost control. Women empowerment, a fulfillment of social obligation and contribution for development of society. Committed work force and easy to train for higher responsibilities. Minimum absenteeism and internal politics.

6.2.15 Bosch Chassis Systems:

Part of global company and is system driven company. Focus on Bosch best practices and internal audits as per EFQM model requirements. Major thrust is on implementing the systems initiated by global headquarters. Company has a focus on realignment of employees to global systems. Benefits expected are well trained and system oriented workforce, which will deliver the results as per expectations. Minimum system deviations and better management control systems are ensured. There will be a global transparency in performance evaluation and entire group will work for common goal.

6.2.16 ALF Engineering Pvt. Ltd.

Company has invested in a green field project at Chakan in Mahindra Cluster. Company has installed hydroforming equipments to develop specialty in heavy-duty fabrication process. Company has developed single piece flow concept to ensure product quality and timely rectification of errors in productions and quality related issues. Company has a quality approach with team activity and continuous communication with employees who are involved in related activities. Benefits expected are fulfillment of customer requirement and higher productivity with in-process quality assurance for customer. In-process automatic gauging ensures foolproof quality production and minimize deviations from designed performance.

6.3.0 Comparative Analysis of Global Companies and Indian Companies.

Following table gives information about various factors which have a direct impact on crisis management approach used by global and Indian companies. These factors also explain the difference between the business environment for global and Indian companies. The customers are same for both companies but there is vast difference, the way these companies operate, function and perform to satisfy customer requirements.

Table 7.1 : Comparison of Companies

Particulars	**Indian Companies**	**Global Companies**
Product Portfolio	Manufacture components or products designed by customer	Manufacture own products and product related systems
Customer Portfolio	Mostly dedicated to one customer having a contribution in revenue of 80 percent to 90 percent	All automobile manufacturers using variants of same product.
Source of Finance	Own finance or finance from internal accruals	Global Headquarters provide complete financial support
Driving force	People driven organizations controlled by very few key persons	System driven organizations controlled by hierarchy of people
Human resource approach	Recruitment, training, skill development and retention of skills	Recruitment, training and development for systems and retention
Level of competition	Normally business profile is	Global players compete

	fixed so threat from competition is not severe	with each other in same market segment.
Design capabilities	Limited to process developments and tools required for manufacturing process	Innovative products and continuous up-gradation of existing product range.
Production capacities	Investment in technology only as demanded by customer or product characteristics	High-tech machines and equipments, Flexible manufacturing systems
Quality Systems	Focus on Small steps like 5S, Kaizen, ISO and TS certifications	Focus on International quality standards, EFQM model etc.
Organization Structure	Normally Flat or one or two layer of hierarchy	Normally multilayered functional hierarchy
Crisis Perceived	Crises related to Financial Management, Production schedules and quality of products	Crises related with up gradation of technology, Market penetration and introduction of new products
Crisis management approach	Need based solutions and for shorter duration of 2 to 3 years	Strategic approach with a focus on long-term solutions

6.4.0 Current trends observed in Auto component Manufacturing Companies.

1. Indian companies are learning new techniques and approach for crises management. They are becoming aggressive in business expansion and ready to start business units at different parts of country.

2. Indian companies are developing their new strategies and crises management approach. They are learning from their experiences and ready to take a risk.

3. There is a positive trend in advance machines and world class equipments for productivity improvement.

4. There is a positive trend that these companies are showing inclination for business diversification, export promotion and foreign collaborations for better growth opportunities.

5. Majority of the manufacturers have process and product design capabilities.

6. Companies do give thrust on quality aspect of product and they are trying to practice the concepts like TPM, 5S, Kaizen, Single piece flow etc.

7. Companies are trying to match the speed of development and adapt to dynamic market conditions in Indian Automobile Segment.

8. Global companies are having all resources but they require more time to tune employees for their global systems.

9. Niche products are introduced by global companies in Indian Market which has direct effect on up-gradation of product quality of Indian automobiles.

6.5.0 Testing of Hypotheses:

Categorical statement of proper hypotheses related with decisions and crisis management in auto ancillary units is as follows viz.

H1: There are certain external or internal reasons, which may have impact on business performance of auto units leading to crisis

H2: With the help of 'crisis management decision making strategies', crisis can be managed effectively.

Being nature of research empirical and diagnostic; and nature of data is not purely quantitative, statistical tools are not used for data analysis. Statistical methods cannot be applied for hypothesis testing. The logical reasoning approach is used and relevant evidence is collected through case studies.

Hypothesis H1:

In crisis management theory Chapter 2, Section 2.3.1 Business Environment explains the various factors which can create a crisis situation for any business organization. External factors are out of control of organization and needs better crisis management approach. During various interviews conducted with MD / CFO / Plant heads of various auto component companies, they expressed external business environment and existing economic conditions in India are major factors / problems for them.

