CHAPTER 1

INTRODUCTION

1.1 GENERAL

An increasing number of organizations, in India are attempting to achieve the Deming Application Prize instituted by Japanese Union of Scientists and Engineers (JUSE), which indicates that they are practicing Total Quality Management (TQM), and realizing good results. As part of the strategic planning approach they are starting to use policy deployment. It has been found that the policy deployment based on the Japanese *Hoshin Kanri* concept is a good method of engaging all employees in the business planning process, focusing an organization on the vital few objectives to achieve business results and providing an effective means to track progress against the set objectives.

Strategic planning has long been felt necessary for business success. Unfortunately, the business houses will spend lot of hours of their key manager’s time and money in publishing a strategic plan and to file the impressive document away. Almost all the business houses carry out these strategic plans, but they fail due to various reasons. Each organization should evaluate the effectiveness of planning process and if it is not giving the desired results, the process should be changed. In this context Mr. Pete Babich (1995), President Total Quality Engineering Inc., Poway , CA suggests that the Japanese style of Hoshin planing or the policy management solve most of the problems.
1.2 POLICY DEPLOYMENT

The failure to link the achievement of top management goals with daily management at an operational level is a major cause of loss of momentum in change management. One of the most powerful tools advocated by TQM practitioners is policy deployment.

Policy deployment is a customer oriented, organization wide, strategic approach to identify and execute breakthrough improvements in performance. Its development is credited to Dr. W. Edwards Deming. Policy deployment was initially implemented in Japan about 30 years ago. It is the most consistently applied planning technique found in top performing Japanese companies.

Policy deployment is an element of the overall process of TQM, and is one of the management tools. This element aligns the organization for achieving breakthrough improvements. This provides the means of deploying management policy down through all levels of the organization. More specific statements could be “constantly monitor customer expectation, complaints and satisfactions and constantly rank root causes and work on the top ranking ones so as to reduce variation from intended results”. The effects of policy deployment includes,

- It can deploy the top’s policy to all the employees effectively.
- It can align all the employees to the company’s target
- It can establish a system of delegation of authority and can upgrade the manager’s ability.
- It can hold “tactics” in common and can get “consensus” in a company by implementing catch ball between upper and lower levels and among departments.
- It can challenge higher targets year by year.
Policy deployment has also been called as,

- Hoshin Kanri
- Hoshin planning
- Management by planning
- Policy management
- Management for objectives

Hoshin Kanri translatable as policy management, “is a means to pull together the forces within the company and to unite the minds internally to perpetually improve its performance by adjusting quickly to change,” (Akao, 1991, p.174)

1.3 ORIGIN OF HOSHIN KANRI

The Hoshin Kanri was developed in Japan during the 1960s from quality management practices at Bridgestone Tire Company, Toyota, Nippon Denso, Komatsu, and Matsushita to communicate a company policy, goals and objectives throughout its hierarchy. Its main benefit is to focus attention on key activities for success. It was strongly influenced by the plan – do- check – act cycle of Deming, management by objectives of Peter Drucker, the new divisional concept of General Motors, and the lectures by Dr. Juran on general management.

The term Hoshin is short for Hoshin Kanri. The word Hoshin can be broken into two parts. The literal translation of **HO** is direction. The literal translation of **SHIN** is needle, so the word **Hoshin** could be translated into direction needle or its English equivalent, compass. The word **Kanri** can also be broken into two parts. The first part, **KAN**, translates into control or channelling. The second part, **RI**, translates into reason or logic. Taken altogether, Hoshin Kanri means management and control of the organization's direction needle or focus.
Hoshin is:

- A system of creating and improving a plan
- A method of analyzing and assessing the current situation
- A method of envisioning the future state
- A method of generating breakthrough improvements
- A way of assigning duties across an organization (catchball)
- A way of taking action as teams
- A way of improving the planning process itself
- Not a “silver bullet“

Total quality engineering (1997) says Hoshin Kanri is “a system of forms and rules that encourage employees to analyse situations, create plans for improvement, conduct performance checks, and take appropriate action”.

While Integrated Quality Dynamics (1997) define Hoshin as “a one year plan for achieving objectives developed in conjunction with management’s choice of specific targets and means in quality, cost, delivery and morale”.

Hoshin management was the first attempt at business breakthrough rather than process breakthrough, which dealt systematically with process improvement across a company to produce, desired business results. Hoshin management has three alignment purposes namely,

- It aims to align all the people throughout the company toward the key company goals, using indirect rather than direct enforcement, creating a sense of urgency; thus, even hourly employees are influenced to choose activities with strategically important objectives.
♦ It aims to align all jobs and tasks, whether routine work or improvement work, focusing and coordinating efforts and resources toward the key company goals in order to create breakthrough.

♦ It aims to bring the company’s goals and activities quickly and effectively into alignment with rapid societal or environmental changes.

1.4 MBO AND POLICY DEPLOYMENT

MBO and Hoshin management do the same job with regard to deploying company goals into individual goals and letting people try to achieve them. Eventhough both are same the characteristics of MBO includes,

- Deploy a portion of the top-level target to each segment at each level.
- Lower level management is responsible for providing the means.
- Some negotiation of targets (considerable pressure for lower level management to accept targets proposed by higher level management)
- Little monitoring of the means.
- Presidential recriminations for missing targets and sometimes replacement of the responsible manager.
- New manager blames predecessor’s system for past problems and begins to plan a new system.
- Dependence on undocumented skill in heads of hopefully capable individual managers.
Even though there are some specific characteristics, the weakness in MBO includes,

- A weak linkage between strategy and implementation.
- No detailed planning process.
- An insufficient consensus approach, a hierarchy of objectives, although apparent in theory, may not exist in reality finally most important.
- No framework for a formalized review procedure to monitor and ensure success.

