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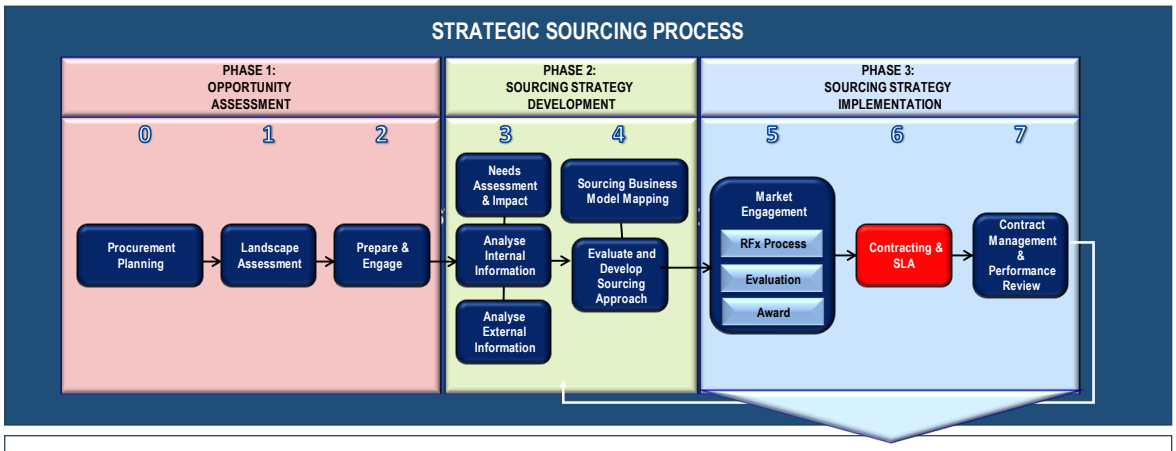
SPF GOOD PRACTICE GUIDE

DEVELOP KEY PERFORMANCE INDICATORS

Using this guide
This guide accompanies the National Treasury's Strategic Procurement Framework (SPF) for Strategic Sourcing in the Public Sector. For more information, visit the National Treasury website at http://ocpo.treasury.gov.za/
The SPF can be found here:
http://ocpo.treasury.gov.za/Resource_Centre/Documents/1A.%20Strategic%20Procurement%20Framework.pdf

DEVELOP KEY PERFORMANCE INDICATORS (KPIs)



6.0 CONTRACTING AND SERVICE LEVEL AGREEMENT
6.1 Draft SLA
6.2 Develop an Inception Report
6.3 Develop a Transition Plan
6.4 Develop KPIs

1.0 Introduction

i. Key performance indicators (KPIs) are management tools designed to monitor supplier performance and help meet the goals, objectives and service levels of the contract.

ii. KPIs must direct you, improve performance levels, identify breakdowns in a process and drive continuous improvement for more efficient and sustainable procurement processes.

iii. KPIs should be relevant to your institution and simple to use.

iv. The following good practice guides and templates are applicable when developing the key performance indicators:

a. Developing KPIs
b. KPIs as tools for monitoring supplier performance
c. Identifying and creating a basket of focus on products/services (template)
d. Supplier performance scorecard (template)
e. Using the weighted average method (template)

1.1 Objective

i. To give guidance on what to consider when defining key performance indicators (KPIs) to ensure that contract obligations and service levels are achieved.

1.2 Output

i. List of Key Performance Indicators (KPIs)

2.0 Good practice guides

2.1 Developing KPIs

i. A balance between qualitative (subjective) and quantitative (objective) measures must be developed.
ii. Although subjective measures are acceptable, they can be contested by the other party to the contract.
iii. It is advisable to have more objective measures than subjective ones.
iv. Figure 1 shows the different examples of objective and subjective measures.

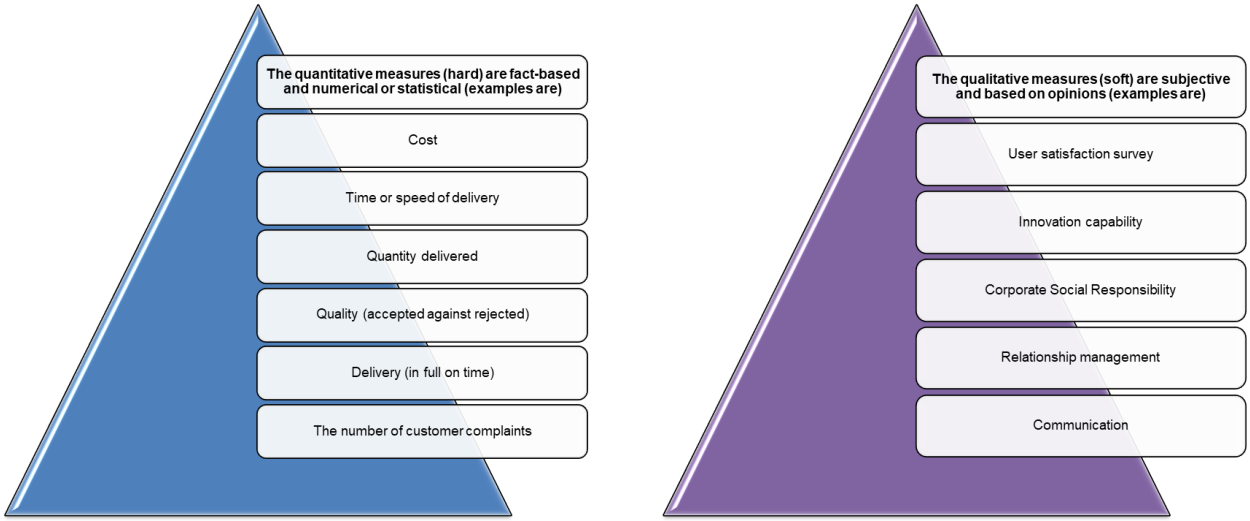


Figure 1: Typical Objective and Subjective Measures

2.2 KPIs as tools for monitoring supplier performance

i. If properly designed, KPIs are an excellent tool for monitoring and improving supplier performance.

ii. KPIs are also used as a tool for driving improvements within the procuring institution, and so enhancing the value-for-money targets.

iii. Figure 2 shows different examples of objective and subjective measures.

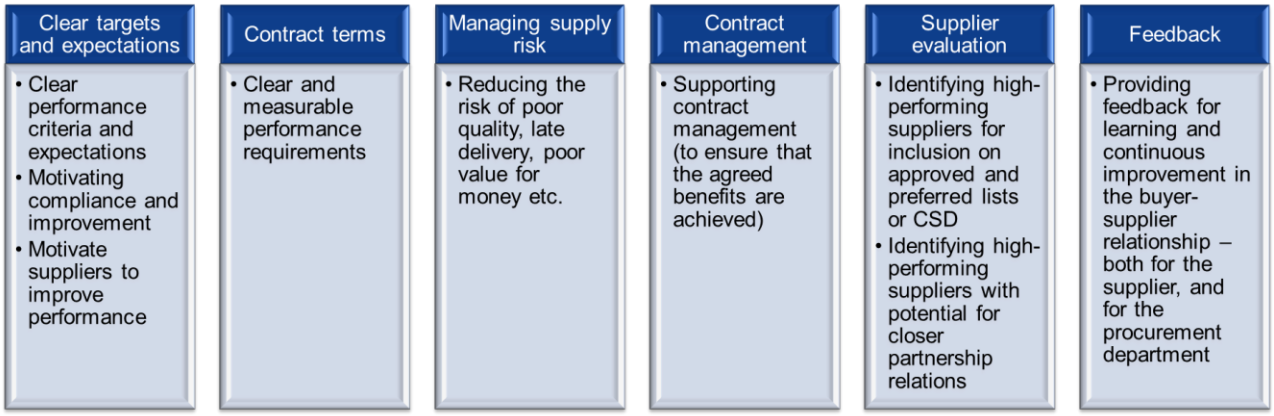


Figure 2: Typical Examples of Objective and Subjective Measures

2.2.1 Key performance indicators that can be used

i. Table 1 indicates how performance indicators can be used to drive performance.

