BIJU PATNAIK INSTITUTE OF IT & MANAGEMENT STUDIES, BHUBANESWAR, ODISHA

Sourcing Management

(For MBA-4TH Semester-Specialization)

18MBA402D (Credit-3, Class Hours: 35)

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SOURCING MANAGEMENT (SM)

Module – I	**Introduction to Global Sourcing:** Objectives, Process and Trends in Global Sourcing – Supply Management – Strategic Sourcing Plan, Strategy and Model– Environmental and Opportunity Analysis – Global Operational Sourcing Strategy, Negotiation – Nature, Strategy and Planning– Performance Measurement and Evaluation– Risk Management in Sourcing (Concepts) – Nature and Principles of Risk Management, Risk management process, Risk management tool and technique, Managing risk in international business.
Module – II	**Supplier Research and Market Analysis:** Vendor Rating – Objectives, Self certify vendor management, Criteria and Methods of Vendor rating – Supplier Evaluation and Selection (Concepts), Solicitation of Bids and Proposals – Planning and Methods, Contract negotiation, Vendor performance monitoring and controlling.
Module – III	**Analytical Tools in Sourcing, Pricing Analyses:** Analytical Tools in Sourcing (Foreign Exchange Currency Management, Learning Curve, Quantity Discount Models), Integrative Pacific Systems Case (Supplier Scorecard, Sourcing Risk, Supplier Financial Analysis) – Electronic Sourcing – Sustainability and Sourcing, Green Sourcing.

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Module – I

Introduction to Global Sourcing

Sourcing:

Strategic sourcing is an organizational procurement and supply management process used to locate, develop, qualify, and employ suppliers that add maximum value to the buyer's products or services.

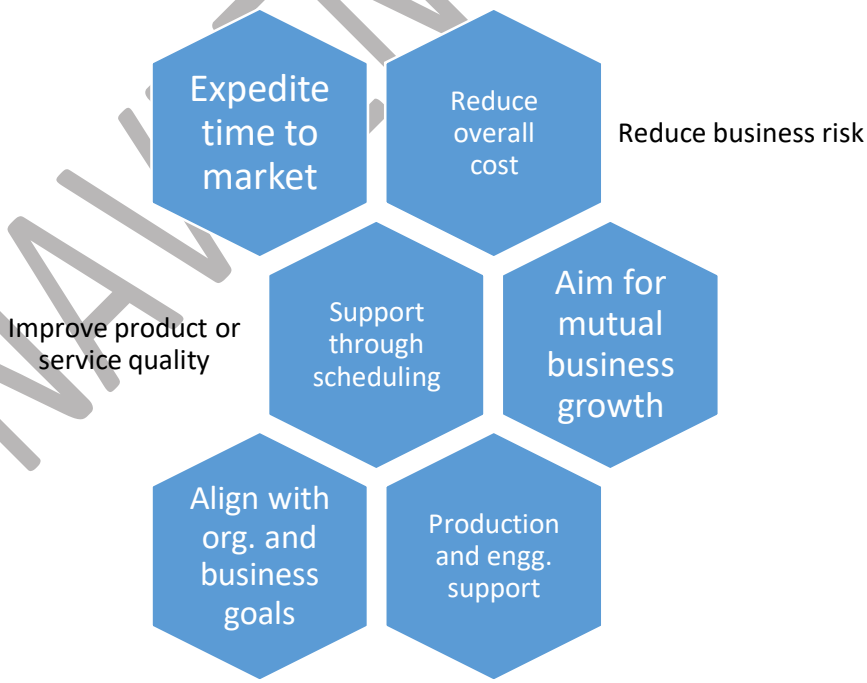
Sourcing in operations and management refer to the selection of firm and procurement of raw materials in an efficient and cost saving way with the final objective of delivering the best services and facilities to the customers.

Sourcing also aims at collecting and analyzing information about capabilities within the market to satisfy the organization's requirements, such as obtaining updated cost information, determining the appropriate technology and alternative products, as well as identifying appropriate supplier qualification criteria.

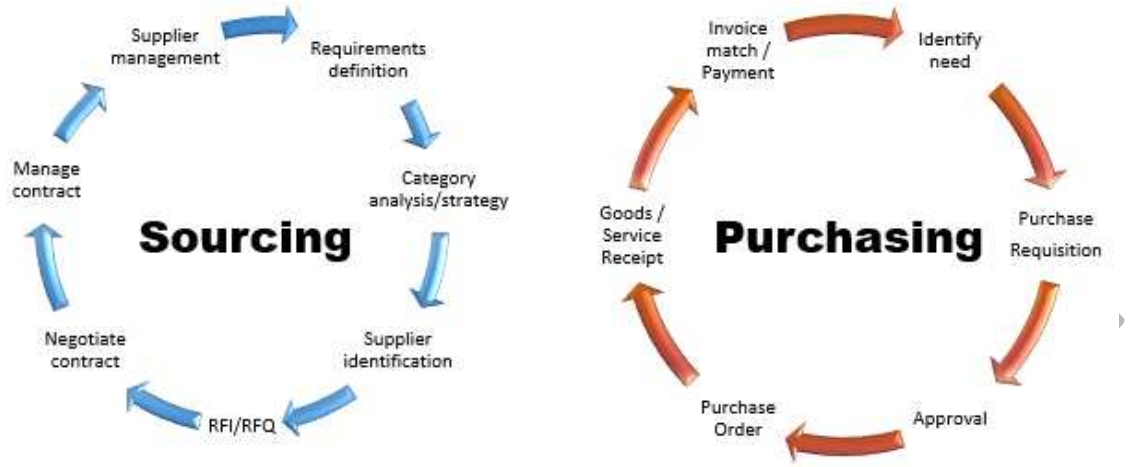
Traditionally – Sourcing is the process of locating, employing, purchasing and managing suppliers & supplies.

In recent times – Aligning suppliers to the **strategic** business and operational goals of the organization with a long term perspective. **Global** – Selecting supplier and procuring beyond national boundaries. Hence it is more about sourcing strategically aka strategic sourcing.

When sourcing strategically, the supplier must:

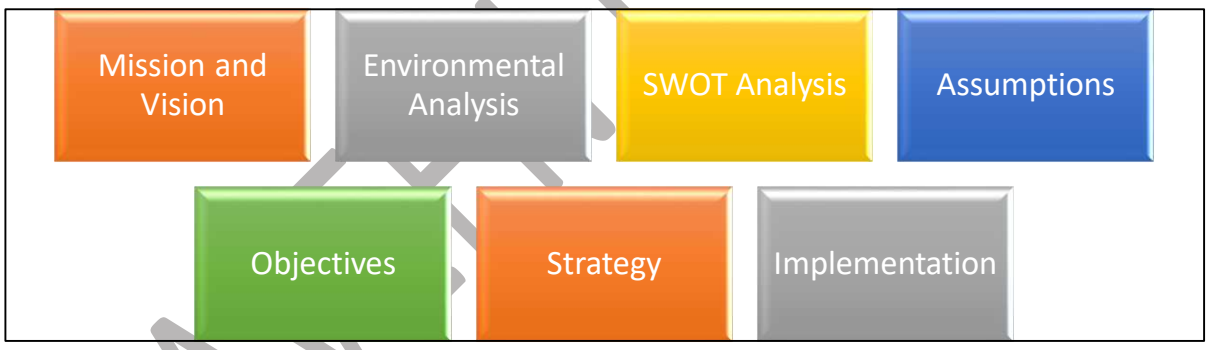


Strategic sourcing is not: Supplier's individual quotations, routine buying activities, logistics, quality assessment, performance analysis, and payment. **They come under procurement**. After the formation of contract generally only procurement takes place.



Strategic sourcing plan:

A strategic sourcing plan provides guidance to stakeholders responsible for implementing acquisition policy. It should be well documented, systematic, aligned with org. mission, vision and customer requirements.



Plan elements:

1. **Mission and vision**
   - Traditionally, any strategic plan begins with a statement of mission and vision.
   - The mission statement must set the tone for the objectives within the plan.
   - It also needs to identify the value added by the sourcing group.

2. **Environmental Analysis**
   - It provides the background against which the plan is developed.
   - It considers the primary customer, company's supply chain and overall market or industry conditions.

3. **SWOT Analysis**
   - SWOT analysis helps the implementers on the plan to a large extent.

- A SWOT analysis helps identify potential roadblocks (weaknesses and threats) and prepares the way for dealing with them through organizational strengths.
- It can also identify potential opportunities that help to implement the plan strategy.

4. **Assumptions**
   - In order to formulate the plan, it is necessary to get into details. But it is sometimes difficult to forecast them due to changing market dynamics.
   - They are like the 'just-in-case' placeholders and can be replaced when facts are known accurately.

5. **Objectives**
   - They are the expression of specific targets that will advance our mission by adding value to the organization.
   - The plan describes objectives in clear, measurable and in directive language. E.g. '*We need to save 17 lacs of cost this financial year through efficient operations'. 'An improvement in customer support through reduced lead times from suppliers and better on-time delivery performance'.*

Supply Positioning

6. **Strategy**
   - Sourcing strategy must be developed within the scope of the overall mission statement and ensure achieving our objectives.
   - For example - *We will actively support the organization's 'first to market' objectives.*
   - For this we need ESI (Early supplier involvement). So now the strategy for the sourcing team is a fight between strong business alliance v/s full bidding competition.
   - Our strategy must be contingent to the developments in the supply chain. E.g. – if we are forecasting a downturn, we must reduce the inventory in our suppliers' inventory pipelines.
   - Coordinating with the cross-functional team members for efficient implementation.

7. **Implementation**
   - The strategic sourcing plan establishes a high-level approach that does not delve into the details of tactical methods.
   - So to implement our strategy, we require an operational strategy and a tactical approach to achieving our goals.

Opportunity Analysis:

What – Procurement of categories and commodities where opportunities of improvement can be identified. Improvements can take the form *of lower prices, better quality, reduced inventory*, and so on.
By whom - Cross-functional strategic sourcing team
How – Industry benchmarking, historical analysis within the firm, external market analysis
Elements of opportunity analysis:

- Determine how and with whom we are spending our funds i.e. spend analysis.
- Consolidate the suppliers and negotiate for better prices.

- Review spending history to find multiple items that are very similar and can be re-specified to a single item
- Identify poor supplier performance. Develop a supplier scorecard.
- Improve competition amongst suppliers.
- Investigate outsourcing opportunities (Both services and manufacturing – Offshoring and nearshoring – Make of buy)
- Capture additional spending (Reduce *maverick spending*)
- Internal processes improvement

- Review of current market condition / Environmental Analysis
    - Competitive positioning (from both supplier and buyer perspective)
    - Cost profile or drivers (rising or dipping prices)
    - Risk (market & geopolitical)
    - Supply chain (transportation and logistics cost)
    - Technological trends
    - Financial profiles

Operational Sourcing Strategy:

Strategic sourcing, as a plan, must be implemented—that is, set in motion—through operational executed activities which are the day-to-day functions common to most procurement organizations. It helps in reducing or eliminating the last minute contingent actions related to acquisition.

Steps to implement the plan:

- Assess the current scenario (E.g. SWOT analysis)
- Gap analysis (current situation v/s desired objective as per plan)
- Plan to bridge the gap

Example

ABC PVT LTD is facing financial challenges. It wishes to reduce 20% in procurement spending which is 70 lacs to achieve the necessary margins. It has a total of 6 suppliers. 3 of the major suppliers are making losses and hence they are not willing to give further discounts. The other 3 don't have the excess capacity to fulfill the demand. What is the gap? What appropriate steps can be taken to tackle the situation?

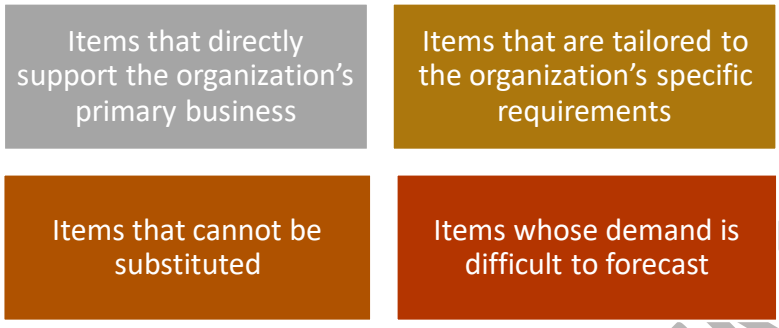
Well, the gap here is 20% of 70 lacs = 14 lacs. The company wishes to reduce its procurement cost by 14 lacs. Few plan which can be implemented are:

- Forward payment to suppliers to encourage them to give price discount
- Identify spending gaps in other areas which can be reduced
- Conduct online meetings with supplier to reduce traveling cost
- Consolidate spending which are not done by procurement group
- Revisiting the inventory levels and planning

Operational objectives

Generally, operational objectives are implemented through the use of tactics. Some of the most common operational objectives are:

- Ensure supply - The necessary goods and services are available when needed. Types of supplies:



- Improve value – Cost to TCOO (Total Cost of Ownership)
  It considers the entire product life cycle cost not just the cost of the product or service. It focuses on improving the value by taking into account other factors like *on-time delivery, quality levels, risk factors, supplier innovation, technology, and service (and flexibility) along with TCOO.*
- Reduce supply risk – Forecast, assess, prepare, mitigate and manage risk related to supplies
- Coordinate supplier activities
- Administer contract compliance

Cosourcing

It refers to a service that is performed jointly by internal staff and suppliers. For example, *in software development, the using organization provides the subject matter expertise and requirements, while supplier (IT firm) would develop the software architecture and code.*

Benefits of cosourcing:

- Access to technical expertise unavailable in-house
- Access to additional manpower and services for a long term
- Gaining critical market knowledge
- Gives greater degree of control over supply chain compared to outsourcing or simple purchasing
- Reduces risk in the supply fulfillment process
- The buyer gains greater leverage in continuity of supply
- The supplier gains a loyal customer.

Strategic Alliances

Long term commitment and relationship between the parties.	Supplier contract / master supply agreement
Shared risks and shared benefits.	Mutual roles and responsibilities
Improved processes	Improvement of quality and standard
Reduction of risks and costs	Exchange of information

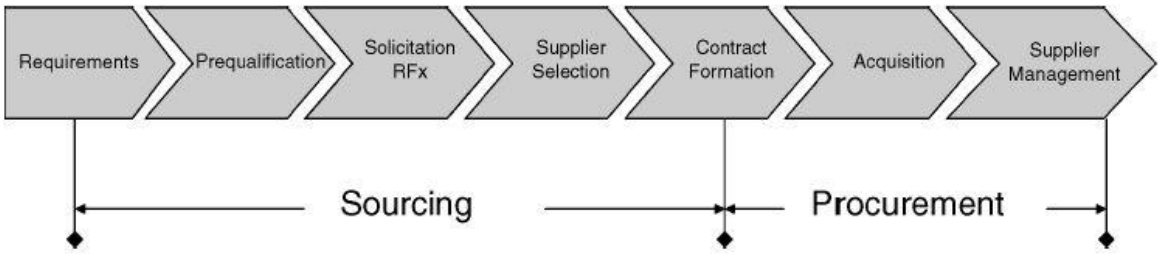
Strategic Partnership

- Almost same as strategic alliance, however, strategic partnerships often involve some form of cosourcing by the buying organization.
- In some cases, an equity investment by one or both parties of the strategic partnership are part of the formal arrangement.

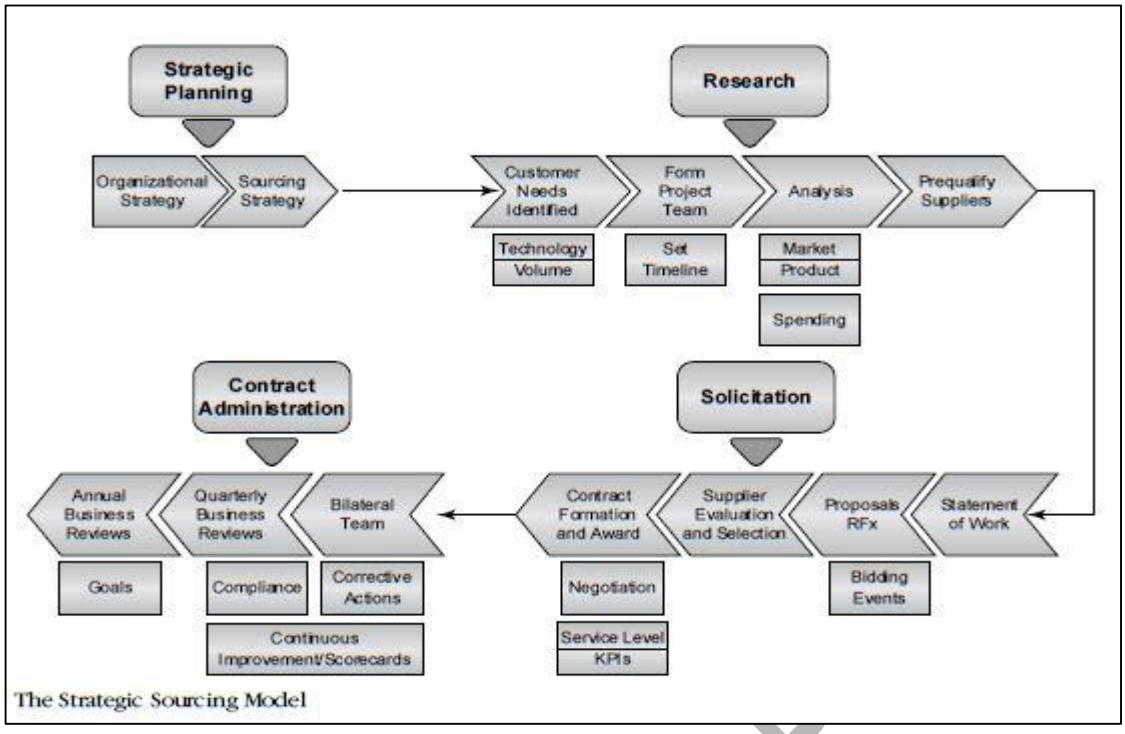
Joint Ventures

- It is characterized by the legal formation of an entirely new business enterprise.
- A JV is commonly formed to finance an operation, with all parties participating in providing the capital, defraying start-up costs, and sharing in the risks and benefits.
- It sourcing context, generally JV has a limited and specific objective that, once achieved, results in the closing of the entity.
- Examples – A shared facility, research project, a common distribution center. Tata starbucks, Volvo Eicher, Vodafone Idea etc.

Process of sourcing and procurement:



Requirements	It is the first stage in the process of sourcing wherein the company's various production or non-production needs are identified.
Prequalification	Prequalification means that the supplier meets the sound financial conditions required and is in the business of supplying the products or services with competitive pricing. It is done to develop a competitive group of supply bidders.
Solicitation RFx	RFx stands ***Request For___***. Solicitation is the process of preparing RFx, evaluating responses, selecting the supplier, conducting negotiations, and forming a contract.
Supplier Selection	It is the process of finalizing the supplier as per company's requirements.
Contract Formation	Drafting and finalizing agreement based on mutually agreed upon terms of business.
Acquisition	Transfer of products, raw materials and information between company and supplier.
Supplier Management	After signing the contract, it is imperative to administer smooth process of procurement. This is the ongoing process of monitoring the supplier's performance to the contractual agreement, ensuring compliance, conducting business reviews, and generating metrics for continuous performance improvement.



GLOBAL SOURCING

Sourcing traditionally means the selection by a firm of its sources of supplies like raw materials and components in the case of a manufacturer, final products in the case of a retailer. While global sourcing is the process of buying of components of a product from an outside supplier, often one located abroad.

Some of the benefits of global sourcing are: lower cost skilled labour, cheaper raw material, economic benefits like tax break and low trade tariffs.

Fig: The drivers of global sourcing

Examples:

- Buying aluminium from Iceland, where it's cheaper because it's made using free geothermal energy.
- Starbucks buys its coffee from locations like Colombia and Guatemala.
- Apple

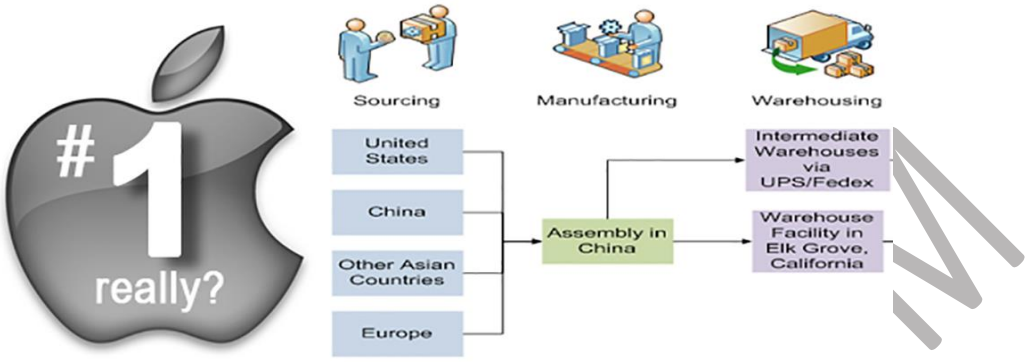


Fig: Apple's global sourcing strategy

Growth drivers for global sourcing:

- Increase in competition
- Globalization
- Desire to enter developing markets

Objectives of Global sourcing:

However, the objective may be company and context specific, the general objectives relating to global sourcing are as follows:

- Becoming the lowest cost producer
- Achieving world class quality
- Maintaining constant innovation
- Minimizing time to market

Global sourcing is one component of a company's overall sourcing management strategy. It should systematically determine whether a product or service should be made in-house, outsourced, sourced locally, regionally or globally to support the organisations continued success. Hence, a more strategic approach is required. One that effectively links global sourcing to the overall goals of the business.