Hoshin management, on the other hand has all the strengths of MBO and it is a systematic and tightly coupled process. It requires much more effort and consensus than MBO but it helps provide a focus, single minded approach by the entire management team. The entire process is designed to ensure success. The characteristics includes,

- Deploy targets with different metrics to each segment at each level.
- Higher level management suggests plausible means for key targets.
- Catchball of targets and means based on fact and analysis.
- Some targets and metrics are aimed at controlling adherence to the means.
- Analysis of causes and failure of the means of the last planning cycle is used to improve methods proposed for the next planning cycle.
- Presidential diagnosis of the CAPD cycle and suggestions on how to improve the next time.
Old manager learns from the past to do a better job the next time.

Attempt to document, needed skill and institutionalize it in the company.

Soin’s (1995) view that hoshin management is a more mature form of MBO is consistent with our view of hoshin management as being complementary to the conventional business planning process.

Akao (1991) and Fortura and Vaziri (1992) revealed the similarities and differences between Policy deployment and MBO. More than the similarities the significant differences are, Policy deployment;

- Focuses on general improvement of the organization and not on individual’s performance
- Aligns individual’s goals with the company’s objectives
- Involves employees at the time of objective setting rather than superior’s direction
- Insists on periodical reviews of progress at some fixed frequency rather than annual review
- Emphasizes structured way of solving problem using quality tools.

1.5 CRITICAL SUCCESS FACTORS FOR POLICY DEPLOYMENT

To ensure successful execution of the policy deployment, the organization should concentrate on several key factors and they are,
1. The true voice of the customer should be captured. The true voice is the data that reflects exactly what the customer values in terms of the products and services offered or not offered by the company. Collection of this data is accomplished in many ways such as surveys, warranty or return data or focus groups. The data should be direct with unbiased feedback from the customer.

2. Policy deployment is all about focus. It originated as a tool to assist companies with the alignment of resources to bring about the most important objectives. Associates must realize that to function in a policy deployment environment, they will give up many of their former duties in favor of those that bring about the company's objectives. This can create some sense of uneasiness or even fear because standard practices are challenged and, in many cases, changed. Meanwhile, the company must recognize that associates are now responsible for new tasks and need the tools and training to perform these new duties effectively and efficiently.

3. The companies must understand the technological and market trends to anticipate the level of a true breakthrough in the years to come. The companies that are unable to make this distinction will congratulate themselves three years later for achieving mediocrity. Achievement of a breakthrough objective implies that a breakthrough has occurred. Working toward its achievement allows the company to discover innovative ways to meet customer needs, creating a best-in-class environment.

4. To maximize the policy deployment process, cascade the strategic objectives all the way through the organization to the
point of impact, where the work gets done. Breaking the objective into specific pieces associated with each point of impact allows the entire company to strive for success, a more sustainable and efficient way to attain global achievement of the objective. Failure to cascade the plan to the point of impact will focus the strategy solely on the formulation process, hindering the organization's ability to execute the plan successfully.

5. Inclusion of other initiatives, such as self-directed work teams, as part of the policy deployment initiative can assist in the culture change required to truly achieve a breakthrough. Companies must carefully consider the strategic goal. In cases where the company must develop ownership of its workforce in delivering better against customer needs, a combination of policy deployment with self-directed work teams is typically a more successful approach than using policy deployment alone.

6. Some of the best policy deployment-driven companies in the world select only three breakthrough objectives for their strategic plan. A company new to policy deployment would do well to limit the number of objectives, thereby avoiding overstretching the company's resources and its ability to successfully implement breakthrough changes.

1.6 APPLICATION OF HOSHIN KANRI

Hoshin Kanri (HK) is a cyclic planning and management concept of Japanese origin. It is applied at two levels:

1. The **strategic planning level**. A small number of key long-range corporate objectives are planned systematically. They are
called breakthrough objectives, and typically last 2 to 5 years with little change. They are directed at achieving significant performance improvements, or at making significant changes in the way an organization, department or key business process operates.

2. The day-to-day level. Most of the time an organization must be devoted to keep the business running, carrying out the value-added activities of the key business processes, which fulfill the purpose of the organization. These day-to-day Business Fundamentals must be monitored on a daily basis in all parts of the organization. This is how the process owners are able to take real-time corrective action for continuous process improvement (Kaizen).

The two-pronged Hoshin Kanri approach is considered one of the pillars of the Total Quality Management philosophy. The method can also be thought of as the application of the Deming cycle (PDCA / PDSA) of plan, do, study (check), act to the management process. The Hoshin review of the plan of last year is the basis (STUDY) for the new Hoshin annual plan (PLAN). This plan is cascaded down the organization via annual planning tables. At each level, the policy is translated and implemented (DO) into policies, targets and actions for the next level down. These APTs are then periodically (monthly) reviewed. Causes of any differences between expected and actual results are identified, discussed and agreed. Corrective action is identified (ACT).
1.7 GENERAL APPROACHES IN HOSHIN MANAGEMENT

From the literature surveyed, it is identified that there are not many approaches available for policy management. The models available in the literature are discussed below.

