Supply Chain Management

by

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Module 2:

Strategic Sourcing Outsourcing

Make Vs buy

Identifying core processes

Market Vs Hierarchy

Make Vs buy continuum

Sourcing strategy

Supplier Selection and Contract Negotiation

Creating a world class supply base

Supplier Development

World Wide Sourcing

Strategic Sourcing & Outsourcing

The **decision of a firm** to perform its activities **internally** or get those **activities done** from an **independent firm** is known as the **make versus buy decision.**

This make versus buy issue is **strategic in nature** and involves the following key decisions:

1. What activities **should be carried out by the firm** and what activities should be **outsourced**?

2. How to select the **entities/partners** to carry out **outsourced activities** and what should be the nature of the **relationship with those entities**?

3. Should the relationship be **transactional in nature** or should it be a **long-term partnership**?

Case Study:

When **Bharti Airtel**, India's number one **private telecom service provider**, announced its decision to **outsource key network management activities**, it **sent shockwaves** in the Indian industry.

In addition to outsourcing **network management services**, it decided to **outsource IT services and call centre operations** also.

This **bold decision by Bharti** generated a **huge debate**, not only among the **telecom players** but also among the **Indian industries in general**.

Strategic Sourcing & Outsourcing

Case Study: (continued…….)

One view is that by **outsourcing these key activities**,

Bharti might lose its edge in the **long run to end up as a hollow company**,

while the other view is that by **outsourcing these activities** to **more competent external firms**, Bharti can focus its **energies on designing innovative offerings**, **customer relationships and brand building**.

Strategic Sourcing & Outsourcing

Make Vs. Buy

The supply chain involves a **number of firms** and includes **all activities** associated with the **transformation of goods from the raw material** stage to the **final stage**, wherein the **goods and services** reach the **end customer**.

While **studying make versus buy decisions**, we **analyse** from the **point of view** of the focal firm or the **nodal firm**, which is at the **strategic centre of the supply chain**.

The make versus buy decision **evaluates the contribution** of **each activity.**

Michael Porter classify all supply chain activities **as primary activities and support activities**.

Primary activities consist of inbound **logistics, operations, outbound logistics, sales and service.**

Secondary activities involve **procurement, technology development, human resource management and firm infrastructure management**.

Strategic Sourcing & Outsourcing

Make Vs. Buy

The **make versus buy decisions** look at each of these **activities critically** and ask the question:

1. Should this activity be done **internally** or can it be **outsourced to an external party**?

2. **Once the decision to outsource has been taken**, the firm has to **choose among competing suppliers** and also decide on the **nature of the relationship** it would like to **establish** with the supplier firm.

Traditionally, firms believed that everything **should be done internally** unless there is a compelling logic in **favour of outsourcing**. Thus, all outsourcing-related decisions had to be justified.

We have come a long way from the days of the **Ford Motor Company**, where **vertical integration** was the norm. Now, perhaps, we are on the **other extreme with our discussion** of **virtual corporations**, where a **firm starts with the assumption that all activities** must be **outsourced unless** there is a **compelling logic to justify keeping activities in-house**.

Strategic Sourcing & Outsourcing

Make Vs. Buy

Example:

Michael Dell, the CEO of Dell Computers, has stated that if his company was **vertically integrated**, it would need **five times as many employees** and **would suffer from a drag effect**.
Apart from primary activities in the value chain, even **support activities** that were usually done in-house are outsourced in big way now.

Rather than **taking extreme positions**, we need to build up **managerial logic** to **understand these issues**. Hence, we first look at a **few cases** where firms have made these decisions in recent years and then bring out a **conceptual framework** that can help **firms in their make versus buy decisions.**

Case Study: BHARTI AIRTEL : OUTSOURCING OF NETWORK OPERATIONS

Bharti Airtel Limited, formerly known as **Bharti Tele-Ventures**, is one of **India's leading private sector providers of telecommunications services** with a market capitalization of Rs **936 billion**, revenue of Rs **185 billion** and customer **base of 27 million**. Bharti Airtel has been rated as one of the top **10 best-performing companies** in the world in the ***BusinessWeek*** **IT 100 list.** For the last couple of years, its subscriber base has been growing steadily at **60 per cent per annum.**

Strategic Sourcing & Outsourcing

Case Study: BHARTI AIRTEL : OUTSOURCING OF NETWORK OPERATIONS

In 2004, Bharti decided to outsource the following three areas of operations:

1. Network management to Ericsson, Nokia and Siemens.

Role: These outsourcing partners **manage the existing network** and **deploy and operate new base stations in the future**.

People: About **800 people from Bharti** were transferred to the outsourcing partners.

Contract Period: The value of the **3-year contract** was $725 million.

Bharti has a **network management team** to **manage the interface** with the **outsourcing partner.**

2. IT management to IBM.

Role: IBM manages all **IT services** (**billing, customer relations management**), operates data centers, **help desk** for **IT support and application development**.

Strategic Sourcing & Outsourcing

Case Study: BHARTI AIRTEL : OUTSOURCING OF NETWORK OPERATIONS

2. IT management to IBM.

People: About **200 people** from Bharti were transferred to IBM.

Contract Period: The **$750 million contract** was signed for a 10-year period.

Payment method: Bharti uses a **IBM**. As revenues grow, **Bharti shares a smaller percentage** of **revenue with IBM**.

Bharti has a **seven-member architecture review board**, which ensures that IBM decisions are aligned to the **long-term goals of Bharti**.

3. Customer service call centres to Hinduja TMT, Mphasis, IBM Daksh and Teletech India.

These outsourcing partners set up **about 6,000 seats and have been managing** customer service call centres for all customers except corporate clients and high-value clients.

Bharti has about **1,500 seats in-house** to maintain **customer service** for these **high-end customers.**

This $350 million contract was signed for **a 3-year period**.

Strategic Sourcing & Outsourcing

Case Study: BHARTI AIRTEL : OUTSOURCING OF NETWORK OPERATIONS

Bharti prepared a very **comprehensive set** of detailed **service-level agreements (SLAs)** with each **outsourcing partner.**

These **SLAs** take care of almost all contingencies. **Bonuses and penalties** for the **partners** are linked to performance on **crucial SLA measures**.

The partners **committed 99.99** per cent availability of service.

In India, Bharti has decided to focus on **customer delight and brand building** and leave network management and a host of other services to its outsourcing partners

The identification of core processes is a crucial decision

The identification of core processes is a **crucial decision**.

