CHAPTER 4

# Digital Supply Chain Procurement Transformation

Frank Omare

## Introduction

Globalisation and outsourcing have created cost efficiencies over the years, as organisations change their operating models to meet global consumer demand. Supply chains are becoming more complex as multiple tiers of suppliers are relied upon to provide the materials necessary to complete and ship finished goods to eager consumers. This complexity creates increased risk and constant pressure to monitor every aspect of the extended supply chain ecosystem. Organisations must be vigilant regarding their extended supply chain to safeguard their own reputations and brands against any damage. News of unethical business practices spreads quickly in the age of the 24/7 news cycle and ever-present social media. These resources allow consumers to be better informed about the products and services they purchase. Consumers are also showing both an increasing desire to purchase products that align with their sense of global responsibility and a willingness to spend more money to do so (Curtin 2018). Producers must be able to prove their viability in such a market or risk failure. In response to these market drivers, organisations must find a way to maintain a clearer view of who they are doing business with.

---

**How to cite this book chapter:**
Omare, F. 2022. Digital Supply Chain Procurement Transformation. In: Wang, Y., and Pettit, S. (eds.) *Digital Supply Chain Transformation: Emerging Technologies for Sustainable Growth*. Pp. 61–79. Cardiff: Cardiff University Press. DOI: https://doi.org/10.18573/book8.d. Licence: CC-BY-NC-ND 4.0

Digitalisation has a key role to play to increase visibility and transparency across the supply chain and improve collaboration between business partners to create more purpose-driven supply chains. For many organisations, digital transformation has become a strategic imperative. It improves the connectivity between business partners and increases the access and distribution of critical data. However, many organisations succumb to the potential pitfalls of a digital transformation implementation such as failure to re-engineer their business processes, insufficient resources to deploy the technology and absence of a robust business case. This chapter demystifies digitalisation and illustrates the benefits it brings to the supply chain. Research conducted by strategic consultancies provides insights on the primary focus and outcomes of digitalisation and guidance about how to get started and avoid digital failures.

## Digital Revolution

Supply chain models are experiencing a digital revolution that is being driven by the consumer-driven digital economy. Digitalisation will be a fundamental topic for organisations across all industry sectors in the years to come. Data analysed in real time supports collaboration across the supply chain and improves the visibility of inventory. This provides opportunities to optimise sales and operations planning (S&OP) so that inventory levels of raw materials and components can be reduced across manufacturing sites and supplier locations. In turn, this reduces stock picking and loading, handling, stock transfer notifications etc. Therefore, optimised S&OP and inventory levels improves logistics efficiency and reduces operating costs. Also, the working capital tied up in inventory is cut and this drives a positive impact on the balance sheet. Organisations measure such inventory reductions through movement in the days in inventory outstanding (DIO).

Today, there is growing international trade and digital commerce. An efficient supply chain can thrive amid changing priorities by helping control costs, meeting the needs of customers and providing scale. This contributes to an organisation's competitiveness and helps reduce the cost of serving its operations. Better and more efficient supply chains support sustainability and ethical practices in the following ways:

1. supporting people and local communities through responsible sourcing (considers the impact to society and the environment);
2. avoiding risk of workplace and human rights violations in areas such as inclusion and diversity, forced labour, and wage discrimination through improved visibility across the supply chain;
3. reducing waste and spoilage with lean manufacturing;
4. improving crop yield through precision farming with big data, supercomputing and hyperconnectivity;

5. improving resource utilisation and reducing inventory with fully integrated planning and manufacturing;
6. reducing the number of stock and transport movements through better warehouse management, which in turn reduces storage and any associated temperature control requirements for stock; and
7. driving greater levels of efficiency to create more visibility, leading to lower inventory and storage footprint, thereby cutting waste levels and reducing energy consumption (for example, warehousing machinery and vehicle movements, heating, lighting and temperature control).

Procurement needs to take an active role in shaping the digital journey, both within the organisation and at the interface with key suppliers. This strengthens the role of the procurement function as a valued business partner.

In the past, technology-enabled change was mainly aimed at replacing manual processes and making them faster and more efficient, for example through e-procurement and e-invoicing. The push was to reduce cost and increase efficiency. This is ongoing. However, as we move into the digital era, technologies like predictive analytics, robotic process automation (RPA) and artificial intelligence (AI) are also creating entirely new ways of doing things.