Akao (1991) provides a Hoshin model, which is shown in figure 1.1. in which the general policy deployment movement from senior management to middle management to implementation teams are reviewed and here the two way arrows represent the catchball used to agree goals, measures and reviews. He says that the senior management establishes the “What” in terms of vision and objectives; middle management negotiates with senior management in terms of goals and resources – negotiating the “how” and then they negotiate with the implementation teams in terms of performance measures.

![Figure 1.1 Akao model](image-url)
The implementation teams are empowered to manage the actions and schedule their activities. Finally, the senior management use the review process to understand the progress and success of the implementation teams.

### 1.7.1 Flag Method

The Flag method developed by Komatsu in 1965 aligns means with target. In the Flag method, first the Pareto analysis is made for the section rejection rate. The department head establishes a target for reducing rejections and then meets the section heads to set up section targets. Here, a major improvement is added to the major rejection item. Then the Pareto deployment for each group is made and targets for group leaders are established.

![Diagram of Target Deployment by Flag Method](image)

**Figure 1.2 Target Deployment by Flag Method**
This corresponds to target deployment in normal organization. The Pareto deployment for each product based on a control graph of the department head becomes the target deployment for the project team representing each product. In a nonstandard organization, a Pareto deployment and the resulting target per phenomenon at the section or group can become a target for deployment for the QC team. Members who are necessary are called into these teams, crossing the boundaries of departments in order to analyse the corrective actions, make standards and prevent repetition. Then the team is dissolved. Target deployment by Flag method for cost reduction is shown in figure 1.2.

1.7.2 Tunnel Type deployment

The tunnel (or Smoke-Stack) type of deployment also deploy only the target namely the target items, target values and the expected results and not the means. The example for deployment in sales division is shown in figure 1.3.

Figure 1.3 Target deployment by Tunnel method
Shoji Shiba et al., (1995) had given a hoshin model which is shown in figure 1.4. The model consists of four phases namely,

**Setting the hoshin**: The company determines the vital few issues the organization must focus on.

**Deploying the hoshin**: The company deploys the hoshin according to the organization’s hierarchy, considering both vertical and horizontal hierarchy.

**Monitoring the hoshin**: The company monitors the execution of the hoshin to initiate corrective action as required.

**Diagnosing the hoshin**: The company evaluates the setting, deploying, and monitoring phases to identify areas for continuous improvement. This diagnosis is of the hoshin management system, not of the hoshin goal. Annually, the company performs diagnoses to improve the planning system.
Myron Tribus (1997) had given an improved hoshin model after analysing the two approaches. The two approaches and the improved hoshin model are discussed below.

1.7.3 Broadcast approach

The first approach is the “broadcast approach” which is the normal approach to policy deployment and is shown in figure 1.5. Here the CEO develops a policy statement and broadcasts it to the troops. Sometimes the broadcast is made through videotape and is followed up with general meetings at which the audience is encouraged to question the speaker. Broadcasting makes the executive feel that he/she is demonstrating an enlightened spirit of communication. The group meetings encourage people to express their opinions, but the setting does not provide useful feedback. The executives do not learn that what they will do is what is desired of them.
1.7.4 Pass it along approach

As an alternative to broadcasting, the CEO or some other executive announces the policy and each manager interprets the policy (or sometimes passes it along) until the policy arrives at the place where something is to be done. This process is shown in figure 1.6.

The weakness in the process is that there is no feedback. The person who has announced the policy will not learn what problems the process faces until it is generated much later. In some cases, the leader will never learn what went wrong but will merely issue another policy.
1.7.5  **Improved approach to Hoshin**

Then the author had given an improved model which is shown in figure 1.7. In this improved model, at each level the manager and subordinate meet to discuss the policy statement. The subordinate has prepared an interpretation of the policy statement which both persons have read ahead of time. If there are differences in the interpretation, the two can discuss the reasons for the differences.

Even though there is improvement over the first two approaches, it is still not adequate for improving the policy deployment process.

So he developed one more model which is shown in figure 1.8. Here the process shown in the figure should be repeated at each level, not only deals with the clarification of policy, but also provides information to help each manager to improve.

Many managers feel that both the improved processes are too complicated and they think that a simple problem of communication has been made much too complex. It is true that it takes more time to conduct both the improved processes.

However, if the original dissemination of policy is inadequate, the amount of time the executives spend trying to correct the situation is much greater than the time required to do it right the first time.
Figure 1.7 Improved Approach to Hoshin
1.8 BALANCED SCORECARD

The BSC is a performance measurement and the performance management system developed by Robert Kaplan and David Norton (“The Balanced Scorecard – Measures that Drive Performance”, Harvard Business Review, Jan-Feb 1992) has been adopted by a wide range of leading edge organizations, both public and private.

Traditional financial system provides an indication of how a firm has performed in the past, but offer little information about how it might perform in the future. For example, a firm might reduce its level of customer service in order to boost current earnings, but then future earnings might be negatively impacted due to reduced customer satisfaction.
To deal the above problem, Robert Kaplan and David Norton developed the Balanced scorecard, a performance measurement system that considers not only financial measures but also customer, business process and learning measures.

Through the BSC, an organization monitors both its current performances (finances, customer satisfaction and business process results) and its efforts to improve processes, motivate and educate employees, and enhance information systems – its ability to learn and improve. It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results.

