



Japan-ASEAN Cooperation



Sustainable Human Resource Development in logistics services for ASEAN Member States

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Sustainable Human Resource Development in logistics services for ASEAN Member States

Logistics Planning & Analysis

Chapter 10

Logistics Performance Indicators



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Objectives

- Define and understand the concept of performance.
- Examine the function of performance indicators.
- Understand how performance indicators are created from organization's objectives.
- Examine examples of performance indicators.



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Introduction

- Management is defined as planning, organizing, controlling and monitoring of objective-directed activities.
- Control processes take place within the management process.
- Control is considered as a necessary activity of operations and the aim of control is to detect deviations.
- Logistics performance is about filling the gaps between customers' expectations and company's performance.



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Concept of Performance Indicators

- One of the main things to understand is that in terms of performance measures you need to:
- Monitor performance against the criteria that are important to your customers.
- Monitor performance against the criteria that are important to you (costs).

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Concept of Performance Indicators

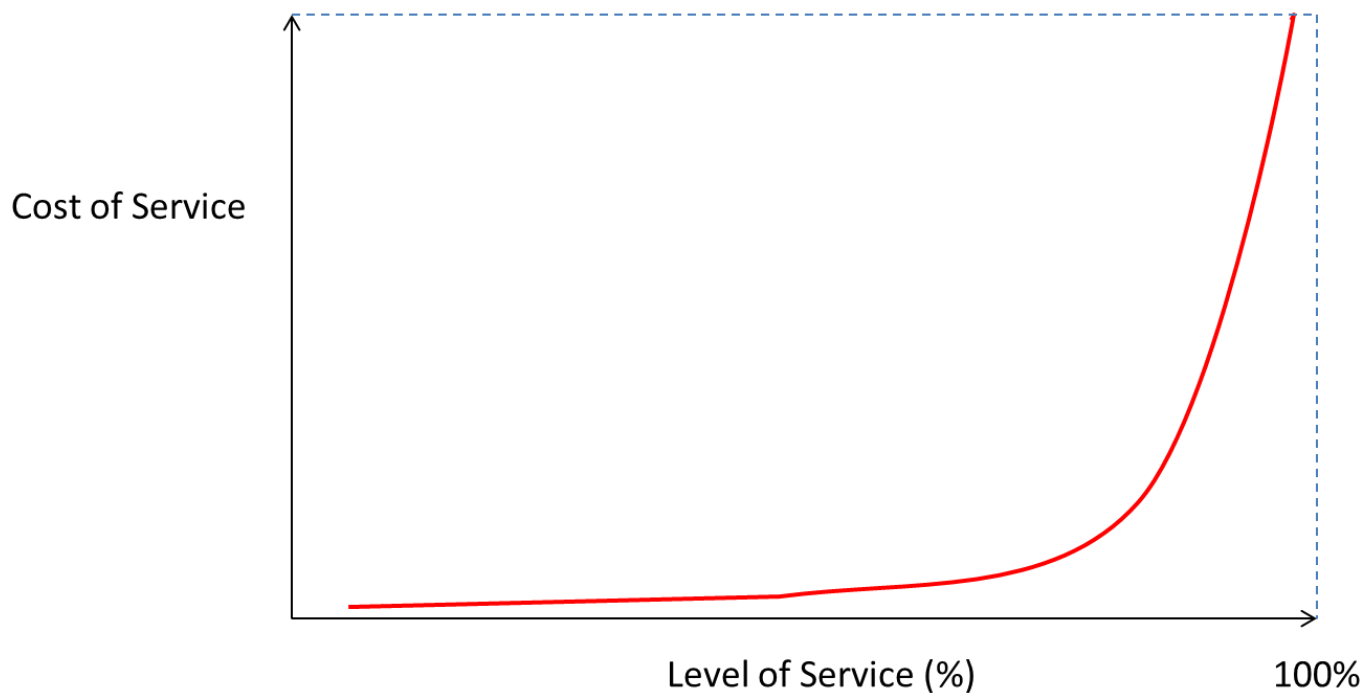


Figure 10-1: Balance of Cost of Service vs Service Level

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Transformation Model

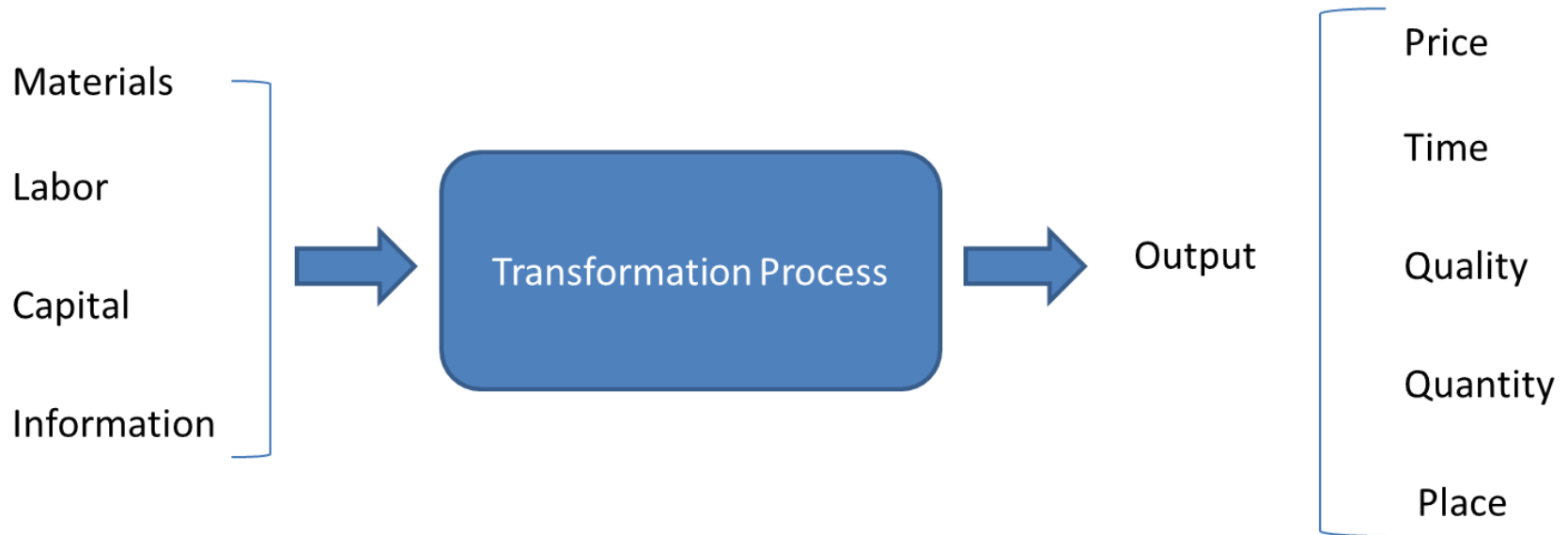


Figure 10-2: Transformation Model

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Performance Indicators

Retailer

- Cost as % of sales
- Sales as % inventory
- Freight as % of COGS
- Costs as % of sales
- YOY sales increase vs YOY increase of cost
- Delivery reliability

3PL

- Logistics cost
- Cost per line
- Cost per order
- % pick accuracy
- Service level – delivery to schedule
- Direct & indirect hours
- Lost time / cost