Section 2.3.2 of chapter 2, Crisis Management Approach for External Environment has discussed in detail about various external forces acting on business and how to handle the crises related to these external forces. While discussing about Crisis Management approach Harvard and ICFAI focused on the fact that basically external factors are responsible for crisis in the organization .

This chapter has a series of discussion on eight-step crisis management approach. The first step 'Taking Stock of Potential Perils' projects external and internal environment as major concerns for management for effective crisis management. Potential perils are nothing but the probable events occurring out off sudden change in business environment. The issue addressed by Harvard Business School and ICFAI are economic and market forces creating pressures on internal and external business environment. These forces are complex in nature and create multiple effects on business. Identifying potential crisis is a systematic process of scanning internal business environment and operating deficiencies, which may lead to crisis.

Section 2.3.3, has a discussion on Crisis Management Framework suggested by William Candell. This framework has a major thrust on in-depth study of internal and external landscape related to a company. This landscape survey provides wide spectrum of various factors having direct or indirect relation with crisis for an organization.

Chapter four has a presentation of various case studies related with automobile companies..

Honda Company is known for quality products and is one of the leading companies in automobile industry. Company has best quality systems but it faced a crisis because of defective brake system assembled on CBR 250R bikes. 11,500 vehicles were called back for repairs. This crisis is an outcome of failure in internal systems and a factor related to internal business environment.

Nisan car a quality product company, faced a crisis again related to internal business environment. Over 22,000 cars were called back because of faulty braking system assembled on Small car Micra and Sedan Sunny.

Toyota Manufacturing Systems are benchmarks in a manufacturing and other companies try to achieve the excellence demonstrated by Toyota Systems. In January 2010, Toyota was forced for recall of millions of cars for replacement of faulty braking systems, floor mats and accelerator pedals assembled in vehicles. Because over standardization, same components were used in variety of products and it created a cascading effect for Toyota. Experts contribute this problem to overconfidence on internal business systems.

Chapter five represents a true picture about current situation in Pune automotive component manufacturing companies. All sixteen cases prepared from various companies give us a detailed prescription about the business environment, crises faced by them and factors leading to business crises. We can observe all shades of colours of crises faced by these companies. This picture is more interesting to study because of overlapping shades of these different colours. As an observer, it becomes very difficult to identify the thin line between these shades and demark a specific functional or environmental factor related crisis.

All sixteen companies are operating in same business environment but at micro level, there is identifiable difference between the factors leading to crisis in these industries. Following are prominent factors identified by these companies, and are correlated with crises faced by them.

All sixteen automobile component manufacturing companies have faced some or the other crises in business. These case studies elaborate in detail the challenges created by external and internal business environment factors.

Case 1 Kalyani Hayes Lemmerz:

External Factors:

- Over dependence on one-customer and high volumes with low profit margins created obstacles for growth.
- Rising Inflation created pressure on profitability

Internal factors:

- Strike by permanent employees for wage agreement
- Shortfall of technically qualified people for design services
- Speed of new product development for new customers.

Impact on performance:

1. Because of overdependence on one customer, during 2003 recession cycle, company faced problem of generating expected revenues and bottom line as well as top line were hampered. Profit margins were very low and capacity was underutilized.
2. The strike by permanent operators crated a problem for production deliveries for new customers of car plant.

Case 2 Continental Auto Components:

External Factors:

- Portfolio taken from Siemens was failure in market.

Internal factors:

- Capacity utilization of new installed project for new product line.

Impact on performance:

Continental has to close the existing portfolio and start a new product line. Achieving break even for new product line became top priority.

Case 3 Eaton:

External Factors:

- Promoting Eaton as Quality Brand for critical engine components
- Creating market for patented transmission system products in India.

Internal factors:

- Rebuilding of merged companies for improving product quality
- Successful completion of new project for transmission division

Impact on performance:

Company created focused brand development strategy to promote as experts in critical engine component manufacturing and leader in engine transmission systems.

Case 4 Autoline Industries Limited:

External Factors:

- Providing end to end solutions to customer.
- Expansion and investment as per requirement of Tata Motors
- Compulsion to follow Tata global sourcing policy.

Internal factors:

- Managing growth and investments in technologies

- Developing capabilities for product design and process design requirements for new products.

Impact on performance:

Company has to develop complete component solution capabilities. It was mandatory to add tool engineering and process design capabilities.

Case 5 Badve Engineering Limited:

External Factors:

- Accepting growth opportunities provided by Bajaj Auto
- Expansion and investment as per requirement of Bajaj Auto

Internal factors:

- Establishing quality standards for mass volume requirements of Bajaj Auto
- Fast prototyping and mass production of new components offered by Bajaj Auto.