The Balanced Scorecard is basically a methodology that defines an organization's performance measurement system or metrics based on the organization's value drivers and strategy. Value drivers include everything that enhances the organization's value - customer service, innovation, operational efficiency, financial performance, etc. Once these metrics have been defined, they are rolled up into a 'scorecard', which the company uses to measure, record, and analyze its performance and determine if it is meeting its goals.

This measurement-based management approach not only considers feedback information from the organization's internal processes, but from various business outcomes as well to achieve continuous improvements in all aspects that drive the organization's over-all value. Using performance data from different aspects of the business (i.e., internal processes, financial performance, customer satisfaction, human resource development, etc.) allows the company to acquire a 'balanced' assessment of its needs and weaknesses and develop the appropriate strategy to come out with an improved and more balanced set of performance results.
1.9 ELEMENTS OF BALANCED SCORECARD

The Balanced scorecard is an approach for measuring the performance of the system. Dr. Norton describes the Balanced scorecard as follows:

“A balanced scorecard is a system of linked objectives, measures, targets and initiatives which collectively describe the strategy of an organization and how the strategy can be achieved. It can take something as complicated and frequently nebulous as strategy and translate it into something that is specific and can be understood.”

The elements comprising a Balanced scorecard, are:

- Perspectives
- Objectives
- Measures & Targets
- Initiatives
- Reporting

1.9.1 Perspective of balanced scorecard

Kaplan and Norton’s Balanced Scorecard describes strategy and performance management from multiple perspectives. Perspectives represent various viewpoints towards an organization’s performance. The Balanced scorecard views an organization from four perspectives: 1) the learning and growth perspective; 2) the business process perspective; 3) the customer
perspective; and 4) the financial perspective. The perspective and the key question are shown in table 1.1.

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Key Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
<td>To succeed financially, how should we appear to our stakeholders?</td>
</tr>
<tr>
<td>Customer</td>
<td>To achieve our vision, how should we appear to our customers?</td>
</tr>
<tr>
<td>Process</td>
<td>To satisfy our customers and shareholders, at what business processes must we excel?</td>
</tr>
<tr>
<td>Learning and Growth</td>
<td>To achieve our vision, how will we sustain our ability to change and improve?</td>
</tr>
</tbody>
</table>

The balanced scorecard framework can be depicted in the figure 1.9. Each perspective is discussed in detail below.

1.9.1.1 Learning and growth perspective

This identifies the intangible assets that are most important to the strategy. The objectives in this perspective identify which jobs (the human capital), which systems (the information capital), and what kind of climate (the organization capital) are required to support the value creating internal processes. These assets must be bundled together and aligned to the critical internal processes.

This perspective pertains to the development of the human resources of the company, which includes the following: 1) personnel training and improvement; 2) cultivation of corporate culture; 3) organizational development, including the nurturing of corporate experts, gurus, and mentors; 4) setting up of fast and efficient knowledge transfer infrastructure;
and 5) opening up of communication lines among personnel. This perspective supports the concept that the people are a company's main resource and most valuable asset, so metrics defined for this perspective must measure various aspects of employee improvement, growth, and satisfaction. The following table 1.2 outlines some examples of learning and growth measures:

### Table 1.2 Examples of Learning and Growth Perspective

<table>
<thead>
<tr>
<th>Objective</th>
<th>Specific Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing learning</td>
<td>Time to new process maturity</td>
</tr>
<tr>
<td>Product focus</td>
<td>% of products representing 80 % of sales</td>
</tr>
<tr>
<td>Time to market</td>
<td>Time compared to that of competitors</td>
</tr>
</tbody>
</table>

Figure 1.9 Balanced scorecard framework
1.9.1.2 The business process perspective

This identifies the few critical processes that are expected to have the greatest impact on the strategy. For example, one organization may increase its internal R & D investments and reengineer its products development processes so that it can develop high performance, innovative products for its customers. Another organization, attempting to deliver the same value proposition, might choose to develop new products through joint-venture product partnerships.

This perspective deals with the company's internal business processes. Every manager within the company must have his or her own set of metrics that determine whether his or her area of responsibility is performing business to the expectations set by the company's overall Balanced scorecard. These business metrics, which measure various aspects (efficiency, speed, quality, etc.) of how well the company's products and services are manufactured to match customer expectations, must be carefully defined by people who know the internal processes very well. The following table 1.3 outlines some examples of process objectives and measures.

**Table 1.3 Examples of Business process perspective**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Specific Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing excellence</td>
<td>Cycle time, yield</td>
</tr>
<tr>
<td>Increase design productivity</td>
<td>Engineering efficiency</td>
</tr>
<tr>
<td>Reduce product launch delays</td>
<td>Actual launch date vs. plan</td>
</tr>
</tbody>
</table>
1.9.1.3 The customer perspective

The customer perspective, as its name implies, focuses on customer satisfaction. Keeping the customers satisfied, if not delighted, is the best way to keep them loyal to the company. Failure to satisfy the customers will prompt them to look for other suppliers who can deliver what they want. Customer satisfaction is not always easy to measure though, so ingenuity may be needed for the establishment of the appropriate metrics and data gathering system that will reflect the true sentiment of the customer.