While cost reduction remains one of the leading factors in driving organisations to turn toward global sourcing, lower costs alone are unlikely to provide a competitive advantage if your competitors are also sourcing internationally.

Understand the business strategy and goals for sustainable competitive advantage

Align the sourcing goals to the business goals for suatainable success.

Use the global sourcing evaluation framework to identify and select the appropriate products, locations and suppliers for sourcing.

The global sourcing framework help us to understand their organisations business strategy, value chain and sources of CA in order to select appropriate products, locations and suppliers for global sourcing.

Fig: Global Sourcing Evaluation Framework

Challenges in Global Sourcing:

Contains greater risk than local sourcing	Complex procedure that requires robust processes and preparation	Communication hurdles like time difference, language difficulties, lack of F2F meetings
Difficulty in assessing the full landing cost	Difficulty in forecasting inventory and stockholding levels	High startup cost and additional audit costs
Failure to adequately define and manage quality	Human rights issue	Environmental issue

Key Evaluation Dimensions of Global Sourcing: (*Product, Location and Supplier)*

1. **Product -** It is important to determine suitable products for global sourcing. We should target products with high benefits, low risks, good fit for company, high labour content and low shipping cost. The key indicators in this aspect are – *product life-cycle, lead time, labour content, IP (Industrial Protection), perishability, product size, demand variations, transportation and other hidden costs associated*.
2. **Location –** Companies should develop a geographic strategy to determine from where to buy and how much to buy. The key indicators in this aspect are – *labour cost, cost of raw material, capital equipment, taxation levels, available talent pool, logistics infrastructure such as roads and ports, political stability, other micro-economic factors, infrastructure* etc. By determining the comparative advantage of countries, procurement can determine whether it pays to source a product locally or internationally.
3. **Supplier** - Part of finding the right supplier is ensuring that the organisation has more than just the right equipment and quality. A thorough knowledge of your suppliers is critical, to aid good communication. The following are the general indicators in the process of screening of supplier - *current client-al and references in your market, quality assurance, employee hiring & training, facilities & security, disaster recovery, process capabilities, long-term partnership capabilities, extended trading relationships, financial resources and general management practices*.

Example of Good practice in Global Sourcing		
1	**Governance**	Ensure governance is in place to support the process and manage conflict.
2	**Process**	A robust sourcing process with involvement of internal customers and stakeholder is essential to ensure buy outcomes.
3	**Specification**	Clear, well written specifications supported by samples etc. are an essential requirement. No sourcing initiative should even be contemplated unless this requirement has been fulfilled.
4	**Service Expectation**	Corporate fully understands their expectation from supplier and concern for how performance will be assessed.
5	**Research**	Research of supply markets
6	**External Factors**	Keep aware of the external factors that may influence our source country (political, economic, environmental, social, technological etc.).
7	**References**	The safest method of sourcing is to only use suppliers that have an existing customer base in the west. This often means that the supplier has been developed by a western company to the point where they are more conditioned to meeting western service expectations. Here references are western company supplier.
8	**Contracts**	Significance of contracts in global connection among corporate
9	**Supplier Relationship Management**	Diligence in contract and ongoing communication with performance management of supplier will create a robust supplier relationship with corporate.

Companies should consider these pros and cons when deciding between global or local sourcing as there is no one-size-fits-all solution. Whether global or domestic, making the right decision is vital for sourcing strategy.

Global Sourcing Vs. Local Sourcing		
	Global Sourcing	**Local Sourcing**
Advantages	Low labour, production and material costs	Shorter lead time
	Finding and developing alternate supplier sources to reduce costs and stimulate competition	Consumers prefer locally sourced products because they are more assured of the quality
		Strong relationships with local suppliers
Disadvantages	Potential communication challenges	Limited resources available locally
	Managing long-distance and often complex supply chain	Small suppliers with fewer economies of scale

	Need to consider foreign tax structure and political climate	Local government policies and exchange rates

Advantages of Global sourcing:

- Increased size of potential supply base
- Lower production cost, especially for labour-intensive production and services
- Increased technical expertise, especially for high tech products from specialized locations
- More flexibility to switch between supply sources, whether internal or external
- Sources closer to customer markets, experience in sourcing may be translated into sales
- Achieve scale economics through use of one global supply source
- Source of intermediate products closer to source of raw materials
- Raw materials only available from foreign sources
- Focus on core competencies

Disadvantages of Global sourcing:

- Have to deal with foreign institution such as legal differences
- Have to deal with foreign cultures and languages which could affect communication
- Need to pay import duties wherever applicable
- Increase transportation costs and supply chain uncertainty
- Forwards integration by foreign suppliers, patent infractions possible
- Quality problems
- Negative effects on employee commitment and legitimacy at home base
- Reliance on independent suppliers and decreased ability to keep abreast of emerging technical requirements.

TRENDS IN GLOBAL SOURCING

In today's modern day world, global sourcing strategy signifies the management of:

1. Logistics to identify which production units will serve which particular markets and how components will be supplied for production.
2. It interfaces among R&D, manufacturing and marketing on a global basis.

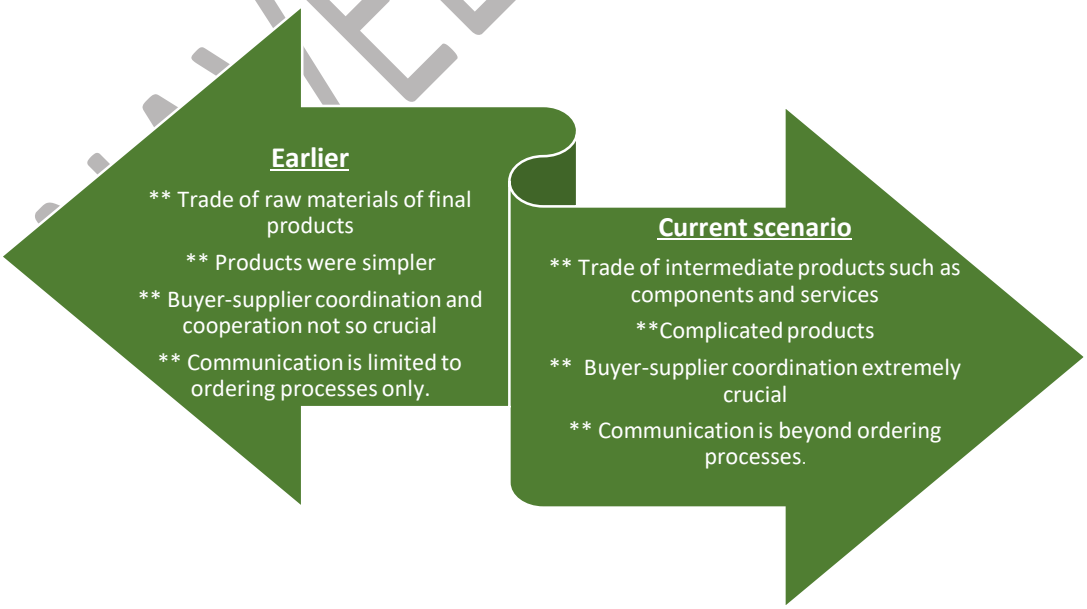


Fig: Change in Trends of Global Sourcing

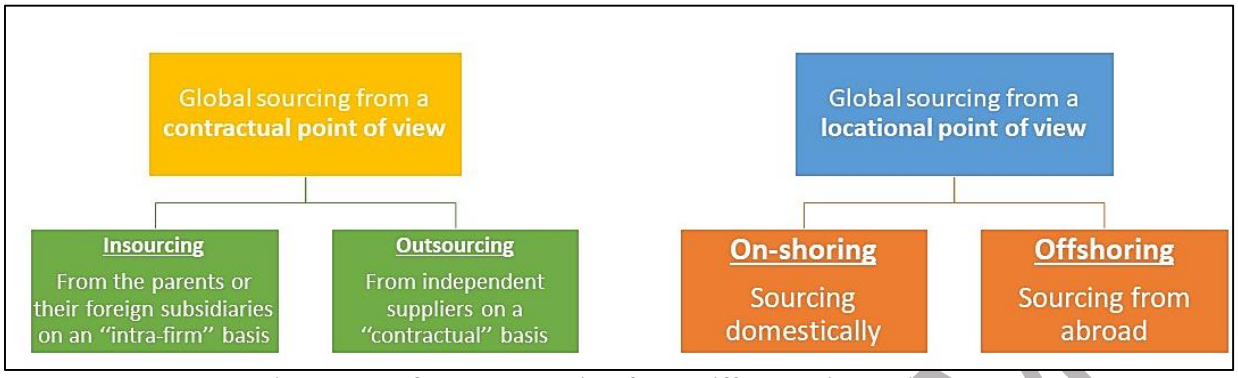


Fig: Types of global sourcing from different view points

The three waves of global sourcing

In the past 15–20 years, we have observed three waves of global sourcing:

1st Wave

When - Starting in mid-1980s
Focused on - The global sourcing of manufacturing activities
Sourcing what - raw materials, intermediate and final products
How - Large manufacturing firms increasingly set up their operations globally and began to use suppliers from many countries to exploit best-in-world sources

2nd Wave (IT outsourcing wave)

When - Starting in early 1990s [when firms decided to start eliminating their information technology (IT) departments that had grown substantially]
Focused on - IT departments
Sourcing what - Information systems and technology, ERP
How - As IT itself had become commoditized and many firms had little interest in developing new information systems in-house, this IT outsourcing wave spawned the growth of specialist providers such as EDS and Accenture.

3nd Wave (IT outsourcing wave)

When - Early 2000s
Focused on - Specialized range of services
Sourcing what - Beyond IT services to a range of other services relating to accounting, human-resources management, finance, sales and after-sales assistance such as call centres.
How - It is this third wave of business-process outsourcing that is now generating so much publicity. India is still a primary source country and has now produced a range of strong local business-process providers such as Infosys and Wipro but competition from elsewhere is also on the rise

	First Wave (Since 1980s)	**Second Wave (Since Early 1990s)**	**Third Wave (Since Early 2000s)**
	Manufacturing China,	Information Technology	Business Process India,

Type of Activities Suppliers	Central and Eastern Europe, Mexico and others	India, Ireland and others	Pakistan, South Africa and others
Type of Firms	Manufacturing	Manufacturing, banks and others	Financial services and services more generally
Primary Motives	Reduction in labour costs	Obtaining enough skilled programmers and cost reduction	Reduction in labour costs and round-the-clock service provision

Insourcing:

Insourcing is the process of sourcing only within one's organization or country rather than going outside of this to provide services or products, processes, or technologies.

There are some *advantages* to this approach, including:

- A higher level of control of information and functions
- Increased knowledge of the supply chain and processes
- Easier to make changes
- A smaller level of risk
- The tendency to produce more top quality in most instances

- ☐ Businesses, like countries, must protect their revenue and resources by building firm reserves and not dealing with risky partners.
- ☐ But insourcing within one's organization or country only does limit the scope at which you can expand and "ramp up" your organization.
- ☐ Also, it's a good idea to utilize the local resources of countries that harvest or use your raw materials regularly as the price may be lower than finding it within your own country.
- ☐ For example, a company based in Japan might open a plant in the United States for the purpose of employing American workers to manufacture Japanese products. From the Japanese perspective this is outsourcing, but from the American perspective it is in-sourcing. *Nissan, a Japanese automobile manufacturer, has in fact done this*.

Outsourcing:

- ☐ Outsourcing is the business practice of hiring a party outside a company to perform services and create goods that traditionally were performed in-house by the company's own employees and staff.
- ☐ Outsourcing is a practice usually undertaken by companies as a cost-cutting measure.
- ☐ In addition to cost savings, companies can employ an outsourcing strategy to better focus on the *core aspects of the business*
- ☐ Outsourcing non-core activities *can improve efficiency and productivity* because another entity performs these smaller tasks better than the firm itself.
- ☐ This strategy may also lead to faster process by increasing competitiveness within an industry and the *cutting of overall operational costs*.

Examples of outsourcing:

Dell and HP buying processors and chip from Intel

Companies availing cloud solutions from Amazon AWS

KRONOS for payroll and health insurance

Expected Benefits from Global Outsourcing:

Operational Benefits:

- Reduce operating costs
- Improved service and product quality
- Faster delivery
- Financial restructuring (e.g., reducing assets, moving from fixed to variable costing)

Transformational Benefits:

- Technology or business catalyst-strengthening resources, services and flexibility in technologies and/or business processes to underpin business's strategic direction.
- Business transition to facilitate and support major organizational change
- Business innovation to improve processes, skills and technology, while mediating financial risk to achieve competitive advantage

Strategic Benefits:

- Focus on core competencies
- Strategic agility (e.g. ramp volumes up and down to adapt to business cycles, provide business continuity in times of crisis)
- Strategic sourcing (e.g. offshoring or using offshore competition to get better prices and service, best of breed sourcing)
- Enhance strategic capabilities by partnering with a complementary supplier
- Rapid penetration of new markets
- Operate in new geographies
- Direct profit generation through joint venturing with vendor partner

Onshoring:

The services and production tasks are handled inside the company's primary country in order to reduce complexity, control quality and costs, and avoid transportation and regulatory hassles. It is the process of dealing only with suppliers and partners who are located within proximity to your business. A business may even choose to locate closer to a supplier that they need regular products or raw materials from such as an automaker who needs to locate close to a car parts manufacturer

- The goal is to increase the speed of their supply chain and to keep business always moving at a fast pace to meet customer demand.
- This is effective when a company is closely related to the supplier in terms of industry and where geographical location is essential and practical.

Reshoring:

The practice of transferring business operations that was moved overseas back to the country from which it was originally relocated.

Nearshoring:

Nearshoring has to do with making supplier deals with countries who share your border. For example, Russia has dealt with China and North Korea primarily because it is easier to transport goods that are transported across the border and products can be received faster than if they deal with countries across the ocean.

Offshoring:

Offshoring, the practice of outsourcing operations overseas, usually by companies from industrialized countries to less-developed countries, with the intention of reducing the cost of doing business. Offshoring has traditionally been used in situations where production, materials, and labour costs

outweigh travel complexities and shipping costs, but this practice is starting to make less business sense as time goes on.

The evolution happened from outsourcing low-skilled or unskilled manufacturing jobs to skilled jobs over the last 2 centuries. The key drivers of offshoring are:

- lower labour costs
- more lenient environmental regulations
- less stringent labour regulations
- favourable tax conditions
- proximity to raw materials

	Offshoring	Outsourcing
Definition	Offshoring means getting work done in a different country.	Outsourcing refers to contracting work out to an external organization
Risks and criticism	Offshoring is often criticized for transferring jobs to other countries. Other risks include geopolitical risk, language differences and poor communication etc.	Risks of outsourcing include misaligned interests of clients and vendors, increased reliance on third parties, lack of in-house knowledge of critical (though not necessarily core) business operations etc.
Benefits	Benefits of offshoring are usually lower costs, better availability of skilled people, and getting work done faster through a global talent pool.	Usually companies outsource to take advantage of specialized skills, cost efficiencies and labour flexibility.

Table: Difference between Offshoring and Outsourcing

SUPPLY MANAGEMENT

Supply management is the act of identifying, acquiring, and managing resources and suppliers that are essential to the operations of an organization. It is a systematic business process that goes further than procurement to include the coordination of pre-production logistics and inventory management, along with budgeting, employees, and other key information to keep the business running smoothly.

- It includes the purchase of physical goods, information, services, and any other necessary resources that enable a company to continue operating and growing.
- A supply manager formulates strategy for developing and maintaining relationships with suppliers—and then executing on it—as well as holding suppliers accountable
- It utilizes technology and procedures that facilitate the procurement process
- The theories of supply and demand have influence on supply management
- Oversight and management of suppliers and their contributions to a company's operations, for example, should be of paramount importance.
- In service based firms, the internet, when paired with broad improvements to logistical networks worldwide, has helped turn supply management into a key strategic objective at most large companies, capable of saving millions and increasing efficiency company-wide.

Fig: Goals of Supply Management

Difference between supply management and supply chain management

Supply chain management	Supply management
▪ Supply chain management actually refers to the management of how goods and services flow through the production process—from raw material to finished goods that end up in the hands of consumers. ▪ This includes shipping, production, and distribution of products, goods, and services.	▪ Supply chain management requires suppliers and managers to be as efficient as possible. ▪ This means they must make sure activities are streamlined so there are no shortages, costs are kept down, and businesses can remain competitive in the market.

STRATEGY AND MODEL

Sourcing Business Models are a systems-based approach to structuring supplier relationships. Based on strategy, there are seven sourcing business models that range from the transactional to investment-based. All sourcing models, regardless of origin, contain the following eight essential elements:

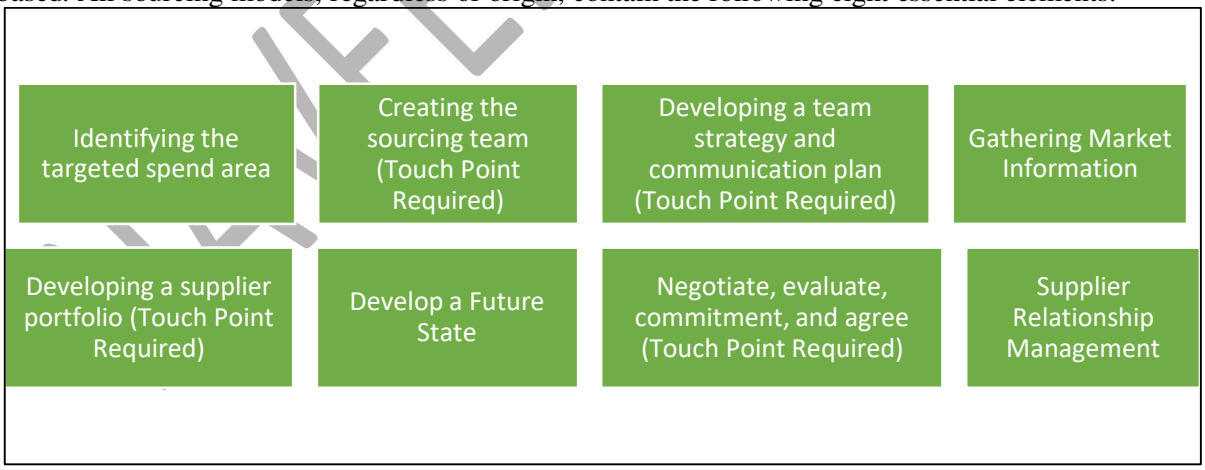


Fig: The Eight Elements of Any Sourcing Model

There are seven models:

1) Basic Provider Model
2) Approved Provider Model
3) Preferred Provider Model
4) Performance-Based/Managed Services Model

5) Vested outsourcing Business Model/Managed Services Model
6) Shared Services Model
7) Equity Partnership

1. **Basic Provider Model**
   A basic transaction provider is a supplier that operates under a simple buy–sell arrangement where buyers typically pay a set "transaction" price for products or services.
   Primary purpose: Gain access to goods or services at the lowest cost
   - Transaction-based economic model and a transactional relationship model (price per unit, per activity, per hour)
   - Competitive mind-set
   - Generic or standards with broad supply options

2. **Approved Provider Model**
   An approved provider is a supplier that meets a predefined set of qualification characteristics, quality standards, prior proven performance or other selection criteria.
   *Primary purpose***:** Leverage volumes, gain pricing discounts and reduced administrative costs with fewer proven suppliers
   - Transaction-based economic model and a transactional relationship model
   - Master Agreements
   - Reduced Competition

3. **Preferred Provider Model**
   A preferred provider model uses a transaction-based approach, but the buyer chooses a more strategic relational model with specifically chosen supplier(s).
   Primary purpose: To gain access to value-added capabilities at best value or volume discounts through a longer-term contract.
   - Transaction-based economic model and a relational contract model
   - Streamline buying processes and allow for easy repeat business
   - May have an exclusive arrangement, but competitors exist
   - Shift the procurement lens from price to value

4. **Performance Based Model**
   A performance-based model combines a relational contracting model with an output-based economic model.
   Primary purpose: Drive efficiencies and ensure predefined service levels with provider expertise
   - Transaction-based with output performance incentives and penalties economic model and a relational contract model
   - Longer-term contract with the intent that the supplier invests in improvements to meet predefined service-levels and/or savings targets
   - Shifts risk to the supplier also known as "pay for performance" or "painshare/gainshare", managed services agreement with fixed fee.

5. **Vested Business Model**
   A Vested business model creates highly collaborative win-win relationships in which both buyers and suppliers are equally committed in each other's success.
   Primary purpose: Co-developed, co-managed collaborative solution with expert to generate and optimize value not individually gained.
   - A Vested model combines an outcome-based economic model with a relational contraction model (WIIFWE (what's-in-it-for-we) Mind-set)

- Creates a longer-term relationship (5-15 yrs.) to develop solutions that achieve boundary spanning business outcomes
- Ideal for managing risk
- Creates a highly collaborative environment that drives innovation

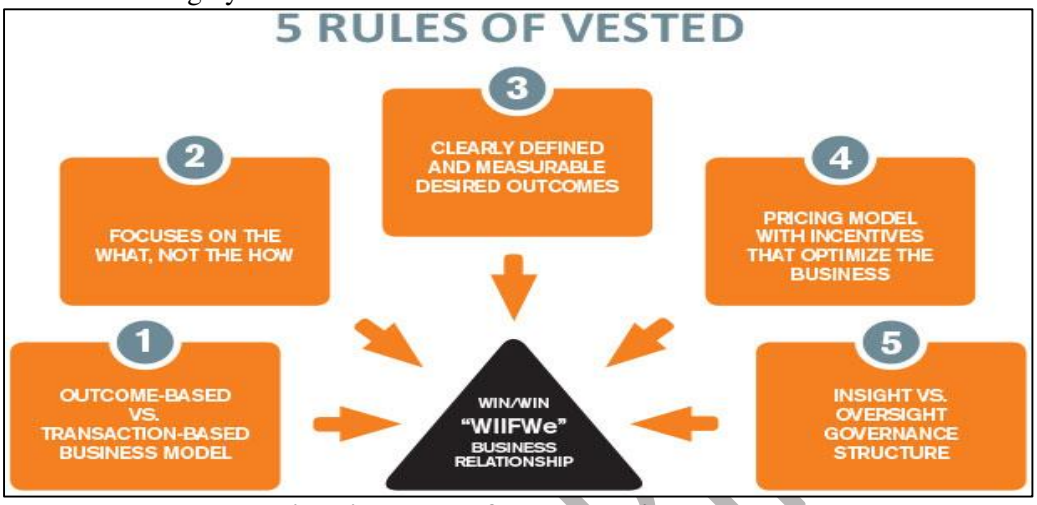


Fig: Five Rules of Vested Business Model

6. Shared Services Model

A shared services model is one of two investment-based categories and is constructed as an internal organization based on an arm's length outsourcing arrangement.