Instead of becoming the **best in the chosen category** (represented by core processes), the firm runs the risk of ending **up as a mere hollow corporation**.

The mere decision to focus the **resources on core activities** to match capabilities with the **best-in-class performance** is not enough; **firms must strive** to be the **best in the world** in that specific area.

In these areas they can invest in **people, equipment's and R&D**. Such a focus will also help the firm in attracting the **best talent from that field**.

Many corporations have realized that they can never hope **to attract the best talent in IT**; hence, they have decided to depend on their **outside partners for the IT** support required for business application.

First step for a firm is to develop the **capability to distinguish** between **core activities** and **commodity** activities.

Even among **core activities**, it has to keep certain **activities in-house**, and for all outsourced **critical activities**, it has to maintain **some knowledge** so that it can manage an effective relationship with its outsourcing partner.

The identification of core processes is a crucial decision

The **two ways** through which one can identify a **firm's core processes** are the **business process route** and the **product architecture route**.

MICROSOFT ' S ENTRY INTO VIDEO GAME BUSINESS (Case Study)

When **Microsoft decided** to get into the business of **video games in the mid-1990s**, it decided that it would not carry out **manufacturing and distribution activities** in-house. Microsoft wanted to ensure that the **Xbox** was on the **retailers**' shelves in October 2001 and was sold for **$400**.

Microsoft was very clear that it would focus **only on the software part** of the **Xbox** and leave the **hardware design and manufacturing to Flextronics**, a large electronics manufacturing service provider.

While **Sony** keeps both **design and manufacturing** functions in-house, because it has competence in these areas, Microsoft decided to outsource these activities.

Michael Marks, CEO and Chairman, Flextronics, commented: "Without Flextronics, there would be no Xbox—only the idea of it.

Microsoft has a ton of money, but if they had to build factories, they wouldn't have done this project. If guys like us didn't exist, **guys like Microsoft wouldn't do a hardware product**. The risk would be too high."

The identification of core processes is a crucial decision

Business Process Route

For any firm, **three core** and high-level business processes include customer relationship, product innovation and supply chain management.

Customer relationship focuses on **acquiring new customers** and **building relationships** with existing customers.

Product innovation focuses on **developing new products and services**,

Supply chain management focuses on **fulfilment of customer orders**

It is possible to un-bundle the three business processes and a firm can afford to **outsource two of these business processes.**

Some researchers have argued that a firm must **identify and ensure** that it builds **core capabilities in-house in at least one of these areas.**

Firms like HP and high-end pharmaceutical firms focus on **product innovations.**

Firms like Nike and Benetton focus on brand building and **customer relationships.**

Firms like Wal-Mart and Dell Computers focus on **supply chain management capabilities**.

The identification of core processes is a crucial decision

Business Process Route

Of course, within the identified core business process, firms can examine each of the activity and probably outsource those activities that are of the commodity type.

Product Architecture Route: Example

In the case of **Microsoft**, it decided that **customer relationship management and software design** are its **core processes**, while **design and manufacturing** is **not** core to its business.

Bharti decided that **customer relationship was core** and **network management was not**.

Tata Motors realized that in **diesel engine technology** it was **far behind its suppliers** and will **never be in a position** to catch up with them. So it decided to **buy diesel engines** from **Fiat and treat Fiat** as a **strategic partner**.

Cummins discovered that **pistons** were part of a **strategic sub-system** but that its **suppliers** were **far ahead** in the **relevant technologies** and therefore **decided** to **buy pistons rather than make them internally.**

Market Vs Hierarchy

The **make versus buy decision** is also **known** as the **market versus hierarchy decision** in **economics** literature.

The key issue here is to **coordinate the chain** so as to provide a bundle of **goods and services** at the **lowest cost** for a given level of **service required by the customer**.

If a firm decides to make the relevant **component in-house**, it may not have the necessary **economies of scale** and might have to use **internal hierarchy for coordination**.

In the **hierarchical form**, a firm has **greater control over coordination** but there may not be **enough motivation** for the **internal supplier to work on innovations to reduce cost and improve** service over a period of time.

When a firm uses **market mechanisms** to procure the **necessary inputs**, it may be able to take **advantage of economies of scale** and also **choose the supplier that supplies goods and services** at **lower prices**.

In this case, the **supplier has enough motivation** to **innovate and the firm**, as a **buyer**, has the **flexibility of changing the supplier**, which is not an option available to the firm that chooses to **make inputs internally**.

Market Vs Hierarchy

There are **costs incurred in the control and coordination** of the external supplier and are termed as ***transaction costs*** in economics.

Costs related to economies of scale are tangible in nature but the bulk of agency and transaction costs are intangible in nature.

Three issues,

- **Economies of scale**,
- Agency costs and
- Transaction costs,

in detail and finally study the overall framework of the decision-making process.

Economies of Scale

There are four major sources of economies of scale,

Higher volume allows a firm to spread its fixed cost over a larger volume of operations.

For example, the cost of a **truck trip from Mumbai to Bangalore** is more or less fixed because major costs like **driver cost, bulk of fuel cost and administrative cost** are independent of the **load carried by the truck**.

Market Vs Hierarchy

Higher volume allows a firm to spread its fixed cost over a larger volume of operations.

Example 2: when a firm sets up its **manufacturing unit**, the **set-up cost is the same**, irrespective of the **volume of production**. So a firm with **bigger batch sizes** will have **lower costs of operation.**

Higher volume allows a firm to choose more efficient technologies.

Higher volume allows a firm to invest in technologies that are capital intensive but result in lower fixed and variable costs per unit of output.

Example: Transport firm that can transport **40 tons per trip in a Volvo truck** will have **lower costs per ton** of material compared to a transport firm that requires **four trucks of 10-ton capacity** each to transport the **same volume of goods**.

Pooling of buffer capacities and inventories.

For example 1, a logistics firm that transports Maruti cars from Gurgaon to Bangalore carries Kurlon's mattresses to their Delhi warehouse on the return trip. Consequently, it is able to offer lower transport costs to **Maruti** as well as to **Kurlon**.

Market Vs Hierarchy

Pooling of buffer capacities and inventories

Example 2: Similarly, a **contract manufacturer** can improve **capacity utilization** if it can work with **two different companies** having **seasonal demands** in different seasons: **one with seasonal demand** in the **winter** and the **other with seasonal demand in the summer**.