Impact on performance:

As a result of delay in analysis of proposal and acceptance turnout as a cancelled proposal from Bajaj Auto and company lost opportunity for long term business for new products.

Case 6 Saint Gobain Sekuritat:

External Factors:

- Managing inventories for key customers, large varieties and unpredictable offtakes.
- Creating long-term customer relation for continuous business.

Internal factors:

- Health and safety related issues, immerging out of glass manufacturing.

- Improving production efficiency for effective inventory management and to satisfy customer requirement.

Impact on performance:

To increase production efficiency and reduce inventory levels, company invested in CNC profile cutting machines and computer aided design facilities.

Case 7 Suyog Auto Cast Pvt limited:

External Factors:

- Complete dependence on Bajaj Auto.
- Matching requirements for versatile products manufactured for various industry sectors.

Internal factors:

- Creating a 'Change' to become highly diversified manufacturing company.
- Managing investments made in developing manufacturing capabilities to offer all type of component manufacturing services to as per industry requirements
- Development of strategic business units

Impact on performance:

Company came out with turnaround strategy for business development and decided to create a change to reduce complete dependence on Bajaj Auto. It created a diversified portfolio in terms of industry sectors and customers.

Case 8 Victor Gaskets:

External Factors:

- Servicing aftersales market.
- Inventory management for nearly 4000 product varieties

Internal factors:

- Reducing through put time for aftersales market
- Achieving international benchmark for operating efficiency.
- Lower operating efficiencies

Impact on performance:

Company faced difficulties in production planning of large varieties and maintain delivery schedules for these orders

Case 9 Wadhokar Group of Industries:

External Factors:

- Adopting Wagon development Strategy.
- Pressures on controlling material cost

Internal factors:

- Retention of employees
- Reducing cost of capital.
- Finance management

Impact on performance:

Material cost control is always a pressure, Managing financial resources and retaining people is crucial part of the business.

Case 10 Kalyani Forge limited:

External Factors:

- Rising cost of manufacturing
- Customer expectations of complete component solutions

Internal factors:

- Continuous investment in technology and return on investment

- Development of technical and designing capabilities for complete component solutions.
- Establishing Value Stream Management concept.

Impact on performance:

Company made continuous investments in up-gradation of technologies and product design solutions.

Case 11 Ganage Group of Industries:

External Factors:

- Adopting Wagon development Strategy.
- Pressures on controlling material cost
- Investment in new plants

Internal factors:

- Managing sources of finance
- Improvement of debt servicing rating and higher fixed asset turnover ratio.

Impact on performance:

Increased production requires more working capital and company made arrangements for working capital loan. New investments and loans created financial pressure for company. Debt service ratio became crucial.

Case 12 Radheya Machining limited:

External Factors:

- Complete machining solutions expected by customers.

Internal factors:

- Development of technical staff for critical machining.
- Forward and backward integration for low cost solutions.

Impact on performance:

Company invested in backward integration and introduced forging manufacturing. With forward integration a supply chain company with own transportation fleet was started to improve deliveries.

Case 13 Flash Electronics:

External Factors:

- Fulfilment of high volume and multiple component requirements given by Bajaj Auto.
- Matching speed of growth expected by Bajaj Auto.

Internal factors:

- Development of technical staff for critical electronic component assemblies.
- Rapid development of new components offered by other automobile manufacturing companies.

Impact on performance:

Company has to recruit people at higher costs and pay additional incentives for development of products. Company implemented TQM to improve quality of product. Employee development drive was a must to achieve higher efficiencies.

Case 14 Lucas TVS:

External Factors:

- Fulfilment of high volume and multiple product varieties for various customers.
- Product servicing of aftersales market.

Internal factors:

- High quality standards and defect free assembly for each product.
- Rapid development of new components offered by other automobile manufacturing companies.

Impact on performance:

It was important for company to have focused recruitment considering critical assembly requirements of products. Recruitment of technically qualified women was a problem and company adapted on the job training program for these employees. It was necessary to establish quality standards and Kaizen concept is practiced by company. Company developed manufacturing excellence model to achieve higher efficiency.

Case 15 Bosch Chassis:

External Factors:

- Market fluctuations arising out of market demand.
- Obsolescence of products and technology

Internal factors:

- Alignment of employees with Bosch Systems
- Managing technical skill inventory.

Impact on performance:

Company is still in the transformation phase of developing work culture matching with global expectations. Training and development efforts are continuous activities. Company is doing lot of expenditure to establish Bosh best practices.

Case 16 ALF Engineering Ltd.:

External Factors:

- Political interference in business operations.
- Product quality requirements as per Mahindra Supplier Evaluation System.

Internal factors:

- Achieving production targets and quality improvements.
- Recruitment and retention of employees for heavy duty fabrication work.

Impact on performance:

Company transferred temporary operators from Nashik to Pune to match delivery schedules as per Mahindra expectations. Company paid incentives to operators to work on heavy duty fabrication jobs.