No.	INDICATOR NAME	HOW IT CAN IMPROVE PERFORMANCE	DESCRIPTION	PERFORMANCE CATEGORY
1	Product Price Variance	Prices paid are in alignment with benchmarked prices	Percentage price variance between contract unit price and benchmark unit price for product	Cost
2	Effective Contract Utilisation	Efficient procurement mechanisms are being used	Percentage by value of purchases made under simple purchase orders, annual contracts, and multi-year contracts	Cost
3	Expiration Management	Good supply chain practices are being used, including inventory	Annual Rand value of expired products or	Quality

No.	INDICATOR NAME	HOW IT CAN IMPROVE PERFORMANCE	DESCRIPTION	PERFORMANCE CATEGORY
		management, demand management, and the timely supply of good-quality products	percentage value of expired products	
4	Supplier Performance	Supplier delivers the correct goods	Percentage of orders in compliance with contract criteria	Quality
		Supplier delivers goods on time	Percentage of orders delivered on time	Timeliness
5	Procurement Cycle time	There are no delays in executing procurements	Percentage of procurements completed (placed) within standard time guidelines	Timeliness
6	Payment Processing time	There are no delays in processing payments to suppliers	Percentage of supplier payments made within the 30-day payment period	Timeliness
7	Emergency procurement	Good supply planning practices are being used	Percentage, by value and number, of purchase orders or contracts issued as emergency orders	Systems Productivity
8	Procurement Cost	Level of efficiency of operations in the procurement unit	Ratio of annual procurement unit cost-to-value of annual purchases	Systems Productivity
10	Transparent Price Information	The level of product pricing information that is available to the public	Percentage of products with prices posted on publicly accessible websites	Integrity

Table 1: Using Performance Indicators to Drive Performance

ii. The following pages contain additional information for each indicator, including the formula for calculating the indicator, guidance on setting an appropriate target level, and where to find the data needed to calculate the indicator.

iii. In the same manner, you can continue to define your Performance Indicators and expand on the collection of relevant indicators.

2.2.1.1 Product price variance: are competitive prices paid for products?

i. This indicator measures the percentage price variance between the contract unit price paid and the benchmarked reference unit price for products, over the annual spend period.

Frequency: Annually

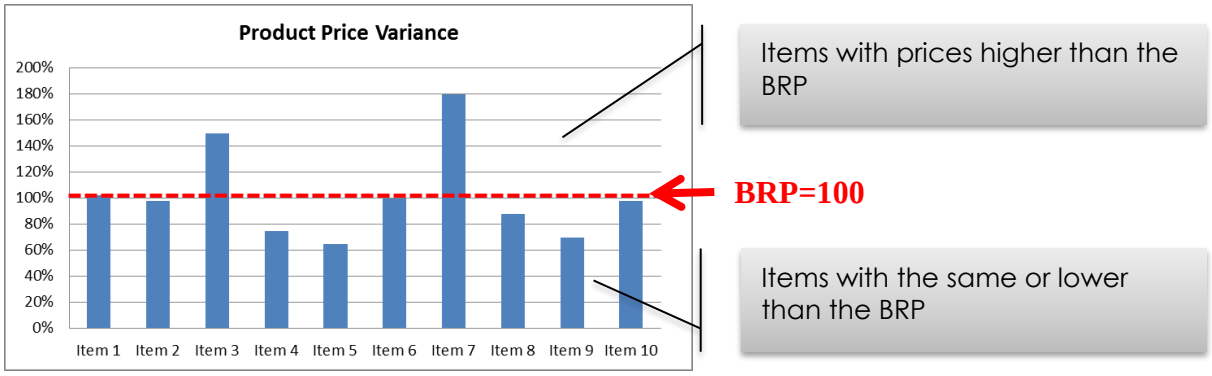
Formula	Target
$\frac{\text{The price paid for the focus item}^1}{\text{Benchmark reference price (BRP) of item}} \times 100$	Less than (<) or equal to (=) 100%
How to Use the Results	
For each item with a result greater than 100% (> 100%): the price paid is higher than the BRP	**Action**: Investigate where changes can be made in procurement practices to achieve more competitive pricing for selected focus items
For each item with a result less than or equal to 100% (< or = 100%): the price paid is aligned with the BRP	**Action**: No action is needed; however, prices should continue to be monitored
Data Needed	**Data Sources**
For a specific evaluation period (e.g., Jan.–Dec.): • Contracted prices for focus items • BRP for focus items	Purchase orders or contracts issued by the procurement unit during the evaluated time period. For BRP sources, search the market for publicly accessible prices or use industry-accepted benchmark prices
How to illustrate the results	
	

Table 2: Measuring the Percentage Price Variance

[1] See Annexure A for guidance on selecting focus products

2.2.1.2 Effective contract use: are efficient procurement mechanisms being used?

i. This indicator measures the percentage by value of three categories of purchases (purchase order, annual contract, and multi-year contract) to assess the procurement entity's use of efficient contracting mechanisms.

ii. The use of annual contracts and multi-year contracts has been shown to provide procuring institutions with cost savings through better product pricing from suppliers, economies of scale achieved by a more efficient procurement process (fewer bidding exercises), and fewer contracts and suppliers to manage.

iii. The overall goal is to create a culture and process where the periodic review of purchased commodities is conducted to evaluate opportunities for improving purchasing through more efficient contract utilization.

Frequency: Annually

Formula	Target
$\frac{\text{Annual spend for purchasing category}}{\text{Total annual spend of all purchases}^2} \times 100$	Baseline (historical) performance to be determined by procurement unit

Setting the Target

The procurement manager should review the purchasing history to establish the baseline percentages for each of the three general categories of purchases identified in Table 2. Ideally, multi-year contracts and annual contracts will have the largest percentages. A higher percentage of simple purchase orders (without underlying contracts) indicates that less efficient procurement mechanisms are being used for most purchases. Target rates for multi-year contracts and annual contracts should be set at a level above the current baseline to create an incentive to increase their use while minimising ad hoc purchasing if no contract is in place.

It would be inappropriate to assign multi-year contracts or annual contracts with a target ratio of 100% because some products are not suitable for these contracts. For example, low-value items, offered from multiple suppliers, and which are only purchased intermittently, would not warrant the additional effort required to purchase them under a multi-year contract;, given the low purchase value, infrequent need, and competitive marketplace for such items. Similarly, purchase orders should not have a target of 0%.