Learning curve effect.

The **learning curve captures** the impact of **cumulative production on the average cost of production**. The management and the workers are able to **improve their performance based on experience gained** through the **cumulative production of a firm**.

In several industries, it is found that with **doubling of cumulative production** the **average cost declines by 10 to 20 per cent**.

Agency Cost

Bharti used to manage **customer billing operations** through its **internal IT department**. The important question here is, "**How does one ensure that the interest of the IT department and that of the marketing departments are aligned**, and how does one make sure that the IT department is putting its best effort and is not slackening?" This issue is known as the *agency problem* in economics literature.

Market Vs Hierarchy

Agency Cost

The **IT department** is known as the **agent and the marketing department** as the **principal**.

In a **hierarchical firm**, there is **greater control over coordination**, but there may not be **enough motivation** for the **internal supplier to work on innovations** to reduce costs and improve service over a period of time.

The cost involved in control and coordination of internal supply is termed agency cost in economics

Transaction Cost

The transaction costs comprise the following:

• ***Search and information costs.*** Costs involved in **locating and evaluating the right supplier**.

• ***Bargaining and contracting costs.*** A firm has to **first negotiate the terms of exchange** and **finally prepare the contract** so that it is assured that the **supplier will provide the required** goods and services as per the **agreed terms and conditions**.

Market Vs Hierarchy

Transaction Cost

• ***Policing and enforcement costs.*** A firm has to **constantly monitor** the supplier so as **to ensure** that the supplier **sticks to the terms and conditions of the contract**. Firms might also have ton **legally enforce the contract** if the supplier **does not follow the contract**.

Example: Bharti has put in elaborate mechanisms for monitoring the **SLAs** with IBM and Ericsson.

• ***Cost incurred because of loss of control.*** The use of market mechanisms may result in underinvestment in relationship-specific assets, which, in turn, increase the cost for buyers. Further, there may be **additional costs** that firms may have to **incur because of poor coordination**. There is **also the risk of leakage of strategic information** that will hurt the buyer firm in long run.

The cost incurred because of loss of control is a major component of transaction costs in several situations of market exchange. If it were possible to write a perfect contract and enforce it, one may not have to worry about costs incurred because of loss of control.

Market Vs Hierarchy

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Make Vs buy continuum

We started out by exploring two extreme positions:

(a) Make **an input** or buy an **input using the market** and

(b) vertical integration versus **market**, where the buyer has an arm's-length relationship with the suppliers.

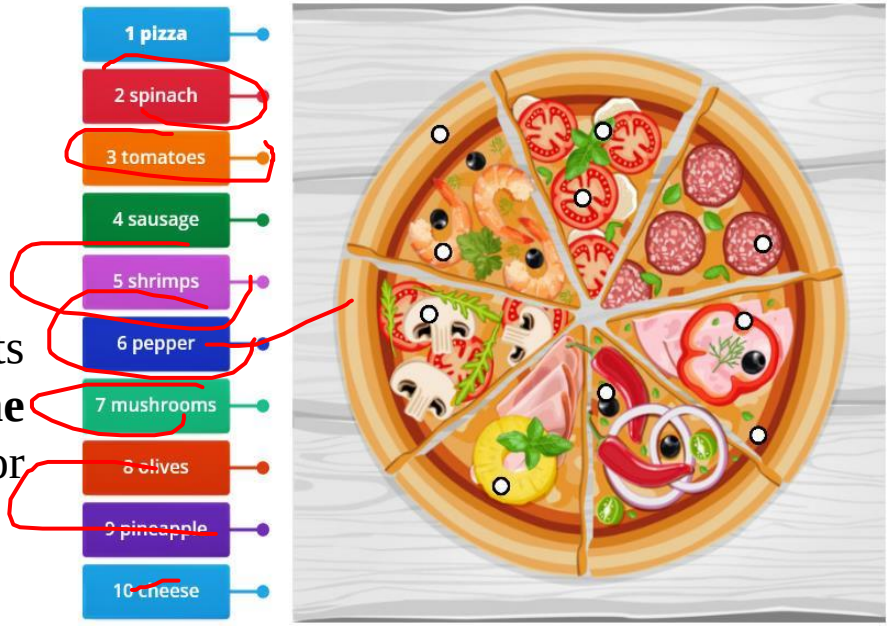
There are several alternative ways in which the exchange can be organized.

• ***Tapered integration.*** Where a firm both **makes and buys** a given input.

• ***Collaborative relationship.*** **formal contractual** relation or a **long-term informal relationship**, **based on trust**. In some cases, it can lead to alliances or joint ventures

Tapered integration. Where a firm both **makes and buys** a given input. A firm makes **part of** the requirement **in-house** and **procures** the rest from the market.

Firms like **Pizza Corner** and Madura Garments fall in this category, wherein they **own some retail outlets** and may depend on **franchisee** or other models for the rest of their sales.



Make Vs buy continuum

Tapered integration.

Keeping **part** of the **manufacturing in-house** allows **firms** to have a better understanding of the **industry cost structures**, and this helps them in **negotiating better deals** with suppliers.

1. **Firms** are able to keep up the **pressure on their internal supply** group to **innovate** and **work on cost reductions** by showing them **benchmark numbers from markets**.

2. **Firms** can also **keep the pressure** on the **supplier by saying** that if **they do not improve** the **complete manufacturing will be shifted in-house**, as they have **the capability** for it.

Though at first glance it looks like as if **tapered integration** allows a firm the **best of both worlds**, if not managed properly, the firm might end up getting the **worst of both worlds.**

Case Study: TOYOTA : IN – SOURCING OF ELECTRONICS PARTS

Traditionally, **Denso** was the **sole supplier for Toyota** for all **electrical and electronics** parts till **1988**. **In 1988**, **Toyota opened its own electronics manufacturing facility**, as it had recognized by the **mid-1980s** that electronics was going to play an i**mportant part in automobile manufacturing.**

Make Vs buy continuum

Tapered integration.

Case Study: TOYOTA : IN – SOURCING OF ELECTRONICS PARTS

It is estimated that, today, about **30 per cent** of the **total vehicle content** is related to **electronics**.

As the share of **electronics in cars** is **increasing and as these technologies** change at a pace **faster than those of traditional automobile technologies**, Toyota identified **electronics as a core** and strategic function and **decided to master** it so that it can **manage its suppliers effectively.**

They still depend a lot on Denso for supply, but they have consciously **built design and manufacturing capability** within the firm.