The pace of this innovation is relentless in our consumer-driven digital economy. Companies are going beyond the stage of awareness when it comes to digital technologies. They already understand the power of AI, the internet of things (IoT), cloud computing, robotics and mobile applications. Other technologies, such as blockchain, are now appearing on the radar. The digital revolution has several significant business implications, although digital technologies vary greatly in their impact and technological maturity. Organisations need to consider the conditions and layout of their IT architecture strategy to realise the benefits across the procurement value chain.

The six digital accelerators identified by the Hackett Group outline the key requirements for improving a company's procurement performance and supporting its business strategy in the long term (The Hackett Group 2018):

### *Accelerator #1: Digital Engagement*

World-class organisations are service-oriented and customer-centric in their approach to procurement delivery. They actively measure the results of their efforts through formal service level agreements for internal customers.

### *Accelerator #2: Robotic Process Automation (RPA)*

RPA has made a quick entry onto the agenda of procurement and purchase-to-pay organisations to perform routine activities without human intervention.

In procurement, 38% of companies are currently in the piloting stage, indicating rapid adoption. Assuming that the widespread adoption of RPA continues, many procurement organisations believe it will become one of the areas with the greatest impact on the way their work gets done in the period up to 2030, including, for example, touchless processing for the entire purchase-to-pay operations.

### *Accelerator #3: Analytics-Driven Insight*

The hallmarks of information-centric, world-class procurement organisations are the presence of a sophisticated information/data architecture that makes effective data analysis possible; planning and analysis capability that is dynamic and information-driven; and performance measurement that is aligned with the business.

### *Accelerator #4: Modern Digital Architecture*

Results from recent research on the benefits of various software tools are encouraging. In the case of supplier discovery software, the top benefit found was a reduction of up to 31% in the time it takes to find and qualify a new supplier. The research also documented the benefits of e-sourcing software, including the ability to reduce overall cycle time by 30% by using standard templates to reduce data-collection errors. The reported benefits of contract life cycle management (CLM) software include reducing the amount of time required to find a contract by 52%, trimming the number of lapsed contracts by 39%, and increasing the use of standard terms and conditions to ensure compliance.

### *Accelerator #5: Digital Workforce Enablement*

Procurement can leverage modes of communication that appeal to a new generation of workers to create a culture of collaboration and speed up work processes. For example, many world-class organisations have launched social media initiatives and other web-centric spaces to facilitate broad communication.

### *Accelerator #6: Cognitive Computing*

Cognitive computing and artificial intelligence (which seek to mimic the way the human brain works) are in their nascent stages but are starting to help some procurement organisations run models, make predictions and analyse large data sets. For example, a consumer goods company has been relying on a cognitive tool used by a third party to gather data from social networks worldwide to make predictions about potential trouble spots.

Getting started on a digital procurement transformation begins with a business case, as part of 'success planning'. This identifies value, return on investment and payback:

1. There must be a programme vision for the transformation and a procurement strategy that is aligned with the overall business strategy.
2. Spend and transaction data, ideally for a period of 12 months, is analysed. Benchmarks and taxonomy are applied to profile the spend.
3. There should be engagement with stakeholders to understand challenges, business problems and expectations. Interviews and workshops are conducted with targeted subject matter experts and stakeholders.
4. Savings are estimated based on insights from experiences of other transformation programmes and from industry benchmarks. These savings are reported as 'value levers' and include price reduction, compliance, process efficiency and working capital improvement. The total investment is estimated from the cost of the technology and its implementation. From the estimated benefits and investment, the return on investment (ROI) and payback are determined.
5. The business case should be validated with senior stakeholders in the organisation. Change management and training are important considerations for a successful programme and these costs/efforts must be factored in as the business case is finalised and validated.
6. A realistic road map for the implementation should be developed based on the organisational capabilities and technology footprint. This road map will include a 'wave plan' to both onboard and e-enable suppliers. Governance and project management are key to ensuring that the programme delivers the expected outcomes.

Figure 4.1 highlights the SAP 'success planning' model.

## Future Role of Procurement

If chief procurement officers (CPOs) are interested in transforming the role of procurement, then digitalisation can provide opportunities to contribute to the wider commercial activities of the organisation. Mergers and acquisitions (M&A) is a powerful example. The current strong M&A market can be expected to continue and the current deal environment can be expected to improve, or at least remain stable. Getting a seat at the table with the C-Suite during M&A activities helps to transform procurement into a strategic role that goes beyond finding and acting on low-hanging fruit opportunities.


