SCM FINDINGS, MODEL AND RECOMMENDATIONS
It is observed in last chapter that various factors put strong impact on SCM in an Cellular Industry. To sustain the benefits of SCM in dynamic & uncertain business environment, the need for continuous evaluation of SCM is called for. Though SCM can be evaluated on a number of parameters, the most important parameter which defines its use from business point of view is efficiency & effectiveness. The existing literature on SCM is having very limited inputs and addressed partial view. So there must exit a way to identify the overall effectiveness of SCM and also the scope of improvement. This chapter will highlight various findings on existing SCM, Limitations of existing SCM systems and finally will suggest Models that satisfies the needs as established in chapter 1. They are

- Processes of existing SCM literature, their responses and updates on date
- Performance indicators and process of supply chain in cellular industry
- Impact of Supply Chain Management on Productivity and efficiency
- Factors for minimizing supply chain costs, maximizing outputs.
- Identification of barriers to successful implementation of SCM
- Retaining Customer with effective SCM
- Vendor satisfaction index
- Control criterion for reducing paper work, level of automation, level of computerization by Organization to provide efficient services to customers
- Identifications of Strength, Weakness, Threats & Opportunities in Cellular industry
- Limitations in existing system, Organization Structure of SCM
- An easy way to facilitate continuous / regular monitoring with SCM Models.

6.1 FINDINGS

Findings from various resources are:

1) Following parameters are found to be performance indicator

- Price
- Ability to meet delivery due dates
- Commitment towards quality
- Timely Payment to vendors
- Technical expertise
- Innovation

2) Impact of Supply chain management on Productivity and efficiency
6. SCM Findings, Suggested Model & Recommendations

- Reduction in cycle time
- Reduction in inventories
- Reduction in stock outs
- Improved quality of service
- Cost reduction
- Effective resource planning

3) Factors for minimizing supply chain cost
   - Proper information system
   - Regular training
   - Process flow

4) Barriers for effective supply chain are
   - Lack of sophisticated information system
   - Lack of ability to manage inventory
   - Lack of cooperation among supply chain members
   - Competition from other supply chain
   - Geographical distances

6.2 SWOT ANALYSIS – Cellular Industry

A SWOT Analysis is performed to develop an understanding of the gaps that exist within the enterprise.

6.2.1 Strengths
- Vast geographical area for design of distribution network
- Possible multiple modes of transportation
- Vast rail network
- Cheap and abundant manpower
- Indigenous technology base
- Indigenous supply of material possible for most cases
- Knowledge base exists
- Technical Know How
- Trained manpower
- Good Infrastructures
- Manpower base
6.2.2 Weakness

- Inadequate facilities
- Facility location decision are not professionally taken in some areas
- Budget constraints
- Low level of technology employed in equipment
- Handling damages / losses
- Uncertain Vendors
- Low inventory
- Turnover ratio
- Demand uncertainties
- Inflationary pressures

6.2.3 Opportunities

- Need to develop a total system network
- Optimal location of facilities
- Cost Control
- Source Development
- Technology up gradation
- Design of effective communication network
- Automation
- Improved work environment

6.2.4 Threats

- Shortages
- Work Culture
- Attitude towards customer
- Technology Life Cycle
- Budget Constraint
- Maintenance of systems
6.3 Detail analysis and result shows following findings

After analyzing the various factors considered in research it is observed that following **12 factors** are significant as compared to other factors.

- **Variability in Demand**
  Response from various respondents indicates that Demand and Supply very important role in this industry. Comparing Airtel and Hutch it is observed that in **Airtel most respondents where neutral that is 30.88 %** where as in case of **Hutch most respondents where highly satisfied that is 31.87 %**.Calculating and understanding the **Chi Value that is 10.66 and p value 0.03** it shows that this factors is significant and need to be focused by Industry

- **Consumption rate**
  Response from various respondents indicates that Consumption rate is still have a neutral response .Comparing Airtel and Hutch it is observed that in **Airtel is having 34.29 % of respondents are neutral where as in case of Hutch it is 24.18%**.Simillarly in Hutch respondents where highly satisfied with 38.46 %,Calculating and understanding the **Chi Value that is 18.50 and p value 0.0** it shows that this factors is significant and need to be focused by Industry.