Case Study: Bharathi Airtel

Airtel has decided to shift the bulk of its call **centers** to **external firms,** but has retained support centers for **strategic customers internally** so that it **does not to face coordination** or **communication issues with** its important **patrons.**

Make Vs buy continuum

Collaborative relationship

In a **collaborative relationship**, the supplier is an extension of the firm.

The **firm** treats its **suppliers** as **strategic partners** and usually a **supplier is assured of business** for a **reasonably long period of time**. The **firm does not indulge** in **competitive bidding every year** and **does not change its supplier** to get the **small price reduction** offered by a competing supplier.

One **major concern** in collaborative relationships is **ensuring** that the **supplier** keeps **working on innovations**. Just like the **internal supplier**, the partner in a collaborative relationship is **assured of business**, and this may result in **satisfaction on the part of the supplier.**

Firms should periodically **benchmark the partner's costs** with the **market** so as to ensure that the **supplier remains competitive**.

Example: Dell Computers

Dell Computers **benchmarks** all its **partners on cost and technology leadership**.

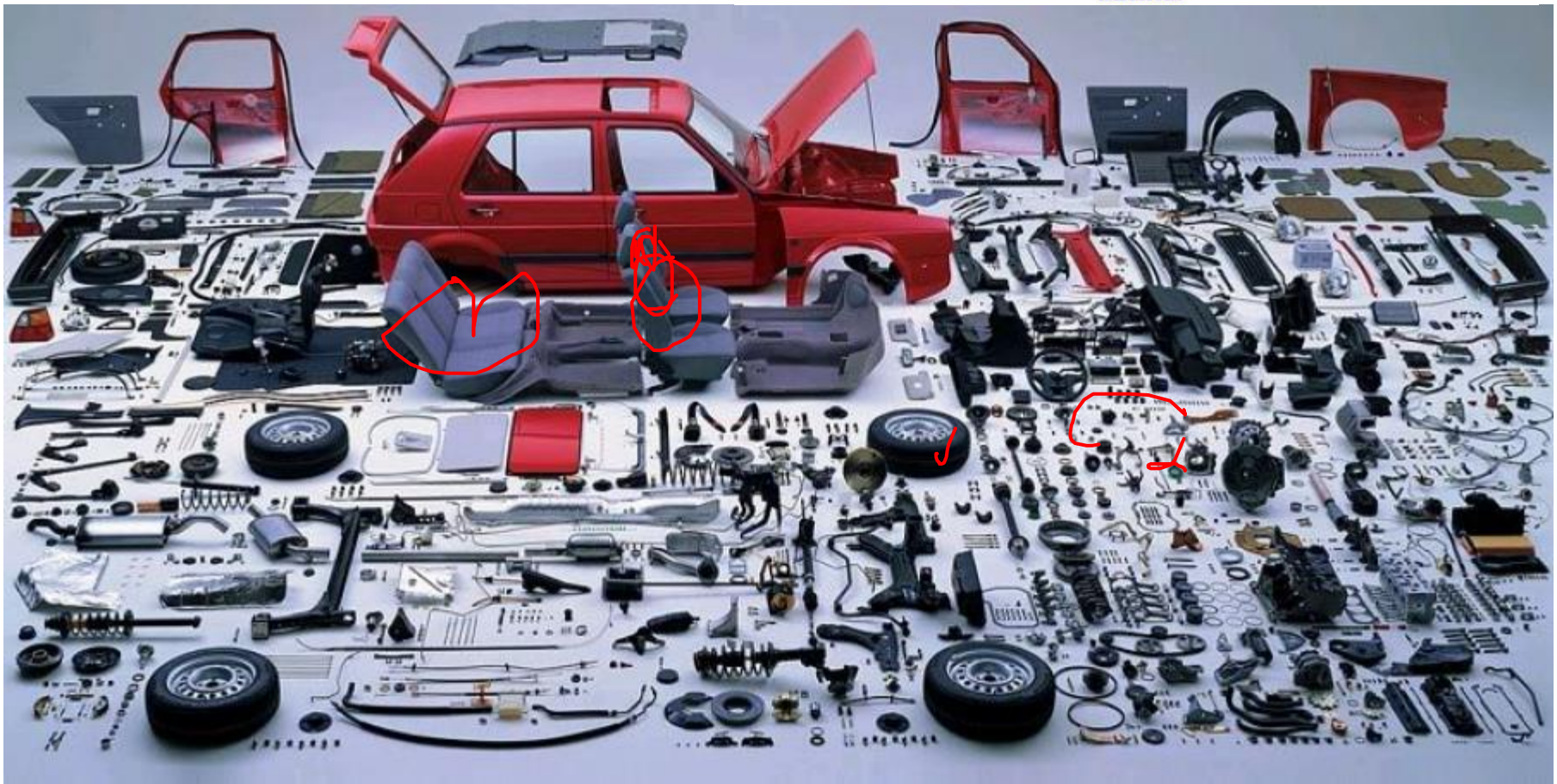
Only if the supplier **maintains leadership** on both these **fronts does Dell continue** with the same partner.

Make Vs buy continuum

Collaborative relationship

Example: Toyota

Firms like Toyota **buy 80 per cent** of the required components from the **market**. But **Toyota and other Japanese firms do not** keep their **suppliers** at an arm's length and do not work with **contractual relationships**.



Make Vs buy continuum

Collaborative relationship

Example: Toyota

Japanese manufacturers work with a **network of suppliers** with whom **they maintain close long-term relationships.**

Japanese companies **have subcontractor networks** called ***keiretsu***.

This network involves **vendors, bankers and distributors**.

Firms within a ***keiretsu*** are linked by **informal personal relationships**. As they **share long-term relationships**, they avoid **most of the problems** associated with **market exchange relationships** and are **willing to invest in higher relationship-specific** assets and do not worry about information **asymmetry and hold-up problems**.

This allows each firm within the ***keiretsu*** **to focus** on its **core competence** and all get the necessary **economies of scale**.

Western firms have explored **strategic alliances and joint ventures**

Sourcing

Sourcing is the **choice** of **who will perform** a particular **supply chain activity** such as **production, storage, transportation, or the management** of information.

At the **strategic level**, these decisions determine **what functions a firm performs** and what functions the **firm outsources**.

Sourcing decisions **affect both the *responsiveness*** and ***efficiency*** of a supply chain.

