

Utilising the Kraljic Matrix to identify potential supply risk





Introduction

It is not the case that any organisation will wish to develop mutual or partnership relationships with all of its suppliers. Pareto's principle applies: it will generally be found that 80 per cent of expenditure will be with 20 per cent of suppliers; and it is likely to be the suppliers with whom large sums of money are spent that will be the ones with whom closer relationships are sought.

A useful tool in determining those suppliers with whom close relationships might best be sought is the 'Procurement Positioning' tool /based on the work of Kraljic (1983).

The vertical axis, labelled 'Risk', is concerned with the degree of difficulty associated with sourcing a product or service, or the vulnerability of the client organisation to a failure of the supplier to provide the product or service on time, or to the failure 'in service' of a supply.

The horizontal axis, 'Profit potential', is used to indicate the extent of the potential of the supply to contribute to the profitability (or efficiency) of the buying concern. This profit potential might be realised by achieving lower costs, either by paying a lower price for a good or service or by introducing more efficient buying methods.



The foundation of procurement positioning is the division of key items procured into four categories on the basis of their associated risks and procurement potential.

Risk

Risk consists of:

- Supply risk risks of vulnerability of the business to unreliability of supply
- Technical risk risks arising during and after installation

The principal factors determining risk are:

- The reliability of the sources of supply
- The availability of the commodity or service required
- The degree of response by suppliers to the company's requirements
- The quality of the product in relation to the role which it is required to fulfil

Supply risk measures both the likelihood of a commodity or service not being available when it is required and the costs resulting from its non availability. "Non-availability" does not simply mean that an item is not physically present but also includes failure to be effectively present due, for example, to a quality failure.

Procurement Potential

Procurement potential is the degree of opportunity which exists for the process of procuring the commodity or service under consideration to contribute to company profitability. It is a measure of the benefits which can be achieved by using an appropriate procurement strategy, as opposed to the unquestioning, mechanistic placement of orders. The benefits potentially include:

- Reducing the total cost of ownership(TCO)
- Improving the quality of the procurement process
- Improving the efficiency of the procurement process
- Earlier sales or production due to reduced cycle time

The four categories

The key commodities or services for which a company wishes to develop tailored procurement strategies can be ranked as high or low in terms both of risk exposure and of procurement potential. The score of an item in respect of each of these criteria determines the positioning of the commodity or service on the procurement positioning/targeting matrix. The quadrants of the matrix represent the four categories, which are:

- Critical
- Leverage
- Bottleneck
- Routine

The factors to be taken into account when determining risk and procurement potential will vary according to the circumstances of the company carrying out the assessment.

Successful application of the tool depends upon a coordinated, cross functional team effort resulting in a common view of the relevant factors shared by everyone involved in the procurement process.

Examples of factors determining risk

| Factor | High Risk | Low Risk |
|-----------------------------|--|--------------------------|
| Experience with the product | First time purchase | Frequent purchase |
| Supply/demand balance | Demand exceeds supply | Excess capacity exists |
| Supply chain complexity | Many parties (e.g. OEM, agent) | Direct purchase from OEM |
| Financial risks | High cost (e.g. lost production) | Low |
| Safety & environmental risk | High in environmentally sensitive area | Low at remote location |
| Design maturity | New, innovative design | Proven design |
| Manufacturing complexity | Complex | Simple |

Examples of factors determining procurement potential

| Factor | High Potential | Low Potential |
|--|--|--|
| Structure of the market | Many competing sources | Monopoly or oligopoly |
| Value of spend | High value | Low value |
| Supply/demand balance | Spare capacity | No excess capacity |
| Efficiency of the procurement process | Identical process applied to all purchases, little automation | Contract types and procedures promote continuous improvement |
| Development of the procurement process | Low or no early buyer involvement. Users agree specifications with | Experienced cross-functional teams |
| | suppliers | |

The same commodity may fall into different categories depending on use, location and other factors and some commodities are far too broad to fit into a single category.

It is important to be aware that the category for a given item may change over time due to changes in the market or the procurement organisation.

Critical items

Critical items are those with high risk and high procurement potential.