- **Life Cycle stage**
  Response from various respondents indicates that respondents believe that Life Cycle plays an important role. Comparing in the given Industry it is observed that in **Airtel 32.35 % of respondents are moderately dissatisfied where as in case of Hutch it is 14.29 %**.Similarly In Hutch Highly Satisfied respondent are 41.76 % where as in Airtel it is 14.71 %.Calculating and understanding the **Chi Value that is 20.41 and p value 0.00** it shows that this factors is significant and need to be focused by Industry.

- **Product Variety**
  Response from various respondents indicates that this factor is also considered to be an important factor. Comparing Airtel and Hutch it is observed that in **Hutch 41.76% of respondents believe in too Many services where as in Airtel they prefer now to be restricted to limited service and most respondents to prefer up double services that is 26.47 %**.Calculating and understanding the **Chi Value that is 17.46 and p value 0.00** it shows that this factor is significant and need to be focused. Above details shows that respondent from Airtel prefer to concentrate on limited services, might be because they are already in many services and Hutch respondents want to get into many more services.
6. SCM Findings, Suggested Model & Recommendations

- **Criticality of item**
  Response from various respondents indicates that in SCM Criticality of item decide the involvement. Comparing Airtel and Hutch it is observed that in **Hutch 50.55 %** of respondents feel this is highly Vital where as in case of **Airtel it is 25.00 %**. Calculating and understanding the **Chi Value that is 10.93 and p value 0.03** it shows that this factor is significant and need to be focused. Where as in Airtel maximum respondents that is 33.82 % feel it is essential for SCM.

- **Quality (No Of Rejections)**
  Response from various respondents indicates that this part is of High importance for both organizations. Comparing it is observed that in **Airtel 36.76 %** of respondents believe it is of high importance and retained where as in case of **Hutch 21.98 %**. Calculating and understanding the **Chi Value that is 8.28 and p value 0.03** it shows that this factor is significant and need to be focused.

- **Manufacturing Lead time**
  Response from various respondents indicates that in **Airtel maximum product line is freezeed and forecasted and 55.88 %** of respondents believe it is very Short where as in case of **Hutch it is 25.27 %**. In Case of Hutch Maximum respondents that is 45.05 believe that it is Moderate . Calculating and understanding the **Chi Value that is 17.82 and p value 0.00** it shows that this factor is significant and need to be focused.

- **Number of Clients**
  In this case response is quite neutral . Response from various respondents indicates that in **Airtel 35.29 %** of respondents believe that number of clients play significant role and factor for SCM where as in Hutch 20.88 % agreed on the same . In case of **Hutch it is 36.26 % believes that number of clients have neutral affect on SCM**. Calculating and understanding the **Chi Value that is 10.09 and p value 0.04** it shows that this factor is significant and need to be focused.

- **Source Of Supply**
  Response from various respondents indicates that in SCM Source of supply is still important for organization to perform. Comparing Airtel and Hutch it is observed that in **Hutch 36.26 %** of respondents feel this is indigenous where as in case of **Airtel it is 16.18 %**. In addition to that in case of Airtel respondents believe that it is partially controlled as in many cases they
have strategic tieup for a defined period. Calculating and understanding the **Chi Value that is 22.45 and p value 0.00** it shows that this factor is significant and need to be focused.

- **Communication System**
  
  Response from various respondents indicates that in SCM communication system plays an important role and decide the involvement of many decisions. Comparing Airtel and Hutch it is observed that in **Hutch 43.96 %** of respondents feel this is V. effective where as in case of **Airtel it is 19.12 %**. In **Airtel maximum** respondents believe that seeing the present clientage it is average that is **33.82 %** where as in **Hutch it is 21.98 %**. Calculating and understanding the **Chi Value that is 17.65 and p value 0.00** it shows that this factor is significant and need to be focused.