*** See the *Notes* section below for information on segmenting and reviewing the purchasing history.**

[2] Total annual spend of all purchase orders and contracts issued during the designated time period

Purchase categories

Purchase Category	Description
Purchase order	Single order, single delivery, no underlying contract
Annual Contract	Single order or contract, multiple deliveries, single year
Multi-year Contract	Single contract, multiple orders and/or multiple deliveries, multiple years; includes framework contracts[3].

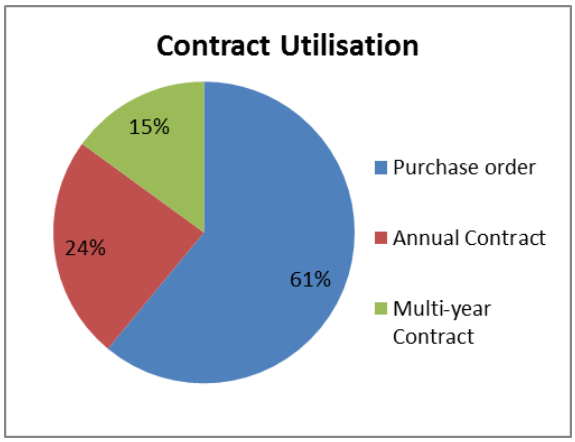
How to Use the Results	
The percentage of purchase order value is greater than the annual contract and multi-year contract value: this indicates that purchasing is primarily ad hoc rather than planned and that few contracts are in place.	**Action**: Review purchase orders to identify products that can be considered for annual contracts or multi-year contracts. • Conduct an 80/20 analysis[4] of annual purchases to identify priority value items that could be considered for annual contracts or multi-year contracts. • Group like priority items identified in the 80/20 analysis into procurement packages for bidding purposes. **Note**: See Appendix A for guidance on conducting an 80/20 analysis of purchased products.
The percentage of multi-year contracts is zero: no multi-year contracts (including framework contracts) are in use.	**Action:** Investigate and identify steps needed to introduce and use multi-year (or framework) contracts. This may include the following: • Review national procurement regulations to ensure that policy barriers limiting the use of this type of contract do not exist. • Identify sample contracts that can be adapted for use. • Identify funding and technical resources to support staff training on how to use this type of contract.
Data Needed	**Data Sources**
For a specific evaluation period (e.g., April.–March.):	Purchase orders or contracts issued by the procurement unit during the evaluated period

[3] A framework agreement is an arrangement between the buyer and supplier where both parties agree to the terms of future dealings between them (e.g., volume, price, etc.), without committing to or guaranteeing a specific purchase.

[4] An 80/20 analysis looks at the total value of each item procured, assuming that approximately 80% of the total annual spend is covered by 20% of the items procured. Focusing on fewer high-priority items allows the procurement unit to concentrate their efforts on those items that matter the most.

• Value of each item purchased • Value of goods procured under each purchase category • Total value of goods procured	

How to illustrate the results



Notes on segmenting and analysing purchase history:

Because requirements for goods and services are constantly changing, an analysis of the purchase history should take place annually.

1. Collect the annual purchasing data indicated and group purchases into the three general categories of contracts: purchase orders, annual contracts, and multi-year contracts.
2. Calculate the percentage by value for each category using the formula given above.
3. Review the results. Initially, purchase orders will likely have the largest percentage, followed by annual contracts and multi-year contracts. Over time, the percentage of purchase orders should decrease, thereby minimising the use of the less efficient purchase types (purchase orders) in favour of more efficient types (annual contracts and multi-year contracts).
4. To identify items that could be considered for annual contracts or multi-year contracts, conduct an 80/20 analysis of annual purchases. In the top 80 per cent of the value of items, which items were purchased under purchase orders rather than under a contract? Identify all these items, as well as other priority items that could be considered for purchase under a contract. See Appendix A for guidance on conducting an 80/20 analysis of purchased products.

The objective of this approach is to, over time, move the higher value or priority purchases to more efficient contracting mechanisms. The higher the percentage of annual contract or multi-year contract utilization (including framework contracts), the more likely the benefits and cost savings of these contracting mechanisms will be realised.

Table 3: Measuring the Percentage by Value

2.2.1.3 Expiration management: can product expiration be reduced through good procurement practices?

i. This indicator measures the annual Rand value of products purchased by the procurement unit that expires before use.

ii. This indicator may also be expressed as a percentage of the total value.

iii. **Note**: For programs that receive donated products, this indicator can also be adapted to measure the annual value and percentage of donated products that expire before use. To do so, limit the calculations to the values of the donated products, rather than calculating the values of all products procured.

Frequency: Annually

Formula	Target
Sum of Expired Product Value: The total value of products purchased by the procurement unit that have expired before usage.	R0.00
Percentage of Expired Product Value: $\frac{\text{Total Value of expired product}}{\text{Total value of products procured annually}} \times 100$	0%

Setting the Target
The ideal target for annual expired product value would be R0.00 or 0%. This may be difficult to achieve, however, given the various factors that contribute to product expiration. The inventory management unit should review historical information on annual product expiration values and establish a relevant target value for annual product expiration. This value should be set at a level that is below the identified historical expiration value levels so that it provides an incentive for the supply units (planning/ procurement/inventory management) to engage in a process of continuous improvement to review and improve practices. Over time, the target should be reduced as the product expiration values decrease.

How to Use the Results	
Results are higher than the pre-determined target	**Action**: Working together, the planning/ procurement/ inventory management units should identify activities where problems contributing to product expiration might occur, such as: • forecasting accuracy • inventory practices, such as first in-first out (FIFO) • accuracy stock on hand against inventory records

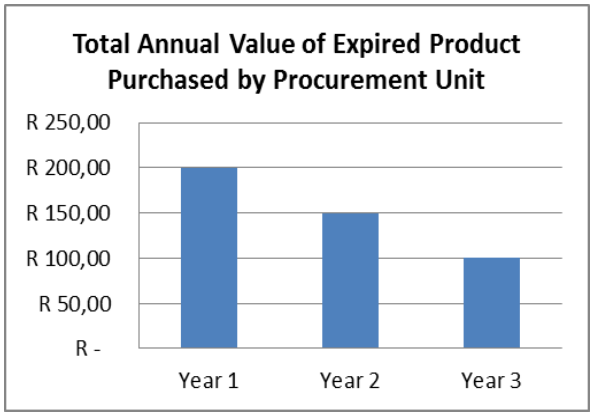
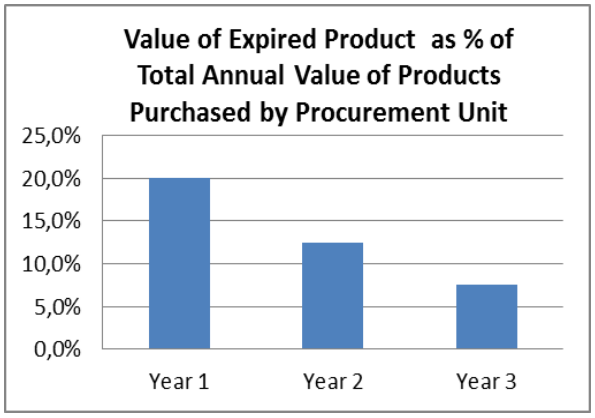
	• supplier adherence to expiration date requirements • supplier adherence to delivery dates, etc. This information can be used to identify areas where improvements can be made. For effective corrective action to occur, it is important to identify the root cause of product expiration.
Results are lower than the pre-determined target or are R0.00 (0%)	**Action:** Provide positive feedback to the planning/procurement/ inventory management units to (0%) acknowledge the good/improving performance and to encourage the continued use of good procurement practices.
Data Needed	**Data Sources**
For a specific evaluation period (e.g., Jan.–Dec.): • Date that expired product was removed from inventory • Original purchase order value of expired product* • Total value of products procured annually* **To calculate expiries for donated products, limit inventory counts to donated products only.*	• Stores inventory records • Purchase orders or contracts issued by the procurement unit during the evaluated period.
How to illustrate the results	
	