Primary purpose: Create internal functional business unit or standalone entity that provides goods or services to an overall broader organization

- Processes typically are centralized into organization that charges business units and users for the services they use
- An SSO consolidates services across an organization and places them into a distinct entity designed to be competitive with "buy" solutions
- A shared services model is like an entity that creates its own internal supplier and outsources to itself.

7. Equity Partnership

Equity partnerships are the second category of investment-based models along the sourcing continuum.

Primary purpose: Legally bind potential business partners through formal structures to effectively meet business objectives

- Organizations creating equity partnerships make a direct investment in building capabilities with a formalized entity
- Typically, asset-based with a formal and comprehensive governance framework
- Setting one up can be a costly and complicated process
- There are multiple types of equity partnerships like acquisitions, joint ventures, subsidiaries, purchasing cooperatives etc.

Architecting Equity Partnerships: Because of this variety of investment-based models, there is no one right way to structure such a model

- Investment-based models can use any of the three economic models: transactional, output or outcome based
- Due to organization financial nature, the stakes typically are high, therefore most investment-based models benefit when following a highly collaborative what's-in-it-for-we (WIIFWE) approach with an outcome-based economic model.

NEGOTIATION

There are matters of defining and interpreting specifications, rationalizing quantity and delivery requirements with production or capacity constraints, and, surely, notions of what constitutes fair and reasonable supplier pricing. That is where negotiation comes into play.

- Negotiation is employed whenever there are differences of objectives, interests, or points of view that must be resolved in order for two or more parties to reach agreement.
- Negotiation is a process of reaching agreement through **discussion, analysis, and bargaining.**
- It is not an event. It is not a game. It is not a sport. It is a process.

Negotia
• Resources allocation activity (bargaining)
• Search for solutions (problem-solving)

- • Collective decision method when there are no rules and/or hierarchy

Nature of Negotiation

❖ **Negotiation is both collaborative and competitive.**

- On one hand, there is the intrinsic intent to reach an agreement. That makes the process cooperative.
- On the other hand, there are those areas of real and perceived differences. And resolving them to one or the other's advantage makes the process competitive.
- Negotiation usually proceeds in a series of rounds, with every agent making a proposal at every round.
- Negotiation can be considered as:
  - Resources allocation activity (bargaining)
  - Search for solutions (problem-solving)
  - Collective decision method when there are no rules and/or hierarchy
- Any negotiation setting will have four components:
  - A negotiation set: possible proposals that agents can make.
  - A protocol.
  - Strategies, one for each agent, which are private.
  - A rule that determines when a deal has been struck and what the agreement deal is.

Functions of a Negotiation:

- Trade and economic exchange (trading/dealing)
- Interactive decision making (joint project)
- Conflict resolution (an alternative to « war »)
- Drafting joint rules (institutionalization)

Negotiation Strategy

Successful negotiation demands a carefully developed planning strategy that addresses the dual aspects of negotiation: ***collaboration and competition***. Before you begin any serious negotiation, you must identify and characterize which issues are priorities so that you can appropriately focus your planning energies on them. Negotiation planning strategy generally needs to address long-term mutual satisfaction and the development of an approach that seeks to maximize the benefits to both parties, so that each party can leave the negotiating table feeling successful.

Broad Outcomes

As a part of negotiation strategy, it is important to determine which of the outcomes you would be willing to accept. The 3 outcomes are: ***Win-Win, Lose-Lose, Win-Lose***

Why Negotiate

Some relevant issues are not addressed properly in competitive bidding process. We negotiate to address those issues, identify areas that are ambiguous or in dispute, and then resolve them.

Doing so results in an agreement that better ensures achieving the negotiation objectives we seek, but at the same time is mutually satisfying.

When to Negotiate

Situations when our requirement is unique and customized, or they are complex and technically demanding, or Suppose the Statement of Work calls for performance above and beyond existing technology or state of the art. In such cases, we need to ensure that the right engineering and fulfilment processes will be employed to get the job done properly. Depending on competitive bidding alone to resolve the issues is not wise. Without the additional effort invested in negotiation, the competitive bidding process alone will likely come up short of achieving our objectives. The bidding process may produce the best offer, but it is only through the negotiation process that we can fully maximize our bargain.

- In situations of potentially high risk, we may want to negotiate for stronger contingency planning efforts.
- Where technical requirements are complex, we may want to see some additional engineering effort factored in.
- When bidding competition is limited, suppliers have little incentive to provide full
- value, and we may be compelled to negotiate in order to achieve it.

What to Negotiate

Below are some of the most common elements of negotiations. Depending on the situation, we need to prioritize them. Concessions by your supplier in any of these or similar elements will always increase the value of the acquisition.

Price Payment terms Deliverables Service levels Quality Support Warranties	Risk assumption Business continuity/disaster recovery Liquidated damages Insurance/bonding Freight allowances (for product) Consignment inventory

VALUE in Negotiation

In negotiations, value can be described as the total perceived worth, importance, or usefulness of the items bargained for, often measured in terms of what we agree to exchange for them.

Negotiation Planning

Negotiation planning prepares the way for future tactical operations and establishes a pattern of collaboration essential to achieving negotiation objectives. The outcome of any negotiation is proportionate to the degree of planning or homework that goes into it. *To be effective, a negotiation plan requires that we understand the supplier's objectives as fully as possible so that we can establish*

a set of concessions that we can offer in exchange for the supplier's concessions. A negotiation plan is used to develop a comprehensive course of action. Actions are linked to a well-defined set of objectives.

The plan outlines the likely points of agreement and disagreement with the supplier.

The plan also addresses the resources that must be employed to achieve these objectives in terms of time, people, and required information

There are three phases to negotiation process:

Analysis

Evaluation of supplier's strength and weakness.

Supplier's past history, market conditions and current business situation factors

Discussion

Aimed to reach agreement

Skillful communication and motivation

Discover the needs and objectives of the supplier

Filling the gaps discovered during analysis

Bargaining

Quid pro quo - "this for that" - "Something for something"

Bargaining is the medium for exchange in the negotiation process

The more we get of what we want, and the less we concede to get it, the greater is our objective benefit

The less we get and the more we give up, the less is our objective benefit.

Developing a Negotiation Plan

- The process of developing a negotiation plan requires identifying a logical, sequential set of steps.
- The amount of time and work you put into your plan will depend on the nature of the sourcing project.
- Demands and limitations can add a great deal of complexity to a sourcing project.

Important elements of developing a negotiation plan

Selecting a Team

- Because of the complexities of negotiation, there is a necessity of involvement of different cross-functional team members.
- The process is led by procurement and involves operations, user groups, key stakeholders like finance, legal, health and safety, quality assurance, IT, logistics, facilities etc.
- Team members need not be present during the actual negotiations, but they play the role of an advisor.

- During the tactical procedure, great care needs to be taken in responding so that no commitment is made prematurely.

Developing Objectives

Some of the ways to develop objectives for negotiation are:

1. Comparing the Request for Proposal (RFP) response of the supplier with whom you intend to negotiate to other proposals you have received for the same RFP. Doing so will enable you to find gaps in this supplier's proposal that may be open to negotiations.
   E.g. *- let's say you intend to negotiate with Supplier A for a printer maintenance program since overall its offer provides the best value. However, Supplier B offers a viable proposal that contains a maximum downtime of 12 hours whereas Supplier A's proposal is for 24 hours. Considering that both suppliers are equally responsive, you have identified a gap in maximum downtime of 12 hours that is subject to further negotiation.*
2. Comparing the user's requirement to the proposal point by point and identifying gaps between the requirements and the supplier's offer.
3. Analysing the supplier's proposal in light of market conditions provides another way to identify areas for negotiation; if the market exhibits declining utilization of capacity, you may expect prices to fall in the near term. You will then offer an additional justification for negotiating lower prices.

Objectives should be formulated with SMART concept – **S**pecific, **M**easurable, **A**ttainable, **R**elevant and **T**ime-bound.

E.g. – Suppose the objective is "*gaining a price reduction*".

Specific and Measurable

State the amount in terms of INR or percentage.

Attainable

A price reduction objective needs to be in alignment with current market trends and the supplier's ability to sustain operations at that pricing.

Relevant

A price reduction objective must apply to the current acquisition and fall within the scope of your negotiation.

Time-bound

The specific period that the objective covers.

Negotiation Objectives Matrix

Let's say we want 10% reduction from the original proposal.

Objectives	Opening	Target	Walk-Away	Concession(s)
Price reduction	14%	10%	7%	A. Offer an immediate contract B. Offer an option to extend contract for an additional year
Completion / delivery	4 weeks	6 weeks	8 weeks	Reduction in element x of the quality requirements
Extend to all objectives				

Prioritizing Objectives to Match Concessions

In most situations, there may be limited number of concessions available. These are like poker chips: Once they are gone, you will have to fold your cards and move on. Therefore, it's extremely important to ration your concessions so that it don't use up before it achieved those objectives that are critical to negotiation team.

Supplier's Objectives

Another requirement for negotiation planning is to attempt to recognize the supplier's objectives in order to better understand what may be able to gain through an exchange of concessions. If, for example, negotiation team is aware that the supplier is operating well below capacity, it might be able to gain a price reduction by committing to more volume in the earlier stages of the contract.

SWOT Analysis

Some negotiation planners like to begin their approach with a SWOT (strengths, weaknesses, opportunities, and threats) analysis. This analysis is typically conducted just after establishing objectives. E.g. - The supplier's weaknesses might be the need to obtain a contract right away to avoid a layoff. Market conditions that see prices rising may turn out to be a threat to negotiator ability to negotiate reductions; conversely, falling prices may be a threat to the supplier, compelling concessions in exchange for an immediate contract.

Agenda/Order of Discussion

One of the most powerful tools, often overlooked, can be control of the agenda. If negotiator can control the order of bargaining during a negotiation, it will have a much better chance of staying on track with negotiation plan concessions.

Staying Organised

During a negotiation, it is critical that negotiation team stay fully organized, for obvious reasons. Everyone on negotiation team attending the negotiation needs to be clear on the order of discussion and the agreed-on objectives.

Tactics

As part of developing your negotiation plan, it is important to determine which of the outcomes you would be willing to accept. The use of tactics by a negotiator is both personal to an individual's style and specific to the circumstances, so there are endless permutations for every particular element, similar in complexity to a chess game.

Creative Negotiation

- Seek out creative outcomes
- Understand cultures, especially your own.
- Don't just adjust to cultural differences, exploit them.
- Gather intelligence and know the terrain.
- Design the information flow and process of meetings.
- Invest in personal relationships.
- Seek information and understanding.
- Make no concessions until the end.

PERFORMANCE MEASUREMENT AND EVALUATION

Performance Reviews for Negotiation Success

Performance reviews play an integral role in the success of any business, helping both employees and management to assess strengths and weaknesses and target areas for growth and skill development.

From Company's prospective - One critical skill that is often overlooked by performance reviews is negotiation. Rather than assessing negotiation, many companies subsume the skill under such headings as **—persuasiveness, emotional intelligence, or overall —effectiveness,** while others overlook the rubric altogether. At the same time, many companies are establishing **negotiation training or influencing training programs.**

Identify Negotiating Styles

When businesses fail to properly address and assess negotiation skills, they put themselves, their employees, and their business at a disadvantage. One key part of assessing negotiation skills is to determine the negotiating style of each employee. By naming negotiating styles, management is able to quickly sketch out a general model of each employee's negotiation skills and weaknesses.

Establish Skill Development Benchmarks

When adding negotiation to the performance review process, employers should start by establishing and explaining negotiation benchmarks for their individual company.

Creating Great Negotiators

The best negotiators know how to manage differences in ideas and values, make exchanges that increase value for the company overall, and focus on the overall goal of the negotiation without losing sight of the needs and desires of the client. These negotiators come prepared, communicate clearly, and continuously add value for their company through the negotiation process.

Negotiation Success: How to Evaluate & Measure

Implement and Track Proven Negotiation Strategies

- Companies now can evaluate and enhance their employees' negotiation effectiveness by
- Setting up a strategic negotiation process
- Training them in it,
- Track and assess the extent to which their employees implement these sales and training negotiation strategies
- Measuring and comparing their results

Analyse the leverage situation

One primary area to track relates to leverage. Specifically, your success in any deal often will be directly correlated to what negotiator would have done if negotiator had not reached agreement with your counterpart. Thus, one relatively objective way to assess a crucial element of negotiation success is to contrast the terms of r final deal with what initially would have done if you had not negotiated it. The difference will be the relative effect of your negotiation effort.

For example, John at ABC Corp. has been requested to get the best deal he can for 100 hotel rooms for ABC's annual conference. John contacts three class hotels and is quoted the following rates: Hotel X Rs. 13,000; Hotel Y Rs. 13,500; and Hotel Z Rs. 14,000. John subsequently negotiate a rate of Rs. 12,000 at Hotel Y. How can you measure John's ability or negotiation success? Compare

ABC's best alternative at the beginning of the process with ABC's deal after John has finished his negotiation. This Rs. 1,000 difference is attributable to John's negotiation effort.

Evaluate the Outcome Vis-À-Vis Objective Standards

Another crucial success element to compare is our employees' results relative to objective standards such as market value, efficiency, costs/profits and expert opinions.

RISK MANAGEMENT IN SOURCING

Risk affects many aspects of the supply sourcing process; it is a guiding consideration when selecting suppliers.

Nature and Definition of risk

Simple definition: *Risk is the chance of something happening that will have an adverse impact on our objectives.*

More complex definition: *Risk is a measure of the inability to achieve program objectives within defined cost, schedule, and performance constraints.*

Risk arises due to uncertainty	Risk is an essential part of business	Degree of Risk Depends upon the Nature and Size of Business	Profit is the Reward for bearing the Risk

Why is understanding risk important in sourcing

- Risk is also an overriding consideration in ensuring ongoing supplier performance and our continued operation without interruption due to a supplier's failure to meet its commitments.
- Risk can lead to supply interruption or increased cost through contract breach, default, or a supplier's inability to fund its commitments.
- Risk as a critical aspect of business operations that must be managed properly in order to remain in a tolerable range.

What is Risk Management?

Risk management is the process of identifying, assessing, and controlling risk arising from operational factors and making decisions that balance risk with offsetting benefits (or rewards) and reduce (or eliminate) the possibility of an unfavourable deviation from an expected outcome. Risk management is also a continuous, iterative process used to manage risk in order to ensure that activities achieve their intended objectives.

Principles of Risk Management

Risk management is the identification, classification and prioritization of risks. This is generally done in tandem with efforts to monitor, control and mitigate the risks. The following are the principles of risk management:

- It should be an integral part of the organizational process
- It should factor into the overall decision making process
- It must explicitly address uncertainty
- It should be systematic and structured
- It should be based on the best available information
- It must take into account human factors
- It should be transparent and all-inclusive
- It should be dynamic and adaptable to change

- It should be continuously monitored and improved upon as the project moves forward

Risk Management Process

The key steps involved in the risk management process in context of sourcing are:

- **Risk Identification**
- **Risk Assessment**
- **Risk Control**

Fig – Risk Management Process

Risk Identification

Identifying specific risks is the first step in any risk management process. Some common categories of risks are:

Financial Risk

These risks can range from an unexpected and unfavourable change in exchange rates all the way to a supplier's bankruptcy. E.g. – Budget overrun, funding limitations, unauthorized changes etc.

Scope or Schedule Risk

These risks are created due to poor project definition, SOW or unforeseeable schedule/timeline changes.

Legal Risk

Related to disputes or different interpretations of contractual obligations, or from not meeting requirements in the terms and condition.

Project Organization Risk

These risks are generally a result of not having the right people or equipment in the right place at the right time.

Environmental Risk

Risk to the environment created by your supplier or contractor. Environmental risk includes the organization's negative impact on water, air, and soil as a result of discharges, emissions, and other forms of waste.

Sociopolitical Risk

Regulatory environment changes due to new Govt. or increasing awareness of inequitable social conditions.

Human Behavior Risk

These risks are most difficult to assess. They are due to illness, injury or departure of key personnel.

Risk increases with the complexity of any given situation, the number of unknown factors, and the potential consequences of failure.

In addition to the categories just outlined, our assessment should identify if the risks to be considered are internal risks or external risks:

Internal Risks (Risks related to own operations)
Risks that you can control or influence. Internal risks include cost estimates, staff assignments, schedule delays, and product design.

External Risks
Risks related to conditions outside of our organization, such as market factors, political climate, regulatory environment, economic circumstances, and so on. These are the risks that you as a contract manager cannot control or influence.

Risk Management Tools and Techniques to Identify Risks

Expert Knowledge - Expert knowledge relies on the experience of people who have worked on similar sourcing operations in the past. Interviews with individuals, stakeholders, and experts are good methods to use to gather expert knowledge. Interviews with subject matter experts may uncover risks not previously considered.

Historical Information - Historical database of risks encountered in previous sourcing efforts and contracts will be useful to identify risks, their sources, and the events that precipitated them. It will also help in creation of a mitigation plan in case the risk arises.

Brainstorming – Gathering a group of subject matter experts for a brainstorming session can be helpful in identifying risks and sources of risks. This activity will make it possible to create a broad list of potential risk events and their sources. It can be applied to the specific conditions in order to refine the list.

A variation of brainstorming often used is called the Delphi method, a means of leveraging the collective judgment of specialists and/or management (often referred to as "expert judgment"). We use this process primarily when objective and quantitative data for measurement and decision making do not exist (or possibly even make sense). This technique consists of three simple steps:

1. Ask participants to estimate a value for some occurrence, usually anonymously on paper.
2. Consolidate results, and ask participants with responses outside the norm to justify their positions for each participant's benefit and/or reconsideration. Ask all participants to estimate the value of the occurrence.
3. Consolidate the results from Step 2, and repeat the process until you reach a reasonably close value.

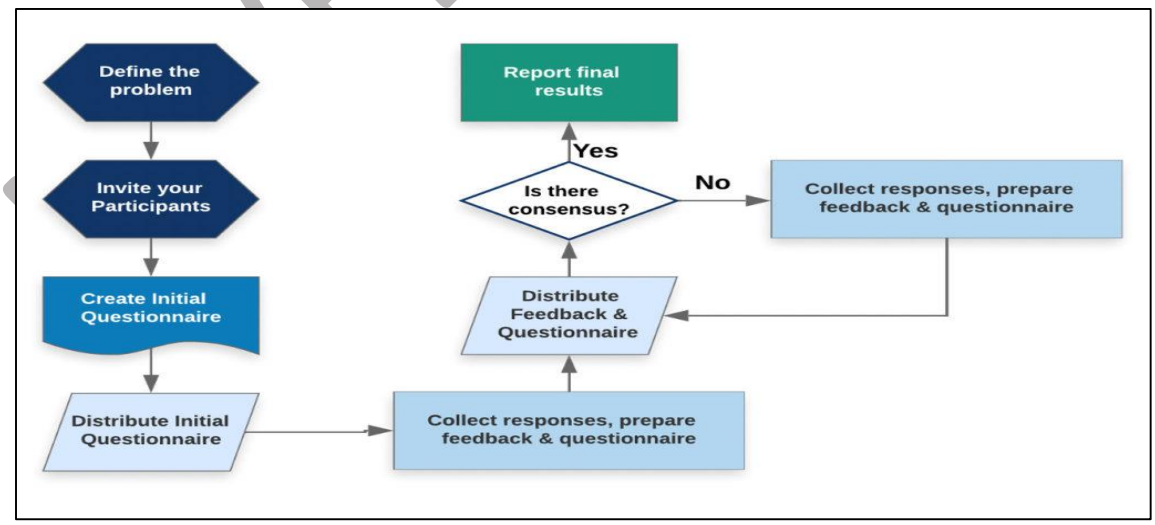


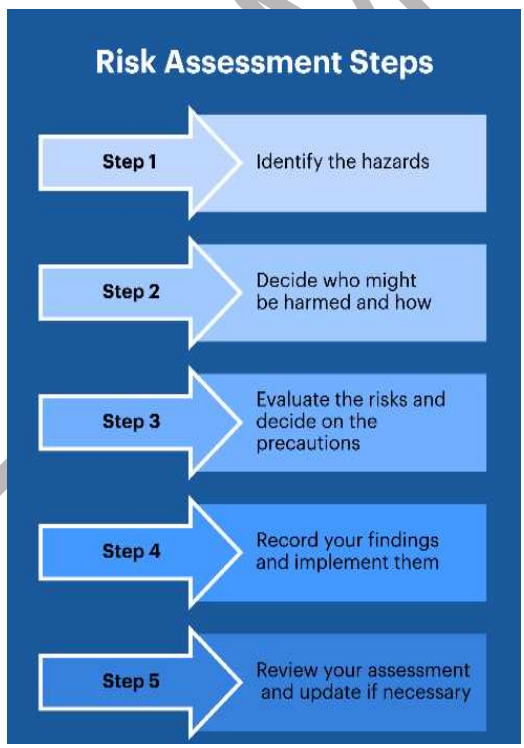
Fig: Delphi Method

Simulations - Several analysis tools are commonly available for providing simulations. Some of them are Monte Carlo simulations, decision tree, software products that work with MS Excel.