Example 1: **Motorola outsourced** much of its **production to contract manufacturers** in **China**, it saw its **efficiency improve** but its **responsiveness suffer** because of the **long distances**.

To **make up** for the **drop in responsiveness**, Motorola started ***flying in some of its cell phones*** from **China even** though this **choice increased transportation** cost.

Example 2: **Flextronics**, an electronics ***contract manufacturer***, is hoping to offer both ***responsive and efficient sourcing*** options to its **customers**.

It is trying to make its **production facilities** in the **United States very responsive** while keeping its facilities in **low-cost countries efficient.**

Flextronics hopes to become an **effective source for all customers** using this combination of facilities.

Supplier selection and contract negotiation

Managers must decide on the **number of suppliers** they will have for a particular activity.

They must then **identify the criteria** along which **suppliers will be evaluated** and how they **will be selected**.
For the **selection process, managers** must **decide** whether they will use **direct negotiations or resort (option)** to an *auction (public sale)*. If an auction is used, it must be structured to ensure the **desired outcome**.

Before **selecting suppliers**, a **firm must decide** whether to use **single sourcing or multiple suppliers**.

Single sourcing **guarantees the supplier sufficient** business when the **supplier has to make** a significant ***buyer-specific investment***.

The ***buyer-specific investment*** may take the form of ***plant and equipment*** designed to produce **a part that is** ***specific to the buyer*** or may take the form of ***expertise that needs*** to be developed.

Single sourcing is also used in the **automotive industry for parts** such as **seats** that must arrive in the **sequence of production**.

Supplier selection and contract negotiation

Coordinating such sequencing is **impossible with multiple sources**.

As a result, **auto companies** have a **single seat source** for **each plant** but **multiple seat sources across** their manufacturing network.

Having **multiple sources** ensures a **degree of competition** and also the possibility of a backup.

A **good test** of whether a firm has the **right number of suppliers** is to analyze what impact ***deleting or adding*** a supplier will have.

Adding a ***supplier with a unique*** and valuable **capability clearly adds** to **total cost**, the supply base **may be too small**.

The **selection of suppliers** is done using a ***variety of mechanisms***, including ***offline competitive bids, reverse auctions, or direct negotiations***.

No matter what mechanism is used, supplier selection should be based on the **total cost** of using a ***supplier and not just the purchase price***.

Supplier selection and contract negotiation

Commonly used mechanisms for these auctions are as follows.

• ***Sealed-bid first-price auctions*** require each ***potential supplier*** to submit a **sealed bid** for the contract by a **specified time**. These bids are then opened and the contract is assigned to the lowest bidder.

• In ***English auctions***, the auctioneer starts with a **price** and **suppliers can make bids** as long as each **successive bid is lower than the previous bid**. The supplier with the **last (lowest) bid receives the contract**. The difference in this case is that all suppliers get to see the current lowest bid as the auction unfolds.

• In ***Dutch auctions***, the **auctioneer starts with a low price** and **then raises it slowly** until one of the suppliers agrees to the contract at that price.

• In ***second-price (Vickrey) auctions***, each potential supplier submits a bid. The contract is assigned to the ***lowest bidder but at the price quoted by the second-lowest bidder***.

Supplier selection and contract negotiation

The difference between the values of the buyer and seller is referred to as the ***bargaining surplus***.

The goal of each **negotiating party** is to capture as much of the **bargaining surplus** as possible.

Suppliers of Toyota have often mentioned that "**Toyota knows our costs better than we do**," which leads to **better negotiations**.

The **second recommendation** is to look for a fair **outcome based on equally or equitably** dividing the bargaining surplus or dividing it based on needs.

The key to a **successful negotiation**, however, is to make it a **win-win outcome.**

It is impossible to obtain a **win-win outcome** if the two parties are negotiating on a **single dimension such as price**. In this setting, one party can only **"win" at the expense of the other**.

To create a win-win negotiation, the two parties have to **identify more than one issue** to negotiate.

Identifying **multiple issues allows** the opportunity to **expand the pie** if the two parties have different preferences.

Supplier selection and contract negotiation

A buyer typically cares not just about the **price of performing** the supply chain function but also about the **responsiveness and quality**.

If the supplier finds it harder to lower the price but easier to **reduce** the **response time**, there is an opportunity for a **win-win resolution** in which the supplier offers **better responsiveness** without changing the price.

TABLE 14-3 Supplier Performance Factors and Their Impact on Total Cost

	Purchase Price of Component	*Inventory*		*Transportation Cost*	*Product Introduction Time*
		Cycle	*Safety*		
Replenishment lead time			X		
On-time performance			X		
Supply flexibility			X		
Delivery frequency		X	X	X	
Supply quality	X		X		
Inbound transport cost				X	
Pricing terms	X	X			
Information coordination			X	X	
Design collaboration	X	X	X	X	X
Exchange rates and taxes	X				
Supplier viability			X		X

Supplier Development

As **manufacturing firms** outsource more **materials, subassemblies**, and even **complete products and services** to focus on their **own core competencies**, they increasingly expect their **suppliers to deliver innovative and quality products** on **time and at a competitive cost**.

When a **supplier** is **incapable of meeting** these needs, a buyer has **three alternatives**:

(1) bring the **outsourced item inhouse** and **produce it internally**,
(2) **re-source** with a **more capable supplier**, or
(3) help improve the **existing supplier's capabilities**

Supplier development can be defined as any activity that a ***buying firm*** undertakes to improve a **supplier's performance and capabilities** to meet the buying firm's **supply needs.**

Buying firms use a variety of activities to **improve supplier performance** including:

1. Assessing suppliers' **operations**,
2. Providing **incentives** to improve performance,
3. **Building competition** among suppliers, and
4. Working directly with suppliers, either through **training** or other **activities**

Supplier Development: Example

A generalized process for **managing supplier development projects** is Shown in Figure 2.

The process has six phases:

1. Initiate project,
2. Map and measure,
3. Process development,
4. Achieve results,
5. Control and
6. Team recognition

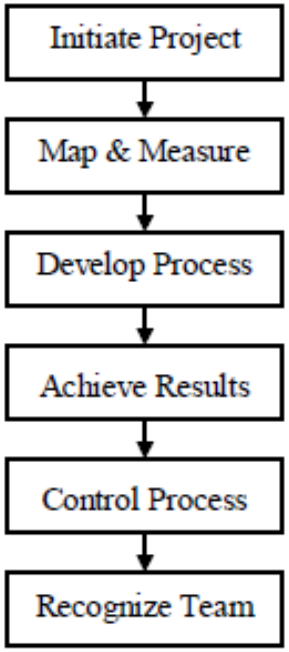


FIGURE 2: Generalized Process for Supplier Development Projects

Initiate project

Identify the **project scope and expectations** for both the **buying firm and the supplier**.