The series of discussions running through all chapters describe that crises perceived are in various functional areas are outcomes of various internal and external business environment. Business environment engulf business crises and management needs to understand complicated and interwoven structure of business environment. This fact is strongly projected during all discussions in entire thesis. On the basis on detailed discussions and illustrations presented in Chapter Two, Chapter four and Chapter five containing detailed presentation in each live case prepared from companies, we can say that Hypothesis No i.e. H1, "**There are certain external or internal reasons which may have impact on business performance of auto units leading to crisis"** is proved**.**

Hypothesis H2:

Crisis management is ongoing process and effective crisis management is a function of appropriate decisions. Understanding crisis management and finally deriving a solution is a series of decisions taken by management.

Application of decision patterns and methods required for external and internal business environment are different in nature. Selection of strategic decision making models depends upon the type of crisis and origin of crisis.

Automobile industry has witnessed major changes in managing the crises and they are continuous improvements and innovations in crisis management. Chapter 2 highlights this fact and takes us through a short journey of various developments and new approaches used by industries for effective crisis management.

Industry has witnessed three major phases of development in automobile industry. These phases are discussed in chapter No. 2 and section 2.4. This section enlightens readers

about crises management approach used by various companies for internal environment related crises.

Section 2.4.1 has detailed discussion about Japanese Quality Movement and contribution by four Quality Gurus namely, Deming, Juran, Corsby and Ishikawa. These gurus have given everlasting quality methodologies and simple but powerful tools to manage internal crisis. These tools train us for effective decisions and best solutions. These tools are roadmaps for successful crises management and most admired decision support systems for quality decisions.

World class manufacturing systems developed by Toyota Corporation are included in Section 2.4. Toyota 4P Model, Toyota Production System and Toyota Problem Solving Methodology are three manufacturing excellence models developed by Toyota. These models itself are theories and contribute in development of decision science for creating a benchmark for world-class performance. 4P model is philosophy developed by Toyota for developing long-term solutions for internal crisis related to quality and production systems. This model is used extensively for creating a work culture and applied as human resource development decision support system. 4P model is used for corporate decisions and creating strategy for excellence. Toyota production system is decision making model used at senior level management team and practiced for developing strong dedicated team. This model is projected as a house of Decisions and every member of organization is involved to construct the house. This house enhances decision making approach and commitment for excellence. Toyota Problem solving Methodology is step by step decision process and all employees are trained to use it. This methodology develops an attitude to solve problems at the functional levels. This model improves quality of decisions drastically and eliminates the problem at the source itself.

Section 2.4.3 has discussions on current trends in crises management through effective decisions. Today organizations have more emphasis on Human resource development for quality decisions. Today organizations practice innovations. Expert from industry use innovative methodology and new learning systems to develop culture of innovation. Idea clock and Orbit Shifting innovation Framework transform people and create higher level

of performance. All these modern techniques are used to improve decision-making capability of entire organization.

Chapter 3, Decision, section 3.1, Peter Drucker's View on decision is well discussed. He has explained need and importance of right decision for right problems. Various elements of decision-making create a background for better decision. Understanding of various subsystems improves decision-making approach for interrelated problems.

Section 3.2 gives insight about various strategic decision making models. These models are used for in-depth analysis of crisis and arriving at the best solution from different alternatives. In industry, it is very difficult to derive best solution by using single model. Companies use multiple decision models for better alternatives.

Chapter 4 has three published cases namely on Leyland Truck, MG Car company and Skoda. Leyland Truck has used continuous improvement "Kaizen". Kaizen is a philosophy where attempts are made to identify and eliminate wastage at source. This requires analytical and decision making ability for effective implementation of Kaizen.

MG Car Company immerged out of crises and has taken strategic decisions related with product portfolio, brand promotion and product positing. These decisions have created a rebirth of MG Car Company in 1995.

Case study on Skoda describes how strategic decision making model 'SWOT' is used to create a competitive advantage and brand in the market. It helped company to improve acceptance as a valued brand and happiness for owners. It also helped company to identify areas for improvement.

Chapter 5, Case studies of various Auto Component companies, explains the crises management approach adopted by these companies. Various strategic decisions are taken and implemented by these companies to manage various crises in functional areas as described in first section of this chapter. Section 2 of this chapter gives us consolidated approach for various crises faced by these auto component-manufacturing companies.

All sixteen automobile component manufacturing companies have faced some or the other crises in business. These companies always believe that better decisions always

help to reduce the impact of crisis and create a foundation for future growth. These companies have shown their expertise in understanding and handling the crisis and ensured business growth in tough times. These decisions have created a shock absorbing mechanism for projected future growth.

Various decisions taken by these automobile companies are as follows.