Checklists - Through research, it may be able to develop a useful checklist to run through whenever needed during sourcing activities. It can use historical data that applies to similar activities in organization or find related information through a well-directed Web search. Although checklists can be useful tools, they should not replace close analysis of the conditions it might encounter. It is also unlikely that even the most detailed checklist will include every potential risk in a particular situation.

Risk Assessment

Sourcing personnel has to review the specific situation in terms of the risk categories noted earlier in order to define the risks that may apply in any given case. It is the first and most complex step of risk assessment since many of the situations we must work with are fluid and ever changing. Once we have identified the elements of potential risk, we will need a very simple method of evaluating or measuring them to determine which require our attention, now and in the future. In simplifying our assessment, we generally have to ignore the interaction of individual elements with one another and opt for examining the elements in isolation, for the most part.



A very simple method in common practice can be used to examine these risks. We examine each element of risk in terms of its likelihood of occurrence and its impact. A brainstorming-based risk assessment facilitated session with stakeholders, team members, and infrastructure support staff is the most common technique used to identify risks and evaluate their potentials. The primary source of information is historical data developed from activities similar to the one we are evaluating, with an added element of human judgment and intuition. This form of facilitated session is also known as **force-field analysis.** By using qualitative terms such as very high, high, moderate, low, and very low to identify the probability of risk occurring, you can prioritize the risks associated with sourcing and with the contract that follows, then map the analysis to specific phases of the contract, specific business units, parties to a contract, and so on.

Probability		Consequence	
Rating	Description	Rating	Description
Almost certain (.90)	Will occur in most instances	Catastrophic (.90)	Project cancellation
Likely (.70)	Could occur in most instances	Major (.70)	Significant time or cost overruns
Moderate (.50)	Should occur at some time	Moderate (.50)	Some time or cost overruns
Unlikely (.30)	Might occur occasionally	Minor (.30)	Some inconvenience
Rare (.10)	Will occur only in exceptional circumstances	Insignificant (.10)	Little noticeable effect

Table: Risk Assessment with Probable Outcomes

Once we have identified individual risk characteristics, we can assign some relative criteria to each of the categories.

Risk	Description	Probability	Consequence	Score
Design	Fails to work effectively	.60	.90	.54
Key personnel	Lead engineer leaves	.40	.50	.20
Ramp up	Late delivery of equipment	.50	.50	.25
Production	Lower yield than expected	.40	.40	.16
Sales	Not marketable at price	.20	.40	.08

Table: Calculated Risk Assessment

The probability factor and the consequence factors are multiplied. Keep in mind, though, that as time progresses, additional criteria may surface, and the ratings shown may change.

Risk Control

After identifying and categorizing the risks, you must take steps to control them. Instead of completely eliminating risk, we may be able to minimize the risk or mitigate it by taking action to handle the unwanted outcome in an acceptable way. The nature of that product or service has a major effect on the risks identified. If the product has been provided successfully many times in the past, there will be fewer unidentified risks, and you will have a history of dealing with them. Effective control requires a plan or at the very least an outline of actions we should be taking and the circumstances under which we should take them. As we develop a plan, we must take into account the goal, scope, and objectives of the sourcing activity. Some of the key elements of a risk control plan will likely consist are:

Risk Triggers - A risk trigger can be defined as a precursor to an actual risk event. It lets you know a risk event may be about to occur. As sourcing managers, you must be alert of their appearance.

Example 1 - Cost overruns on early activities may be a signal that cost estimates were poorly developed and the contract is trending toward being over budget.

Example 2 - A vendor missing a scheduled ship date may be a signal that hardware will not be delivered on time to meet the contracted date.

Monitoring - Monitoring includes tracking current conditions through reports or through physical access to the source. We monitor risks to ensure that:

- Risk responses have been implemented as planned.

- Risk responses are as effective as you expected them to be. If they're not, you may have to develop new responses.
- Any documented assumptions remain valid.
- Risk exposure has not changed from its prior state. If it has changed, additional analysis is needed.
- No risk trigger has occurred. If a trigger has occurred, contingency plans must be put in place.
- Proper policies and procedures are followed.
- No risks have occurred that were not previously identified. Again, if new risks have arisen, they must go through the same review and analysis process as previously identified risks.

Mitigation - Risk mitigation involves lessening the impact or magnitude of a risk event. You can do this by reducing the probability that the risk will occur, reducing the risk event's impact, or both, to an acceptable level. Costs for risk mitigation should be in line with the probability and consequences of the risk. To aid decision making about risk reduction, you must take into account the cost of reducing the risk. We call "risk leverage" the difference in risk exposure divided by the cost of reducing the risk.

$$Risk\ Leverage = \frac{(Risk\ exposure\ before\ reduction) - (Risk\ exposure\ after\ reduction)}{(Cost\ of\ risk\ reduction)}$$

Contingency Plan - A common method of mitigating the impact of a risk event is to develop a contingency plan in advance of the possible occurrence, usually shortly after the risk is identified. The plan includes specific actions to be taken should a risk event occur, such as identifying an alternate source if the selected source becomes unable to meet its contractual obligations, or a substitute part if the primary part becomes unavailable.

Avoidance - If you can identify the specific cause of a risk, it is more likely that you will be able to reduce or eliminate it. Risk avoidance techniques include reducing the scope of the contract to avoid high-risk elements, adding resources or time to the contract, avoiding suppliers or contractors with unproven track records, and using a proven approach instead of a new one.

Acceptance - You may choose to accept the consequences of the risk event. Risk assumption can be active, as in developing a contingency plan for execution should the risk event occur, or passive, as in deciding to deal with the risks and their consequences when or if they occur but not planning for them in advance.

Transfer - Transferring the risk occurs by allocating risks to other entities or by buying insurance to cover any financial loss, should the risk become a reality. However, risk transfer may come with additional cost, such as the cost of insurance or an additional amount tacked on to the pricing by the supplier in order to deal with the event should it occur

Managing Risk in International Business

The main risks that are associated with businesses engaging in international business include foreign exchange risk and political risk. These challenges may sometimes make it difficult for companies to maintain constant and reliable sourcing strategies.

Foreign Exchange Risk

Foreign exchange risk is the risk of currency value fluctuations, usually related to an appreciation of the domestic currency relative to a foreign currency. Due to the somewhat volatile nature of the exchange rate, it can be quite difficult to protect against this kind of risk, which can harm sourcing.
For example, assume an India car company receives a majority of its raw material and parts from Japan. If the Japanese yen appreciates against the Indian rupee, then it will be costlier for the Indian business to procure parts from Japan.

Political Risk

Geopolitical risk, also known as political risk, transpires when a country's government unexpectedly changes its policies, which now negatively affect the foreign company. These policy changes can include such things as trade barriers, which serve to limit or prevent international trade.
Some governments will request additional funds or tariffs in exchange for the right to export items into their country. Tariffs and quotas are used to protect domestic producers from foreign competition.

Protection for International Business

In general, organizations engaging in international sourcing activities can experience much greater uncertainty in their processes. An unsteady and unpredictable stream of sourcing can make it hard to operate a business effectively. Few ways a company can overcome some of these risk exposures are:
Hedging - The purpose of these hedges is to reduce the risk that price movements in the currency market will adversely affect the company's sourcing cost. A business may attempt to hedge some of its foreign-exchange risks by buying futures, currency forwards, or options on the currency market. For example, importers and exporters will often use currency forwards to hedge against exchange rate fluctuations.

Political Risk Insurance - Companies also may decide to acquire political risk insurance in order to protect their equity investments and loans from specific government actions. Political risk insurance helps these corporations continue to develop and grow their global businesses even in unpredictable or uncertain business conditions. Companies can purchase insurance that offers protection in the event of war, terrorism, labor disputes, supply shortages, and trade restrictions.

Module – II

Supplier Research and Market Analysis

Supplier Research and Market Analysis:

Supplier Research: is the process of obtaining information for sources specific to the item (product or service) being acquired in order to facilitate competitive practices and supplier selection.

Market analysis: is the process of gathering relevant information from economic indicators and emerging trends within the particular industry and the competitive environment of the product or service we are sourcing.

Supplier research and market analysis, taken together, provide the basis for us to understand what products and services are available, who the most qualified potential suppliers are, and how the market for that particular product or service operates.

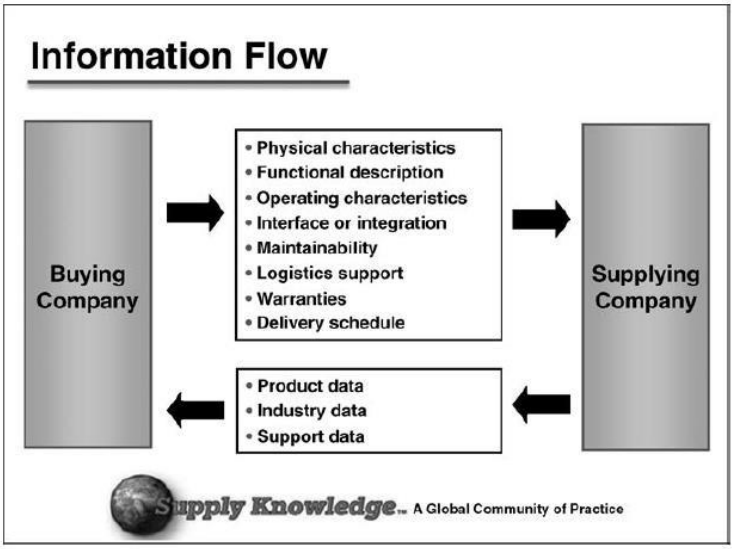


Figure: Information Flow in Supplier Research and Market Analysis

Conducting Supplier Research:

Supplier research is used in sourcing for two main purposes:

1) To identify qualifiable suppliers or contractors that can provide goods or services to our organization. By "qualifiable," we mean suppliers that have been screened and meet the capability, financial, and capacity requirements for the current requirement. These suppliers have not yet been certified or formally approved by the sourcing selection team.

2) To determine an appropriate strategy for solicitation, evaluation and assembling the bidders' list. This strategy is based on both supplier research and market research, which, taken together, establishes the basis for our acquisition and sourcing plan.

Methods and Techniques for Locating Potential Suppliers:

How difficult is it to find supplier sourcing information? Well, not really difficult at all if you know where to look. Let's see where we can find sources. In developing a further understanding of the market, we can leverage a number of sources (apart from the companies themselves) to provide additional insight and information. We can include:

- ***Experts:*** These should include in-house expertise and commodity centers.

- ***Current Suppliers:*** Often they have in-house category information and solutions that may meet your sourcing requirements.
- ***Other Recent Market Research:*** Check files for similar purchases.
- ***Requests for Information:*** These are formal methods for obtaining comparative data.
- ***The Internet:*** Although the Internet is a useful source of information, you must be careful to avoid broad search engines that can provide information overload. Instead, use sites that aggregate catalogs from many similar suppliers. You can use these catalogs for convenient side by side comparisons.
- ***Online Databases:*** Industry web sites and consolidated catalog sites provide useful information.
- ***Source lists from other sections within your organization.***
- ***Product Literature:*** Often you must specifically request such data from the supplier, but sometimes you can find it easily on the supplier's web site.
- ***Trade Shows:*** Although attendance is time consuming and often requires travel, trade shows can be especially valuable when sourcing new products that will be used extensively and potential new sources of supply.
- ***Professional Associations:*** For example, the National Institute for Automotive Service Excellence and the Institute of Electrical and Electronic Engineers (IEEE) maintain product standards.
- ***Market Research Firms:*** Many companies specialize in developing detailed market analysis along with specific commodity research and sell the results.

Conducting Market Analysis:

Market analysis is an important tool for gathering information about pricing and availability trends, inherent risks in a particular industry, and the structure of the market itself: what its drivers and critical barriers are. We can learn what new and existing technology is available and assess its suitability; we can learn who the key suppliers are and what advantages they offer.

Market analysis can become an extensive and time-consuming project, so you will need to adjust the amount of time spent according to the urgency of the requirement. An urgent requirement just may not allow the time required to properly research the market. Review the estimated price of the acquisition, where low-price purchases do not merit extensive research. Be sure to consider the complexity of the requirement, where more or less time must be spent in fact finding and analysis for highly complex acquisitions.

Analyzing the Market: One of the primary objectives of market analysis is to develop an awareness of the opportunities and threats evolving in the particular market. The outlines the major categories of market analysis:

1) Market size (current and future)
2) Market growth rate
3) Market profitability
4) Industry cost structure
5) Distribution channels
6) Market trends
7) Key success factors

Market Size: We generally relate market size to the total dollar value of aggregated sales. Market share is important when assessing a particular supplier's position within that market. This information is typically available through Department of Labor/Department of Commerce publications, although it is not always as current as we might like it. We can also find information through trade magazines and trade associations as well as research firms specializing in that particular economic market segment.

Market Growth Rate: The rate of growth in any particular market segment will tell you if there will be market capacity available and for how long. This information is usually garnered from the same sites noted earlier, although in some cases you may have to project the information into the future yourself in order to utilize it fully. There are a number of forecasting and statistical techniques available for doing this; most easily used is linear regression analysis, which plots a straight line from the past into some future date using a formula found in most spreadsheet programs.

Market Profitability: If companies in a particular market are profitable, they are more likely to provide a relatively stable source of supply. Many factors influence profit, including the balance of supply and demand, the ease with which new firms can enter the market, the competitive nature of the market, and who (buyer or supplier) holds the most power.

Industry Cost Structure: We can use our knowledge of the market's cost structure to identify current and emerging opportunities for leverage and negotiation planning purposes. In a competitive market with relatively inflexible cost elements, pricing will be able to fluctuate only within a relatively narrow range to maintain profitability (under most circumstances).

Distribution Channels: How are customer orders generated and fulfilled? The more hands a product passes through, the higher its price and the slower its delivery tend to be. A shorter pipeline or supply chain generally ensures faster response times with less inventory and thus less cost.

Market Trends: Fluctuations in price and availability are common in all markets. Supply and demand vary and affect prices depending on the complexity of the supply chain. Understanding these fluctuations and being able to forecast them to some extent can result in buying opportunities that lower cost.

Key Success Factors: Advanced technology, higher quality and satisfaction levels, and economies of scale are just some of the factors for success within a given market. First to market and access to distribution resources provide individual companies within the market more opportunity for success.

Determining Changing Marketplace Factors:

One of the most significant determinants of sourcing decisions generates from the nature of changes in the marketplace. Supply and demand continually interact to produce varying pricing profiles. When product is in short supply or production resources come under threat (e.g., oil and the Middle East), prices can rise dramatically, and capacity limits may create supply allocations. Organizations wishing to continually work with the most price-competitive suppliers who stay up to date on the latest technological advances and business methods must maintain an aggressive review process that periodically surveys the market as conditions change.

Economic Conditions: Supply and demand forces continually drive prices up and down. As economic conditions change, demand increases or declines, generating shortages or excesses in supply at any given time. As previously noted, increased supply or decreased demand (or combinations of both) generally lead to reduced prices. What drives these fluctuations can be a mystery. However, the astute procurement professional can take advantage of these conditions by seeking increased competition during periods of abundant supply and declining prices when suppliers are more anxious to seek new business or, conversely, by locking in prices through contracts when facing periods of shortage or inflationary pricing.

Market Complexity: The extent to which an organization's economic strategy can be employed for example, when to lock in prices through extended contracts or when to pay more for higher quality

levels depends somewhat significantly on the complexity of the market. Markets with few suppliers and little potential for product substitution tend to offer only limited opportunities for you to use competition to your advantage. However, in markets in which widely competitive forces exist, shortages in one product can be easily offset by substituting another that is, markets with greater complexity provide the buyer with more leverage to gain pricing improvements. Cost reduction efforts can produce the greatest results in industries with broadly diverse alternatives, so the sourcing effort should always begin by determining the nature of the marketplace.

Nature of Competition: The nature of competition in any particular market varies. Are there many technical solutions available, or only one or two? Is the market characterized by geographical limitations with very high transportation costs? If, for example, the product being purchased is covered by a patent or controlled by patented manufacturing technology, competition will be unlikely. Similarly, when start-up costs are high, such as those that occur in the development of proprietary tooling, competition tends to become constricted once the initial sourcing decision is made. It is always wise to understand the nature of competition in this regard before committing to generating short-term cost reductions since the sourcing effort will likely require major engineering efforts. When dealing with sources of critical supplies or services, the buying organization needs to maintain continual vigilance for potential traps that will unknowingly limit the nature of the competition for that particular product or service. You must also develop strategies for dealing with such risks in the future.

Analysis of Technological Trends: When technological change drives conditions in the marketplace, new sources of supply must always be under consideration. New technology frequently generates new opportunities for capital investment, and emerging businesses tend to spring up everywhere. The buyer should be sensitive to these opportunities but be able to balance them with the need for maintaining long-term relationships that produce value beyond price or the latest fad in technology. With critical supplies and services, one should always monitor the supply base to ensure that existing sources are keeping abreast of technology and adding improvements as necessary. Suppliers that do not constantly upgrade their processes to take advantage of new technology could easily become obsolete. The buyer should consider ways to continually monitor existing suppliers and their technological position relative to their competitor so that ongoing changes do not adversely affect their organization's own competitive position.

Performance: As economic conditions change, so can supplier performance. Suppliers under continual pricing pressures due to emerging global markets, for example, may tend to sacrifice some of the quality that qualified them for your business in the first place. Delivery delays, cuts in services, and quality failures are often the early signs of declining performance due to economic hardship. Companies providing critical supplies and services need to be continually measured against industry performance standards. Initial signs of deteriorating performance should be met with clear improvement projects and, depending on the rapidity of decline, additional sourcing activities.

Vendor Rating – Objectives

What is Vender Rating?

1) A vendor is any person or company that sells goods or services to someone else in the economic production chain.

2) Vendors or suppliers are given standing, status, or title according to their attainment of some level of performance, such as delivery, lead time, quality, price, or some combination of variables.

3) It may take the form of a hierarchical ranking from poor to excellent and whatever rankings the firm chooses to insert in between the two.

4) For some firms, it may come in the form of some sort of award system or as some variation of certification.

5) It is a direct result of the widespread implementation of the just-in-time concept.

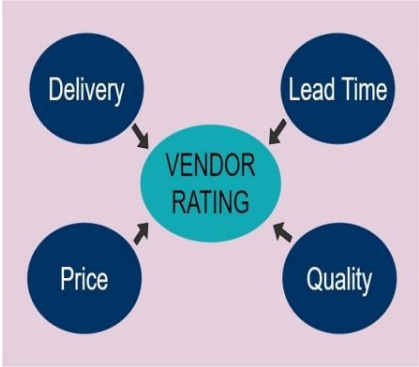


Figure: Vendor Rating

Objectives of Vender Rating:

- To help the buyer in future selection
- To provide buyer with the information helpful in subsequent negotiation
- To provide the buyer with the important information which he can act upon any corrective measures.

Vendor rating is usually evaluated in the areas of risk, pricing, quality, delivery, and service. Each area has a number of factors that some firms deem critical to successful vendor performance.

Pricing factors include the following:

- Competitive pricing. The prices paid should be comparable to those of vendors providing similar product and services.
- Price stability. Prices should be reasonably stable over time.
- Price accuracy. There should be a low number of variances from purchase-order prices on invoiced received.
- Advance notice of price changes. The vendor should provide adequate advance notice of price changes.
- Sensitive to costs. The vendor should demonstrate respect for the customer firm's bottom line and show an understanding of its needs.
- The vendor should also exhibit knowledge of the market and share this insight with the buying firm.
- Billing. Are vendor invoices accurate? The average length of time to receive credit memos should be reasonable.

Quality factors include:

- Compliance with purchase order, contract or agreement. The vendor should comply with terms and conditions as stated in these documents.
- Conformity to specifications. The product or service must conform to the specifications identified in the request for proposal, contract and purchase order.
- Reliability. Is the rate of product failure within reasonable limits?
- Reliability of repairs. Is all repair and rework acceptable?
- Durability. Is the time until replacement is necessary reasonable?

 Support. Is quality support available from the vendor? Immediate response to and resolution of the problem is desirable.
 Warranty. The length and provisions of warranty protection offered should be reasonable. Are warranty problems resolved in a timely manner?
 State-of-the-art product/service. Does the vendor offer products and services that are consistent with the industry state-of-the-art?
 Enhancements. The vendor should consistently refresh product life by adding enhancements and continuous process improvement. It should also work with the buying firm in new product development.

Benefits of Vendor Rating:

1) Helping minimize subjectivity in judgment and make it possible to consider all relevant criteria in assessing suppliers.
2) Providing feedback from all areas in one package.
3) Facilitating better communication with vendors.
4) Providing overall control of the vendor base.
5) Requiring specific action to correct identified performance weaknesses.
6) Establishing continuous review standards for vendors, thus ensuring continuous improvement of vendor performance.
7) Building vendor partnerships, especially with suppliers having strategic links.
8) Developing a performance-based culture.

Demerits of Vendor Rating:
1) Inexperience with Products and Services
2) Unfamiliarity With Corporate Operations
3) Resistance Within Company
4) Threat to Security

How the Vendors are rated?
Vendors are rated on the basis of various characteristics:
 Time delivery
 Quality
 Price
 Others actors (such as Supplying useful market information & Meet emergency order).

8 Major Rating Plans are utilized for Vendor Rating:

After the trial orders are executed, it becomes necessary for the buyer to rate the vendors to enable him to determine how he should apportion his requirements among the vendors. In other words, the basic responsibility of the materials manager is not only to locate the sources but also to preserve them through continuous rating. A vendor's performance in meeting the quality, delivery and price standards set by the buyer has to be assessed in a systematic manner.