- **Transportation Cost**
  
  In this case respondent from both organizations agrees on same point that transportation cost is an vital element for SCM. Response from various respondents indicates that in **Hutch 50.55 %** of respondents believe it is Very High Importance where as in case of **Airtel it is 35.29 %**. Calculating and understanding the **Chi Value that is 8.21 and p value 0.04** it shows that this factor is significant and need to be focused.

Detail analysis shows following questions and details are very important in SCM system of Cellular Industry

- **Do they make payments on time?**
  
  Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates agrees this questions plays an very significant role. **Chi-square Value is 18.979 and p value is 0.001** Respondent response shows that against this questions 58.3 % were moderately satisfied in Airtel and 50 % where highly satisfied in Hutch

- **Do they often forecast?**
  
  Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates agrees this questions plays an very significant role. **Chi-square Value is 25.525 and p value is 0.001** Respondent response shows that against this questions 58.3 % were moderately satisfied in Airtel and 68.2 % where highly satisfied in Hutch
• Do you agree SCM decreases the cost of various Factors?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates this questions plays an very significant role \textbf{Chi-square Value is 19.591 and p value is 0.00} Respondent response shows that against this questions 60.9 % were moderately satisfied in Airtel and 77. % where highly satisfied in Hutch.

• Do you agree your warehouse is perfectly laying out stress on out time delivery?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates this questions plays an very significant role \textbf{Chi-square Value is 18.545 and p value is 0.002} Respondent response shows that against this questions 62.5 % were moderately satisfied in Airtel and 54.5 % where Neutral in Hutch.

• Do they have many vendors subject to your item they have at present?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates this questions plays an very significant role \textbf{Chi-square Value is 4.330 and p value is 0.037} Respondent response shows that against this questions 62.5 % were moderately satisfied in Airtel and 68.2. % where highly satisfied in Hutch.

**Detail analysis** shows that SCM is there in the Organization still this is not been adequately used to 100% to match all the requirement

| Though SCM is there, I believe that people are not using it adequately. |
|-------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Company                                        | Airtel Percent  | Hutch Percent   | Total Percent    | Chi-square      | p-value         |
| 2. Moderately Dissatisfied                     | 3.90            | 0.00            | 1.75             | 9.921           | 0.019           |
| 3. Neutral                                     | 54.55           | 44.68           | 49.12            |                 |                 |
| 4. Moderately Satisfied                        | 41.56           | 48.94           | 45.61            |                 |                 |
| 5. Highly Satisfied                            | 0.00            | 6.38            | 3.51             |                 |                 |
From the details it is analyzed that results are significant in this case. In the above case **Series 1 is Airtel & Series 2 is Hutch**. Overall it is observed that there is hardly any respondents who are Highly Satisfied. In Airtel it is observed that most of the respondents are Neutral. Most respondents that is 54.55% stand Neutral. In case of Hutch 44.68% respondents stand Neutral. Similarly In Hutch only 48.94 % respondents are Moderately Satisfied and in Airtel only 41.56 %.

Area of concern is that still lot of concentration is required in SCM in Cellular industry to make to efficient and effective.