Figure 10-2: Performance Measures Examples of Retailer vs 3PL

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Feedback System

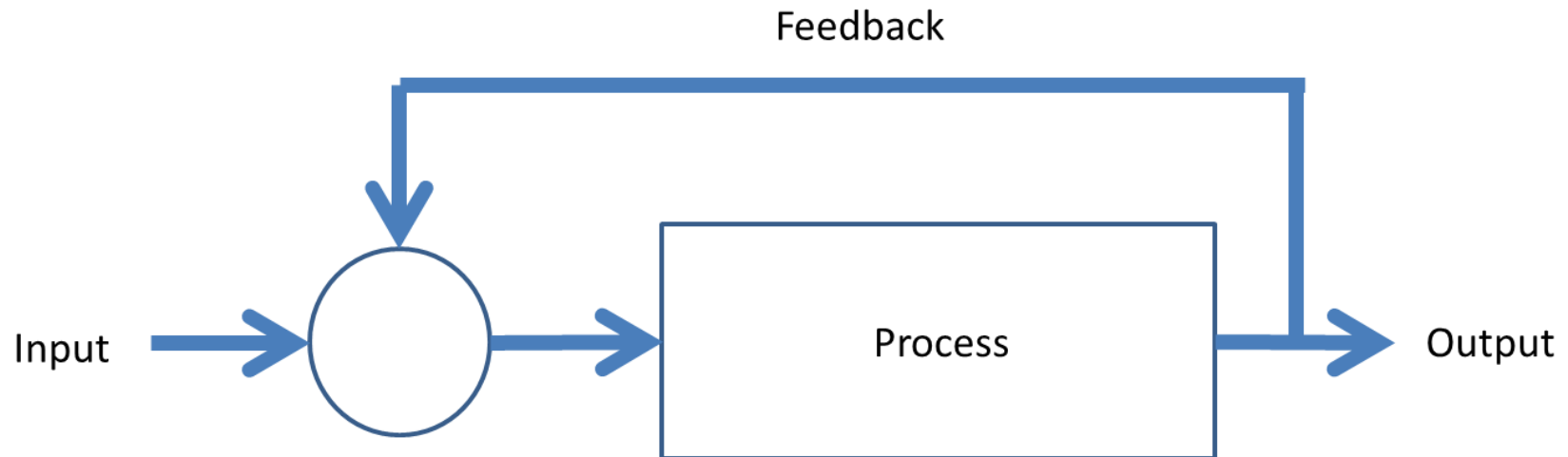


Figure 10-3: Feedback System



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Guidelines on Creating Performance Indicators

- Performance indicators must reflect the logistics objectives of the firm,
- The flow of materials from supplier to end user must be reflected through performance indicators
- Performance indicators must be able to show the responsibility area.
- Each performance indicator must be clearly defined using SMART objectives.



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Framework for Performance Measures

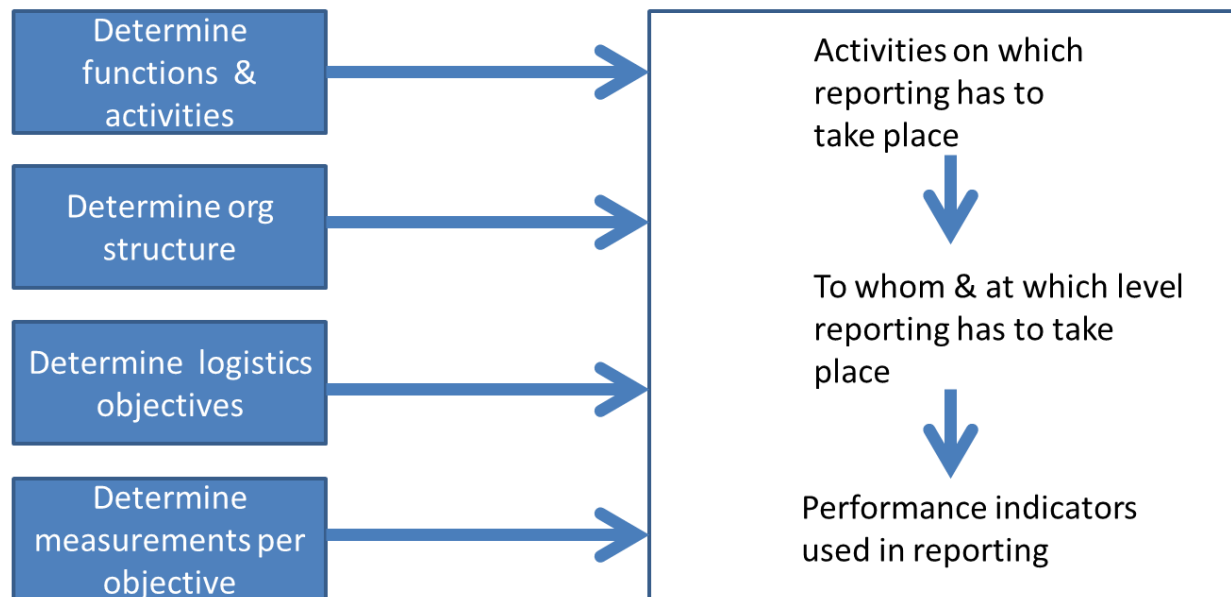


Figure 10-4: Framework for Performance Indicators



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Measurement Tools

- Manual forms.
 - Slow
 - Prone to error
 - May require duplication of data entry which leads to more errors
 - Supposedly cheap but can be costly if there are mistakes
 - Limited data processing



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Measurement Tools

- Automatic data collection (ADC) eg barcode, RFID.
 - Instantaneous
 - Very low in errors
 - Less manpower to collect data
 - Data can be processed quickly and in many ways
 - Expensive in acquisition of hardware and software



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Measurement Tools

- Data entry using hand held devices or computers.
 - Faster than manual system
 - Less prone to errors because dependent on operators
 - Less manhours
 - Data can be processed quickly
 - Less expensive compared to ADC



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Performance Indicators

- One can create many performance indicators.
- If there are too many indicators, it would be difficult to use them appropriately and productively in logistics.
- As a norm, a department should not have more than 5 indicators.
- These so-called indicators will provide a big picture view of the performance.
- If the indicators show that the department is not doing well, then the management of the functional area need to look into the details.