Table 4: Measuring the Percentage by the Annual Rand Value

2.2.1.4 Supplier performance: are suppliers delivering the right goods at the right time?

i. These indicators measure a supplier's compliance with the product and performance criteria identified in the purchase order or contract.

ii. By monitoring and documenting supplier performance, procurement personnel are in a stronger position to require corrective action from suppliers when they are not in compliance with order/contract requirements.

iii. Supplier performance monitoring also provides historical information to help inform the supplier evaluation and selection process for future tenders.

   a. The product order compliance indicator measures the percentage of orders for each supplier that met the product and performance criteria identified in the purchase order or contract.

   b. The lead time performance indicator measures whether the orders for each supplier were received on time, according to the contract delivery schedule, whether the correct quantity was received (shipment was fully delivered), and whether the correct shipping documents were received on time.

This indicator is measured for an individual supplier.

Frequency: Monthly. For each supplier, record the data in monthly time segments. The monthly data can be added and reported back to the supplier as a performance indicator for a given month, quarter, or year.

Formula	Target
A. Product Order Compliance: $\frac{\text{No. of orders meeting all product criteria}}{\text{Total number of orders received}^{5}} \times 100$	100%
B. Lead time performance: $\frac{\text{No. of orders received on time}}{\text{Total no. of orders scheduled for delivery}^{6}} \times 100$	100%

[5] Total number of orders received during a designated time period

[6] Total number of orders scheduled for delivery during a designated time period

DEVELOP KEY PERFORMANCE INDICATORS

Setting the Target

The ideal target for supplier product performance is 100%. However, some suppliers may not be achieving this target. In these cases, the procurement unit should review past performance and establish a baseline target rate for the supplier's performance. This rate should be set at a level above the current performance level so that it raises the supplier's performance expectations and encourages a process of continuous improvement. The target level should be raised appropriately as performance improves, aiming to achieve 100% over time.

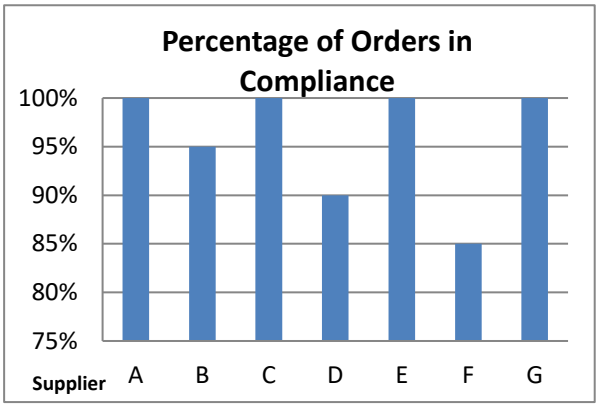
**** See notes below for additional information on calculating these indicators***

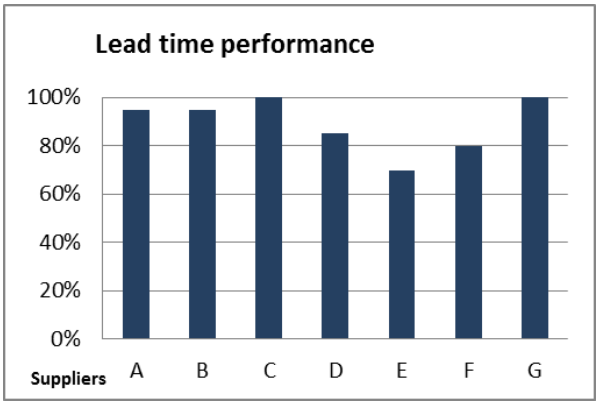
How to Use the Results

Results are less than 100%	**Action:** Identify the areas of non-compliance to the supplier with a request for a corrective action plan and implementation schedule. For supplier performance information to be useful and effective, it needs to be shared with the supplier on a routine basis, such as once a month or once a quarter.
Results are 100%	**Action:** Provide positive feedback to the supplier to acknowledge the good/improving performance and encourage continued supplier commitment to providing product quality and service.

Data Needed	Data Sources
For a specific evaluation period (e.g., Jan.–Dec.): <u>Product Order Compliance</u>: • Order criteria as specified in the purchase order or contract • Order receipt information • Details of deliveries received <u>Lead time performance:</u> • Order criteria as specified in the purchase order or contract • Purchase order delivery schedules • Order receipt information • Details of deliveries received	• Purchase orders or contracts issued by the procurement unit during the time period evaluated • Inspection/test reports • Invoices • Receiving reports/goods received vouchers

How to illustrate the results





Notes on calculating product order compliance

1. Identify the criteria that will be used to monitor product order compliance. The criteria should be drawn from the purchase order or contract because that document legally binds the supplier to the performance criteria. This criteria can include—

a) correct product received
b) the correct amount received
c) product correctly packaged and labelled
d) product received undamaged
e) product received with adequate shelf life remaining
f) product passes any quality testing identified as a requirement.

2. This activity requires information from shipping/receiving personnel at the warehouse, such as a receiving report, test report, or shipment invoice. Procurement personnel must coordinate with warehouse receiving personnel and quality assurance/regulatory personnel to obtain the required documents needed to validate the shipment information.
3. Review the shipment information against the stated product criteria and record findings on a supplier performance scorecard. See Annexure B for an example of a supplier performance scorecard.
4. Data from the supplier performance scorecard is then used to determine the number of units accepted that meet all product criteria defined in the purchase order or contract.

Notes on calculating lead time performance

1. Identify the criteria that will be used to monitor lead time performance. This criteria should be drawn from the purchase order/contract and can include—

a) shipment received on time according to contract schedule
b) all goods on the order were received (shipment was fully delivered)
c) correct shipping documents were received on time.

2. Review the product purchase order or contract and/or shipping schedule to identify the required delivery date. This will often be the delivery date to the purchaser's main warehouse; however, this may vary according to the country or the procuring entity.
3. Obtain a copy of the receiving report or shipment invoice that identifies the dates the products were received.
4. Review the dates the product was received against the required delivery dates stated in the purchase order/contract and record the findings on a supplier performance scorecard. See Appendix C for an example of a supplier performance scorecard.
5. Review compliance with other delivery schedule criteria and record findings.
6. Data from the supplier performance scorecard is then used to determine the number of orders delivered that meet the criteria defined in the purchase order or contract.

