The world is changing. In-house production is decreasing, reliance on external suppliers for innovation is increasing, and supply chains are becoming ever more complex. To compete in this changing world, the role of Procurement must also change - but how? One answer is game theory.

Around the globe, in-house production is falling. In some industries, it accounts for less than 30% which sees companies becoming increasingly reliant on suppliers for both solutions and innovation. With procured goods and services accounting for a major part of company’s cost, Procurement has the opportunity to have a profound impact on driving value for the company. The only way that this is achievable is if Procurement is redefined from being a service provider that diligently follows existing processes, to a strategic, value driver which innovates, generates and drives substantial value and ultimately increases overall company performance and competitive advantage.

So how does Procurement make this shift?

**What is game theory?**

A scientific and mathematical tool used to model and analyse interactions between decision makers in complex strategic situations. Used correctly, it shapes and influences the outcomes of interactions, such as negotiations. By fully utilising the potential of game theory, Procurement can initiate projects that drive value throughout the entire organisation without causing any major disruption. So, rather than be a follower, Procurement becomes a leader.
Game theory is widely recognised as a ground breaking field of research, but it is not being applied to its full capacity in organisations.

**Unique methodology**

The approach, which is derived from Nobel Prize-winning research in game theory, industrial economics and contract theory, is guaranteed to create Return on Investment. It also facilitates change and creates dynamics within an organisation by focusing on four key building blocks: Negotiation Excellence and Commitment, Cross Functionalities, Advanced Strategy and Market Design, and Process and Organisation.

**Negotiation Excellence and Commitment**

Negotiation is an art, but apply game theory and it becomes a science. By using game theory principles and leveraging rule-based negotiations and commitment, above average results can be systematically achieved.

**Cross Functionalities**

In most organisations, Procurement has to follow the direction and preferences of other internal stakeholders. There is, very often, no working together to drive results, which severely restricts the value that Procurement can drive when negotiating with suppliers. Cross-functional collaboration therefore needs to be facilitated and fostered.

Furthermore, Procurement teams should lead rather than follow. Using a comprehensive framework that involves trade-offs between different objectives in an organisation can lead to the emergence of an aligned and holistic view, with Procurement at the very centre of the supplier-selection process.

**Advanced Strategy and Market Design**

Procurement teams are often involved too late in the process, so decisions have already been made that limit their influence and severely restrict their ability to leverage at the point of sourcing. By involving Procurement teams much earlier on and making them a part of the strategy setting process, they are shifted from a reactive to a more proactive role, allowing them to educate and influence as opposed to just following orders.

This gives Procurement the freedom to extract the best possible value and suppliers' innovations, rather than just choose a solution from a pre-selected number of options presented to them.

**Process and Organisation**

To experience the full power of game theory, it cannot just be limited to one project. The key principles of game theory methodology must be fully embedded into not only the processes but also the very heart and processes of the company. It completely changes the way in which cross-functional partners work together and ensures better options at the point of sourcing which only lead to better results.

**Game Theory in Practice**

TWS Partners has implemented more than 2,000 projects across a range of industries, with impressive results. In each project, Procurement moves from a service provider to a value driver, resulting in impactful results, felt throughout the company. A few examples:
Moving from Price to Value

Procurement as a service provider very often negotiates with shortlisted suppliers, to improve the commercial conditions. The outcome of those negotiations in most organisations is then presented to an internal sourcing board who choose and formally nominate the winner, all too often based on personal choice, which makes price negotiations ineffective.

By moving to a value driver role, Procurement can revolutionise this process. Prior to entering into negotiations with suppliers, Procurement will perform a monetary evaluation of all factors, including those not related to price such as quality, reliability, experience, supplier strategy and many others. Committing to these values at all times ensures that the chosen supplier can then be determined through a game-theoretically optimised process as opposed to personal preferences. Procurement then present the decision to the internal board as a fait accompli, which in turn drives value throughout the business as everyone is safe in the knowledge that the best decision has been made.

Telco – Design to Competition

The Telco industry is often faced with a monopolistic supply market, where only one supplier can meet bespoke requirements. As a service provider, Procurement’s hands are tied and any bargaining power is either extremely limited or non-existent.

Shift Procurement to a value driver and rather than just look at the technical specification, the requirements are turned into functional specifications thereby widening the market and allowing numerous suppliers to offer different solutions, creating a market place where game theory based negotiations can be applied.

Consumer Good – Lead Time and Bundling

With consumer goods, future volumes are notoriously fragmented across a large number of projects and are hard to predict which leads to Procurement having to hold numerous supplier negotiations each year, with limited bargaining power in each single negotiation due to low volumes, low interest from suppliers and high time pressure. Moving to a value-driver role and being more proactive, Procurement can even bundle future demand that is unknown today, highly volatile and fragmented into a single negotiation. This increases competition, bargaining power and the level of commitment buyers can give to suppliers.

The results

Across a range of industries and across the globe, the application of game theory in Procurement has resulted in:

- Immediate return on investment
- Positive, direct impact on a company’s P&L
- Key principles being embedded into the company
- Sustainable development
- Upskilling of Procurement
- Procurement evolving into a real value driver
- Increasing trust in Procurement and its capabilities
- Procurement shaping future markets
- Companies realising their full potential
- Driving value across the entire business
- Safeguarding the future role of Procurement as a source of sustainable competitive advantage

**Experience the power of game theory**

"If you want to build a ship, don’t drum up the men to gather wood, divide the work and give orders. Instead, teach them to yearn for the vast and endless sea.” Antoine de Saint-Exupery