This defines the value proposition for targeted customers. The value proposition provides the context for the intangible assets to create value. If customers value is consistent with quality, timely delivery, skills and systems, processes that produce and deliver quality products and services, are highly valuable to the organization. If the customer values innovation and high performance, then the skills, systems and processes that create new products and services with superior functionality take on high value. Consistent alignment of actions and capabilities with the customer’s value proposition is the core of strategy execution. The following table 1.4 outlines some examples of specific customer objectives and measures;

**Table 1.4 Examples of customer perspective**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Specific measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>New products</td>
<td>% of sales from new products</td>
</tr>
<tr>
<td>Responsive supply</td>
<td>Ontime delivery</td>
</tr>
<tr>
<td>To be preferred supplier</td>
<td>Share of key accounts</td>
</tr>
<tr>
<td>Customer partnerships</td>
<td>No. of cooperative efforts</td>
</tr>
</tbody>
</table>
1.9.1.4 The financial perspective

This describes the tangible outcomes of the strategy in traditional financial terms. Financial measures are a critical component of the balanced scorecard, especially so in the for – profit world. The objectives and measures in this perspective tell us whether our strategy execution, which is detailed through objectives and measures chosen in the other perspectives, is leading to improved bottom – line results. We have to focus all our energy and capabilities on improving customer satisfaction, quality, on- time delivery, or any number of things, but without an indication of their effect on the organizations financial returns, they are of limited value. Measures such as ROI, shareholder value, profitability, revenue growth, and cost per unit are the lag indicators that show whether the organization’s strategy is succeeding or failing.

Every company exists to make money. The financial perspective is about that - the company's ability to make money. There is no need to emphasize the importance of collecting and analyzing financial data in a timely manner, since every company is doing this already, whether under a BSC program or not. The difference is that companies practicing the BSC concept do more than measure themselves solely in terms of their financial bottom lines, which is what most traditional companies do. The following table 1.5 outlines some examples of financial metrics:

Table 1.5 Examples of financial perspective

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Specific Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>Revenue growth</td>
</tr>
<tr>
<td>Profitability</td>
<td>Return on equity</td>
</tr>
<tr>
<td>Cost leadership</td>
<td>Unit cost</td>
</tr>
</tbody>
</table>
No company is limited to these perspectives, and these may be altered or added to according to each company’s unique strategy and structure.

1.9.2 Objectives of Balanced Scorecard

Objectives represent specific goals that have been defined within each perspective. Each objective should adhere to the guidelines summarized by the acronym:

SMART

- Specific
- Measurable
- Attainable
- Realistic
- Time-bound

Objectives are linked to represent a cause and effect relationship. The diagram showing this linkage is key to the Balanced scorecard, as it provides an immediate visual overview of an organization’s strategy and the dependencies amongst objectives. This diagram is referred to as The Driver Model, The Cause and Effect Relationship, or The Strategy Map. Linking objectives in this way implements a holistic approach towards strategy, effectively communicating how the whole system will benefit by cooperation of the parts. The cause and effect relationships between objectives represent feedback loops that can be used to predict performance based on causal relationships between objectives.
1.9.3 Measures and Targets

Each objective is linked to at least one quantitative measure. Each measure will have targets set that should be attained by its associated objective to be achieved. Each measure must have defined dates for measurement. Each sample date in which a measurement will take place should have its own target, providing a progressive target that is relevant to the period the measure is sampled. Measures will ideally be extracted dynamically from existing data and management systems in place at an organization – providing a seamless integration of the Balanced scorecard to underlying systems.

Measures are the indicators of how a business is performing relative to its strategic objectives. Measures, or metrics, are quantifiable performance statements. As such, they must be:

- Relevant to the objective and strategy.
- Placed in context of a target to be reached in an identified time frame.
- Capable of being trended.
- Owned by a designated person or group who has the ability to impact those measures.

An organization is likely to have various types of measures. Some will be calculated from underlying data. Others will be aggregated index measures that assign different weights to multiple contributing measures. Some are frequently measured and others may only be measured on a quarterly or annual basis. It is important to balance lagging indicators—which includes most financial measures—with leading indicators—areas where good performance will lead to improved results in the future. It is also
important to balance internal measures, such as cost reduction, injury incident rates, and training programs, with external measures like market share, supplier performance, and customer satisfaction.

When targets are defined, ‘traffic lighting thresholds’ are also defined. Traffic lights represent the range of the measure that should show up as red (failing), amber (caution) or green (on track) and are highly effective when reports are generated.

1.9.4 Initiatives

Initiatives are specific actions that will be implemented to help achieve specific objectives, by ensuring that the target for a specific measure is met. The initiative is that which will move a measure toward its target value. Initiatives may be large or small in scope. They generally are owned by a person or group, and are managed like projects. An initiative can be linked to more than one objective. Initiatives can usually be classified as either a finite project or a specific investment.

1.9.5 Reporting

Once the scorecard has been designed, reports must be developed to ensure accurate representation of the Balanced scorecard. Reports aid the effective communication of the organizations’ strategy and provide a powerful means of assessing the effectiveness of the Balanced Scorecard on a regular basis.
Some common reports would include:

- Strategy mapping
- Strategy matrix
- Strategic themes

1.9.5.1 Strategy mapping

Mapping a strategy is an important way to evaluate and make visually explicit an organization’s perspectives, objectives, and measures, and the causal linkages between them. Organizing objectives in each defined perspective, and mapping the strategic relationships among them, serves as a way to evaluate objectives to make sure they are consistent and comprehensive in delivering the strategy.