Case 1 Kalyani Hayes Lemmerz:

- Investment through internal accrual for growth.
- Increase in customer portfolio from 20 to 40 and reduction of over dependence on Tata Motors from 70 percent to 50 percent, increase in product portfolio from 40 to 80 varieties.
- Conversion of manual work into automatic robots and simple unskilled jobs through contract labour.
- Offsetting inflation by proportionate cost reduction to maintain cost competitiveness.

Effectiveness of Decisions:

Company's top line is growing every year. Company is successful to maintain cost of manufacturing at same level foe last three years. Customer and product portfolio is increased. New car plant is fully operational. Permanent employees are reduced.

Case 2 Continental Auto Components:

- Shut down business portfolio taken over from Siemens
- Promote fuel pump and systems as technical sales.
- Promote company as low cost solution provider with focus on import substitution.

Effectiveness of Decisions:

New project for fuel pump and systems is fully operational. Company has achieved breakeven point and created a brand as low cost and quality supplier. Company has achieved a turnover of more than Rs 100 crore within a short span of four years.

Case 3 Eaton:

- Focus on critical engine components such as valves and valve systems.
- Establish Eaton business system in all business units.
- Concentrate on promotion of patented transmission system for various automobiles in India.
- Grow with mergers and acquisition and wait for valuations of firms for merger.
- Conformance to group global business ethics and performance standards.

Effectiveness of Decisions:

Cancellation of EOU status of company has helped to generate better market potential in Indian Automobile Companies. New company started at Ranjangaon has a focus on engine transmission products and Eaton is successful to create a market for patented products.

Case 4 Autoline Industries Limited:

- Promote company as 'Art to Part ' solution provider
- Focus on creating interdependence with Tata Motors.
- Investment in Heavy Duty Press Machines as a unique capability for heavy duty body parts required for automobiles.
- Create to active cells, product engineering cell and manufacturing cell

Effectiveness of Decisions:

Company is successful to establish " Art to Part" service provider for key customers. Interdependence with Tata Motors is creating growth .

Case 5 Badve Engineering Limited:

- Understand Value of "Now"
- Create quality culture in organization and implement TPM. Recognize employees for quality improvement contribution and for achieving excellence in Quality
- Offer permanent employment to promote healthy atmosphere in company.

- Strong focus on fast decisions
- Promote women employees as CSR (Corporate Social Responsibility) initiatives.

Effectiveness of Decisions:

Understanding the value of "Now" provided exponential growth for the company. Company is now self certified and prime supplier for Bajaj Auto.

Case 6 Saint Gobain Sekuritat:

- Promote employee health and safety as a major concern for Company.
- Inclusion of Safety audits as KPA (Key Performance Appraisal) assessment point.
- Focus on identification and elimination of waste.
- Investment in CNC profile cutting machine to improve production efficiency

Effectiveness of Decisions:

Company's investment in CNC machine has helped to reduce manufacturing time and inventory management is under control. There is reduction in total rejection during manufacturing process.

Case 7 Suyog Auto Cast Pvt limited:

- Minimize dependence on Bajaj Auto
- Develop multiskilled manufacturing capabilities
- Initiate change for better future.
- Invest for technology and system improvements
- Create and ensure performance of SBUs (Strategic Business Units)
- Search opportunities out of automobile industry sector for diversification and growth.
- Invest for product development capabilities.

Effectiveness of Decisions:

Initiating a change has drastically changed life at Suyog. Dependence on Bajaj Auto Components is reduced form 100 percent to 30 percent of turnover. Company has added

other product lines and is successful to project multi product multi facility service provider.

Case 8 Victor Gaskets:

- Focus on employee development to enhance their performance
- Develop innovation culture to manage crisis and generate innovative solutions.
- Induce learning and learn from other industries.
- Focus on customer
- Cost optimization with elimination of waste and non value adding activities.
- Practice 'MOST' technique for standardization.
- Focus on problem rather than person.

Effectiveness of Decisions:

Company has achieved operating efficiency to international bench mark. Through put time is reduced from 52 days to 12 days. Mobile application for aftersales market has helped to provide service effectively to various automobile component dealers and garages.

Case 9 Wadhokar Group of Industries:

- Minimize cost of financing
- Use accruals for business expansions
- Ensure compliance to all statutory requirements to minimize external disturbance in regular production
- Focus on low technology and simple jobs.
- Provide facilities for employees and timely wage revisions for retention.
- Optimize material cost and material usage.

Effectiveness of Decisions:

Tri-party agreement for material purchased has helped company to reduce cost of material. Company is debt free and employee retention rate is improved.

Case 10 Kalyani Forge limited:

- Focus on manufacturing of complex and critical profile forgings.
- Development of strategic business units.
- Creation of responsibility centers with individual value stream managers for each product line.
- Continuous and planned investment to enhance production facilities.
- Work as a partner with customer for product development
- In-house die design center for process and product improvements
- Use of expert services for cost reduction, Industrial Relations problems
- Profit sharing group incentives to improve production efficiency and utilization of resources.