Table 5: Measuring the Percentage by Compliance

2.2.1.5 Procurement cycle time: are there any delays in the procurement cycle?

i. This indicator measures the average length of the procurement cycle and the percentage of procurements that were completed within a standard procurement cycle time guideline.
ii. The procurement cycle time is measured for contracts and purchase orders using historical data.
iii. It measures the number of days required to complete the procurement cycle, beginning with the date a requisition is submitted until the date the contract or the purchase order is issued to the selected vendor.

Frequency: Annually. However, the data can also be recorded and monitored in monthly or quarterly time segments, depending on the volume of purchasing transactions handled by the procurement unit, and the desired performance objectives.

Formula	Target
$\frac{\text{No. of purchase orders or contracts completed within the procurement cycle time guideline}}{\text{Total number of purchase orders or contracts awarded}^{7}} \times 100$	100%
Setting the Target	

[7] Totl number of orders received during a designated time period

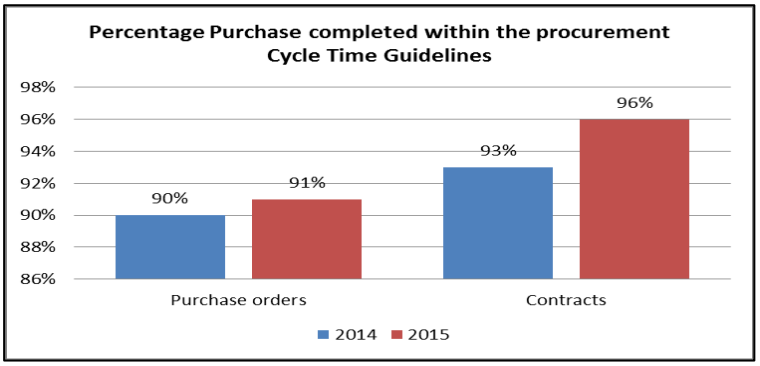
To set the target, the procurement unit must first review past performance to measure the number of days in the procurement cycle. A historical baseline can be established by reviewing the procurements completed during the last 12 months. The procurement cycle time guidelines can be set according to this, and future procurement performance will be measured against it.

**** See Notes at the end of this section for information on establishing time guidelines.***

How to Use the Results	
Results are less than 100%	**Action:** Review the delayed purchases and identify at which stage of the procurement cycle the delay occurred. Meet with the appropriate personnel responsible for that stage to determine the cause of the delay and develop possible solutions to prevent future delays.
Results are 100%	**Action:** Provide positive feedback to acknowledge the good/improving performance and to encourage continued timely preparation, submission, approval, and placement of purchase orders and contracts.

Data Needed	Data Sources
For a specific evaluation period (e.g., Jan.–Dec.): • Dates purchase requisition submitted by • requester/department for approval • Date purchase requisition approved • Dates bidding process initiated and closed • Dates bids evaluated and supplier selected • Date purchase order/contract created • Date purchase order/contract signed by both parties • Date purchase order/contract issued to vendor and order placed	• Purchase requisitions • Purchase order and contract records • Tender documents • Purchase or tender committee meeting notes

How to illustrate the results



Standard Time Guideline	
Purchase orders	30 days
Contracts	60 days

Note on establishing procurement cycle time guidelines

1. Identify key transactions in the procurement cycle: Review the standard procurement process from the submission of the requisition for approval to the contract or purchase order issue; and identify the key transactions that occur during this period, such as requisition approved, bidding process initiated, bidding process closed, etc. See the Procurement Cycle Time Monitoring Worksheet example below for a list of transactions to consider.

2. Review historical data to establish baseline: Review procurement records for the previous 12 months and record the key dates. Determine the number of days required to complete each transaction stage identified and the average number of days for all transactions during the 12-month period. Total the average days for each stage; this becomes the average procurement cycle time for the product. For goods that are procured on an annual basis (annual tendering process), review procurement records for the last three years and calculate cycle times using the same method described above.

3. Set standard guideline: The average cycle times calculated in step 1 can be used as the standard guideline. However, the average days for each stage in the cycle should also be reviewed to identify areas for improvement. For example, if the average number of days between requisition submission and approval is found to be very high, the standard guideline for this stage can be set at a lower number of days; this will act as a performance improvement target. Setting the standard guidelines should be a consultative process with the departments/units that carry out the particular function.

4. Record procurement performance: Record and monitor the total number of days required for each stage of the procurement cycle, using a worksheet similar to the following example.

Procurement Cycle Time Monitoring Worksheet Example

Task	Responsible group	Date	Actual time (days)	Standard Guideline (days)	Difference (day)
Requisition submitted					
Requisition approved					
Bidding process initiated					
Bidding process closed					
Bids evaluated					
Supplier selected					
PO/Contract created					
PO/Contract approved					
PO/Contract placed					
Total number Days					

Table 6: Measuring the Average Length of the Procurement Cycle

2.2.1.6 Payment processing time: are there any delays in processing payments?

i. This indicator measures the percentage of supplier payments that were made within the 30-day payment period.

ii. By paying suppliers on time, procurement units can better plan and control spending, and they may be able to negotiate more favourable price agreements or payment terms.

Frequency: Quarterly or Semi-annually

Formula	Target
$\frac{\text{Number of supplier invoices paid on time}}{\text{Total number of supplier invoices paid}^{8}} \times 100$	100%

Setting the Target
Payment terms are typically agreed to in the contract or purchase order. The ideal target for on-time payments is 100%. However, some organisations may have difficulty achieving this target. In these cases, a historical baseline for payment performance must be established first. To establish a baseline, the procurement unit should review the number of supplier invoices that were paid on time and compare that to the total number of supplier invoices paid within the designated period. Then, the target rate should be set at a level that is above the baseline rate for supplier invoices paid on time; this will act as an incentive for the accounts payable department to improve performance and ensure more supplier invoices are paid on time. The target rate should be increased appropriately as performance improvements in payment processing time are achieved, aiming to achieve 100% over time.

How to Use the Results	
Results are lower than the pre-determined target	**Action**: Review late payments to determine the cause for delays; i.e., delays in processing paperwork, delays in approvals (signatures), etc. Meet with the appropriate departments to share information on the number of late payments and the cause of the delays, to encourage efforts to improve on-time payments.
Results are above the pre-determined target	**Action**: Provide positive feedback to acknowledge the good/improving performance and encourage continued timely payment of supplier invoices.
Data Needed	**Data Sources**
For a specific evaluation period (e.g., Jan.–Dec.):	• Contracts or purchase orders that identify payment terms

[8] Total number of invoices paid during a designated time period

• Date invoice received • Invoice due date • Actual payment date	• Goods received notice • Accounts payable information that identifies the date the invoice paid