The strategy map is a visual way to communicate to different parts of the organization about how they fit into the overall strategy. It facilitates cascading a balanced scorecard through an organization, because it can be created at different levels of an organization, and each level’s map can be viewed for alignment with the overall strategy map.

A strategy map is a diagram that describes how an organization creates values by connecting strategic objectives in explicit cause and effect relationship with each other in the four BSC objectives namely financial, customer, processes and learning and growth.

The general strategy map shown in figure 1.10 is evolved from the simple, four perspective model of the balanced scorecard. The strategy map provides the missing link between strategy formulation and strategy execution. It also provides a normative checklist for a strategy’s components.
and interrelationships. Here, all the information is contained in one page and this enables relatively easy strategic communication. The financial perspective looks at creating long term shareholder value, and builds from a productivity strategy of improving cost structure and asset utilization and a growth strategy of expanding opportunities and enhancing customer value. These last four elements of strategic improvements are supported by price, quality, availability, selection, functionality, service, partnerships and branding.

From an internal perspective, operations and customer management processes help to create product and service attributes while innovation, regulatory and social processes help with relationships and image. All of the processes are supported by the allocation of human, information and organizational capital. Organizational capital is comprised of company culture, leadership, alignment and teamwork. Finally, cause and effect relationships are described by connecting arrows. The Principles of strategy maps are as follows:

- Strategy balances contradictory forces.
- Strategy is based on a differentiated customer value proposition.
- Value is created through internal business processes.
- Strategy consists of simultaneous, complementary themes.
- Strategic alignment determines the value of intangible assets.

By connecting the things such as, shareholder value creation, customer management, process management, quality management, core capabilities, innovation, human resources, information technology, organizational design and learning with one another in one graphical representation, strategy mapping help greatly in describing the strategy and to communicate the strategy among executives and to their employees. In this
way alignment can be created around the strategy, which makes the successful implementation of a strategy more easier.

1.9.5.2 **Strategic themes**

The strategic theme is grouping of similar objectives and their measures across perspectives. It helps to make a complex strategy more understandable by organizing and categorizing objectives and measures. It also reduces the amount of information and number of causal linkages that need to be drawn on a strategy map. A complex organization might have several strategic themes, with objectives and measures designed to gauge the effectiveness of the organization in pursuing those themes.

1.9.5.3 **Strategy matrix**

The strategy matrix is another useful visualization and summarization tool. It displays objectives, measures, targets, and initiatives in one table. The strategy matrix can point to areas where scorecard elements might be out of balance. For example, there may be a cluster of initiatives around one objective, while other objectives have no supporting initiatives. This can be useful when spending on priority basis for projects. Typically, the strategy matrix will reflect a strategic theme, so one matrix is prepared for each theme.

According to Kaplan and Norton, organizations that are successful in implementing the balanced scorecard approach follow five principles that enables to focus on their strategy and deliver the breakthrough results: 1) mobilization of change through executive leadership; 2) translation of the company strategy into operational terms; 3) alignment of the organization to the strategy; 4) making the strategy everyone's job; and 5) making the strategy a continual process.
Figure 1.10 Strategy Map
1.10 CRITICAL SUCCESS FACTORS FOR BSC DEVELOPMENT

Extensive research and evaluation of hundreds of Balanced scorecard implementations has been done by the balanced scorecard collaborative (the consulting organization established by the founders of the Balanced scorecard methodology) and various other practitioners. A consistent theme emerges from this body of knowledge: the balanced scorecard is a cultural change initiative. Successful organizations use the balanced scorecard to create a culture of continual focus on strategy formulation, measurement, and revision. They create what Kaplan and Norton call a strategy-focused organization. The key elements in creating this strategy-focused organization are as follows:

1.10.1 Mobilize change through executive leadership

Building a strategy-focused organization usually involves significant culture change. Organizational change is an evolutionary process. Consistent executive leadership, involvement, active sponsorship, and support are critical to maintaining momentum through the challenges that organizations inevitably encounter.

The executive team must be in agreement on strategies and must drive the scorecard process for it to be successful. Often executives are too busy to be intimately involved in the process, so a cross-functional team is formed. This can be successful if:

- The executive team has first participated in facilitated sessions at which the fundamental mission, vision, and strategic themes are established.
• The team has the ear of the leadership and can readily escalate issues to executives for resolution.

• Executives continue to communicate their support for, and involvement in, the balanced scorecard initiative.

1.10.2 Make strategy a continual process

A strategic focus is not maintained if strategy formulation becomes a one-time activity. Feedback loops are needed to constantly focus attention on and reevaluate the strategy and measures. To support strategy evaluation, tools for reporting and analysis should be deployed to enable analysis of the factors influencing the measures. The budget process is often linked to strategy, and in some cases the balanced scorecard replaces traditional budget formulation as a way to allocate funds.

1.10.3 Make strategy everyone’s job

This is done through strategic education and awareness and by cascading the scorecard down through the organization, so that business units, departments or even individuals create their own scorecards. The linkages to strategy are explicitly defined at all levels. This helps departments and individuals understand and find new ways to support the strategy of the organization. It also helps to ensure that employees at all levels are being measured and compensated in ways that support the strategy.

1.10.4 Align the organization to the strategy

This involves evaluating current organizational structures, lines of reporting, and policies and procedures to ensure that they are consistent with
the strategy. It can include re-alignment of business units or redefining the roles of different support units to make sure that each part of the organization is lined up to best support the strategy.