Identify the **project focus** and further refines **its understanding of related processes.**

Assess the **customer's needs** and assess the **business environment**.

Supplier Development

Mapping and Measuring

Map / Analyze Supplier Processes
The team maps the **current and ideal processes** for areas of project focus.

The process maps are usually **time-based** visual representations of **bottlenecks** and **capacity constraints** within a process.

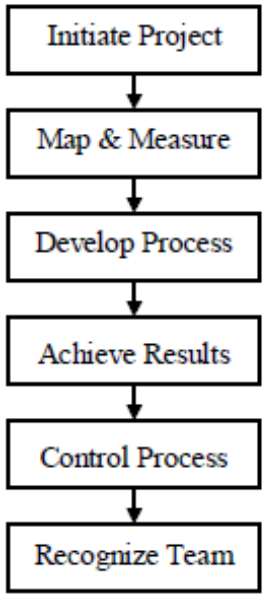


FIGURE 2: Generalized Process for Supplier Development Projects

This provides the team with information used to target project activity.

Developing the Process

The following critical activities occur in this phase:

- **Create Solutions:** ***Brainstorms potential solutions*** and conducts ***benchmarking analyses*** wherever applicable. The ***output from this activity*** usually results in more **focused process maps.**

- **Select Solutions** The solution(s) that provide the ***greatest potential*** for reducing manufacturing **cycle times, improving quality and delivery**, or **reducing costs** drives selection of solution(s).

Supplier Development

Developing the Process

• **Develop New Process** Detail the new process further through ***study and brainstorming***. The outcome of this activity is a new process.

• **Plan Implementation** The team works with relevant personnel to develop and propose a detailed implementation plan

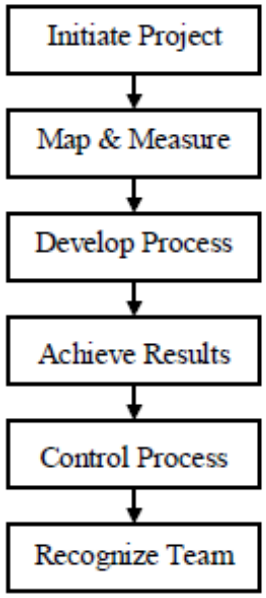


FIGURE 2: Generalized Process for Supplier Development Projects

Achieving results

The process is documented for **clarity and consistency**.

This documentation may include **procedures, maps, flowcharts and operational method** sheets, as well as **training plans, schedules and periodic audit points**.

Controlling the Process

The **corrective action** plan addresses what occurs in the event of a **non-conformance** in the process, so that the nonconformance is **eliminated and recurrence** is prevented, with verification that proposed **corrections are effective**.

Supplier Development

Recognizing the team

The final phase provides **team recognition**.

Activities are organized by the **project team, project champions,** and **process owners** to **promote the success** of the project.

In this phase, the team shares the **lessons learned and best practices** with the supplier's organization.

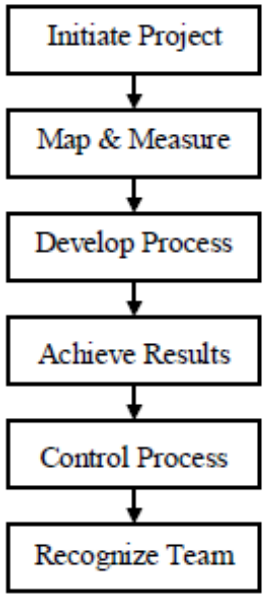


FIGURE 2: Generalized Process for Supplier Development Projects

Barriers or Obstacles to Supplier Development

There are many barriers to effective supplier development:

- Poor communication and feedback
- Complacency: i.e. self satisfaction that prevents trying innovative solutions or order
- Misguided improvement objectives: working in wrong directions
- Credibility of customers: Ignoring or understanding the requirements of the customers.
- Lack of clarity and commitment
- Lack of a unified approach: Focusing on multiple activities lead to reduced outcome.
- Misaligned sourcing and performance metrics
- Resource limitations
- “Blame the supplier” culture
- Lack of trust
- Confidentiality issues
- Legal issues
- Imbalance of power in the relationship

World Class Supplier Development

The common best practices and characteristics of world class supplier development programs

- Create dedicated supply development teams (with no responsibilities or jobs other than supplier development)
- **Teach a supplier** on how to develop the **strong supplier** development team
- Focus on underlying causes of **long cycle times**
- Focus on **wasteful activities** in all supplier efforts
- Involve suppliers in **new product and process development** at the buying firm
- Provide **training programs and training time** to suppliers
- Provide education programs **offline that** go beyond training.
- Provide improvement focused **seminars for suppliers**
- Provide **tooling and technical assistance** to suppliers
- Provide **supplier support centres**
- **Drive fear out** that a supplier's workforce may have towards supplier development programs
- Set "stretch goals" to encourage **radical change** as well as **continuous improvement**
- Improve **accounting systems** to enable measurement of improvements
- Encourage suppliers to contribute to **improving processes** at the buyer's facilities
- Provide a **feedback loop for suppliers** to help encourage supplier development efforts

World Class Supplier Development

World Class Supplier Development

Progression to world class supplier development in a step chart format.