Effectiveness of Decisions:

Company has achieved continuous growth from Rs 54 Crore to Rs 280 Crore in a span of 11 Years. Value stream manger concept has helped to reduce rejections and improve production efficiencies. Design capabilities has helped to increase customer and product portfolio.

Case 11 Ganage Group of Industries:

- Dematerialization of components to reduce working capital requirement
- Use of financial models to reduce cost of finance.
- Utilization of Hundi and LC (Letter of Credit) to reduce cost of working capital.
- Tri Party agreement with material suppliers for flexible raw material supply and payment terms.
- Use of contract labour to avoid union related problems.

Effectiveness of Decisions:

Tri-party agreement for material purchased has helped company to reduce cost of material. Dematerialization has reduced working capital requirement by Rs 25 Crore but there is effect on bottom line. Company's debt service coverage ratio is improving.

Case 12 Radheya Machining limited:

- Develop complete solution with forward and backward integration for customer satisfaction.
- Focus on difficult components as challenge for production.
- Focus for similar components used in other industrial sectors also.
- Develop own ERP system for fast adaptation.
- Own transportation flit and Supply Chain Company for cost effective solutions to customers.
- No bought-out, develop own DNA for company growth.
- Provide in the job training and develop technical skills.
- Annual increments for every employee
- No Union activity in company.

Effectiveness of Decisions:

"No boughtout" policy has created forward and backward integration. Technical capabilities and search for critical machining components has provided business growth and company is looking forward for exponential growth from Rs 110 Crore to Rs 1000 Crore in next 5 years.

Case 13 Flash Electronics:

- Focus on quality of product at each stage of manufacturing process.
- Focus on innovations
- Tap untapped market segments
- Strategic focus for international tie-ups.
- Accept risky business for learning.
- Higher salary during initial phase of recruitment during development of plant.

- Recruitment of Women employee for quality of products.

Effectiveness of Decisions:

Initial high cost paid to employees has generated returns. Company's product lines and quality systems are established. Care for small customer is adding volumes for company and customer base is increasing.

Case 14 Lucas TVS:

- Use manufacturing excellence model to ensure product quality.
- Promote women employment for critical component assembly.
- Work with suppliers for quality of products. Focus on dedicated vendors.
- Ensure safety for women employees.
- Ensure Kaizen activities in company.
- Focus on waste elimination.

Effectiveness of Decisions:

Focus on dedicated vendors and technical support to vendors has helped to reduce inventory and inventory levels are within limits, Aftersales market servicing is improved. Women employment has reduced rejections during assembly. Manufacturing excellence model has helped to improve quality of products.

Case 15 Bosch Chassis:

- Use stringent norms for employee selection
- Compliance for EFQM model
- Practice Bosch best work practices
- Impart continuous training for alignment of employees with Bosch global systems.
- Measure and update skill inventory.
- Display skill inventory at all related workplaces.

Effectiveness of Decisions:

Skill inventory management has increased effective utilisation of employees and has created a transparency in decision making. Through continuous training, employees are

aligning them with Bosch Global practices. Compliance to EFQM model has improved product quality.

Case 16 ALF Engineering Ltd.:

- Implement single piece flow system
- Have active participation MSES (Mahindra Supplier Evaluation System)
- Transparent communication with employees to improve quality of product.
- Inline automated gauging system to ensure quality of product.
- Incentives for workers to work on heavy duty fabrication.
- Regular training schedule for employees to upgrade their skills and improve product knowledge.

Effectiveness of Decisions:

Transfer of temporary employees from Nashik to Pune has helped to establish production processes and product deliveries as per Mahindra expectations. Participation in MSES and transparent communication has helped to create quality awareness company's rating is improved.

Decision creates miracles in industry. Decisions can create rebirth of a company or can create a mind set for premature death of company. Survival or exit of a company is a matter of appropriate decision rather than gut fill of the organization.

The series of discussions running through all chapters describe that effective crises management is a function of decision-making. The decisions taken play a major role in organization and can ensure long-term positive result. This fact is strongly projected during all discussions in entire thesis. On the basis on detailed discussions and illustrations presented in Chapter two, Chapter Three, Chapter Four and Chapter five containing detailed presentation of live case prepared from companies, we can say that Hypothesis H2, "**With The Help of Crisis Management Decision Making Strategies, Crisis Can Be Managed Effectively."** is proved**.**

Chapter No. 7 Observations and Findings

1.0 Top four crises perceived by Auto component companies in Pune are

- Production and deliveries
- Human resource
- Quality of product
- Finance

The crises perceived by these companies are peculiar characteristics of these companies and same are reflected as crises faced by these companies. Growth of Automobile industry in Pune is in four different segments as Dedicated OEM suppliers, Global product companies, companies manufacturing special products and opportunistic manufacturer. All these segments mainly depend upon large Scale Automobile Manufacturers operating in Pune.