**Importance of SCM – Customer Response.**

In case of both Organizations 75 respondents were asked to respond on the same. Question Set **Section D (Refer Annexure 1)** states 9 questions to respondents. Customers Response -Table shows various responses of Customers as a feedback on various inputs asked from them

Though customers plays very important role in service industry, but they are not directly linked with SCM of the Organization. **Results of frequency distribution and Ch1-Square do not show any value significant in this case.** (Refer Interpretation from Chapter 5 and Appendix 3 ) shows that though customers have given very important response on individual organization but are not directly associated with SCM of that Organization. Detail Analysis by using Paired Correlation was also done on the same set of Questionnaire and results were extracted in form of Correlation table (Refer Annexure 3) to understand the relations. But it is clear from Paired correlation that none of the case is Significant and customer is basically an end user of all services where he is not directly linked with SCM of the Organization

**SCM – Vendor Response.**

In case of both **Organizations total 52 respondents, where 32 were small vendors and 20 were large vendors** were asked to respond on the same. Question Set **Section E, F (Refer Annexure 1)** states 21 questions to respondents. Vendor Response shows various responses of vendors as a feedback on various inputs asked from them. Vendor’s response shows various significant factors in SCM of an Cellular Industry. When different set of details were asked to vendors. **Various responses were found significant. In case of Significant responses interpretations were made to understand the results**

Questionnaire shows that 10 Main questions asked to suppliers. Out of total questions 5 questions are significant and whose details are interpreted
• Do they make payment on time?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates agrees this questions plays an very significant role. **Chi-square Value is 18.979 and p value is 0.001** Respondent response shows that against this questions 58.3 % were moderately satisfied in Airtel and 50 % where highly satisfied in Hutch

• Do they often forecast?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates agrees this questions plays an very significant role. **Chi-square Value is 25.525 and p value is 0.001** Respondent response shows that against this questions 58.3 % were moderately satisfied in Airtel and 68.2 % where highly satisfied in Hutch

• Do you agree SCM decreases the cost of various Factors?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates agrees this questions plays an very significant role **Chi-square Value is 19.591 and p value is 0.00** Respondent response shows that against this questions 60.9 % were moderately satisfied in Airtel and 77. % where highly satisfied in Hutch

• Do you agree your warehouse is perfectly laying out stress on out time delivery?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates agrees this questions plays an very significant role **Chi-square Value is 18.545 and p value is 0.002** Respondent response shows that against this questions 62.5 % were moderately satisfied in Airtel and 54.5 % where Neutral in Hutch

• Do they have many vendors subject to your item they have at present?

Seeing the Total details generated by SPSS Software the value is Significant. Analyzing the details it is observed that for all vendors, suppliers, associates agrees this questions plays an very significant role **Chi-square Value is 4.330 and p value is 0.037** Respondent response shows
that against this questions 62.5% were moderately satisfied in Airtel and 68.2% where highly satisfied in Hutch

Various Major parameters subject to Vendors / Suppliers where asked and analyzed

Details generated by SPSS software shows that following parameters play an important role in SCM decisions for Vendor in Cellular Industry

- Price
- Payment
- Responsiveness
- Innovation
- Transparency
- Inspection
- Specifications
6.4 SCM Suggested Model

It has been established in last chapters that the SCM must be seen as an enabler of business processes and the business processes are the goals based activities of value to the customer.

To sustain the benefits of SCM in dynamic & uncertain business environment, the need for continuous evaluation of SCM is called for. Though SCM can be evaluated on a number of parameters, the most important parameter which defines its use from business point of view is effectiveness. The existing literature on SCM is having very limited inputs and addressed partial view only for cellular industry. So there must exit a way to identify the overall effectiveness of
SCM and also the scope of improvement. This chapter will highlight various findings on existing SCM, SWOT analysis of cellular industry, Limitations of existing SCM systems and finally will suggest Models that satisfies the needs as established in chapter 1.

In the Proposed Model the rectangles indicate views and ellipse indicate sub-views of a view. Solid blocks are fully addressed by the model; double lined blocks are partially addressed. Dotted lined blocks are the factors of a view/sub-view. They can also be taken as a sub view. To make the SCM effective following steps need to be taken care to match Invention (Product), procedure (Practices), Surrounding (Environment) requirement of an Organization.