Techniques of Vendor Rating:

The purchase organizations watch his enlisted suppliers continuously and take requisite corrective action. Following rating plans are utilized for vendor rating:

(a) Categorical plan
(b) Weighted point plan
(c) Cost ratio method

(d) Eavaston's vendor selection
(e) Forced decision matrix
(f) Service cost ratio
(g) Bell quality rating system

(a) Categorical Plan:

i. The categorical plan is a sample of all vendor rating schemes. It relies heavily on the judgement and experience of the decision maker. The purchaser maintains a list of his suppliers and their products. The vendor performance is reviewed periodically by an evaluation committee comprising of all representatives.

ii. Depending upon the performance, the vendor is given a plus point, neutral or minus. The performance trends over a period of time are built up and the vendor with increasing trend of plus point is chosen. A preponderance of pluses or minuses needs notification to supplier with comments.

iii. On the basis of experience and periodical meetings, a list of factors can be established on the suppliers' performance in each area and each factor is given a grading as 'never', 'seldom', 'usual', 'always', etc. This system, though non-quantitative, provides a means of systematic record keeping on performance criteria.

(b) Weighted Point Plan:

Quality, delivery or service and price are the three most important attributes of a good supplier. Depending upon the importance, a purchaser attaches to a particular attribute he fixes a weightage for it. The total weightages are being 100. The weightages, for example, of the attributes are as follows: Quality — 60%, Delivery — 25% and Price — 15%. The quality rating (Table), delivery (service) rating (Table), price rating (Table) and composite rating (Table) are calculated below.

Table . Quality Rating

	Lots Received	Lots Accepted	Quality Control Rating
Supplier X	90	80	$\frac{80}{90} \times 60 = 53.33$
Supplier Y	100	90	$\frac{90}{100} \times 60 = 54$
Supplier Z	70	60	$\frac{60}{70} \times 60 = 51.42$

Table . Delivery (Service) Rating

	Lots Received	Lots Received According to Promise	Delivery (Service) Rating
Supplier A	90	70	$\frac{70}{90} \times 25 = 19.44$
Supplier B	100	80	$\frac{80}{100} \times 25 = 20$
Supplier C	70	80	$\frac{60}{70} \times 25 = 21.42$

Table . Price Rating

	Lots Received	Price Rating
Supplier A	Rs. 13.50	$\frac{13}{13.50} \times 15 = 14.44$
Supplier B	Rs. 13.00	$\frac{13}{13} \times 15 = 15$
Supplier C	Rs. 14.50	$\frac{13}{14.50} \times 15 = 13.44$

Table . Composite Rating

	Supplier A	Supplier B	Supplier C
Quality	53.33	54	51.42
Delivery	19.44	20	21.44
Price	14.44	15	13.44
Total Rating	87.21	89	86.28

The weighted point plan technique enables a purchaser to evaluate a supplier on quantitative basis. This plan is more objective than categorical plan and the only way the subjectivity can enter is while assigning the weights. Proper records have to be kept. If services of a computer are available, then this plan can be used very successfully. Under this plan, the supplier can be classified as excellent, acceptable, average and unacceptable if their composite rating is over 90%, between 75% and 90%, between 60% to 75% and below 60%.

(c) Cost Ratio Method:

This method relates to identifiable purchasing and receiving costs to the value of shipment received from respective suppliers. The higher the ratio of costs to shipments, the lower the rating applied to the supplier: Quality, delivery, service and price are the usual categories to which costs are allocated, after subdividing each factor into various elements. The respective cost ratios are suitably combined with the vendors' quoted price, to determine the net cost. Here, the vendor performance is reviewed periodically by an evaluation committee comprising of representatives from all departments involved with purchasing.

(d) Eavaston's Vendor Selection:

The suppliers' past performance is utilized in the choice of vendors and the basic steps in this method are as follows: (i) The vendors on the approved list are ranked on the basis of the buyer's subjective evaluation, (ii) The first satisfactory vendor, meeting or exceeding all the standards, (iii) If the applied vendors do not fulfil the minimum standards, then the minimum standard may be relaxed till a vendor is chosen. It presupposes that standards of acceptability for every criterion are formed to fit in order to take decisions.

(e) Forced Decision Matrix:

The attributes of rating like price, quality, service, reliability of the supplier, lead time of supply etc. — are identified first. Then these factors are compared between themselves, like quality and price. If price is considered more important than quality by the evaluation committee, then a weightage of one is given to price and zero to quality. The quality is compared with each of the remaining factors and the relative weightages are recorded in the form of a table or matrix. Similarly, each factor is compared in turn with each of the others and their relative weightages are recorded. Weightages given to the different attributes are added up for each attribute and divided by the total number of comparisons to give the attribute weightage co-efficient for each attribute.

After this, the next step is to compare the suppliers in pairs in respect of each attribute, giving the superior supplier a weightage of one and the other. These results are tabulated and the supplier weightage co-efficient is thus obtained. The above two types of coefficients are combined by multiplying for each attribute and for each supplier. These are then added up to give the total weightage and this is ranked to take the appropriate decisions on the vendors. The weightage can be varied and the matrix can be suitably built for a large number of suppliers and evaluators.

(f) Service Cost Ratio:

There are other intangible aspects of a supplier's services. They can only be measured subjectively. The procedure is as follows:

i. Listing the service factors like R&D, Labour stability, financial stability, flexibility in production for rush orders, etc.
ii. Assigning weights to each factor according to its importance to the purchaser.
iii. Setting an acceptable norm e.g., out of a total of a 100 service points 70 may be an acceptable norm.
iv. Rating suppliers for each service factor.

v. Determining the percentage by which the supplier is over or under the acceptable norm.

vi. Multiplying the percentage obtained in (v) by value of package percent. For

vii. sophisticated items the value of package percent may be 10% and for common Bazzar items it may be just 1%.

viii. The percentage figure arrived at in (vi) is minus if the percentage in (v) is over the acceptable norm and is plus if it is below the acceptable norm.

The sample procedure of calculating the service cost ratio is shown in table below.

Table . Service Cost Ratio

Service Factor		Supplier A	Rating Supplier B	Supplier C
1. Financial stability	20			
2. Labour stability	10			
3. R&D	10			
4. Quality of staff	10			
5. Production flexibility for rush orders.	10			
6. Location far and near	10			
7. Precision machinery	10			
8. Inventory holdings	5			
9. Co-operativeness	5			
10. Others	10			
Total poinits	100	90	49	42
Acceptable service rating 70%		$100 - \frac{90}{70} \times 100 = -30\%$		
over acceptable (minus)		$100 - \frac{49}{70} \times 100 = +30\%$		
Under acceptable (Plus)		$100 - \frac{42}{70} \times 100 = +40\%$		
Service Cost Ratio		$-30 \times 10\% = -3\%$	$+30 \times 10\% = +3\%$	$+40 \times 10\% = +4\%$

g) Bell Quality Rating System:

The bell helicopter company developed a **Lot Quality Index (LQI),** which give an assessment of all lots received against lots rejected, by disposition and category, as the company attaches greater importance to quality. The **LQI is** given by: **LQ1 – X/L,**

Where L = total number of lots received during the period,

x = (L1 x 1.00) + (L2 x 2.10) + (L3 x 2.90) + (L4 x 3.10) + (L5 x 3.90)

L1 = Number of lots acceptable as received

L2 = Number of lots rejected by sampling inspection but labelled.

L3 = Number of lots rejected and dispositioned, rework at supplier's end.

L4 = Number of lots rejected and dispositioned, returned not usable and

L5 = Number of lots rejected and dispositioned rework at Bell helicopter company.

The weights 1.00, 2.10 etc. were determined at the company after a careful study of the complexity and number of operations required to have a usable lot from a particular dispositioned lot. It is clear from the above equation, that the best lot quality index figure rates are 1.0, the worst is 3.90. The formula can be modified easily to suit the needs of a particular firm. The quality rating can be combined with rating for other parameters, to develop suitable vendor rating schemes.

(h) IBM Quality Rating System:

The IBM rating system uses quality costs as the basis for rating suppliers. The formula for the vendor quality rating is:

VGR = Desired cost of inspection / Actual cost of inspection x 100

The cost incurred in inspecting acceptable material is the desired cost, the cost of inspecting rejected material being excluded from it. The actual cost of inspection includes cost incurred in inspecting acceptable as well as rejected material plus cost associated with extra handling of rejected material. Inspection cost is obtained by multiplying the actual time spent on inspection by the standard rate. The material handling cost is found by multiplying the number of documents to process the rejected material by a standard cost.

Advantages:

The IBM quality rating system the following advantages:

- Factors of cost used are well understood by the suppliers,
- All rating factors are brought down to common basic costs and can therefore be combined even if the factors themselves are different.
- Some minor defects are allowed, so long as the quality requirements are clearly met.
- It establishes a long range goal of what a good supplier should supply.
- No complicated weighting factors are required.
- When cent percent inspection is required, it provides for equitable rating.
- When cent percent inspection is required, it considers the inspection cost.
- The same data can be used to find out which suppliers, cost the company more and which items require more inspection time. Based on the information, inspection methods may be improved and attention can be directed towards the costly suppliers.

The IBM system on quality rating is useful, when there are a large number of suppliers vending several products. The inspection information is fed directly into the computer (or accounting machine), which computes the ratings and summarizes the information in various ways, like type of defects, part number, supplier code, final product etc. for further analysis.

Self-Certified Vendor Management:

Vendor:

A vendor is a general term used to describe any supplier of goods or services. A vendor sells products or services to another company or individual. E.g. – *A tea manufacturer might be looking for labor manpower for tea processing business. A vendor in this case might be the consultant house which provides the required manpower.*

Vendor Management:

The term vendor management is used when describing the activities included in researching and sourcing vendors, obtaining quotes with pricing, capabilities, turnaround times, and quality of work, negotiating contracts, managing relationships, assigning jobs, evaluating performance, and ensuring payments are made. It requires a lot of skills, resources, and time.

Though many business owners believe that vendor management is simply about finding the supplier with the cheapest price for a product or service, it's about more than that. It's about streamlining the process for heightened efficiencies and managing vendor relationships to ensure that the agreements made are mutually beneficial for both parties. Typical Vendor Management activities can include:

1) Vendor sourcing, appraisal and negotiations
2) Contract creation and agreement
3) Reporting and KPI (Key Performance Indicator) tracking

4) Arranging and conducting QBRs (Quarterly Business Reviews)
5) Compliance monitoring and security testing
6) Recording escalation processes and key contacts
7) Resolving disputes

Vendor Management Processes:

With effective vendor management processes in place, you can properly establish service, quality, cost, and satisfaction goals and choose and manage third-party suppliers that help you achieve those business goals. Vendor management is typically broken down into four steps.

- The first is the establishment of the business goals mentioned above. It's much easier to select and manage vendors when you have clearly defined performance parameters to compare and contrast.

- The second part of the process is to select the best vendors that will be able to match your company's performance characteristics. Every vendor will have its strengths and weaknesses, and choosing the right one is a very critical task to optimizing operational results.

- Third is managing your suppliers. On a daily basis, your vendor managers will need to monitor performance and output, ensure contract terms are being followed, approve or disapprove changes, provide feedback, and develop relationships through effective communication, honesty, and integrity.

- Finally, the fourth aspect of vendor management is meeting your goals on a consistent basis. This requires continuous work in influencing vendors to meet performance objectives to ensure profitability.

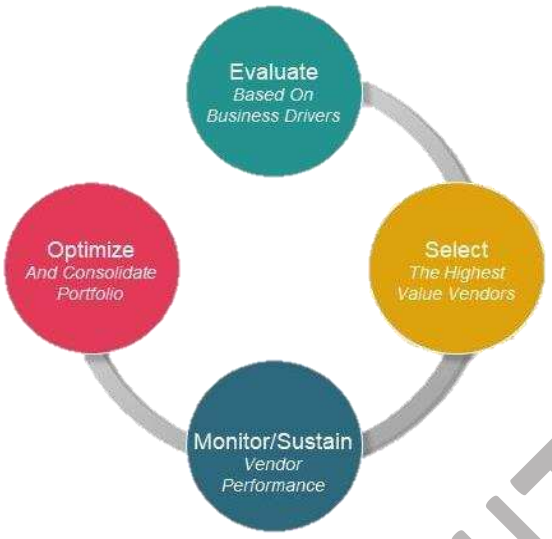


Fig: Life Cycle of Vendor Management

Application Area of Vendor management:

Vendor management typically delivers value to a business across several different areas, including:

- ***Cost control,*** either through identification of opportunities for consolidation or through timely renegotiation around renewals
- ***Benefits realization -*** proactive Vendor Management and continuous contact mean that the original terms of a contract can always be kept front of mind. By pushing vendors to deliver, and smoothing the way internally as well, VM helps get businesses towards their goals faster.
- ***Supply chain resilience and continuity -*** by maintaining a constant dialogue with key vendors, your business can assess any ongoing risks to supply and make alternative plans in a timely fashion if required.
- ***Compliance -*** periodic assessment of compliance becomes easier and this ensures that any risk associated with legislation or industry standards is minimized.
- ***Innovation -*** most, if not all, businesses are looking to grow and develop new technologies, and your vendors are no different. By having close relationships with them and managing them well, good vendor management can place your business in pole position to take advantage of advancements in their products or services.

Factors Involved- Certified Vendor Management:

Vendor qualification: The first step of vendor management is determining whether or not a vendor has the expertise and capability to fulfil the business need. There are two types of vendor qualification: pre-qualification (for potential vendors) and re-qualification (assessment of active vendors).

Vendor onboarding: Approved vendors are then on boarded into the organization's database. This stage involves the process of collecting, capturing, and storing all relevant vendor information in a centralized database.

Ordering and delivery: Typically, either a purchase order or a contract initiates the order process. The specifications are listed out clearly in a terms of reference (TOR) or (SOW).

Once order is fulfilled, the received goods/services are subjected to a quality check and the vendor's performance is evaluated.

Vendor payment: After receiving the goods/services, the buyer needs to match the invoice with related purchase order. If everything seems to be in order, the invoice is approved and forwarded to finance for payment processing. In the case of discrepancies, the invoice is rejected back to the vendor.

Vendor off-boarding: When a contract ends or a long-term vendor relationship terminates, it is critical to remove the vendor from finance and administrative records. Failure to do so might result in compliance breaches, loss of valuable organization time and costs.

Vendor Certification Procedure:

Supplier / vendor certification is an important component of our total quality management system that assures that a supplier's product is produced, packaged, and shipped under a controlled process that results in consistent conformance to our requirements. The primary objective of the certification process is to assure consistent high quality as demonstrated by predictable conformance to our requirements. The basic premise is that want to identify suppliers that have adequate process controls in place and they provide legitimate proof that their products are consistently fit for use, authentic, and meet 100% requirements. The procedure is given below:

1) Initiate a Quality audit of the supplier.

2) Liaise with supplier to enhance their understanding of company requirements.

3) Create or review and update the relevant Raw Material Control Test Methods to reflect required testing terminology, requirements and methods.

4) Together with Procurement, present a report to the Management Certification Committee requesting certification of the supplier. The report is composed of typically the following; quality supply history, delivery performance, Project plan, Change Control request, audit information, Supply agreement, a Certificate of Analysis from the vendor, supplier inspection planning requirements, matrix.

5) Produce a Certificate to be presented to the successful vendor

Criteria and Methods of Vendor Rating:

Vendor Rating Methods:

Categorical plan:

This is a very subjective method.

Mangers from concerned department prepare list of factors important from their views.

Each of the major supplier is evaluated against each evaluator's list of factors evaluation is done in the terms of

- Good
- Satisfactory
- poor

Weighted point plan:

The buyer decides on:

- Factor important form evaluation
- Weightages for each factor
- The vendor performance in respect of each factor

Cost ratio plan:

Under this method, the vendor rating is done on the basis of various costs incurred for procuring the materials from various suppliers. The cost ratios are ascertained for the different rating variables such as quality, price, timely delivery etc. The cost ratio is calculated in percentage on the basis of total individual cost and total value of purchase

Example: The total delivery cost is Rs5000 and the total purchases are Rs 1,00,000 then delivery cost ratio will be 5,000 / 1,00,000 x 100 = 10%

Supplier Evaluation and Selection (Concepts):

Once the portfolio analysis is completed, the buyer must then dive into the category and evaluate individual suppliers as to their suitability, narrowing the list down to a critical few. The ultimate result is to make supplier recommendations, so the buyer must first identify current and potential suppliers, determine any information technology requirements and identify opportunities to leverage the commodity expenditures with similar commodities. Most procurement experts will agree that there is no one best way to evaluate and select suppliers, and organisations use a variety of different approaches. Regardless of the approach employed, the overall objective of the evaluation process should be to reduce procurement risk and maximise overall value to the buying organisation. Figure below summarised all the critical steps involved in the supplier evaluation and selection process.

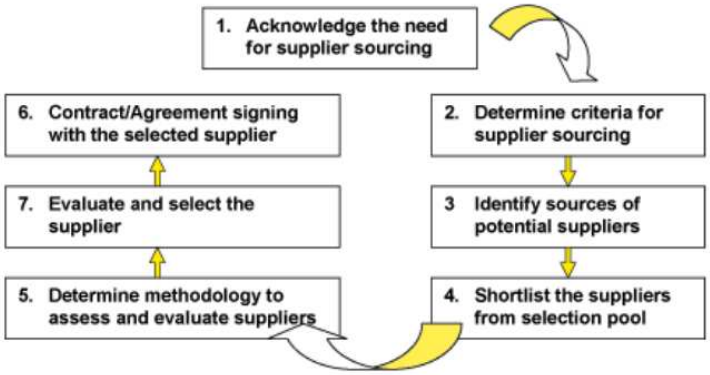


Figure: Supplier evaluation and selection process

There are some of the different criteria that an organisation may use to assess potential suppliers. Although it may not be possible to obtain all the relevant information, whatever data that can be obtained will definitely help the buying organisation assess the potential for a successful match.

1. ***Process and design capabilities:*** Suppliers should have up-to-date and capable products, as well as process technologies to produce the material needed. Because different manufacturing and service processes have various strengths and weaknesses, the buying organisation must be aware of these characteristics upfront. When the buying organisation expects suppliers to perform component design and production, it should also assess the supplier's design capability. One way to reduce the time required to develop new products is to use qualified suppliers that are able to perform product design activities.

2. ***Quality and reliability:*** Quality levels of the procurement item should be a very important factor in supplier selection. Product quality should consistently meet specified requirements since it can directly affect the quality of the finished goods. Besides reliable quality levels, reliability also refers to other supplier characteristics. For example, is the supplier's delivery

lead-time reliable? Otherwise, production may have to be interrupted due to shortage of material.

3. ***Cost:*** While unit price of the material is not typically the sole criterion in supplier selection, total cost of ownership is an important factor. Total cost of ownership includes the unit price of the material, payment terms, cash discount, ordering cost, carrying cost, logistics costs, maintenance costs, and other more qualitative costs that may not be easy to assess.

4. ***Service:*** Suppliers must be able to back up their products by providing good services when needed. For example, when product information or warranty service is needed, suppliers must respond on a timely basis.

5. **Capacity:** The organisation may also need to consider whether the supplier has the capacity to fill orders to meet requirements and the ability to fill large orders if needed.

6. **Location:** Geographical location is another important factor in supplier selection, as it impacts delivery lead time, transportation, and logistics costs. Some organisations require their suppliers to be located within a certain distance from their facilities.

7. ***Management capability:*** Assessing a potential supplier's management capability is a complicated, but important step. The different aspects of management capability include management's commitment to continuous process and quality improvement, its overall professional ability and experience, its ability to maintain positive relationships with its workforce and its willingness to develop a closer working relationship with the buyer

8. ***Financial condition and cost structure:*** An assessment of a potential partner's financial condition usually occurs during the evaluation process. Evaluation teams will typically evaluate the different financial ratios that determine whether a supplier can invest in resources, pay its suppliers and its workforce, and continue to meet its debt and financial obligations. These elements are important in determining whether the supplier will continue to be a reliable source of supply, and that supply will not be disrupted.

9. ***Planning and control system:*** Planning and control systems include those systems that release, schedule and control the flow of work within an organisation and also with outside parties. The sophistication of such systems can have a major impact on supply chain performance. For example, how easy to use is a supplier's ordering system, and what is the normal order cycle time? Placing orders with a supplier should be easy, quick and effective. Delivery lead time should be short, so that small lot sizes can be ordered on a more frequent basis to reduce inventory holding costs.

10. ***Environmental regulation compliance:*** The 1990s brought about a renewed awareness of the impact that industry has on the environment. As a result, a supplier's ability to comply with environmental regulations is becoming an important criterion for supply chain alliances. This includes, but is not limited to, the proper disposal of hazardous waste.

11. ***Willingness to share technologies and information:*** With the current trend that favours outsourcing to exploit suppliers' capabilities and to focus on core competencies, it is vital that organisations seek suppliers that are willing to share their technologies and information. Suppliers can assist in new product design and development through early

supplier involvement to ensure cost-effective design choices, develop alternative conceptual solutions, select the best components and technologies, and help in design assessment. By increasing the involvement of the supplier in the design process, the buyer is free to focus more attention on core competencies.

12. ***Longer-term relationship potential:*** In some cases, an organisation may be looking to develop a long-term relationship with a potential supplier. This is particularly true if the supplier is in the 'critical' quadrant, and the category of spend is high volume and critical to the organisation's business. This approach requires that the parties share their mutual goals, establish metrics to guide the relationship and develop a series of ongoing discussions on how issues and conflicts can be resolved in a mutually beneficial manner. These relationships may also involve joint cost-savings projects and new product-development efforts.