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Performance Indicators

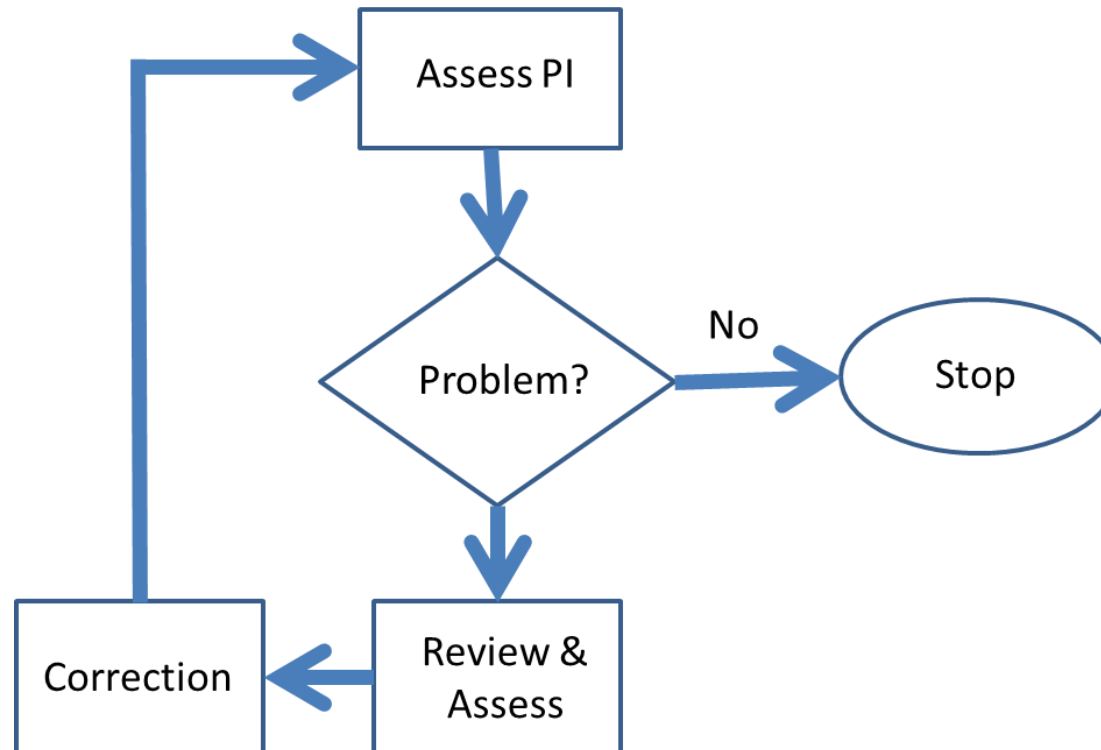


Figure 10-6: Feedback & Correction Flowchart

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Performance Indicators

Materials Dept	
Inventory level	Inventory beginning of period; inventory issued in month
Lead time purchasing	Receipt order instruction until confirmation of supplier
lead time transport	Completion reported until receipt at gate
Lead time supplier	Confirmation until completion reported
Delivery reliability supplier	Real delivery date in relation to latest date agreed upon per PO
Materials Planning	
Delivery time	Receipt customer PO until delivery ex-works of all customer orders
Warehouse	
Order picking	Number of orders per warehouse staff per unit of time
Lead time	Receipt of order pick list to delivery of order ex-works warehouse

Figure 10-6: Examples of Performance Measures



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Conclusion

- Performance indicators are unpopular for the reason that they exert pressure on staff to perform better.
- No amount of convincing will help if logisticians do not buy in into the system.
- Communicating the importance and relevance of performance indicators is necessary.
- Management need to inform staff that the performance indicators are achievable.
- Constant feedback on performance is mandatory.