1.10.5 Translate the strategy into operational terms

Tools like the strategy maps, cascaded scorecards, and strategy grids are used to integrate strategy with the operational tasks that employees perform daily. This ensures that tasks are done in ways that support the strategies.

1.11 REASON FOR USING BALANCED SCORECARD

Kaplan and Norton (1996) described the BSC as a strategic management system and much of the literature make similar claims to policy management. While the original intent of the scorecard system was to balance historical financial numbers with the drivers of future value for the firm, as more and more organizations experimented with the concept, they found it to be a critical tool in aligning short term actions with strategy. To implement any strategy successfully, it must be understood and acted upon by every level of the firm.

As such, there is a potential for the BSC to play a part in policy management as a useful directional aid, especially during the catchball development of objectives when local plans must be aligned with an annual corporate policy and in a way that is consistent with corporate goals. It can also be used as a communication vehicle for informing employees generally about the organization’s goals in a way that could be used to stress the importance of making contributions to a particular annual policy. Witcher (2002) stated that it is doubtful though if the scorecard can be used effectively
to translate business goals into operational objectives without the other elements of policy management. The following are some of the reason for using the balanced scorecard:

1.11.1 **Financial measures are insufficient**

While financial accounting is suited to the tracking of physical assets such as manufacturing equipment and inventory, it is less capable of providing useful reports in environments with a large intangible asset base. As intangible assets constitute an ever-increasing proportion of a company’s market value, there is an increase in the need for measures that better report such assets as loyal customers, proprietary processes and highly skilled staff.

1.11.2 **Scorecard measures are limited in number**

The balanced scorecard is more than a collection of measures used to identify problems. It is a system that integrates a firm’s strategy with a purposely limited number of key metrics. Simply adding new metrics to the financial ones could result in hundreds of measures and would create information overload. To avoid this problem, the balanced scorecard focuses on four major areas of performance and a limited number of metrics within those areas. The objectives within the four perspectives are carefully selected and are firm specific. To avoid information overload, the total number of measures should be limited to somewhere between 15 and 20, or three to four measures for each of the four perspectives.

1.11.3 **A chain of cause and effect relationship**

Before the balanced scorecard, some companies used a collection of both financial and non-financial measures of critical performance
indicators. However, a well-designed balanced scorecard is different from such a system in that the four BSC perspectives form a chain of cause and effect relationships. Effectively, the cause and effect relationships illustrate the hypothesis behind the organization’s strategy. The measure reflect a chain of the performance drivers that determine the effectiveness of the strategy implementation.

1.12 NEED FOR THE PRESENT STUDY

The conventional methods of strategic planning and implementation have many problems. Zairi.M (1994) says many strategies fail to deliver for a variety of reasons including, among others:

- Poor communication of goals and objectives.
- Too many disruptions and changes in direction.
- Not exactly bothered about the long term goals.
- Cost is the key driver for results at the expense of real improvement opportunities.
- Voice of customer not really captured.
- Achievements are not sustainable.

Policy deployment offers a planning process, which can respond to and resolve these issues, and ensure sustainability. For instance, Newcomb (1989) says management by policy deployment is characterised by:

- The purpose of the organization,
- The principles that guide actions,
- A vision of where the firm is going,
• The objectives that move the firm toward its vision,
• The priorities assigned to the objectives,
• An action plan in which everyone participates.

Policy management brings alignment in the organization, so that the company’s goals can be achieved.

1.12.1 Symptoms of organizational deficiencies

The organization where the policy deployment is not applied have the following symptoms of deficiencies,

• The organization has a vision and mission which serve mostly as the basis for supposedly inspirational posters, slogans, wallet cards, pocket protectors, and ‘thought of the day’ quizzes; all of which constitute non-value-added expenditures and activities.

• There is little or no integration between the organization's strategic and business plans, and the KPIs measured on a daily basis.

• The organization annually generates 100's of “number one priorities” (goals / objectives), while everyone recognizes it doesn't actually have the resources to achieve half that many.

• Many constructs or themes inherent within the organization's vision and mission are never measured.

• The organization's strategic and business plans are last viewed each year by managers when they place the 4” 3 ring binders on their shelves.
• The divisions or departments within the organization can all successfully “hit their numbers”, while the organization as a whole fails to make an acceptable profit.

• Projects are selected for their interest level and/or cannot be killed off.

• Individuals’ responsibilities are often only related to the vision, mission, and strategic plan of the organization by happenstance.

• The organization operates on a “feed the beast” mentality, assuming that any business is superior to no business (i.e. "revenue is king").

• The organization employs standard or average cost accounting procedures to ensure that no one understands which business is truly profitable.

• True versus apparent cost and profit cannot be broken down by flow path, customer, product(s) or any critical component; leading to . . .

♦ Incentive systems that encourage the sale/production of ‘any’ units, versus the optimization of ‘richness of product mix’ sold/produced, leading to . . .

➢ Working on just-in-time process improvement and lean manufacturing projects which ultimately reduce the profit (asset) i.e dollars generated.

1.12.2 Pitfalls in policy deployment

Hoshin is part of an improvement policy, progressive and ongoing. Some of the pitfalls includes,
• The basic problem in policy deployment is that those who seldom make policy are seldom sufficiently knowledgeable about the problems of those who must carry out the policy. So, they understand if what they ask is possible or practical.