13. ***Supplier selection scorecards:*** During the selection stage, sometimes organisations need a structured way to evaluate alternative suppliers. This can be particularly hard when the criteria include not just quantitative measures (such as costs and on time delivery rates) but other, more qualitative factors, such as management stability or trustworthiness. A supplier selection scorecard may be used as a decision support tool. The evaluation team will assign a weight to the different categories and develop a numerical score for each supplier in each category, thereby developing a final performance score.

Solicitation of Bids and Proposals – Planning and Methods:

Solicitation:

Solicitation, in simple terms, is the process of requesting bids or proposals from potential suppliers. Once the supplier research and market analysis is complete, and we have identified several suppliers that are well positioned in their markets and appear to have the qualifications we need, the sourcing team can develop a solicitation plan. The plan should establish the method to be used for the solicitation and, when applicable, the type of contract to be used. The process of notifying prospective or qualified bidders on the bid solicitor's wished to receive bids on the specified product or project. Solicitations include invitation-to-bid (ITB), request for proposals (RFP), request for quotations (RFQ), and request for sealed bids, which may be made public through advertising, mailings, or some other method of communication.

Solicitation Planning:

To a large degree, the solicitation plan is driven by the nature of what is being acquired and the makeup of the supply base in the particular market in which we are sourcing. In the process of developing the plan, we must evaluate the nature of the acquisition as a way of narrowing the sourcing possibilities. Keep in mind that there are sourcing and procurement actions that fall outside the requirement for solicitation, such as purchasing card transactions and spot or micro-purchases that may simply be "shopped" by the procurement group.

How to Prepare a Solicitation?

The larger a business is, the more likely it is that the purchase of certain goods or services will require a formal procurement plan. The objective is to ensure the business isn't overspending or paying more for components than the profit the business will realize when selling the finished product. Solicitation is a phase of the procurement process in which the business actively solicits offers from competing suppliers through an invitation to bid or request for proposals. Solicitation documents identify the purchase, purchase requirements and outline a process each supplier must follow when submitting a formal bid or proposal.

1) Draft an informational letter of invitation. The letter provides key information potential suppliers need when determining whether they have an interest in participating in the bidding process. Use a formal voice, clearly define terms and provide thorough explanations and descriptions. Include submission deadlines, a brief description of the purchase need and instructions for preparing, structuring and submitting a bid. Provide details such as how long the bid must remain valid and describe the criteria and method the business will use when evaluating bid offers.

2) Create a schedule of requirements, including quantities, clear technical specifications and product performance requirements. Make sure performance expectations are written tightly with no room for personal interpretation. This is vital to prevent later misunderstandings and disagreements during the contract execution phase of the purchase. Finally, include delivery information, including the delivery date, mode of delivery transport and delivery terms.

3) Insert a sample contract, a copy of the authorized purchase order and sheets listing general and special terms and conditions. Terms can include items such as insurance and bonding requirements as well as non-performance and late performance penalty clauses. Sending a sample contract along with terms and conditions gives suppliers an opportunity to have the contract reviewed by a legal professional prior to signing.

4) Include an offer submission form as a final item in the solicitation. The submission form becomes a legally binding document once the supplier signs and returns bid documents. Use a standard submission form you can get from your attorney or craft a custom form.

Types of Solicitation?

1. **IFB – INVITATION FOR BID**
2. **RFP – REQUEST FOR PROPOSAL**
3. **RFQ – REQUEST FOR QUOTATION**
4. **RFI – REQUEST FOR INFORMATION**
5. **SEALED BID**

IFB – INVITATION FOR BID

The procurement organization has a clear understanding of the material/service requirements vis-à-vis product/service specifications, quantity/duration, delivery method, etc. In such a case the primary consideration is on price, and hence the contract/purchase order will be awarded to the lowest price bidder an IFB is used.

RFP – REQUEST FOR PROPOSAL

The procurement organization adopts a different solicitation approach when it lacks the clarity and understanding required for satisfying the material/service requirement or when the requirement cannot be met with generally available standard products/services and tailoring is required. where modification is required to a product to meet some specific requirement and we have no particular solution in mind, an RFP should be used to solicit proposed solutions to the modification. The RFP generally follows a standard format that contains the Statement of Work (SOW) or some similar expression of need. The RFP often provides a framework that you can use to compare proposed solutions and evaluate proposals and to help you and your team select the most qualified source.

The RFP typically consists of three sections:

INTRODUCTION

The introductory section contains general information about your company that will help prospective suppliers better gauge your needs. It also clearly states the problem or situation that gives rise to the requirements and what the current status is.

REQUIREMENTS

The requirements section typically consists of a statement of need, which describes in detail the specific objectives of the purchase.

ATTACHMENTS

The attachments section commonly includes boilerplate terms and conditions and other contractual requirements.

RFQ – REQUEST FOR QUOTATION

The RFQ simply requests a quotation for price and delivery where other terms are already specified.

RFI – REQUEST FOR INFORMATION

The RFI is a tool used in sourcing to help determine a supplier's capabilities and financial health.

SEALED BID

Any RFQ, RFP, or IFB can call for a sealed bid, depending on the nature of the acquisition and the market. A sealed bid is one that is not opened until a specific date and time and, for the most part, the opening is conducted publicly. It is not a solicitation process in itself; rather, it is a method of response to a solicitation.

Product/Service	Type Competitive Market	Non-competitive Market
Commercial	IFB, RFQ, RFI, sealed bid	RFQ
Commercial with modification	IFB, RFP, RFI, sealed bid	RFP
Customized	IFB, RFP, RFI, sealed bid	RFP

Table: Types of solicitations and their usages

REQUEST FOR PROPOSAL
FOR
CONSTRUCTION MANAGEMENT AT RISK SERVICES
FOR THE
NEW CAMPUS GATEWAY PROJECT AT
THE UNIVERSITY OF MARYLAND, BALTIMORE COUNTY

SOLICITATION #BC - 20857- C

ISSUED: 12/21/12

PRE-PROPOSAL MEETING:	**MONDAY, JANUARY 14, 2013 at 3:30 p.m.** Administration Building – Room #101 (Lecture Hall) University of Maryland, Baltimore County 1000 Hilltop Circle Baltimore, Maryland 21250 Note: The site visit will be conducted in conjunction with this Pre-Proposal meeting.
TECHNICAL PROPOSAL DUE DATE:	**MONDAY, FEBRUARY 4, 2013 on or before 4:00 p.m.** UMBC PROCUREMENT OFFICE University of Maryland, Baltimore County Administration Building #301 1000 Hilltop Circle Baltimore, Maryland 21250
PROCUREMENT/ISSUING OFFICE:	UMBC Procurement Office University of Maryland, Baltimore County Administration Building #301 1000 Hilltop Circle Baltimore, Maryland 21250
PROJECT MANAGEMENT:	UMBC Office of Facilities Management University of Maryland, Baltimore County 1000 Hilltop Circle Baltimore, Maryland 21250

Fig: Sample RFP

Fig: RFP Process

Methods of Solicitation?

1. **Mail or Courier**
   Possibly the simplest means for distribution is the traditional method of mailing or distribution by couriers such as FedEx or BlueDart. The only issues that typically arise from this method are ensuring that the request gets to the right individual and the answers get back to the originator. It is also a comparatively slow method when compared with the tools available in the electronic age.

2. **Published Posting**
   In this method, an "expression of interest" is solicited through newspaper ads or through industry and government publications. An interested supplier follows the instructions for getting detailed requirements and bid documents from the buyer.

3. **Web-based Portals**
   Web-based portals are buyer or collaborative group web sites that serve the area of solicitation primarily as static tools for distributing solicitations in any format to the supply base. Very often, this service also includes a range of software tools that are subscribed to as Software as a Service (SAAS).

4. **E-mail Solicitation**
   Instead of using postal mail or couriers, solicitations are often sent directly to the supplier's sales contact by e-mail. It reduces the cost and time required by older methods. Disadvantage - the maintenance of security to ensure that confidentiality is not violated and that the information in any documents is not compromised.

5. **Telephone**
   For simple or low-cost acquisitions and for acquisitions competitively bid among suppliers with Master Agreements in place, a telephone solicitation may be appropriate.

6. Mailing List

Many organizations maintain an extensive bidders' list of companies that have a previous history with the sourcing organization or have responded well to earlier solicitations.

7. Crowdsourcing

It works through posting a set of requirements on a specialized job board. Members with access to the site can offer bids using a simplified online form by responding with their prices, lead times, and credentials.

Contract Negotiation:

What Is Contract Negotiation?

Contract negotiations are a process that involves discussing and compromising on contract terms in order to reach a final agreement between two or more parties involved in a transaction. In most contract negotiations, each party tries to negotiate for the best interest of themselves or their business. There is a lot of back and forth communication, but most contract factors boil down to risks and revenues. Contracts that are negotiable can include real estate leases, manufacturer warranties, employment contract, business deals, and financial contracts. The negotiation aspect of a transaction is very important because once the contract is final, all parties are legally bound to the terms of the contract terms and cannot overlook these terms without being liable.

What Is the Best Approach to Contract Negotiations?

In typical contract negotiations, each party involved in the contract must compromise on each in order to get what they really want out of the transaction. The best way to approach contract negotiations is the following:

1. ***Identify the objective for entering the contract***: Every party to the contract must have a specific idea of what they want to gain from the transaction. Before attempting to negotiate a contract, make a list of things you will compromise and a list of terms that you will not negotiate or give up.
2. ***Research contract laws***: Contracts are legally binding agreements, which are regulated by the courts. Before attempting to negotiate a deal, search online or get expert advice to determine whether the terms of the contract you are trying to form is legally allowed.
3. ***Prepare for negotiations***: Gather all facts, figures, financial statements, and documents for the negotiation process in case you need to show proof of anything that you may need to back up your negotiation points.
4. ***Prepare a backup plan***: Create a plan for the possibility that the contract fails to form and that both side cannot agree on the terms after negotiation.
5. ***List your priorities***: It is important to know the difference between what you need out of the transaction and what you want.
6. ***Set a goal***: Know your bottom line so you can determine when to accept a deal and when to walk away.
7. ***Know the difference between what you need and what you want***: Review your priorities and ask yourself if the term that you are chasing for is worth negotiating

Contract Negotiation Process:

When it comes to a contract negotiation process, the most difficult part may be to actually forget what you have been told about traditional negotiations processes, strategies & techniques.

Step 1 of Contract Negotiation Process: Prepare, Prepare, Prepare.:

This is the most important step of the whole contract negotiation process. Understand that contract negotiation is not about who's the better negotiator. Below are some other things that you need to prepare during this step: Issue Identification, Issue Information, Classify the Issues, Prepare the meeting agenda, get ready to Negotiate.

Step 2 of Contract Negotiation Process: Negotiation Meeting:

This is the meeting proper where you (and your team if there's one) will sit down with the supplier. Important here is that this meeting most of the time is not called negotiation meeting – but any time you meet with a supplier to discuss their offer it means you are negotiating.

Step 3 of Contract Negotiation Process: Summarise all points:

This is very important, as you need to get the other party's agreement to all the points that you discussed. You can simply divide this into two categories:

a) Points that you have already agreed; and
b) Points that you or the other side would need to get back to each other.

When Is There an Enforceable Contract?

➢ Under contract law, there is no enforceable contract until all of the material elements of the transaction have been negotiated and agreed upon by both sides. All the contract terms and conditions must be legal in order for them to be enforceable or that term or condition is void. Some contracts must fall within the statute of limitations, meaning that the contract must be in writing and signed by the parties.

➢ If the parties have agreed to the terms of the deal and want to move forward with the contract and legal details, they can draft a contract that lists all the terms and both sign the contract as the final agreement.

➢ Is it when the parties agree on the business terms or when the legal terms are finalized? Under contract law, there is no contract until all of the material elements of the deal have been negotiated and agreed upon. So, a legal dispute over whether and when a contract exists will boil down to whether any of the outstanding legal issues are material elements of the deal.

➢ Back to Ram the landlord and Krishna the prospective tenant. Let's say that Ram refuses to budge on any of the terms of his standard lease, but Krishna has already given notice at her current apartment because she believed her handshake with Sam created a contract. Whether she has a legal right to force Ram to go through with the agreement or pay her damages depends on whether the attorney fee and insurance provisions are material elements of the deal.

➢ If the parties have agreed to the business terms of the deal and want to proceed before hammering out the legal details, they can use an escrow account or condition the release of funds on the execution of a written agreement. This avoids the problem of having to chase after money you laid out if the deal never materializes. If the negotiations fall apart, everyone gets back what they put in and moves on.

Vendor Performance Monitoring and Controlling:

Vendor Performance Monitoring:

The term 'suppliers' includes contractors for works and services as well as supplies; the term 'performance monitoring' means measuring a supplier's ability to comply with, and preferably exceed, their contractual obligations i.e. monitoring post contract. CIPS (CIPS - Leading global excellence in procurement and supply) recognizes this is sometimes referred to as 'vendor rating' especially where specific measures are used. CIPS believes that performance monitoring is a fundamental element within contract management and supplier development (the broader subject is covered in a separate CIPS practice document). It can also be argued that monitoring the performance of suppliers can be:

i. An aspect of supplier appraisal (i.e. the process of evaluating potential suppliers) and can be extended to supplier selection criteria during tendering; and

ii. An aspect of the management of approved supplier lists.

There are many contractual relationships with suppliers where it is more important to agree joint goals and jointly measure performance against these goals - rather than the buyer simply monitoring the supplier's performance. This requires transparency and a sharing, as appropriate, of business goals. This type of relationship allows for the supplier to monitor performance provided a suitable process of validation is in place. Relationship management is part of the performance monitoring process. It is a key skill for the buyer and can be summarised as the proactive development of particular relationships with suppliers.

Assessment of Supplier Performance:

There are a number of key themes which might be used to assess supplier performance and which might be used as a yardstick for determining whether good practice is being achieved in specific situations. Some examples of such themes (together with their sub-categories) are as follows:

- Product Quality
- MTBF (Mean Time Between Failure)
- Percentage of incoming rejects (delivery accuracy)
- Warranty claims
- Service Quality (against agreed SLAs)
- Call-out time
- Customer service response time
- Performance against agreed delivery lead times
- Relationship/Account Management
- Accessibility and responsiveness of account management
- Commercial

- Costs are maintained or reduced

Monitoring Performance of the Vendor:

As outlined in the Vendor Management, one of the key performance criteria is a process to monitor the performance of the vendor. To do this, it is necessary to have a vendor management scorecard. Regardless of the size of the business, a vendor management scorecard should address the following criteria:

1) The scorecard should measure the key performance indicators (KPI) that the vendor is bound to. An easy way to develop this list is to use the vendor's contract terms as the list of measured items. In other words, build on the effort that was used to develop the terms of the contract to create a list of the most important items to measure with the scorecard.

2) The scorecard should be easy to use by all employees that need to interact with this tool. It does not matter how comprehensive the list of performance indicators is if the tool is too cumbersome and user-unfriendly. Although the scorecard will be complete in its definition of what should be measured, if it is not intuitive, nobody will use it – which defeats the purpose of having a scorecard.
3) The scorecard should have a corresponding timeline and set of milestones that are in sync with the performance indicators. That is, performance is a function of both times as well as quality. The two are not mutually exclusive, and the scorecard should be time, as well as quality performance based.
4) The scorecard should not be a surprise that a business suddenly decides to use with a vendor if they find that the vendor is under-performing. Ideally, the vendor has been made aware that their performance will be monitored and measured throughout the term of the contract. The measurement will be based on consistent and regularly scheduled audits or evaluations that are agreed to by both sides. This awareness should be created during the contract negotiation phase of the vendor relationship.
5) The data that is collected and analysed by the scorecard should be used to follow up with the vendor. What good is accurate data about the vendors' performance if the business does not take action with the vendor based on the conclusions about vendor performance that the scorecard made visible?

Benefits of Vendor Performance Monitoring:

1) ***Avoid supply chain risk and disruptions*** – Vendor performance management provides in-depth visibility into the risk a supplier may pose so you can put measures in place to reduce or eliminate that risk as it relates to your supply chain.
2) ***Protect and improve brand/reputation*** – A number of corporate brands have been tarnished by the actions of their suppliers. Vendor performance management can help you track supplier performance against these KPIs which will enable you to enact corrective actions early and keep your brand and reputation strong in the eyes of your customers and partners.
3) ***Avoid costs and achieve savings*** – There are variety of cost factors tracked using Vendor performance management which affects both hard and soft costs. Lack of timely and accurate vendor information can have huge impact on costs and can prevent you from capturing savings.
4) ***Segment and rank vendors*** –Vendor performance management is useful gives procurement groups visibility into specific groups of suppliers and their overall ability to meet your organizations expectations and requirements.

5) ***Collaborate with suppliers*** – When you collaborate closely with suppliers you create new value for your business. The data collected through a vendor performance management solution can help to start these conversations because it provides the supplier with a view of what is important to your organization. The results are numerous: continuous improvement of the supply base, creation of realistic contracts based on past performance, more communication with suppliers, formation of common goals, and the establishment of trust.

6) ***Improve internal processes*** – Creating a Vendor performance management process is a great step towards optimizing your supplier management program. By utilizing a technology-based solution for Vendor performance management, organizations can achieve a standardized and automated approach for creating scorecards, issuing and tracking scorecards for completion, and in-depth reporting and analysis.

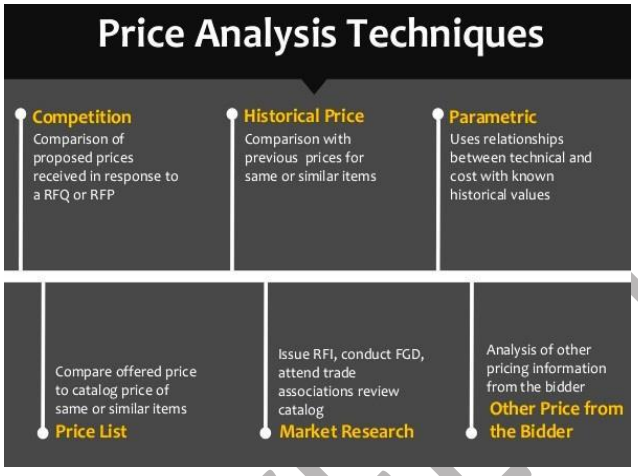
Module – III

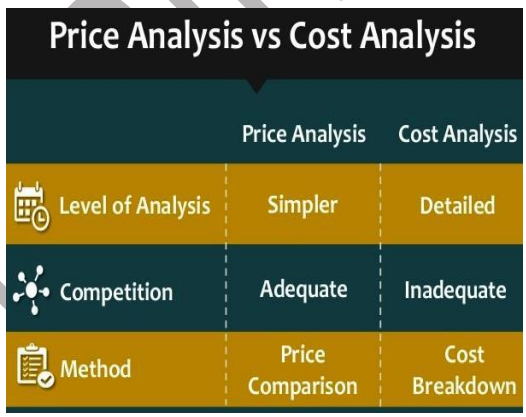
Analytical Tools in Sourcing, Pricing Analysis

Pricing Analysis:

In general business, price analysis is the process of examining and evaluating a proposed price without evaluating its separate cost elements and proposed profit. Price Analysis dates back to 1939 when an Economist by the name of Andrew Court decided to put his efforts towards Price Analysis to better understand the environmental factors that influence this practice. The analysis is dependent on the characteristics of the marketing system in place within a certain country.

Price analysis may also refer to the breakdown of a price to a unit figure, usually per square metre or square foot of accommodation or per hectare or square metre of land. The price with suitable adjustment for various differences, is then applied to the valuation problem.

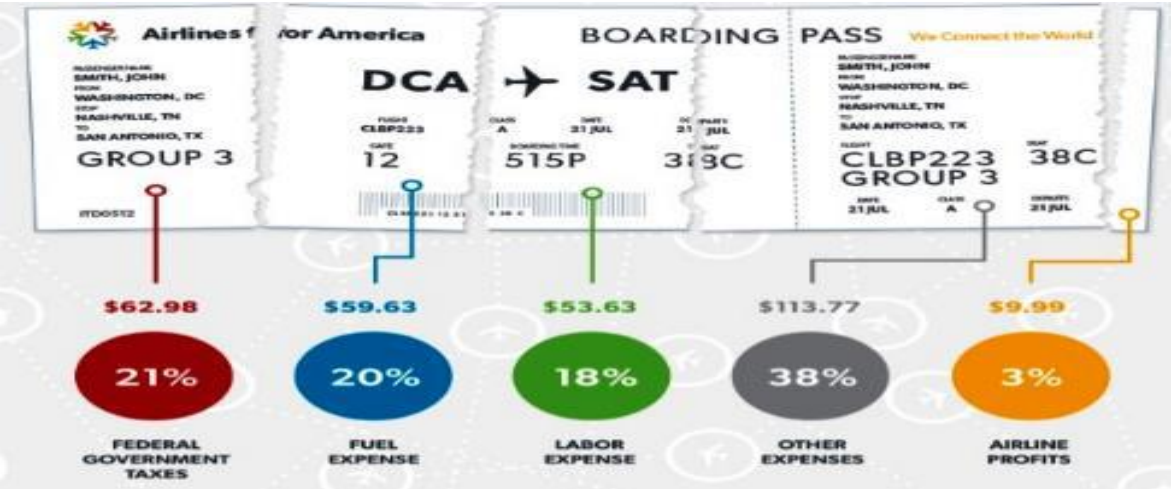


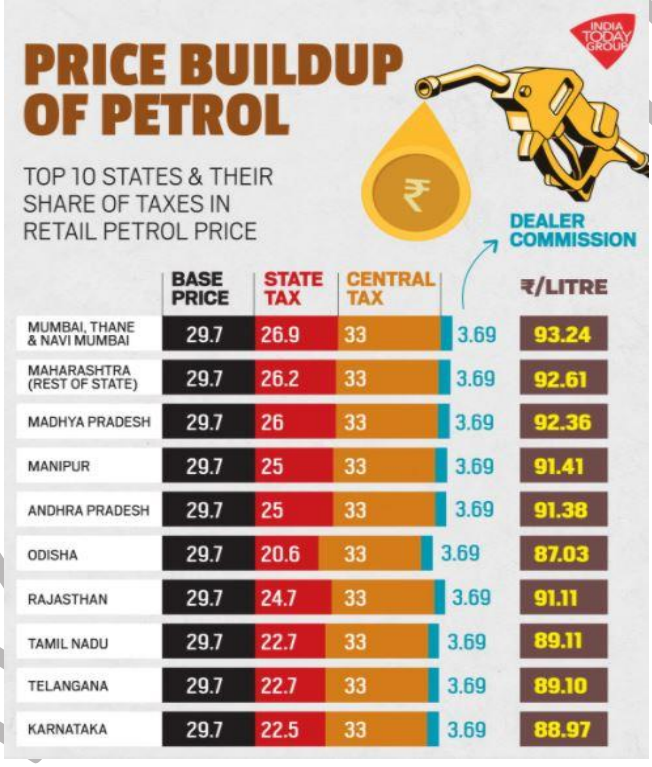


Cost Analysis Defined Cost analysis is a thorough assessment of the direct and indirect costs leading to the final price of the goods or service. The Cost Analysis Philosophies includes:

- Reasonable for the goods or service
- Allocated proportionally to each cost component
- Allowed for the goods or service

Examples of Pricing Analysis:





Analytical Tools in Sourcing:

Foreign Exchange Currency Management:

Exchange rate considerations are becoming an important facet of international sourcing. Not only can volatile exchange rates impact the supplier selection decision, they can also affect the volume-timing of purchases once the supplier is selected. The best manufacturers have superior suppliers—suppliers which save customers money, improve their quality, aid in design innovation, and reduce inventories. Global sourcing spawns a new set of opportunities and problems for the purchasing manager.