**Figure 4.1:** SAP success planning model.

*Pre-Merger*

Traditionally, procurement is not involved in the due diligence activities and in the scoping of the potential cost savings from the merger of the two businesses. Typically, an arbitrary savings target of 5% is proposed by consultants and signed off by finance. Given that procurement spend can be up 65% of sales revenues depending on the sector, there are significant opportunities for the CPO to become involved in the strategic planning of a business (*SAP Digitalist Magazine* 2019).

At the pre-merger stage of the M&A, digitalisation can automate and streamline the process of estimating the procurement savings, which is often thought to be too time-consuming. The use of digital solutions allows procurement to extract data from both internal and external sources, cleanse them, and categorise them in enough detail to provide a 'true north' base line position of the combined external spend. Procurement can use the data to identify areas of opportunity and to inform the board of the savings from synergies. This can be done within weeks rather than months.

*Post-Merger*

After the deal closures, procurement can gain more access to data at the spend category level across the different plants, business units, countries etc.

Next-generation data management captures real-time value from different data sources. Procurement can identify pricing or specification discrepancies between different plants or divisions, spend or supplier fragmentation, and disconnects between raw-material prices and commodity-market indices. This will validate the savings estimate pre-merger or identify gaps where additional savings are required. Organisations are more likely to achieve a thoughtful stretch target based on savings identified using analytics and spend intelligence.

If digital solutions are not available, the M&A activity can present opportunities to develop a business case to invest in a digital transformation post-merger that will help to realise significant savings from cost reduction, compliance, process efficiency and working capital improvement. The procurement team can perform the data analysis and apply taxonomy to profile the spend. They can work with subject matter experts during the discovery sessions to validate spend classification mapping. Benchmarks can then be applied to estimate the savings and the ROI from the investment required in software, implementation and training.

Procurement can offer the M&A an alternative option for cost savings. Accurate data and insights increase the level of confidence in the realisation of the benefits from sourcing activities. Robustly calculated procurement cost savings can reduce the emphasis on need for plant closures and lay-offs of workers. A better way to cut costs is through procurement rather than headcount reduction. Procurement cost savings can deliver an immediate benefit to the bottom line. Headcount reductions, while immediate, take a while for the benefits to be realised owing to redundancy costs and the hidden costs of restructuring programmes. Also, there are missed opportunities to redeploy staff from the duplicated roles and functions, and to strengthen parts of the new organisation. Digitalisation not only provides opportunities to raise the profile of the CPO; it can also provide a more ethical means of delivering savings from M&A synergies that are declared to the stock market.

## Building Responsible and Resilient Supply Chains

The Global Financial Crisis of 2007–2008 is considered by many economists to be the worst financial crisis since the Great Depression of the 1930s. The financial crisis was caused primarily by the deregulation of the financial industry and, as a result, many financial institutions collapsed. Supply chains were not immune. Suppliers were unable to borrow money and organisations sought ways to manage their working capital by extending supplier payment terms. These factors compounded to increase the risk of the financial collapse of suppliers. During this period, risk management was observed to be typically ineffective. The consequences of supplier failure could be significant across several areas, as illustrated in Figure 4.2 below.