Production and delivery related crises are because of fluctuation in offtake by customer and dynamic automobile markets. Today product life cycles are shortening every year and it results in crises for production planning and delivery schedules.

Human Resource problem is ongoing in MSME (Micro, Small and Medium Scale Enterprises) sector. This sector is least preferred by job seekers. These companies lack brand name in recruitment segment as they are not selling any product directly in market. People are not aware of these companies and growth rate achieved by them. Retention of skilled employee is another issue when better options are available in same industrial belt.

Quality of product is a crisis because; our Indian companies are not tuned for quality culture. These companies have various quality certifications such as ISO, TS 16949 etc but on system front, they are toddlers.

Financial problem is because of cost of borrowings for these firms, is always high as compared to global and large scale manufacturers. Investment in working capital,

investment in expansions, up-gradation of technology contribute additional financial burden.

2.0 Indian companies and global product companies operate in same business environment and they are in the same turnover bracket. Some Indian companies have more turnover than global companies. The growth rate of Indian manufacturers is much higher than global companies.

3.0 Crises perceived by various respondents are more or less same and are not related with type of product or type of customer they are working with. There are similarities between Global companies and Indian companies in perception of crises. Nature of the crisis more or less is same and is not related with business model or turnover of the company.

4.0 Crises perceived by new companies or established companies are same in the similar business environment.

5.0 Unique strategies used by some of the respondents are

- Understand the value of 'Now' and work with Speed.
- Take difficulties of customer and help him to mange his crises.
- Nullify inflation effect by proportionate reduction in manufacturing cost by investing in automation and robots.
- Practice learning and learn from different companies for solutions.
- Promote women employment for superior product quality.
- Grow with simple and low technology jobs.

6.0 Automobile component manufacturing companies use ERP systems as decision support system. Global companies follow their international processes and norms for strategic decisions. Radheya Machining, Suyog Auto cast, Wadhokar Group has developed ERP as per their requirement but other companies are using SAP R3.

7.0 For critical assemblies in electrical and electronic components, companies trust on women employees rather than male employees. Women employees are more focused and learn faster than male employees.

8.0 Initial higher cost paid to employees generate long-term benefits for company.

9.0 These companies are adding product development and process development capabilities to serve better to their customers.

Chapter No. 8 Research Contribution and Further Scope for Research

This research work has a focus to learn crisis and crisis management as a separate management subject. This thesis is a contribution in terms of providing a complete perspective about crisis management approach and decision making process for crisis management.

The user of this thesis will derive following benefits:

- Theoretical background of crisis, the crisis perceived by various industry leaders
- Practical approach for crisis management adopted by various industry leaders
- The phases of development of various tools and techniques, systems and methodologies, corporate cultures and strategic human resource development.
- Practical application of various strategic decisions making models by various companies.
- Thesis can be used as a ready reckonner for strategy formulation and implementation process.
- Reader will get insight about business environment and correlation with strategy formulation.

Further scope for Research:

- Scope of this research was limited to study crises management approach of various auto component manufacturing companies in Pune. The study can be undertaken for various industrial sectors such as Capitals Goods Manufacturing Companies, Financial Services, Information Technology and Design Solution Services, Tools and Equipment Manufacturers and those who directly depend upon large scale automobile companies.

- Risk management approach associated with crisis management approach is not discussed in this thesis. Comparative study of risk management methodologies adopted by these companies is unexplored area for further research.

Chapter No. 9 Suggestions and Recommendations

Today Automobile component manufacturing has become a dynamic field. To grow and sustain in this dynamic business; these companies should change from dependency stage to interdependence stage in terms of customer relations and product support.

A focus for company should be to manage major crises as experienced by other Automobile Component Manufacturing companies in Pune.

Since all cases were different in nature, it is clear that crisis management depends upon the nature and management style of specific company. Therefore instead of developing a specific model for this purpose researcher has discussed remedies to overcome the problem in bridging the gap for individual companies under study are discussed in conclusions of each case study. Following suggestions are given from over all study of primary data, literature review and various points discussed with various authorities of the company during interviews.

Production and Deliveries:

- Develop capabilities for process design, tool design and product design
- Investment in automation and CNC machines should planned in advance to capture growth opportunities.
- Dedicated team for continuous interactions with customers for product development and technology transfer from customers.
- Various inventory management skills should be learned and practiced to improve product deliveries.
- Companies should identify their strengths and document best practices to be followed for improving efficiency. They can learn from their major customers about best manufacturing practices through technology transfer process.