How to illustrate the results

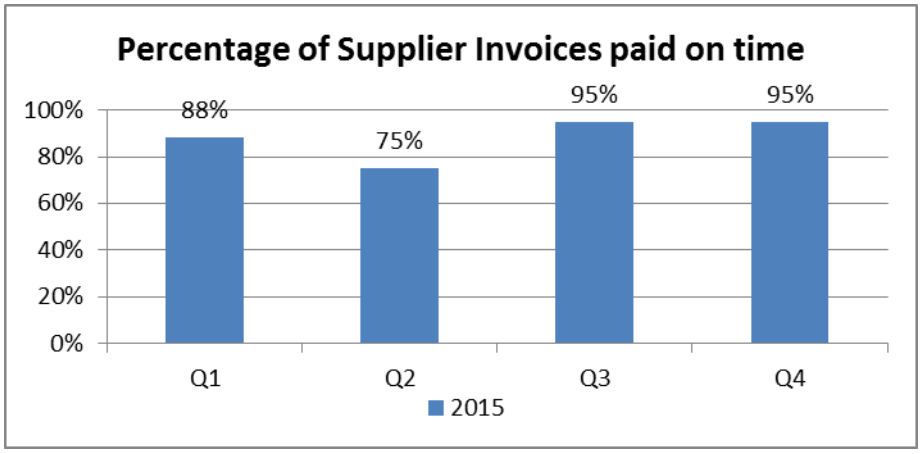


Table 7: Measuring the Average Length of Paying Suppliers on Time

2.2.1.7 Emergency procurement: are emergency orders frequently used to prevent stockouts?

i. This indicator measures the percentage of purchase orders or contracts that are issued as emergency orders, out of the total purchase orders or contracts placed during a defined period.

ii. This indicator can be expressed as a percentage of the value of orders or the number of orders.

Frequency: Annually

Formula	Target
% Value of Emergency Orders[9] placed: $\frac{\text{Total value of emergency orders}}{\text{The total value of all orders placed}10} \times 100$	To be determined by the procurement unit based on historical performance
% of Number of Emergency Orders[11] placed: $\frac{\text{Total number of emergency orders}}{} \times 100$	To be determined by the procurement unit based on historical performance

[9] If an official definition of an emergency order does not exist, then, to implement this indicator, an emergency order will be considered to be an order with a lead time of one month or less.
[10] Total number of orders placed during a designated time period
[11] If an official definition of an emergency order does not exist, then, to implement this indicator, an emergency order will be considered to be an order with a lead time of one month or less.

The total number of all orders placed12	

Setting the Target

The procurement unit should review past performance and establish baselines for the percentage value for emergency orders placed and the percentage of the number of emergency orders placed. A low percentage indicates that the procurement unit is issuing few emergency orders; which, generally, do not achieve the best value for the money. Target rates should be set somewhere below the current baselines so they raise performance expectations and encourage a process of continuous improvement.

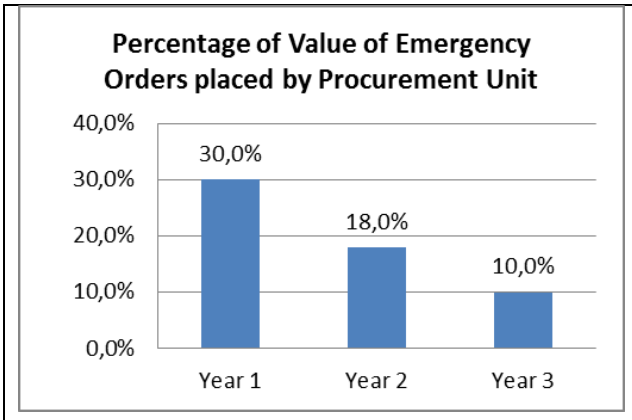
How to Use the Results

Results are above the pre-determined target	**Action**: Investigate the reasons why emergency purchase orders were issued. This could be due to a lack of planning, delay in budget approval, natural disasters, etc. Identify situations where remedial action can be taken to avoid issuing emergency orders and implement recommended solutions.
Results are below the pre-determined target	**Action**: Provide positive feedback to the departments to acknowledge the good/improving performance and to encourage the continued use of good procurement practices.

Data Needed	**Data Sources**
For a specific evaluation period (e.g., Jan.–Dec.): • Value of orders placed as emergency orders • Total value of orders placed • Number of orders placed as emergency orders • Total number of orders placed	• Purchase orders or contracts • Purchase requisitions • Procurement log (database)

How to illustrate the results

[12] Total number of orders placed during a designated time period



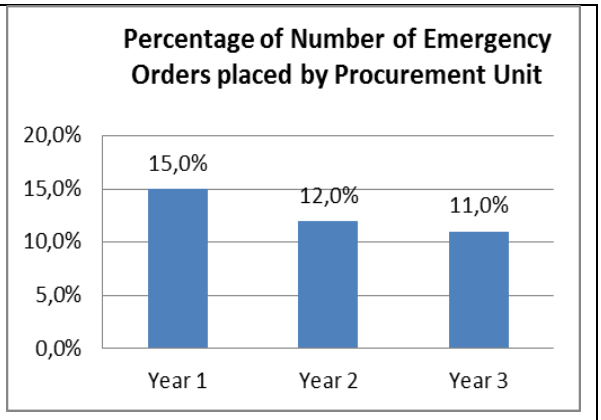


Table 8: Measuring the Average Length of Stockouts

2.2.1.8 Procurement cost: is the procurement unit operating efficiently?

i. This indicator measures the average cost associated with procuring goods against the total value of goods purchased within a designated period; i.e., how much it costs the procurement unit to process R1.00 worth of orders.

ii. The cost of procurement can also be measured against the total number of orders processed during the designated period; this number would be the average cost to process one order.

Frequency: Annually

Formula	Target
Procurement Unit Cost by Value of Purchases: $\frac{\text{Total cost allocated to procurement}[13]}{\text{Total value of annual purchases}} \times 100$	To be determined by the procurement unit based on historical performance
Procurement Unit Cost by Number of Purchases: $\frac{\text{Total cost allocated to procurement}}{\text{Total number of annual purchases}} \times 100$	To be determined by the procurement unit based on historical performance

Setting the Target
The procurement manager should review past procurement unit costs and establish a baseline value for procurement unit costs. The lower the value, the more efficient the procurement operation is in implementing procurement. However, caution should be taken so as not to set a target that is too low and unrealistic, because reducing procurement resources too much could jeopardise the ability of the procurement unit to provide quality

[13] Costs allocated to procurement of goods include procurement staff time, a portion of facilities cost, and utilities cost. Allocated procurement costs do not include freight charges, brokerage charges, tariffs, or taxes.

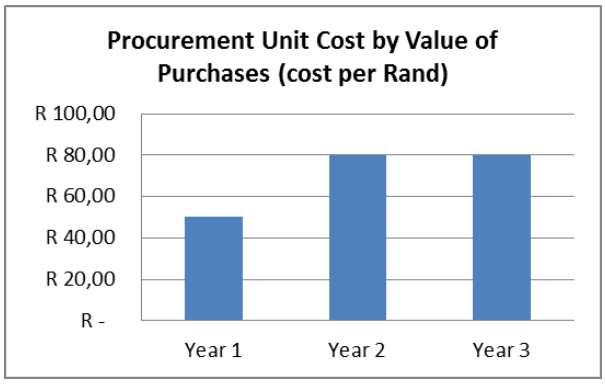
procurement services. The target should be periodically reviewed and adjusted to reflect changes in the procurement unit structure and purchase volumes.

How to Use the Results	
Results are above the pre-determined target	**Action**: Procurement management should investigate why the cost of procurement has increased, or look for efficiencies to reduce procurement costs; but, not at the expense of compromising the unit's ability to provide timely and effective procurement services.
Results are below the pre-determined target	**Action**: No action is needed. The target rate should be adjusted appropriately, over time, as efficiencies are achieved. Changes to the structure and responsibilities of the procurement unit should also be considered.