6.5 Name of the Model & Effectiveness

The model has been named as “Network of SCM Effectiveness” to represent the essence of its representation

6.5.1 Scope of SCM Effectiveness

An SCM system can be called effective only when it is beneficial to the organization as a whole and not to the individual units or sub units of the organization. The organizations investing in SCM must take a holistic view of SCM to reach a stage of effectiveness. The various views that make up the whole can be seen as:

6.5.1.1 Invention View

It is simple to grasp and is visible on the surface. Any SCM Product can be called effective if it contributes maximum to the Organization factors. The baseline in this case is a clear definition of Organization factors across the levels and the functions of the organization; meeting the true essence of alignment. If the functions / business units are not aligned to the organizational goals, there can emerges conflicts and compromises of people / units or non achievement of value for business and its customers.

6.5.1.2 Procedure View

It represents the set of procedures followed during the whole life cycle of SCM comprising of Planning, development and use stage. Planning includes identifying new needs of SCM and accordingly plan for strategic Alignment, Architecture, Development, selection of partners, procurement procedures and implementation. Development stage comprises of actual
development by applying the well established systems. Though, a majority of Organizations prefer to procure an off-the-shelf solution, system rather than developing one for themselves. Present Organizations need to understand that they cannot leave this responsibility with existing solution providers alone. They need to see that it should fit to there structure and will be practically useful in real time future requirement and applications.

6.5.2.3 Surrounding View

It represents the Organization's environmental needs that must be in place in order to activate effective processes and hence the effective product. Since the new business paradigm is all about speed, flexibility & relationships, an organization needs to build a culture to be synonymous with the same. It must have alignment of purpose, thoughts and action in the nerves of all its employees. Unless every single employee, old or new, is tied to a common thread – the thread of organization wide priorities, the progress cannot be attained. Further, this may lead to ill–defined business priorities also. Seniors, juniors, peers all must have proactive, coordinated communications. If it takes 6 month to make a decision, possibly the decision will loose its purpose. Thus the mindset of the organization has to be built in order to squeeze on the time required for though convergence. Continuous evaluation and learning has to be an inherent feature of such work place.

. Thus one may have world class SCM Process, but the lack of a well defined practices and an environment to follow those practices can leave that product underutilized or even unutilized.

6.6 Recommendations

Recommendations for improving Supply Chain Management

Integration and Coordination

In an enterprise, integration can simply mean that each unit of the organization will have access to information relevant to its task and will understand how its actions will impact other parts of the organization thereby enabling it to choose alternatives that optimize the organization's goals The key to integration is coordination. To coordinate is to manage dependencies among activities so as to achieve coherent operation of the entire system in question. The objective of multi-plant coordination is to coordinate the plans of several plants in a vertically integrated company so that the overall performance of the company is improved. in order for such coordination to be efficient, the effects of uncertainty of final demand, is taken into consideration.
Modeling and Simulation

Modeling and simulation is most often used to test the impact strategic level decisions have on supply chain performance. This may for example be the impact of restructuring the supply chain by reducing the number of plants, changing modes of transport, or relocating warehouses. Simulation as a method, does not give the optimal solution. It simply allows the user to test different solutions. Simulations are run with various parameters or "set-ups", and the results are analyzed and compared to arrive at the optimal solution among those tested.

Figure 6.2 - Note A & Note B will define the main step in SCM
6. SCM Findings, Suggested Model & Recommendations

The 7 Principles of effective Supply Chain Management

- **Principle 1**: Segment customers based on the service needs of distinct groups and adapt the supply chain to serve these segments profitably.
- **Principle 2**: Customize the logistics network to the service requirements and profitability of customer segments.
- **Principle 3**: Listen to market signals and align demand planning accordingly across the supply chain, ensuring consistent forecasts and optimal resource allocation.
- **Principle 4**: Differentiate product closer to the customer and speed conversion across the supply chain.
- **Principle 5**: Manage sources of supply strategically to reduce the total cost of owning materials and services.
- **Principle 6**: Develop a supply chain-wide technology strategy that supports multiple levels of decision making and gives a clear view of the flow of products, services, and information.
- **Principle 7**: Adopt channel-spanning performance measures to gauge collective success in reaching the end-user effectively and efficiently.