The Importance of Exchange Rates in International Sourcing:

Exchange rates impact the price paid for imported materials when payment is in the supplier's currency and there is a lag between the time the contract is signed and payment is made. Depending on the country of the supplier and the direction of the exchange rate movement, a buyer may be required to pay substantially more or less than the original contract price.

Advantages:

- Trade equity in global world
- Equitransformity in technology
- Proper balance in logistics
- Balanced utilization of resources
- GDP balancing and economy of scale will be maintained

Disadvantages:

- Cost crossing the limit
- Sourcing agency selection
- Proper smoothening of logistics system
- Diversion in supply chain path
- Global risk in procurement and distribution process

Learning Curve:

Introduction

In any environment if a person is assigned to do the same task, then after a period of time, there is an improvement in his performance. If data points are collected over a period of time, the curve constructed on the graph will show a decrease in effort per unit for repetitive operations. This curve is called the ***learning curve***.

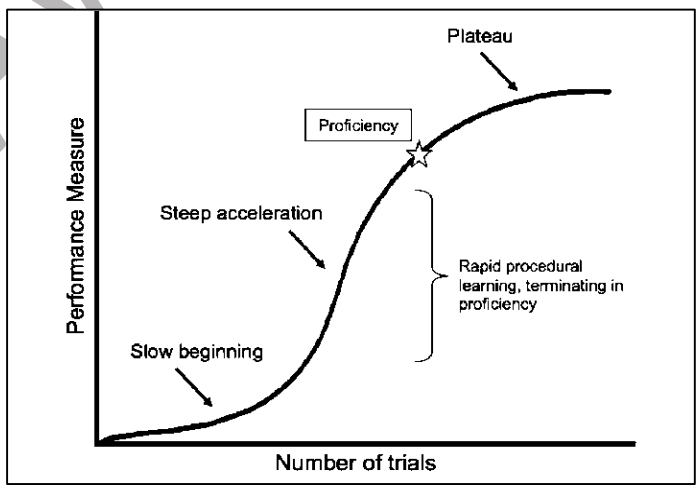


Fig: Learning Curve

The learning curve shows that if a task is performed over and over than less time will be required at each iteration. Historically, it has been reported that whenever there has been instanced of double production, the required labour time has decreased by 10 or 15 percent or more.

Learning curves are also known as experience curve, cost curves, efficiency curves and productivity curves. These curves help demonstrate the cost per unit of output decreases over time with the increase in experience of the workforce. Learning curves and experience curves is extensively used by organization in production planning, cost forecasting and setting delivery schedules.

Learning Curve on Graph:

Learning curve demonstrates that over a period time, there is an increase in productivity but with diminishing rate as production increases. Therefore, if the rate of reduction is 20% than the learning curve is referred as 80% learning curve. Research has shown that as production quantities double over a period of time, the average time decreases by 20% for immediate production unit. Learning curve is relevant in taking following decision:

- Pricing decision based on estimation of future costs.
- Workforce schedule based on future requirements.
- Capital requirement projections
- Set-up of incentive structure

Learning Curve from Single Unit Data:

The data for effort put into production of a single unit is available than that data can be used to plot three useful curves; the unit curve, the cumulative total and cumulative average curve. Unit curve is a curve which is plotted using a set of data available for the effort behind production of a single unit. This curve is generally plotted on log-log paper and then best line can be drawn. Cumulative total curve is a curve which is plotted using cumulative effort total. This produces curve with positive slope. Cumulative average curve is a curve which is plotted using the cumulative effort average for each unit.

Assistance Score Learning Curve:

As the name suggests an assistance score is the number of help, hint, wrong attempts recorded for a given opportunity at the given task. From detailed research and analysis, it has been observed that for the 1st opportunity at an average error of 1.3 times is made.

Error Learning Curve:

Error learning curve depicts the percentage of assistance asked by the respondents on the 1st opportunity.

Predicted Learning Curve:

Predicted learning curve is derived from learning factor analysis, which has the capability in measuring student proficiency, knowledge component difficulty and knowledge component learning rates. This analysis helps in quantifying the learning process.

Criticisms of the Experience Curve:

It has been observed that experience curve should not be viewed in isolation. Learning and experience curve has a strong dependency on individuals under observation. If the attitude of the individual is positive, the resulting curve will resemble learning curve but if the attitude of the individual is negative, the resulting curve will not hold good.

Quantity Discount Models:

To increase sales, many companies offer quantity discounts to their customers. A quantity discount is simply a decreased unit cost for an item when it is purchased in larger quantities. It is not uncommon to have a discount schedule with several discounts for large orders. See example below:

Discount Number	Discount Quantity	Discount	Discount Cost
1	0 to 999	0%	Rs.5.00
2	1000 to 1999	4%	Rs.4.80
3	2000 to over	5%	Rs.4.75

From the above Table, the normal cost for the item in this example is Rs.5. When 1,000 to 1,999 units are ordered at one time, the cost per unit drops to Rs.4.80, and when the quantity ordered at one time is 2,000 units or more, the cost is Rs.4.75 per unit. As always, management must decide when and how much to order. But with quantity discounts, how does a manager make these decisions?

As with previous inventory models discussed so far, the overall objective is to minimize the total cost. Because the unit cost for the third discount in above Table is lowest, it might be tempted to order 2,000 units or more to take advantage of this discount. Placing an order for that many units, however, might not minimize the total inventory cost. As the discount quantity goes up, the item cost goes down, but the carrying cost increases because the order sizes are large. Thus, the major trade-off when considering quantity discounts is between the reduced item cost and the increased carrying cost.

Recall that we computed the total cost (including the total purchase cost) for the EOQ model as follows:

Total Annual Cost = Setup Cost + Holding Cost + Purchase Cost

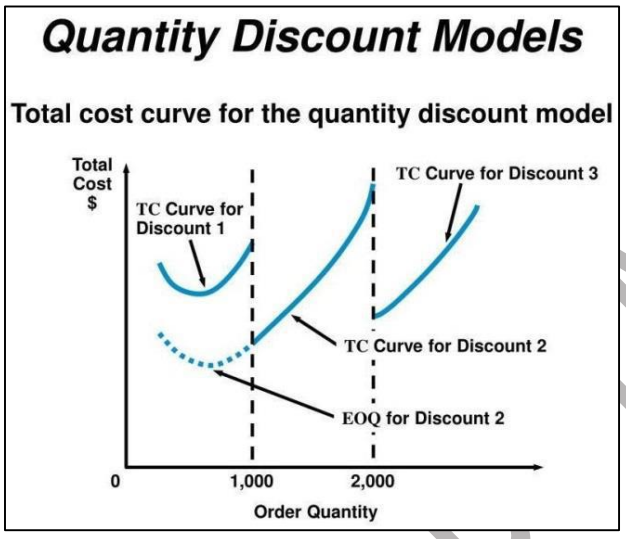
$$= \frac{D}{Q}s + \frac{Q}{2}H + \text{P x D}$$

4 Steps to Analyse Quantity Discount Models:

1. **For each discount price,** calculate a Q value, using the EOQ formula. In quantity discount EOQ models, the unit carrying cost, H, is typically expressed as a percentage (I) of the unit purchase cost (P). That is, H = I x P. As a result, the value of Q will be different for each discounted price.

2. **For any discount level,** if the Q computed in step 1 is too low to qualify for the discount, adjust Q upward to the lowest quantity that qualifies for the discount. For example, if Q for discount 2 in the above Table turns out to be 500 units, adjust this value up to 1,000 units. the total cost curve for the discounts shown in above figure is broken into three different curves. There are separate cost curves for the first ($0 \leq Q \leq 999$), second ($1,000 \leq Q \leq 1,999$), and third ($Q \geq 2,000$) discounts. Look at the total cost curve for discount 2. The Q for discount 2 is less than the allowable discount range of 1,000 to 1,999 units. However, the total cost at 1,000 units

(which is the minimum quantity needed to get this discount) is still less than the lowest total cost for discount 1. Thus, step 2 is needed to ensure that we do not discard any discount level that may indeed produce the minimum total cost. Note that an order quantity compute in step 1 that is greater than the range that would qualify it for a discount may be discarded.



3. **Using the Total Cost Equation,** compute a total cost for every Q determined in steps 1 and 2. If a Q had to be adjusted upward because it was below the allowable quantity range, be sure to use the adjusted Q value.

4. **Select the Q that has the lowest total cost,** as computed in step 3. It will be the order quantity that minimizes the total cost.

Quantity Discount Model Example:

Discount Number	Discount Quantity	Discount	Discount Cost
1	0 to 999	0%	Rs.5.00
2	1000 to 1999	4%	Rs.4.80
3	2000 to over	5%	Rs.4.75

GSB Department Store stocks toy cars. Recently, the store was given a quantity discount schedule for the cars, as shown in the above table. Thus, the normal cost for the cars is Rs.5.00. For orders between 1,000 and 1,999 units, the unit cost is Rs.4.80, and for orders of 2,000 or more units, the unit cost is Rs.4.75. Furthermore, the ordering cost is Rs.49 per order, the annual demand is 5,000 race cars, and the inventory carrying charge as a percentage of cost, I, is 20%, or 0.2. What order quantity will minimize the total cost?

D = 5,000 Units
S = Rs.49 per Order

I = 20% of Cost
H = I x P (Cost)

D = 5,000 Units
S = Rs.49 per Order
I = 20% of Cost
H = I x P (Cost)

$$Q = \sqrt{\frac{2DS}{H}} = \sqrt{\frac{2DS}{IP}}$$

$Q1 = \sqrt{2(5000)(49)/(0.2)(5.00)} = 700 cars/order$

Q1 = 700 cars/order
Q2 = 714 cars/order
Q3 = 718 cars/order

In the GSB department store example, it was observed that the Q values for discounts 2 and 3 are too low to be eligible for the discounted prices. Therefore, adjusted upwards to 1000 and 2000 respectively. With these adjusted Q values, is found that the lowest total cost of Rs.24, 725 results when it uses an order quantity of 1000 units.

Q_1	$\sqrt{\frac{2(5000)(49)}{(0.2)(5.00)}}$	=714 cars/order	
Q_2	$\sqrt{\frac{2(5000)(49)}{(0.2)(4.8)}}$	= ~~714 cars/order~~	1,000-Adjusted
Q_3	$\sqrt{\frac{2(5000)(49)}{(0.2)(4.75)}}$	= ~~718 cars/order~~	2,000-Adjusted

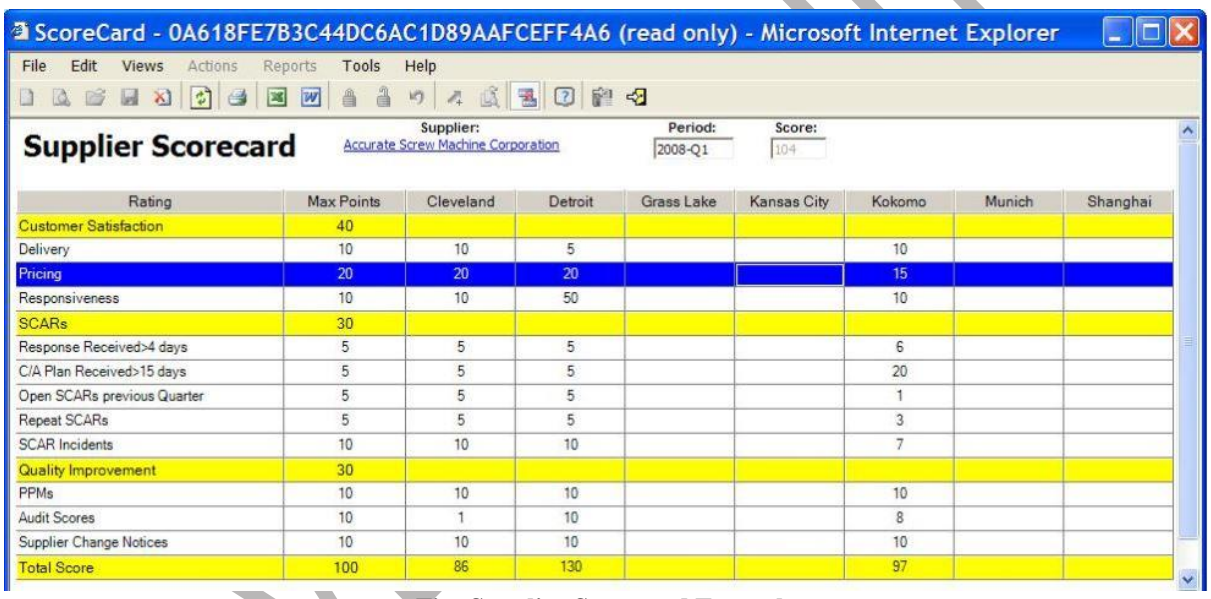
Discount Number	Unit Price	Order Quantity	Annual Product Cost	Annual Ordering Cost	Annual Holding Cost	Total Cost
1	Rs.5	700	Rs.25,000	Rs.350.00	Rs.350	Rs.25,700.00
2	Rs.4.8	1000	Rs.24,000	Rs.245.00	Rs.480	**Rs.24,725.00**
3	Rs.4.75	2000	Rs.23,750	Rs.122.50	Rs.950	Rs.24,822.50
Choose the price and quantity that gives the lowest total cost **Buy 1000 units at Rs.4.80 per unit.**						

Integrative Pacific Systems Case:

Supplier Scorecard:

A Supplier Scorecard is an evaluation tool used to assess the performance of suppliers. Supplier scorecards can be used to keep track of item quality, delivery, and responsiveness of suppliers across long periods of time. This data is typically used to help in purchasing decisions. A Supplier Scorecard is manually created for each supplier.

The types of scorecards in use typically fall into one of three categories—categorical, weighted point, or cost-based's performance across different categories. For relatively unimportant items, this may be an effective way to evaluate supplier performance. As it relates to supplier scorecards, most supply chain organizations use a weighted point system that includes a variety of performance categories, provides weights for each category, and defines the scales used for scoring within each category. The third type, cost-based systems is used least. It attempts to quantify the total cost of doing business with a supplier over time.


ScoreCard - 0A618FE7B3C44DC6AC1D89AAFCEFF4A6 (read only) - Microsoft Internet Explorer

File Edit Views Actions Reports Tools Help

Supplier Scorecard

Supplier: Accurate Screw Machine Corporation Period: 2008-Q1 Score: 104

Rating	Max Points	Cleveland	Detroit	Grass Lake	Kansas City	Kokomo	Munich	Shanghai
Customer Satisfaction	40							
Delivery	10	10	5			10		
Pricing	20	20	20			15		
Responsiveness	10	10	50			10		
SCARs	30							
Response Received>4 days	5	5	5			6		
C/A Plan Received>15 days	5	5	5			20		
Open SCARs previous Quarter	5	5	5			1		
Repeat SCARs	5	5	5			3		
SCAR Incidents	10	10	10			7		
Quality Improvement	30							
PPMs	10	10	10			10		
Audit Scores	10	1	10			8		
Supplier Change Notices	10	10	10			10		
Total Score	100	86	130			97		

Fig: Supplier Scorecard Example

To access Supplier Scorecard, go to:

Before creating and using a Supplier Scorecard, it is advised that you create the following first:

1) Supplier

2) Scoring Setup: The supplier scorecard consists of a set evaluation period, during which the performance of a supplier is evaluated. This period can be weekly, monthly or yearly. The current score is calculated from the score of each evaluation period based on the weighting function.

3) **Supplier Standings**: The supplier standing is used to quickly sort suppliers based on their performance. These are customizable for each supplier. The scorecard standing of a supplier can also be used to restrict suppliers from being included in Request for Quotations or being issued Purchase Orders.

4) **Criteria Setup**: A supplier can be evaluated on several individual evaluation criteria, including (but not limited to) quotation response time, delivered item quality, and delivery timeliness. These criteria are weighed to determine the final period score.

5) **Supplier Scorecard Variables:** The value of each of these variables is calculated over the scoring period for each supplier. Examples of such variables include:
   - The total number of items received from the supplier
   - The total number of accepted items from the supplier
   - The total number of rejected items from the supplier
   - The total number of deliveries from the supplier
   - The total amount (in dollars) received from a supplier

6) **Evaluation Formulas**: The evaluation formula uses the pre-established or custom variables to evaluate an aspect of supplier performance over the scoring period.

7) **Evaluating the Supplier**: An evaluation is generated for each Supplier Scorecard Period which shows that the performance of the supplier over time. Any actions against the supplier are also noted here, including warnings when creating RFQs and POs or preventing these features for this supplier altogether.

How to create Supplier Scorecard?

- Go to the Supplier Scorecard list, click on New.
- Select a Supplier to score.
- Select the evaluating period whether weekly, monthly, or yearly.
- Setup the scoring function (details in next section).
- A supplier scorecard is created for each supplier individually. Only one supplier scorecard can be created for each supplier.

Sourcing Risk:

Time Risk: Murphy's Law can apply. Stuff happens, especially to companies that are relatively new to global sourcing, but to more experienced companies as well. Elements such as input/ ingredient/equipment lead times, technology development lead times, staffing, consumer/ customer testing, capacity start-up, quality issues, and other factors can all impact the time equation. Lead times for investments or developments are often relatively long, and much can change from project inception to market introduction. Time is money in these situations.

Financial Risk: Will the anticipated savings from offshoring actually be realized? By not fully understanding and anticipating total delivered costs (including overhead costs), or letting potential savings slip away though execution lapses, the answer for too many companies is often No. In addition to those financial risks that come from basic operations, global sourcing carries other financial risks that differ from domestic sourcing. Those include currency fluctuations, cancellation/ delay cost, and supplier solvency/continuity risks.

Supply/Operational Risk: The basic question: Can the supplier really supply the product(s) consistently? The challenges range from scale-up problems to quality and service issues when deliveries of the components/goods begin. Other factors that impact supply/operational risk include the degree of exclusivity to your company, whether it is a sole source/single plant strategy, volume/supplier capacity commitments, rights of first refusal for extra capacity, inventory plans (start-up and ongoing), construction/start-up schedules, and logistics execution.

Regulatory Risk: Regulations can change over time and be harder to meet than expected, leading to delays. Consider both technical regulations (building permits, IT infrastructure integration) and trade regulations (duties, dumping, and political embargoes).

Demand/Market Risk: This risk is tightly aligned with the timing risk. The key question: Will your product really sell by the time you market it? Competitors do not stand still, nor do customer or consumer tastes. Will you miss a window of opportunity, or even worse, hit it and then have it slam shut?

Brand/Environmental Risks: One only has to say "Mattel" to appreciate these risks. Offshoring can lead to quality problems that if not well managed that can damage the company's brands, in addition to extracting a huge financial penalty. Activists in labor and environmental areas can also cause damage to the brand – for example, it turns out that several leading retailers were selling t-shirts made by a company in China that in turn was using a textile producer elsewhere in China that was polluting local rivers. Activists target the retailers.

Intellectual Property Risk: A growing concern in China and elsewhere, as proprietary knowledge regarding design, engineering, materials and other elements can too easily walk out the door – or companies may even find their own offshore suppliers suddenly competing with them with knock-off products.

Risk Category	Examples
Capacity Risk	• Output variability / availability • Lead time variability
Catastrophic Risk	• Natural disasters • War & terrorism
Quality Risk	• Specification non-compliance
Financial Risk	• Foreign exchange rates • Vendor liquidity / viability
Management Risk	• Embezzlement • Fraud
Contractual Risk	• Intellectual property protection
Market Risk	• Increased competitiveness from global competitors

Fig: Risk Category Table

Tools used to Manage Risks:

Given the complexity, uncertainty, and cross-functional interaction required in these risk management scenarios, a structured thought process that manages the risk is essential. This kind of process includes a series of focus areas and several tools that help reinforce those focus areas.

Penetrate and Understand: Think through the seven types of risk, their probability, impact, and potential interdependence. Is there a "devil's advocate" process to subject the project to "what if" analysis of the possible outcomes?

Quantify: To the extent possible, quantify in probability and financial terms different risk scenarios. The reality is that doing this well can easily kill some low-cost country sourcing initiatives with marginal returns.