Human Resource:

Automobile Component Manufacturing Companies face shortage of skilled employees. To overcome this problem following initiatives can be taken.

- Create a brand within the recruitment consultants with transparent communication of facilities and career growth options available.
- They should focus on training and development component of employee retention.
- These companies are working as suppliers but they should project their separate identity as business house to attract best talent.
- Today payments given by these companies are comparable with large scale and multinational companies and this fact should be highlighted with recruiting consultants.
- In various forums milestones created by these companies should be discussed appreciated. Companies should connect with job seekers through these milestones.
- These industries can create close interaction with various institutions to create a brand for employment. These interactions can be in terms of various live projects or sponsorship of academic projects done by students.

Quality of Product:

Customer Satisfaction and product quality are important aspects for any business. Companies working for large scale manufacturing customers are aware about their quality requirements. These quality requirements should be communicated to people involved on regular basis.

Some of quality Initiatives can be:

- Creating own model for quality assurance.
- Regular third party process audit from customers.

- Discussion forum to understand quality issues and solution to resolve the issue.
- Clear communication with customers to understand specific requirements.
- Focus on small improvement program and continuous improvements through participation.
- Reward for best quality performer and part of key performance area.

Finance

Automobile Component Manufacturing companies are dependent upon the large scale customers. These companies don't have any access to direct component market and distribution channels. Finance management especially working capital management is a crucial issue. Working capital management can be improved by

- Establishing the receivable cycles linking with product deliveries. Elimination of delays in deliveries will ensure continuous source of funds from customers.
- From internal accruals, sustenance capacity should be developed atleast for the double time span than credit period allowed to customers.
- Long term forward contract or tri-party agreements with material suppliers can help to reduce burden of material procurement and improve financial planning.
- Debt servicing will help to generate low cost sources of finance from financial institutions.

Chapter No. 10 Conclusions

Crisis Management is a vast and complicated subject in management studies. The assessment of decisions can be done but evaluation is possible only after implementation of decisions. In crisis management, decisions and management strategies play an important role, which create a long-term impact on the performance of the business. Especially in automobile industry, where volume of components to be handled, no of people involved is so large, that sometimes the best practices also fail to avert the crisis.

Automobile industry is a very dynamic industry and majority of the innovations related to manufacturing and production system improvements are originated by this industry. Automobile today has become a part of life as lifeline for every user. Automobile sector is an indicator of any economy. As a result industry crisis in automobile industry is ongoing process. The champions come out with innovative ideas to manage crisis, but the industry again throws a new challenge to the champions. This is an interesting race between the birth of a crisis and solutions to manage the crisis.

Auto component manufacturing companies play an equally important role for growth and success of entire automotive sector. Their contribution in terms of growth of economy is much higher than large-scale manufacturing companies. Today, approximately 75 percent to 80 percent of value addition is done by auto component manufacturers in total vehicle assembly sold by automobile manufacturers.

Auto component manufacturing companies face more crises than their large scale customers. These companies work as cushion or shock absorbers for large scale manufacturers and a launching pad for their growth. It is observed that the large scale manufacturing companies transfer all their work pressures to these companies and to satisfy the customer; auto component manufacturer takes lot of pains in terms of product quality and production schedules.

In this thesis, we have observed the same phenomenon about auto component manufacturing companies. The crises faced by them are the extensions of their customer expectations and result of dynamic market conditions. Today business environment has become so complicated, that it is very difficult to identify independent variables, dependent variable and interdependent variables creating a direct impact on performance of organization. As a decision maker, and responsible for crisis management, one has to take entire business consideration rather than an individual factor for corrective action.

The published case studies and the case studies prepared by conducting interviews, explain us how it is complicated today to derive correct crisis management approach. If we look at various phases of developments in Automobile crises management theories and approaches, it is clear that in early phases crisis management focus was on specific product, technology or process; and today these are small elements of crises management.

In short, crisis, crisis management will be continuous process in any industry, The important point is who someone perceive the crisis, prepare himself to manage the same and come out with innovative solutions for the benefit of a society at large. Crisis is always an opportunity to exit from the business at right time or fight a battlefield, have a victory and again be ready for next battle.

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Questionnaire

Interview technique was used to collect primary data from different automobile component manufacturing companies. Interview was open ended and following questions are used to conduct the interview.

Section A: Profile of Company

Name

Address

Size

Product Portfolio.

Organization Structures

Section B: About Crisis

Q1: What crises are faced by company during last ten years?

Q2: What was an impact of Crisis?

Section C: Crisis Management Decisions

Q2: How you perceive Crisis?

Q3: What tools and techniques you used to assess the situation?

Q4: What was application of Tool?

Q5: What was preventive or curative strategy you applied?

Q6: Please give us details about strategic crisis decisions taken to avert the crisis.

Section D: Results

Q7: What is current scenario?

Q8: What are future plans?