Clerical

- Supplier development as an entity does not exist
- Supplier development is actually focused on dealing with supplier problems
- Fear drives supplier performance
- No upper management commitment is provided from management
- Only true development occurs with minority and women owned business enterprises
- No dedicated or temporary teams exist for supplier development
- No training programs/courses in place
- Focus of supplier development is on the reducing the price from suppliers
- Relationships with suppliers are transactional and lack trust
- Suppliers hide problems to improve external assessment
- Supplier performance gaps are not measured
- "Time and motion" studies are required to gather accurate information about a supplier's process
- Data is not shared

Mechanical

- " Kaizen events" are utilized to create short-term gains in supplier performance
- Supplier development teams primarily address supplier failures
- Supplier development is an entity within a department
- Department head provides management support
- Rationale for supplier development is to eliminate poorly performing suppliers
- Supplier development creates short term gains in supplier performance
- Supplier development teams' core member compositions fluctuate
- Supplier development teams consist only of buying firm members
- Supplier development teams are area centric – such as all engineers
- Training is provided internally only
- Bottom line impact expected through price reductions for buying firm
- Failure and appraisal costs of quality are the focus, prevention costs are not measured or understood in impact
- Supplier performance gaps are measured to decide which suppliers to punish for poor performance
- Performance "scorecards" minus accurate costs are utilized
- Selected performance data is shared, but not cost data

Proactive

- Focus on customer in terms of value analysis/engineering
- Evaluation process aids in selecting suppliers for development
- Teams are narrowly focused on process mapping, cycle time and quality
- Power is given to team to recruit internal experts as needed
- Development is limited to first tier suppliers
- Project management techniques and tools utilized
- Management above the department head is tangibly supportive
- Supplier relationship charters are utilized and maintained
- Project champions are identified and engaged in process
- Cost goal is to discover and develop suppliers to improve bottom line
- Teams have core members from buying firm are on team for long-term
- Teams consist of key buying and supplying firm members
- Teams include relevant cross-functional members
- Training is focused on internal members with a few suppliers included
- Bottom line impact for the both firms sought in the supply chain
- Prevention investments are measured against failure costs
- Focus is on improving existing processes (continuous improvement)
- Measurement: Gaps still measured, but process focus using activity measurement is utilized (ABC)
- Savings are shared with suppliers in a fair and reasonable way

World Class

- Alliance and /or collaborative relationships are understood as a requirement
- Development is bi-directional, supplier develops buyer where applicable
- Supplier development projects encompass far more than process improvement, to include all areas of value added collaboration
- Focus shifts from first tier to include second+ tier suppliers
- Measurement excellence enables organizational sharing of executives, capital and equipment
- Supplier support centers exist
- Tangible commitment provided by the CEOs of participating firms
- Focus shifts to improving the "chain versus chain" competitiveness
- Buying firm involves supplier in design of processes and products
- Some teams consist of more than two supply chain members
- Training and education programs include chain members
- Learning extends beyond training with courses focused on long-term returns and retained learning
- Bottom line impact for supply chain becomes the focus, not just two members of the chain
- Stretch goals encourage radical change (discontinuous improvement)
- Single portal online enabling near real time dispersion of development data
- Cost data is accurate whether from ABC point analyses or other methods
- "Open books" exist between development collaborators enabling specific savings sharing, enhanced value, and fostering trust for long-term relations and future development projects

1 2 3 4 5 6 7 8 9 10

World Class Supplier Development

Collaboration is the Key
World-class supplier development requires **a commitment to collaboration** between customer and supplier.

For collaboration in supplier development to be successful, the collaboration must have **commitment, communication, measurement, and trust**.

Collaboration Requires Commitment. A supplier development initiative may require supply managers to **spend weeks or months** in the supplier's facility, working with the **supplying firm's management** and **operating personnel**.

Commitment requires **eliminating waste** and gaining improvements in **quality, delivery, cycle time, and costs.**

Collaboration Requires Communication: motives, administration of the supplier development the highest levels of communication.

Collaboration Requires Measurement World-class firms want all members of their supply chain to be **strong and profitable**.

Collaboration Requires Trust When undertaking supplier development projects, a tremendous amount of **information must pass through both companies** to enable the necessary improvement efforts.

World Wide Sourcing

•**Global sourcing** refers to buying the **raw materials, components, complete products**, or **services** from companies located **outside the home country**.

•**Information technology and communications** have enabled the **outsourcing** of **business processes**, enabling those processes to be performed in **different countries around the world.**

•Best practices in **global sourcing** include the following components:

- **Using ISO 9001:2008** certification to help ensure the quality of products regardless of where they are produced.
- Considering not just the quality of products but also the environmental practices of the company providing the products, through **ISO 14000 certification**
- Using **service-level agreements** to ensure the **quality of services**

•Entrepreneurs benefit from outsourcing because they can **acquire services as needed**, without having to **build those capabilities internally**.

World Wide Sourcing

GLOBAL SOURCING

the process of identifying, developing, and utilizing the best source of supply for the enterprise, regardless of location

GLOBAL SOURCING

Global sourcing comprises both shared services and outsourcing solutions that can be implemented domestically and offshore.

GLOBAL SOURCING

Shared Services

concentration of an organization's resources; performing similar activities, normally distributed across the organization, to service multiple internal partners with the common goal of achieving customer satisfaction

COMMON REASONS FOR GLOBAL SOURCING

- ☑ Reducing overall cost structure
- ☑ Availability of a new technology and capacity
- ☑ Establishing alternative sources of supply
- ☑ Access to new designs or specialized intellectual capital
- ☑ Government incentives
- ☑ Superior quality

World Wide Sourcing

Why Source Worldwide?

- Cost/price benefits
- Access to product/process technology
- Quality
- Access to only source available
- Introduce competition to domestic suppliers
- React to buying patterns of competitors
- Establish a presence in a foreign market

Barriers to Worldwide Sourcing

- Lack of knowledge and skills concerning global sourcing
- Resistance to change
- Longer lead times
- Different business customs, language, and culture
- Currency fluctuations

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- ☑ Superior quality

Resistance to Change

- Established, routine sourcing patterns
- Shifting from longstanding suppliers
- Domestic market nationalism

World Wide Sourcing

GLOBAL SOURCING FACTORS

Global sourcing factors that must be understood and balanced can be segmented into six categories:

1. Material Costs

GLOBAL SOURCING FACTORS

Global sourcing factors that must be understood and balanced can be segmented into six categories:

2. Transportation Costs

GLOBAL SOURCING FACTORS

Global sourcing factors that must be understood and balanced can be segmented into six categories:

3. Inventory carrying out

GLOBAL SOURCING FACTORS

Global sourcing factors that must be understood and balanced can be segmented into six categories:

4. Cross-border taxes, tariffs, and duty costs

GLOBAL SOURCING FACTORS

Global sourcing factors that must be understood and balanced can be segmented into six categories:

5. Supply and operational performance

GLOBAL SOURCING FACTORS

Global sourcing factors that must be understood and balanced can be segmented into six categories:

6. Supply and operational risks

World Wide Sourcing

HIDDEN COSTS OF GLOBAL SOURCING

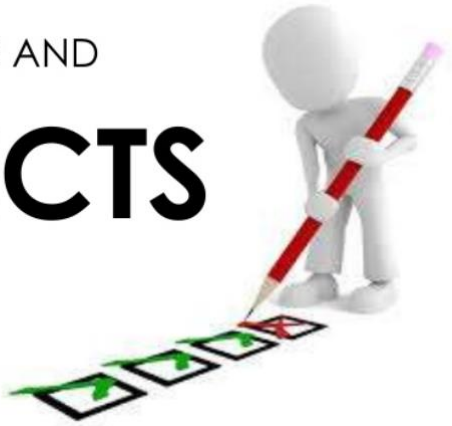
1. Internal Expenses
2. Supplier Health
3. Post-contract lull
4. Duty and tariff changes
5. Contract non-compliance
6. True inventory costs
7. Logistics Volatility
8. Technology
9. Quality breakdown

QUALITATIVE ASPECTS

those which are more difficult to quantify

- ☑ Political
- ☑ Legal
- ☑ Cultural
- ☑ Bureaucratic
- ☑ Environmental
- ☑ Ethical Nature

QUANTITATIVE AND QUALITATIVE ASPECTS



QUANTITATIVE ASPECTS

those that are easily measurable

- ☑ Logistics
- ☑ Economic
- ☑ Quality
- ☑ Information and Communication

World Wide Sourcing

GLOBAL RISK
ISSUES

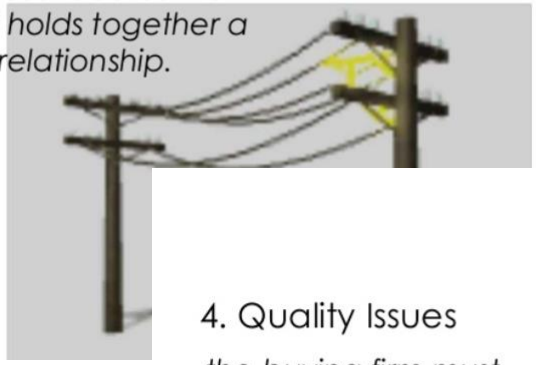
1. Distance

the distant between the buyer and selling firm is significant in terms of time zones and physical location.

GLOBAL RISK
ISSUES

2. Communication

can be described as the glue that holds together a sourcing relationship.



GLOBAL RISK
ISSUES

3. The value of money

Currency Exchange Rates. Depending on the performance and strength of the dollar, goods can cost American firms different amounts from what's expected.

GLOBAL RISK
ISSUES

4. Quality Issues

the buying firm must spend the necessary time to correctly specify and articulate quality expectations.

GLOBAL RISK
ISSUES

5. Pipeline inventory

pipeline inventory issues will always occur when a third party (the shipper) is involved.

6. Staffing

if a buying firm is to be effective with an offshore sourcing strategy, it must either hire experts or develop specialists that are assigned to offshore suppliers.

World Wide Sourcing

NEGOTIATION

Negotiation is a process in which explicit proposals are put forward for discussion in order to reach agreement on an exchange or on the realization of a common interest where conflicting interests are present.

NEGOTIATION

when negotiating a purchase agreement, there are general attributes in dealing with various offshore suppliers.

Currency Fluctuations

Download

- Often daily or hourly fluctuations
- Need to understand highly complicated financial options
- How to price purchases

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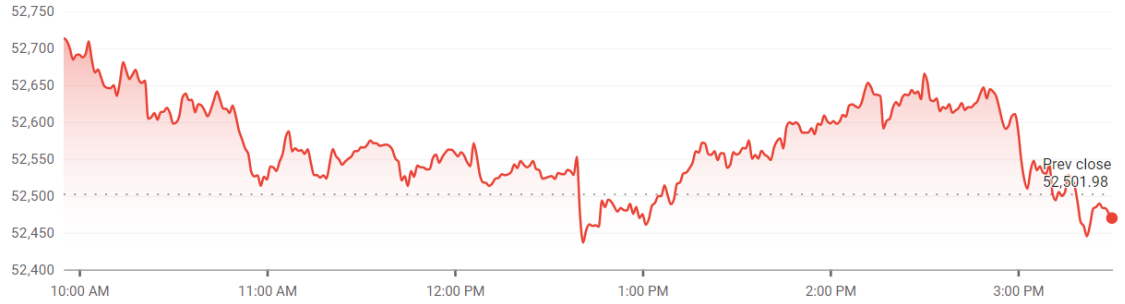

Compare to

NIFTY 50	Hang Seng Index	DAX PERFORMAN...	Dow Jones Industri...	KOSPI
15,708.90 -0.37%	28,516.97 +0.28%	15,710.57 -0.12%	34,033.67 -0.77%	3,260.82 -0.54%

World Wide Sourcing

From Domestic to International

- Information about worldwide sources
- Supplier selection issues
- Cultural understanding
- Language and communication differences
- Logistical issues

From Domestic to International

- Legal issues
- Countertrade requirements
- Costs associate with international purchasing
- Currency risk

Information about Worldwide Sources

- International industrial directories
- Trade shows
- Trading companies
- Third-party support
- Trade consulates

World Wide Sourcing

Supplier Selection Issues

- Does a significant total cost difference exist between domestic and foreign sources?
- Will the foreign supplier maintain price differentials over time?
- What is the effect of longer material pipelines and increased average inventory levels?

Supplier Selection Issues

- What are the foreign supplier's technical and quality capabilities?
- Can the supplier assist with new designs?
- What is the supplier's quality performance?
- What kinds of quality systems does the supplier have in place?

Supplier Selection Issues

- Is the supplier capable of consistent delivery schedules?
- How much lead time does the supplier require?
- Can we develop a longer-term relationship with this supplier?
- Are patents and proprietary technology safe with this supplier?

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Supplier Selection Issues

- Is the supplier trustworthy?
- What legal system does the supplier expect to follow?
- What are the supplier's payment terms?
- How does the supplier manage currency exchange issues?

World Wide Sourcing

Cultural Understanding

- Culture is the sum of all understandings that govern human interaction in a society
  - Language
  - Religion
  - Values and attitudes
  - Customs
  - Social institutions
  - Education

Language Differences

- Communicating purchase requirements clearly and effectively
- Not everyone understands English the same way we do
- Message speed
- Level of content

Logistical Issues

- Extended pipelines
- Additional planning and management required
- Shipping delays are to be expected
- Often less capable transportation infrastructure
- INCOTERMS