Data Needed	Data Sources

For a specific evaluation period (e.g., Jan.–Dec.):
• Procurement costs are annualised and prorated appropriately
• Labor costs for all procurement personnel
• Appropriate facilities costs prorated for the procurement unit
• Utility costs prorated for procurement unit
• Annual value and number of purchases processed by the procurement unit
	• Procurement records
	• Annual reports
	• Costs:
	  ○ Human resource records (labour costs)
	  ○ Facilities records
	  ○ Accounting department

How to illustrate the results



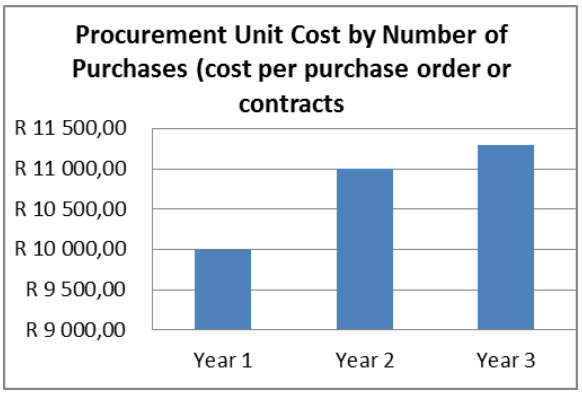


Table 9: Measuring the ProcuringInstitutionProcurement Process Efficiency

2.2.1.9 Transparent price information: are procurement prices available to the public?

i. This indicator measures the number of products purchased by the procurement unit, whose purchase price is posted on a publicly accessible website.

ii. The higher the percentage of product prices available to the public, the greater the opportunity for public scrutiny of procurement results, which can create a broader base of public-sector accountability against which the procurement unit performs its purchasing activities.

iii. Greater public scrutiny and accountability can create additional incentives for procurement units to perform their functions in an open, transparent, and effective manner.

Frequency: Annually

Formula	Target
$\frac{\text{Total number of prices publicly posted}^{14}}{\text{Total number of products purchased}} \times 100$	100%

Setting the Target
The procurement manager should review from historical information how many products/services are procured annually and how many of those products/services procured are published on a publicly accessible website. The lower the value, the less transparent the Price Information. The target should be periodically reviewed and adjusted to reflect the improvement in transparency in price information.

How to Use the Results	
Results are below the target	**Action**: Investigate the reasons for the limited posting of product prices on the public website. Identify any remedial actions that could be taken to increase the number of product prices posted on the public website.
Results are at target	**Action**: No action is needed.

Data Needed	Data Sources
• List of items procured • URL for the website where procurement information is posted for the public	• Purchase orders/contracts • Central files/database • Departmental website/e-tender portal

[14] The total number of products with their purchase price posted on a publicly accessible website. Depending on the number of items procured, this indicator may be limited to those priority and focus items identified in Indicator 1.

How to illustrate the results

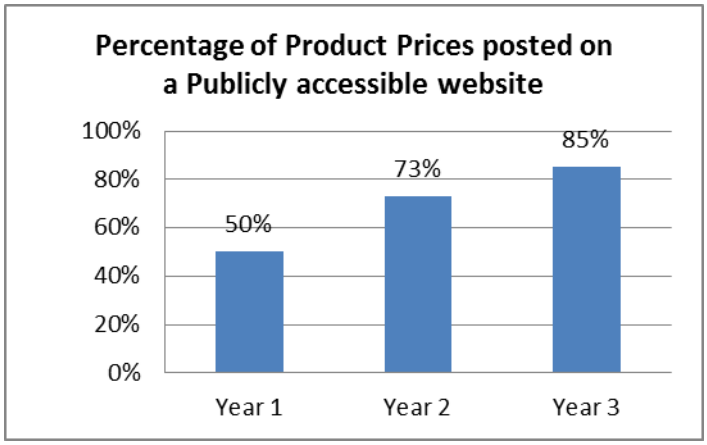


Table 10: Measuring the Procuring Institution Procurement Process Transparency

2.2.2 Identifying and creating a basket of focus on products/services

i. Some procurement performance indicators require the collection of data on the products/services that are being procured.
ii. The procurement unit has the responsibility for hundreds, if not thousands, of product line items.
iii. Tracking performance on every item would be too much work for the procurement unit.
iv. The use of a smaller basket of goods that represents a good percentage of the annual spending is an acceptable approach for measuring performance.

2.2.2.1 How to create a basket of focus products

i. One method of creating a shorter list of focus products involves using the 80/20 rule. This states that 80 % of expenditures are generated by 20 % of the products/services procured.
ii. The ideal way to develop a list of focus products/services is to put the products into a sortable spreadsheet, for example, a Microsoft Excel spreadsheet, using the following steps:

a. Make sure the product catalogue data has item numbers, descriptions of products, unit prices, and annual purchase quantity before performing the analysis.
b. Import this data into a spreadsheet.
c. Create an extended value column that multiplies unit price by purchase quantity for each item in the catalogue.
d. Sort the entire spreadsheet by extended value: highest to lowest.
e. Create a column to assign a number to the items as they are now sorted. Assign number 1 to the highest value item, 2 to the second highest, 3 to the third highest, and so on.
f. Create a column that calculates the cumulative percentage (%) of items. For example, in a list of 100 items, the first seven items would be 7 per cent of the total number of items.
g. Create a column that calculates the cumulative value of the items, from highest to lowest. The cumulative value adds the extended values down the list.
h. Create a column that calculates the percentage (%) of the cumulative value. For example, if the first three line items total R120,000 and the total value is R1,000,000, the percentage of the cumulative value of the first three line items is 12 % of the total spend (120,000/1,000,000).
i. Identify the top 20 % of the total items. These should represent 80 % or more of the total value. If not, continue down the list until the items capture 80 % of the total value. In some cases, a percentage of items lower than 20 % captures a larger percentage of the annual value. In those cases, pick a range that seems reasonable. In the following example, focusing data collection on the top 25 items showed only 13.9 % of the total items, but captured 90.4 % of the total value.
j. Look carefully at the items to make sure that they are a good representation of what the procurement unit purchases. For instance, ensuring that vaccines, pharmaceuticals, hospital supplies, and diagnostics are all

represented. If needed, consider adding a few of the missing products to the focus products list.