All companies have certain commodities and services which are vital to their operation. In many cases these are also high in value and therefore provide a significant opportunity for increasing profit through the application of appropriate procurement strategies. Such items are categorised as critical. Typically, essential considerations include supply continuity, quality, company image and total cost.

Bottleneck items

Bottleneck items are those with high risk and low procurement potential.

This category, like the critical category, covers items which will stop or severely impair company operations if they are not available. Unlike critical items, however, a common characteristic of items in the bottleneck category is that there is a small number of potential sources resulting in limited opportunities for negotiation. Having to deal with only one or a restricted number of suppliers results in a "bottleneck" in the procurement process. This is an undesirable category for the buying company and efforts should be made to move items into another category by relaxing specifications and/or developing new sources of supply.

When it is preferred to take a more structured approach, this can be done by using a seven step method:-

The Seven Step method.

| 1 | Define the risk and procurement potential factors considered to be relevant for the commodity or service in question. |
|---|--|
| 2 | If some factors are judged to be more important than others, assign a weighting to each factor according to its perceived impact. |
| 3 | Define a scale against which to assess each factor. The higher end of the scale should correspond to high risk or procurement potential and the lower end to low risk or procurement potential. For example, for supply/demand balance: Demand exceeds supply = 4 Demand equal to supply = 3 Ample capacity = 2 Considerable over capacity = 1 |
| 4 | Calculate the maximum score for weighted risk factors and weighted procurement potential factors in order to determine the dimensions of the procurement targeting matrix. |
| 5 | Assess each risk and profitability factor according to the defined scale. |
| 6 | For each factor, multiply the weighting by the corresponding assessment and then calculate the total score for risk factors and the total score for procurement potential factors. |
| 7 | Use the two total scores to position the commodity or service on the procurement targeting matrix. |

Leverage Items

Leverage items are those with low risk and high procurement potential.

Typically, items in this category are standard items purchased in volume which are readily available from a range of sources, and so the company is likely to be in a strong negotiating position due to the combination of a high spend value and competing suitable suppliers. It is important to aggregate volumes in order to maximize leverage.

Routine items

Routine items are those with low risk and low procurement potential.

Typically these are low value, homogenous items, therefore detailed negotiations and detailed attention are not cost justified. The procurement process therefore needs to be simple and efficient.

Procurement Strategies/ Tactics for each quadrant

Each quadrant of the procurement targeting matrix requires a different strategic and tactical approach to procurement.

Critical items

For critical items the recommended strategy is to establish close relationships or partnerships with trustworthy, reliable suppliers in order to minimise the risk of non-availability and maximise the procurement potential.

Possible tactics include:

- Direct negotiation
- Involvement in supplier quality management
- Developing close collaborative relationships.

Bottleneck items

For bottleneck items, for which the risk of non-availability is the principal consideration, the strategic aim should be to ensure continuity of supply.

The supply risk can be reduced through a combination of:-

- · Maintaining a detailed knowledge of the market
- Accurately forecasting requirements and planning procurement
- Using medium term contracts
- Carefully managing relationships with existing suppliers
- Value-analysis in order to simplify the specification and open up more competition.

Leverage items

For leverage items the principal consideration is the procurement potential offered by the procurement process and therefore the strategic aim is to maximise the company's commercial advantage.

Multiple sourcing and competitive tendering may be used in order to encourage suppliers to price competitively. Ideally, contracts should allow the flexibility to change suppliers at short notice. It may be practical to arrange for supplier stockholding and just in time delivery arrangements. It addition, it is likely to be beneficial to encourage:

- Standardisation
- Switching to industry standards where possible
- Coordination between business units and companies in order to strengthen the negotiating position.

Routine items

Risks associated with routine items are minimal and as such, the strategy for such items should be to adopt simple, cost effective procurement techniques.

Possible techniques are:

- E-procurement-fully automated ordering (for stock items)
- Direct call off by users from suppliers on the basis of blanket agreements
- Purchase by users using field order or procurement card procedures
- Supplier rationalisation
- Outsourcing

• Vendor Managed Inventory (VMI)

Source : Baily, P., Farmer, D., Jessop, D., Crocker,B and Jones, D.(2015) Procurement Principles and Management.11th ed. Pearson