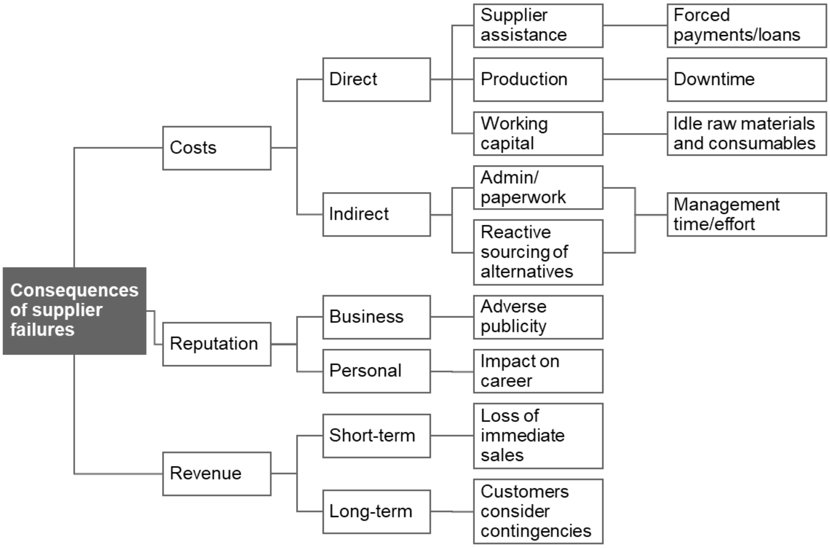


**Figure 4.2:** The consequences of supplier failure. Source: EY (2011).

CPOs realised that good procurement balances the need for cost savings with the health of key suppliers. Traditional indicators to predict the risk of supplier failure could not be relied upon. It became clear that smaller 'strategic' suppliers can have significant impact on business performance if they fail suppliers who provide goods and services of relatively low value and quantity can stop big brands being produced and sold globally. The risk management lessons from the last economic downturn in 2008 are applicable to building responsible and resilient supply chains today. There is a need for proactive risk management that uses digital technology to process data from multiple sources to identify risk exposure to social and environmental issues. Today, supply chains typically include multiple partners, with services and sourcing managed across many organisations and around the world (Figure 4.3).

Recent surveys conducted by the Category and Sourcing Managers Executive (CASME) have indicated that the top challenges facing procurement include risk management, reputation and brand image and corporate social responsibility (CSR) (Chartered Institute of Purchasing & Supply Chain 2017). Brands with purpose are proven to outperform those without purpose by a factor of three (BrandZ 2017). There is clearly more pressure for brands to behave more ethically than before. Yet, procurement is typically still focused on sourcing and continues to be measured on year-on-year costs savings.

The CPO needs to fully understand the organisation's sustainability goals and determine how procurement connects with these operationally. The CPO has a very influential role to play here with supplier risk assessments, sourcing, contracts, supplier performance management and compliance with procurement policies and codes of conduct. Negotiated payment terms should protect the

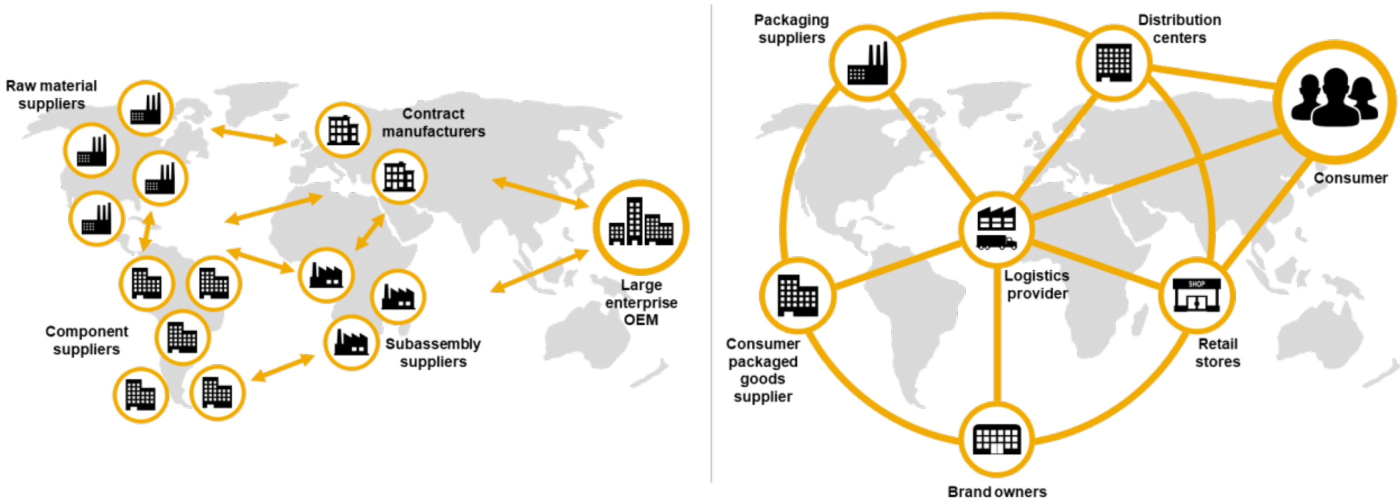


**Figure 4.3:** Complexity in today's supply chain. Source: Omare (2017a).

working capital of suppliers so that workers are paid promptly, particularly in industry sectors or countries where there is a high risk of slavery.

The UK's Buy Social Corporate Challenge is a groundbreaking initiative that sees leading corporates open their supply chains to include social enterprise suppliers, which are typically small or medium-sized businesses committed to having a social impact, such as the employment of disabled people and protecting wildlife ecosystems. Organisations thereby become a means of support for local communities, creating opportunities and employment where few had existed before. Through being part of this initiative, companies can both diversify and drive innovation in their supply chains, using their procurement function to change how they buy goods and services. SAP issued a press release about a partnership with Social Enterprises UK, the national body in the UK.