Plan: Out of the understanding and quantification steps comes the need to create mitigation and contingency plans for technical, physical, financial, and communication implications of these risks. How can serious risks be mitigated, and if something does go wrong, who needs to know and what will be done?

Syndicate: Classic risk management theory includes syndication to multiple parties. In this case, the issue is to understand how your risk is shared by the supplier as well as how your joint risk with the supplier might be syndicated elsewhere (such as licensing your unique product for use by non-competing customers of your supplier and use of as many assets as possible versus building new).

Own: Manage supplier investments as if they were your own. If something happens, communicate quickly to avoid wasted investment at the supplier as well as inside. Consider how you will maintain the ability to manage setbacks without dismantling the effort at the supplier. Tracking the history and using it to improve the results at both companies is important.

Portfolio Management: Risk is viewed in two ways: in individual projects and across multiple projects – a portfolio view. Too few companies take this broader portfolio perspective. Project risk falls into three stages: project cancellation, project shortfall, and project obsolescence. However, portfolio risk requires four data views:

- **Aggregate Commitments:** What has the company or business unit committed across all its projects?
- **Competing Commitments**: Do you have two projects or more with parallel commitments that could cancel each other out or delay each other?
- **Sequential Commitments:** Is there a next-generation project that will make the current commitments obsolete before they are paid out?
- **Supplier Project Aggregation**: How many projects does a single supplier have and what does that do to the supplier and your risk profile if you have multiple failures and successes? Does the supplier have the resources to manage many projects and are your priorities clear enough?

These views need to be regularly presented to business management and updated so that as changes in schedules, priority, or feasibility occur, the implications to the rest of the portfolio and to the supplier are communicated and managed, plus any financial implications are called out well ahead of time. Risk is inherent in business, and especially so in global supply chains. By fully analysing all the major risk categories for global sourcing initiatives, taking mitigating actions, and viewing risk across the entire portfolio of projects and products, companies can greatly reduce their exposure.

Five Easy Steps to Risk Management:

1) **Risk Identification:** Risks can range from the major (a key supplier files for bankruptcy) to the less critical (a member of the project team moves to a new role). Every risk needs to be identified, no matter the size. Create a risk register to keep track of them.

2) **Risk Analysis:** Once identified, each risk is analyzed against two criteria – impact and likelihood (terms are interchangeable). This is usually graded on a numerical scale.

3) **Risk Ranking:** Using a risk matrix, give the risk an overall score by multiplying impact by likelihood. This will provide a way to rank all the risks and identify which are the most critical for your organization or project. Where scores are equal, you may choose to favour impact over likelihood (or vice versa) to rank one above the other.

4) **Risk Mitigation:** Once you know the risks and have a ranking, you need to plan mitigation strategies or contingency plans for each. Make sure that you involve all key stakeholders in this and note roles and responsibilities in the event of these risks occurring.

5) **Risk Monitoring:** No risk register is set in stone. Impacts and likelihood will change over time; new risks will appear and some may even drop off. A Robust monitoring plan is key to making sure your register is up to date and everyone continues to know what to do.

How to minimize the risks of global sourcing?

Sourcing from global suppliers is a widely used strategy for sustaining competitiveness and maintaining profit margins. Businesses need to balance low-cost sourcing with their own quality requirements, as well as risk and cost analyses. Keep the purpose of global sourcing in mind by ensuring costing is realistic and includes all the costs of sourcing, such as planning, transition and implementation costs. If a competitive advantage is to be gained by lowering costs, it is important to ensure there are no hidden costs that will essentially eliminate any realized cost advantage. To stay competitive and successful in sourcing globally, utilize these 5 strategies:

1. **Manage product quality:** Quality issues also affect downstream supply chains. Poor quality increases the rate of returns from unhappy customers, which results in discounting, recycling or disposal (write-off) of defective products, which increases reverse supply chain costs, which negatively impacts the bottom line. Ideally, the goal is to build an efficient supply chain with quality product throughout.

2. **Pay attention to the logistics**: Moving goods across borders and long distances is complex and in managing logistics, poor decisions can lead to a cascade of issues. Even assuming transport costs have been factored into your feasibility research, there are many risks to consider and plan for: Loss or theft in transit, including piracy Deterioration or damage Increased lead times due to distances Communication delays due to time zone differences and/or the need for interpretation Complex documentation requirements that may require research or consulting costs, e.g. import restrictions, permits, licences, quotas, standards, regulations Large international purchases may require formal international purchase agreements, as well as special packaging and shipping and handling procedures. Minimize logistical risks with Demand forecasting that includes extended lead times Transport planning that includes customs/security issues, delivery time frames and work schedules Contingency planning that

ensures alternate plans are in place in case of potential risk events, e.g. alternative local suppliers or additional travel routes to avoid potential disaster areas or accidents.

3. **Mind your monetary risks:** Although the use of foreign suppliers can save costs due to such factors as lower costs of labour and proximity to raw materials, there are also risks that can impact costs: Unanticipated and rising shipping costs Cost of delays or loss of goods in transit Rising costs of transactions, such as documentation fees, contract management fees and third party supplier audit fees Costs related to time zone differences, extra time for storage or transport delays, Costs of managing the supply chain. Monetary risks can be minimized by: Researching suppliers' countries, e.g. monitoring exchange rates, monetary trends and policies Comparing exchange rates of different source countries, setting fixed costs and quantities of goods or timelines for services, selecting appropriate currency for contracts, Use of insurance for credit, transport and cargo and use of currency exchange rate insurance.

4. **Watch out for cultural differences and language barriers:** Cultural differences and language barriers can complicate business communications, causing such issues as shipping delays and incorrect orders. Miscommunication can severely disrupt and frustrate business dealings, making international sourcing a negative experience for all parties involved. Being culturally sensitive can help mitigate this risk: Researching, as part of due diligence, countries' culture, the way organizations are run, core societal values and communication styles Hiring a buyer's agent or a staff person who can speak the local language and is familiar with the culture Keeping track of cultural holidays in suppliers' countries to help with scheduling orders and shipments Using translators familiar with the type of business to ensure translations are accurate Using local legal counsel and agents when negotiating contracts.

5. **Be aware of laws and compliance** Other countries have different standards, laws, regulations and business practices that can impact sourcing from other countries, either by adding costs or requirements that would be considered illegal in one's own country. Questionable practices that can be related to an organization's product can have a negative effect on an organization's brand and reputation.

Minimize this risk with due diligence:

- Research laws, regulations and unwritten business practices in potential suppliers' countries
- Research business reputation and legal record of potential suppliers
- Research domestic laws and regulations to determine liability of conducting business in other countries
- Research export requirements in potential suppliers' countries to determine process and costs
- Detail code of conduct and acceptable business practices as part of the contract.

Supplier Financial Analysis:

Financial analysis can showcase the stability of a supplier, helping to drive better Procurement decisions and mitigate business risk. It also helps to avoid contracts with suppliers who might become bankrupt. This makes financial analysis an essential element of any Procurement professional's tool kit.

But how do you conduct Supplier financial analysis?
What not to do while performing financial analysis:

Financial analysis is industry specific; so is only useful when you benchmark suppliers from the same industry against each other. The financial health of a supplier is dependent on how the industry is doing, so benchmarking suppliers across industries will be counterproductive.

Profitability Ratios	
Ratio	Formula
Gross Profit Margin	Gross Profit / Sales
Operating Profit Margin	Operating Profit / Sales
Net Profit Margin	Net Profit / Sales
Return on Assets	Net Profit / Total Assets
Return on Equity	Net Profit / Shareholders Equity
Liquidity Ratios	
Ratio	Formula
Current Ratio	Current Assets / Current Liability
Quick Ratio	(Current Assets – Inventory) / Current Liability
Leverage Ratios	
Ratio	Formula
Debt-to-Equity Ratio	Total Liablity / Shareholders Equity
Activity / Efficiency Ratios	
Ratio	Formula
Inventory Turns	Cost of Goods Sold / Average Inventory
Days in Inventory	Average Inventory / (Cost of Goods Sold / Days)
Fixed Asset Turnover	Sales / Fixed Assets
Days Sales Outstanding	Ending Account Receivables / Sales / Days
Days Payables Outstanding	Ending Account Payable / Cost of Goods Sold / Days

Fig: Financial Analysis Ratio

Interpreting Financial Ratios:

Simply calculating financial ratios is not enough for financial analysis. It is also essential as a procurement professional to be able to interpret them.

i. ***Profitability Ratios:*** These ratios help a procurement professional understand if the supplier can generate sustainable revenue and control costs. If any of the Profitability Ratios are considerably higher than other suppliers, the supplier in question either has great margins or is controlling cost tighter than peer suppliers.

ii. ***Gross Profit Margin:*** If the ratio percentage is greater than zero, the supplier can make a product/service profitably.

iii. ***Operating Profit Margin:*** This ratio provides information on a supplier's business from an operational perspective. Negative Operating Profit Margin indicates that costs for the supplier are rising faster than the amount of revenue they can generate. If this trend continues, the supplier won't be able to keep the business afloat for long.

iv. ***Net Profit Margin:*** This ratio helps gauge supplier's capability to invest in new product development, research and Development, increase operating capacity, etc.

v. ***Return on Assets:*** How efficiently a supplier uses its assets to generate earnings.

vi. ***Return on Equity:*** This ratio calculates percent profit your supplier makes for every dollar of invested shareholder equity.

Electronic Sourcing:

e-Sourcing Definition:

E-Sourcing refers to internet-enabled applications and decision support tools that facilitate interactions between buyers and suppliers through the use of online negotiations, online auctions, reverse auctions and similar tools. E-Sourcing is especially associated with online auctions, which enable prices reductions by introducing the element of competition. They are visible, clearly structured and make the procurement process transparent.

eSourcing, sometimes referred to as electronic sourcing describes the use of web-based systems to collect and compare information about several suppliers in order to help the buyer select a preferred provider.

The technology is designed to assist organisations generate savings from their supply chains, increase visibility of key business information and reduce the amount of time it takes for procurement professionals to do their day-to-day tasks.

Fig: eSourcing

How does eSourcing work?

Electronic sourcing is a small but important part of the overall eProcurement process. It involves everything from inviting potential suppliers to tender, collecting supplier information, running tender processes and/or holding eAuctions, analysing and evaluating responses, and finally, awarding them with a contract. The entire process is shown in the figure below:

Fig: Electronic Sourcing Process

Pre-purchase questionnaire: before doing business with any supplier, it is imperative to identify if they're appropriate to do business with. Organisations achieve this with pre-purchase questionnaires (PQQ), which are detailed documents designed to assess the suitability of a supplier. PQQ's are common in the public sector, but in other industries the process can be called request for information (RFI). In the past, procurement teams would have to manually fill out these documents by hand or in software such as Microsoft Word or Excel. With eSourcing, the process is streamlined, as suppliers can upload their answers into the eSourcing software, which is distributed directly to the business. It allows organisations to collect information from more suppliers in a fraction of the time, and ensures consistency of completion.

Invitation to tender: invitation to tender (ITT), also known as call for tenders, is a process for generating competing offers from different suppliers. Once they have filled out a PQQ and have been selected to go to the next stage of the sourcing process, suppliers are sent an ITT. The ITT document specifies all the requirements of the organisation, including what good or services are required, as well as outlining a range of information the buyer will require the supplier organisation to submit about its own policies, practices and processes, and how the evaluation process will be managed. Suppliers fill this document out to be taken to the next stage of the procurement process.

Request for quotation: this is a process where price, is the primary factor for choosing a supplier. Buyers send out forms for suppliers, asking all of them the prices of services they can render. Request for quotations (RFQs) can be used prior to a RFI and ITT if a buyer is seeking to understand price ranges in the market.

Evaluation: once the requested evaluation formats have been sent and received, an evaluation process takes place, where the prospective buyers evaluate whether the information they've been provided with makes them a viable supplier or not. In the past, this process involved manually sorting through swathes of paperwork, supplied by the suppliers invited to tender. But eSourcing changes this and provides a sophisticated suite of analytics, dashboards and tools like automated scoring allowing users to automate elements of the evaluation process, and therefore, save precious time.

eAuction: Much like RFIs, PQQs and RFQs, eAuctions can be run at any point in the eSourcing process. It can follow a tender; it can be used after a tender process or run as a standalone event for finished goods. Once suppliers have been selected, they are invited to participate in an eAuction – a process where suppliers bid on the right to deliver the contract they've been invited to tender for. Many eSourcing tools offer different eAuction types, each with unique benefits. For more information on eAuctions, including the type available, click this link. Auctions are designed to encourage prospective

suppliers to compete with one another and as such, deliver the best possible deal for procurement professionals.

Contract award: once the tendering processes and/or eAuctions have concluded, and a buyer has been selected, a contract is awarded to the winning supplier. Elements of this process can be automated, automatically sending the winning bidder a contract.

Benefits of eSourcing:

eSourcing provides businesses with a wealth of benefits and we've listed some of the most common below:

Reduces costs: By accessing a broader range of suppliers, and leveraging different eAuction strategies, eSourcing presents significant cost savings for procurement teams.

Saves time and boosts efficiency: Electronic sourcing also speeds up the time it takes to award a contract. It does this by reducing the amount of time procurement specialists spend on the tendering process, and therefore, freeing up time to spend on other tasks.

Leverage detailed supplier information: eSourcing improves transparency between buyers and suppliers. A portal is typically used, where suppliers can see all tender opportunities from a supplier, with deadlines, status and other key information.

Bolster compliance: With all procurement-related documents stored in one place, auditing is made simpler, and therefore, so is compliance with regulatory procedures, with a system transparently showing how and why a supplier was selected.

Sustainability and Sourcing: (Sustainability of Sourcing):

What is Sustainable Sourcing?

Sustainable Sourcing is the integration of social, ethical and environmental performance factors into the process of selecting suppliers.

Sustainable sourcing is needed as supply chains continue to expand globally into developing countries seeking lower costs and greater production capacity they expose companies to an ever wider array of risks. These risks include not only include risk of supply disruption, cost volatility and compliance with local laws and regulations, but also in brand reputation: Companies must meet the growing expectations of stakeholders (including customers, shareholders, employees, NGOs, trade associations, labour unions, government observers, etc.) to take responsibility for their supplier's environmental, social and ethical practices. Thus, companies increasingly making responsible sourcing an integral part of their procurement and supply chain management processes to understand and manage these risks in the supply chain.
The ultimate goal of Sustainable Sourcing is to build strong, long-term relationships with suppliers. Improving performance in environmental, social and ethical issues is becoming a major part of the overall process. Working toward this has become an extension of the company's commitment to corporate responsibility and as such becomes a part of the overall business structure and model. Effective supply chain management can foster and build competitive advantage for companies especially in sectors where production is mainly outsourced such as food and clothing.

Building a Business Case for Sustainable Procurement: The following steps are:

1: Develop and integrate into supplier selection process:
Typically, the procurement leadership develops a vision that aligns with company responsible business policy, and then adapts their procurement policies to include responsible business in the various processes and criteria for suppliers' selection and management.

2: Set and communicate clear expectations for suppliers:
When a company is engaging a supplier, a company must make it clear these new expectations that the suppliers must meet. This is usually codified in a code of conduct, as well as integrated into contracts, and supplier interaction and communications such as RFX templates.

3: Integration into buying practices:
Provide the vision, training and tools for buyers to integrate Sustainable Sourcing into their work and procurement decisions. This may include new software, training in CSR and responsible business, and a complete change management plan. Internal change management programs to convey to the corporate buyers that the impact their buying decisions will have at factory level and promoting cooperation between corporate buyers, supplier sales team and units of production when planning schedules of production.

4: Educate and support suppliers in setting their own business standards:
As part of the process, companies should encourage their suppliers to develop responsible practices on their own. Educate suppliers on the business and community benefits of practicing responsible business: This may include productivity, quality, community support and engagement, improved recruiting, employee turnover and renewal of contracts. Work collaboratively along with suppliers in structuring objectives for their responsible business performance.

5: Ongoing monitoring of supplier CSR performance:
Ongoing monitoring using assessments and audits are essential to maintain their supplier's environmental and social performance and practices. Using multiple sources of data and input from stakeholders is vital for having a balanced and thorough view of performance over time. Companies may be able to greatly accelerate their program and save costs by seeking out related initiatives in their industry sector, whereby they can partner with other companies within the same sector and develop common approaches to assessing and monitoring suppliers.

6: Manage stakeholder expectations and reporting on practices:
Transparency is the final step to building and maintaining stakeholder trust. The program should produce supplier performance information that can be adapted to include in an annual CSR reporting.

Moving forward:

Sustainable Sourcing is very vital if implemented well and to move forward, a company will need to:
Check basic facts about the social and environmental legislation in the countries of production of prospective suppliers.

1. Find out about the level of enforcement in these countries to assess production risks.
2. Check whether prospective suppliers qualify for independent certification of conformity with recognized social and environmental standards.
3. Clearly define your expectations to your suppliers. Make clear that compliance with all applicable laws is a minimum.

4. Explore potential risk areas with suppliers and agree on the desired level of performance. If necessary, use a supplier code of conduct as a benchmark for compliance and incorporate supplier requirements into commercial contracts.

5. Raise awareness among your purchasing officers of the impact that their purchasing practices might have on production at factory level.

6. Carry out assessments of suppliers' facilities and practices, including through independent monitoring where appropriate, or by organizing onsite visits and worker interviews.

7. Find out about sectoral initiatives which can help conduct assessments and provide information and training to suppliers on responsible business practices.

Green Sourcing:

What is Green Sourcing?

➢ Green Sourcing means the purchasing of products and services which take into consideration of the environmental factors.

➢ Green Sourcing specializes on product sourcing and trading of eco-friendly and fair trade products.

➢ Green sourcing means acquiring goods and services in the most environmentally friendly way possible. Local producers are greener sources because they ship their products over shorter distances. Both businesses and consumers support green sourcing when they purchase supplies produced locally.

➢ ***Justification:*** Shipping products by truck, ship and plane becomes more expensive as oil and gasoline prices increase. Businesses and consumers also pay for the waste that packaging and shipping add to the cost of products. Green sourcing reduces these costs by emphasizing local sources for products.

➢ ***Significance:*** Businesses and consumers who use green sourcing are more financially efficient, and they reduce society's overall need for fossil fuels. When local businesses receive more money, communities become stronger

➢ ***Benefits:*** Green sourcing is typically cheaper than traditional sourcing methods because shipping costs are lower for local products. Businesses that adopt green sourcing build a positive reputation in the community for environmental awareness while they reduce their costs.

Green Sourcing Process:

Six steps strategic green sourcing process and the "green" steps that take organization to emphasize in sustainable sourcing:

1-Assess Opportunity: Step one consists of understanding your spend in a given category (materials, logistics, maintenance costs, etc). The five most common areas to consider include: electricity and other energy costs; disposal and recycling; packaging; commodity substitution (alternative materials to

replace other materials); and water (or other related resources). Once these costs are identified, they should be incorporated into the spend analysis project in this step.

2-Assess Internal Supply Chain: Step two consists of engaging internal supply chain stakeholders. Make sure you understand the business requirements, product specifications, and internal stakeholder perspectives in your supply chain. What is your industry's most environmentally sound products and services? Ensuring your organization's product specifications within any given category reflect the industry's latest offerings can help you capture significant benefits.

3-Assess Supply Market: Engage new and existing vendors in step three. Be sure to cite green opportunities and possible commodity substitutions and new manufacturing processes within a RFI. You'll want your supply base to include vendors who specialize in more efficient, sustainable products to embrace the benefits of green sourcing.

4-Develop Sourcing Strategy: Step four is the most important because it depends on the quality of the information gathered in the RFI and will help determine the outcome, implementation, and continued success of the sourcing process.

5-Implement the Sourcing Strategy: In step five, bid analysis/evaluation quantifies cost and benefits of sustainability attributes. Clearly identifying and communicating the evaluation criteria is essential to gaining support of diverse stakeholders in the green sourcing process.

6-Institutionalize the Sourcing Strategy: Now that you've selected your vendor(s) and the contracts have been finalized, it's time for the procurement process to begin. Sustainability attributes should be closely tracked and audited during this final step. Be sure to define metrics for the supplier based on performance, delivery, compliance, etc. and consider both your organization's sustainability goals and the results of the sourcing process when setting these metrics.

Sustainability and Green Sourcing Through Procurement:

Green Sourcing has steadily become the buzzword in the corporate world. With increasing demands of having sustainable procurement owing to its implications in economic, social and environmental perspectives, more and more businesses are realizing the benefits of having a sustainable supply chain. Ideologically, green sourcing as a concept focuses on holistic development and benefits for all parties involved in the procurement process. Although there are some variations where businesses aim at their private profits and revenue growth, still the advantages of a sustainable supply chain can certainly be realized at various interdepartmental levels as well as across suppliers, vendors and companies.

Green Sourcing emphasizes the need to have standard practices of procurement that not only use avenues that are environment friendly but methods of procurement that transcend macroeconomics and corporate social responsibility. Green Sourcing through a sustainable supply chain has a plethora of benefits for the organizations as well as vendors. Every product in procurement needs a company's business goals, company policies and the decision making body to be in complete sync to be able to make the best choices of procurement. This is exactly where Green Sourcing changes the entire dynamics of procurement. Sustainability is of paramount significance in economics. With environmental benefits and convenience of using green sourcing for procurement, businesses have realized the potential rewards for all parties involved. There is still some time before green sourcing becomes a standard practice for businesses all across the globe. Presently, most businesses identify procurement and its requirement to have a sustainable supply chain as one of the most significant aspects in a company's modus operandi. Businesses are yet to completely switch over to green sourcing

but there is a bright light at the end of the tunnel. Green sourcing not only promotes having a sustainable supply chain from the perspective of companies ordering the goods and products, but also for suppliers or vendors who themselves have a corporate social responsibility and a need to have optimum impacts on their business by driving revenue growth through sustainable procurement.