3.0 Templates

3.1 Identifying and creating a basket of focus on products/services

Focus Product List Example

Code No.	Unit Of Issue	Item Description	Unit Price	Purchase Quantity	Extended Value	# of Items	% of Items**	Cumulative Value	% of Total Value*
0173	1000	Erythromycin 250mg	R16.33	166,400	R2,717,312	1	1%	R2,717,312	15%
0405	1000	Co-trimoxazole tabs 480m	R6.52	380,000	R2,477,600	2	1%	R5,194,912	28%
0012	Each	Depo-Provera	R0.90	1,800,000	R1,618,200	3	2%	R6,813,112	37%
0242	500g	Cotton wool	R1.29	800,000	R1,032,000	4	2%	R7,845,112	42%
0414	1000	Doxycycline Hyclate 100m	R6.10	120,000	R732,000	5	3%	R8,577,112	46%
0296	1000	Paracetamol 500mg tabs	R2.42	280,000	R677,600	6	3%	R9,254,712	50%
0170	100	Gauze swabs 8-ply	R0.98	630,000	R617,400	7	4%	R9,872,112	53%
0450	Each	Sodium chloride 0.9%	R0.74	800,000	R592,000	8	4%	R10,464,112	56%
0256	Each	Sodium chloride 0.9%	R0.74	800,000	R592,000	9	5%	R11,056,112	60%
0406	1000ml	Dextrose 5%	R0.74	750,000	R555,000	10	6%	R11,611,112	63%
0407	Each	Dextrose 5%	R0.74	750,000	R555,000	11	6%	R12,166,112	66%
0261	1000	Metronidazole tabs 200m	R2.96	185,000	R547,600	12	7%	R12,713,712	68%
0162	Each	Gauze roll 90cmx40m	R2.50	210,000	R525,000	13	7%	R13,238,712	71%
0428	100	Gloves surgeon 7	R0.14	3,000,000	R420,000	14	8%	R13,658,712	74%
0024	12	POP 15cm by 2.7m	R3.99	105,000	R418,950	15	8%	R14,077,662	76%
0165	Each	Gauze roll 90cmx100m	R5.40	70,000	R378,000	16	9%	R14,455,662	78%

DEVELOP KEY PERFORMANCE INDICATORS

Code No.	Unit Of Issue	Item Description	Unit Price	Purchase Quantity	Extended Value	# of Items	% of Items**	Cumulative Value	% of Total Value*
0102	1000	Chloramphenicol caps	R11.26	32,000	R360,320	17	**9%**	R14,815,982	**80%**
0222	Each	Benzylpenicillin Injection	R0.15	2,300,000	R345,000	18	**10%**	R15,160,982	82%
0336	1000	Praziquantel 600mg	R56.02	5,500	R308,110	19	**11%**	R15,469,092	83%
0118	Each	Insulin Soluble*	R5.42	54,000	R292,410	20	**11%**	R15,761,502	85%
0454	Each	Half-Strength Darrows	R1.10	240,000	R264,000	21	**12%**	R16,025,502	86%
0426	100	Gloves surgeon 6	R0.14	1,750,000	R245,000	22	**12%**	R16,270,502	88%
0110	Each	Insulin zinc*	R5.42	32,400	R175,446	23	**13%**	R16,445,948	89%
0856	50	Cefriaxone	R4,371.95	40	R174,878	24	**13%**	R16,620,826	90%
0053	100	X-Ray Films 18X43	R30.68	5,500	R168,740	25	**14%**	R16,789,566	90%
0098	10	Bandage WOW 15cmx4m	R0.68	220,000	R149,600	26	14%	R16,939,166	91%
0234	Each	Pethidine 2ml	R0.27	480,000	R131,040	27	15%	R17,070,206	92%
0249	1000	Methyldopa 250m coated	R15.38	8,000	R123,040	28	16%	R17,193,246	93%
0224	Each	Benzathine 2.4MGU	R0.15	760,000	R114,000	29	16%	R17,307,246	93%
0430	100	Gloves surgeon 8	R0.14	800,000	R112,000	30	17%	R17,419,246	94%
0318	1000	Phenobarbitone 30mg	R1.92	55,000	R105,600	31	17%	R17,524,846	94%
0020	12	POP 7.5cm by2.7m	R1.96	42,000	R82,320	32	18%	R17,607,166	95%
0202	Each	Adhesive tape 5cmx5m	R0.40	157,500	R63,000	33	18%	R17,670,166	95%
0779	200	Cuvettes	R96.29	600	R57,776	34	19%	R17,727,942	95%

Code No.	Unit Of Issue	Item Description	Unit Price	Purchase Quantity	Extended Value	# of Items	% of Items**	Cumulative Value	% of Total Value*
0987	25 runs	Facs count control kits	R325.00	120	R39,000	35	19%	R17,766,942	96%
0482	1000ML	ABX Minilyse	R115.15	338	R38,920	36	20%	R17,805,863	96%
0210	Each	Oxytocin 10 IU Injection	R0.11	315,000	R34,335	37	21%	R17,840,198	96%

* 80% of the total purchase value is captured by the top 17 items, representing only 9% of items purchased.
**The top 25 items (14% of items) were selected as the basket of focus items, capturing 90% of the total purchase value.

Table 11: Example of a Commodity Basket

3.2 Supplier performance scorecard

Supplier Performance Scorecard			
Supplier Name:			
Contract Number:			
Scorecard Month:			
Scorecard Item			
DELIVERY	**Numerator**	**Denominator**	**Total Score %**
	# of on time shipments	Total # shipments	
1. Pecerntage of shipments delivered on time	88	100	88,00%
	# of full shipments	Total # shipments	
2. Percentage of shipments fully delivered	88	100	88,00%
	# with adequate documents	Total # shipments	
3. Percentage of shipments that had adequate documents received on time	95	100	95,00%
QUALITY	**Numerator**	**Denominator**	**Total Score %**
	# of products with correct pack size and quantity	Total # of products	
4. Percentage of products with correct pack size and quantity	192	200	96,00%
	# of products undamaged	Total # of products	
5. Percentage of products received undamaged due to adequate packaging	194	200	97,00%
	# of products passed QC testing	Total # of products	
6. Percentage of products that passed quality control testing	198	200	99,00%
	# of products in compliance	Total # of products	
7. Percentage of products that comply with shelf life requirement	188	200	94,00%
CUSTOMER SERVICE	**Numerator**	**Denominator**	**Total Score %**
8. Percentage of invoices that comply with contract pricing and terms	97	100	97,00%
SUPPLIER RATING			**94,3%**

Table 12: Example of a Supplier Performance Scorecard

Sources:
http://cdn2.hubspot.net/hubfs/1821222/All-Procurement-KPIs.pdf?t=1460031562618

USAID | DELIVER PROJECT, Task Order 4. 2012. Procurement Performance Indicators Guide—Using Procurement Performance Indicators to Strengthen the Procurement Process for Public Health Commodities. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

3.3 Using the weighted average method

Supplier Performance Evaluation				
Assuming this is a 3-year contract with yearly reviews				
KPI	Weighting	Year 1	Year 2	Year 3
Quality	40	24	32	40
On-time delivery (time, quantity & place)	30	15	24	27
Price	25	15	17,5	25
Innovation	5	0	2	4
Total	100	54	75,5	96
Agreed performance benchmarks				
0-69	Poor - cause for concern. Immediately notify the supplier.			
70-79	Good - with areas of improvement, to be attended to sooner			
80-89	Very good, encourage good performance and highlight potential areas of concern			
90-100	Excellent, continue to encourage good performance			
Assumptions;				
10 orders in a year against the contract				
	Quality	On-time delivery	Price	Innovation*subjective
Year 1	6 out of 10 right quality	5 out of 10, OTIF	6 out of 10, right price	no communication
Year 2	8 out of 10, right quality	8 out of 10, OTIF	7 out of 10, right price	Notified about changes
Year 3	10 out of 10, right quality	9 out of 10, OTIF	10 out of 10, right price	Notified about supply risks

Table 13: Example of a Worked out Weighted Average Method for Supplier Performance Monitoring