• The executive does not learn what the people intend to do about the new policy, whether they have really understood it and whether what they will do is what is desired of them.

• Some of the process does not have any feedback system. The person who has announced the policy will not learn what troubles the process until much generated later. In some cases the leader will never learn what went wrong but will merely issue another policy.

• Duration is poisonous, hoshin planning may just die if no energy keeps it alive.

• Lack of interest will show up if evaluation/checking frequency is too low, staff will forget to integer the Hoshin targets in their daily routine, and will hurry to show some (faked) results just before checking.

• The system should be monitored by a "demanding" check authority, so as to maintain staff's steady attention to progress. Credibility of the whole system depends upon the care, attention and dedication of top management. As counterpart of check authority, staff must also be demanding about information, feedback, means and resources.

• If check meetings turn into meaningless routine gathering for easy target satisfaction report, or if periodic meetings get forgotten, if drifts or missed targets go unnoticed, the system is about to die -if not already dead.
• Even in Japanese companies there appear to be some fundamental problems with applying the policy deployment system.

• Ambiguity of relations between goal and policy i.e, there are problems with Japanese distinguishing between policies and goals, the order they are issued in and how they relate to each other.

• The lack of fit content of management policy between superiors and subordinates on matters pertaining to ratio of abstractness and concreteness. So there is an imbalance between content of policy and level of its issuer. The higher the policy issuer the more abstract the policy should be and the less concrete and it is the role of the subordinate to develop plans and not policy.

So, a study is taken to develop a policy deployment model, which would help to overcome the above said pitfalls.

1.12.3 Pitfalls in balanced scorecard

The balanced scorecard is one of the most significant contributions to management practice in the last 75 years. However, despite its well-publicized successes, the majority of organizations that adopt a scorecard fail to reap the rewards they expect. In researching these disappointments, some common themes stand out:
1.12.3.1 Measures that do not focus on strategy

A common problem is that an organization will adopt some new non-financial measures, but fail to align the measures adequately with strategy. According to Dr. Norton,

“The biggest mistake that organizations make is thinking that the scorecard is just about measures. Quite often they will develop a list of financial and non-financial measures and believe they have a scorecard. This, I believe, is dangerous.”

For example, in one case a bank’s IT department had identified measures and benchmarks for being a world class IT department. According to those measures, they had done very well. However, the measures used by the IT department were not tied in with the overall business strategy and therefore discouraged the IT department from meeting the strategic business needs.

1.12.3.2 Failure to communicate and educate

A scorecard is only effective if it is clearly understood throughout an organization. Frequently, scorecards will be developed at the executive level, but not communicated or cascaded down through an organization. Without effective communication throughout the organization, a balanced scorecard will not spur lasting change and performance improvement.
1.12.3.3 Measures tied to compensation too soon

It is generally a good idea to tie compensation to the balanced scorecard. However, several factors suggest it can be a mistake to do that too early in the lifecycle of the scorecard.

- Rarely is an initial scorecard left unrevised. So, if an organization ties compensation to measures that are not in fact driving desired behavior, a powerful motivator has been instituted that will drive an unwise action.

- Data may be incomplete or inaccurate, so measures may not be correct. If employees’ paychecks are adversely impacted, serious morale problems and invalidation of the scorecard would inevitably result.

- It may take time to determine realistic targets, and penalizing people for failing to achieve an unreachable target will surely have a negative impact on morale and eventually profits.

1.12.3.4 No accountability

Accountability and high visibility are needed to help drive change. This means that each measure, objective, data source, and initiative must have an owner. Without this level of detailed implementation, a perfectly constructed scorecard will not achieve success, because nobody will be held accountable for performance.
1.12.3.5 Employees not empowered

While accountability may provide strong motivation for improving performance, employees must also have the authority, responsibility and tools necessary to impact relevant measures. Otherwise they will resist involvement and ownership. Resources must be made available, and initiatives funded, to achieve success. Employees are likely to need new information tools to help them understand the drivers of measures for which they are responsible so they can take action. These tools can include systems for analysis and early warning indicators, exception reports and collaboration.

1.12.3.6 Too many initiatives

Large, decentralized organizations usually find that crossover and duplication among initiatives can be identified. Cross-matching scorecard objectives with current and planned initiatives can be an important way to focus and align a company. This method will identify cases where objectives are supported inappropriately. Rather than relying on budgeting for strategic funding, this process eliminates waste, speeds scorecard implementation, and helps an organization prioritize their initiatives to better support their strategy.

1.13 REASON FOR DEVELOPING A NEW MODEL

Based on the above discussion and also based on the review of related literature discussed in the next chapter the following research gaps are identified.

- There is little or no research on the policy deployment.
- There is little or no research in the establishment of policy deployment.
There is no evidence (work done) on TQM – policy deployment / management – Implementation model in the organization.

There is little or no research on the practice of policy deployment in India.

So, to bridge the gap in literature, a new model by combining policy deployment and performance measurement system is proposed through this research work.

1.14 OBJECTIVES OF THE STUDY

- To develop a model that would help implement Policy deployment processes in Automobile / auto ancillary organizations in Indian context.

- To integrate Policy deployment and performance management of individuals so that the goals are achieved.

- To implement the Policy deployment model in selected auto ancillary units in India and look for the results.

- To develop a software package to automate the process of deployment, monitoring and control.