**Translating Principles into Practice**

**Reaping the Rewards**

- **Principle 1**: Segment customers based on the service needs of distinct groups and adapt the supply chain to serve these segments profitably.

Segmentation has traditionally grouped customers by industry, product, or trade channel and then taken a one-size-fits-all approach to serving them, averaging costs and profitability within and across segments. But segmenting customers by their particular needs equips a company to develop a portfolio of services tailored to various segments. Surveys, interviews, and industry research have been the traditional tools for defining key segmentation criteria. Only by understanding their costs at the activity level and using that understanding to strengthen fiscal control can companies profitably deliver value to customers. The companies have a significant untapped opportunity to better align their investment in a particular customer relationship with the return that customer generates. To do so, companies must analyze the profitability of segments, plus the costs and benefits of alternate service packages, to ensure a reasonable return on their investment and the most profitable allocation of resources. To strike and sustain the appropriate balance between service and profitability, most companies will need to set priorities—sequencing the rollout of tailored programs to capitalize on existing capabilities and maximize customer impact.
• **Principle 2: Customize the logistics network to the service requirements and profitability of customer segments.**

The logistics network probably will be more complex, involving alliances with third-party logistics providers, and will certainly have to be more flexible than the traditional network. As a result, fundamental changes in the mission, number, location, and ownership structure of warehouses are typically necessary. Finally, the network will require more robust logistics planning enabled by “real-time” decision-support tools that can handle flow-through distribution and more time-sensitive approaches to managing transportation.

• **Principle 3: Listen to market signals and align demand planning accordingly across the supply chain, ensuring consistent forecasts and optimal resource allocation.**

Forecasting has historically preceded silo by silo, with multiple departments’ independently creating forecasts for the same products—all using their own assumptions, measures, and level of detail. Many consult the marketplace only informally, and few involve their major suppliers in the process. The functional orientation of many companies has just made things worse, allowing sales forecasts to envision growing demand while manufacturing second-guesses how much product the market actually wants. Such independent, self-centered forecasting is incompatible with excellent supply chain management, as one manufacturer of photographic imaging found. There is a need to implement a cross-functional planning process, supported by demand planning software. Excellent supply chain management, in fact, calls for S&OP that transcends company boundaries to involve every link of the supply chain (from the supplier’s supplier to the customer’s customer) in developing forecasts collaboratively and then maintaining the required capacity across the operations. Channel-wide S&OP can detect early warning signals of demand lurking in customer promotions, ordering patterns, and restocking algorithms and takes into account vendor and carrier capabilities, capacity, and constraints.

• **Principle 4: Differentiate product closer to the customer and speed conversion across the supply chain.**

The key to just-in-time product differentiation is to locate the leverage point in the process where the product is unalterably configured to meet a single requirement and to assess options, such a postponement, modularized design, or modification of processes, that can increase flexibility.
• **Principle 5: Manage sources of supply strategically to reduce the total cost of owning materials and services.**

Determined to pay as low a price as possible for materials, companies have not traditionally cultivated warm relationships with suppliers. So: “The best approach to supply is to have as many players as possible fighting for their piece of the pie—that’s when you get the best pricing.” Excellent supply chain management requires a more enlightened mindset—recognizing some companies are not yet ready for such progressive thinking because they lack the fundamental prerequisite. That is, a sound knowledge of all their commodity costs, not only for direct materials but also for maintenance, repair, and operating supplies, plus the dollars spent on utilities, travel, temps, and virtually everything else. This fact-based knowledge is the essential foundation for determining the best way of acquiring every kind of material and service the company buys. With their marketplace position and industry structure in mind, companies can then consider how to approach suppliers—soliciting short-term competitive bids, entering into long-term contracts and strategic supplier relationships, outsourcing, or integrating vertically. Excellent supply chain management calls for creativity and flexibility.

• **Principle 6: Develop a supply chain-wide technology strategy that supports multiple levels of decision making and gives a clear view of the flow of products, services, and information.**

The manager needs to build an information technology system that integrates capabilities of three essential kinds. For the short term, the system must be able to handle day-to-day transactions and electronic commerce across the supply chain and thus help align supply and demand by sharing information on orders and daily scheduling.

  o **From a mid-term perspective**, the system must facilitate planning and decision making, supporting the demand and shipment planning and master production scheduling needed to allocate resources efficiently.

  o **To add long-term value**, the system must enable strategic analysis by providing tools, such as an integrated network model, that synthesize data for use in high-level “what-if” scenario planning to help managers evaluate plants, distribution centers, suppliers, and third-party service alternatives.

Despite making huge investments in technology, few companies are acquiring this full complement of capabilities. Today’s enterprise wide systems remain enterprise-bound, unable to
share across the supply chain the information that channel partners must have to achieve mutual success. Ironically, the information that most companies require most urgently to enhance supply chain management resides outside of their own systems, and few companies are adequately connected to obtain the necessary information. Electronic connectivity creates opportunities to change the supply chain fundamentally—from slashing transaction costs through electronic handling of orders, invoices, and payments to shrinking inventories through vendor-managed inventory programs.

**Principle 7: Adopt channel-spanning performance measures to gauge collective success in reaching the end-user effectively and efficiently.**

Excellent supply chain managers should determine their true profitability of service by identifying the actual costs and revenues of the activities required to serve an account, especially a key account. For many, this amounts to a revelation, since traditional cost measures rely on corporate accounting systems that allocate overhead evenly across accounts. Such measures do not differentiate, for example, an account that requires a multi-functional account team, small daily shipments, or special packaging. Traditional accounting tends to mask the real costs of the supply chain—focusing on cost type rather than the cost of activities and ignoring the degree of control anyone has (or lacks) over the cost drivers. Deriving maximum benefit from activity-based costing requires sophisticated information technology, specifically a data warehouse. Because the general ledger organizes data according to a chart of accounts, it obscures the information needed for activity-based costing. By maintaining data in discrete units, the warehouse provides ready access to this information.

To facilitate channel-spanning performance measurement, many companies are developing common report cards. These report cards help keep partners working toward the same goals by building deep understanding of what each company brings to the partnership and showing how to leverage their complementary assets and skills to the alliance’s greatest advantage. The willingness to ignore traditional company boundaries in pursuit of such synergies often marks the first step toward a “pay-for-performance” environment.

**Finally translating Principles into Practice**

**Orchestrate improvement efforts**

The complexity of the supply chain can make it difficult to envision the whole, from end to end. But successful supply chain managers realize the need to invest time and effort up front in developing this total perspective and using it to inform a blueprint for change that maps linkages among initiatives and a well-thought-out implementation sequence. This blueprint also must
coordinate the change initiatives with ongoing day-to-day operations and must cross company boundaries. The blueprint requires rigorous assessment of the entire supply chain—from supplier relationships to internal operations to the marketplace, including customers, competitors, and the industry as a whole. Current practices must be ruthlessly weighed against best practices to determine the size of the gap to close. Thorough cost/benefit analysis lays the essential foundation for prioritizing and sequencing initiatives, establishing capital and people requirements, and getting a complete financial picture of the company's supply chain—before, during, and after implementation. A critical step in the process is setting explicit outcome targets for revenue growth, asset utilization, and cost reduction. While traditional goals for costs and assets, especially goals for working capital, remain essential to success, revenue growth targets may ultimately be even more important. Initiatives intended only to cut costs and improve asset utilization have limited success structuring sustainable win-win relationships among trading partners. Emphasizing revenue growth can significantly increase the odds that a supply chain strategy will create, rather than destroy, value.