**LONDON, United Kingdom — April 17, 2019** — SAP (UK) Limited plans to strengthen its support of the social enterprise sector by making it even easier for organisations to find and do business with certified social enterprises on Ariba® Network, the digital marketplace where more than £2 trillion in business-to-business commerce is conducted annually. As the official technology partner of Social Enterprise UK, the expert body for the UK's social enterprise sector, SAP aims to facilitate better connections between corporate buyers and other employees with social enterprises, helping them spend better and in a more socially and environmentally sustainable way (Sap News, 2019).

Technology not only helps to connect social enterprises with corporate organisations but can also tackle known challenges in bringing scale and efficiency to the creation of ethical supply chains. For many organisations, initiating a programme for purpose-driven procurement can be daunting. Often there are insufficient resources available to conduct the due diligence necessary to determine suppliers' sustainability and fair labour practices. Supplier risk solutions provide ongoing and scalable risk intelligence that can help organisations detect early warning signals, minimise costly disruptions and proactively monitor risk factors for each supplier. With these solutions, organisations can identify and assess the sustainability risks for new suppliers and monitor those for current suppliers.

Further, finding a diverse range of suppliers can be a challenge for buyers. Unlocking opportunities with large organisations can be equally difficult for small minority-owned suppliers. Digital supplier networks can help buyers discover and connect with diverse suppliers, opening the door to new relationships and business opportunities. These opportunities can also be extended to social enterprises.

However, data mining and mapping provides valuable insights into the activities and processes operated across the supply chain. Action can also be taken to remove inefficiencies and unnecessary steps to create win–win scenarios for supply chain partners. The removal of cost inefficiencies can fund the investment in payments to primary workers in the supply chain. Also, intelligent technologies such as blockchain can support the cost breakdown analysis across the value chain from 'farm to fork', 'bean to cup' and so on, to verify that primary workers receive a fair wage in relation to the total cost of the product. The streamlining and automating processes create the bandwidth for procurement to explore more opportunities to do good in addition to delivering the cost savings agenda.

There is also an opportunity for organisations to use their influence to improve the human, economic and environmental impact of every organisation that their supply chain touches. This is often defined as 'procurement with purpose'. Over the years, procurement with purpose has made its way into boardrooms of large and small organisations alike – across all industries and geographies. Purpose is considered to be useful in driving business growth and employee productivity and loyalty. It also helps establish an organisation's status as an employer of choice and preferred business to business (B2B) purchasing partner. This is an important factor when broader issues such as environmental concerns are receiving much greater levels of attention. It has been suggested that 'By 2025 three quarters of the world's working population will be millennial. They define companies by what they are doing to make a difference, from speaking out on social issues to placing environmental justice at the core of what they do' (Paul Afshar, head of purposeful business at FHF, quoted in Sacre 2018). In this context, 'purpose' has a much greater role to play.

There has never been more pressure on brands to operate ethically. Due in large part to the rise in social media, public opinion about a brand can now go viral in an instant. Consumers are increasingly aware of negative impacts on the environment and question where and how products are made. More and more consumers are choosing purpose-centred brands that promote transparency in their supply chain, use sustainable sources of raw materials, and employ fair human and environmental practices. Purpose is no longer something that is nice to have; it has become a strategic imperative that is high on every organisation's agenda if it wants to be perceived as relevant, admired and innovative by its customers, employees, investors, partners and communities. There are many quoted examples of supplier risk management failings in complex, extended supply chains:

Human Rights Watch (HRW) reported 25 May 2016 the use of child labor in tobacco plantations in Indonesia, whose harvest supplies local and foreign tobacco companies. Children, some of whom are just eight years old, are exposed to nicotine, handle toxic chemicals or use dangerous tools in extreme heat (*San Diego Union Tribune* 2017).

Children as young as 14 have been employed to make clothes for some of the most popular names on the UK high street, according to a new report. Workers told investigators that they were paid as little as 13p an hour producing clothes for UK retailers (*The Guardian* 2017).

Organisations are responding to these needs with the creation of sustainable supply chains. The question 'what if this could be achieved?' therefore arises, as Figure 4.4 shows.

Traditional business models aim to create value for shareholders. This is often at the expense of other stakeholders. Purpose-led businesses are redefining the

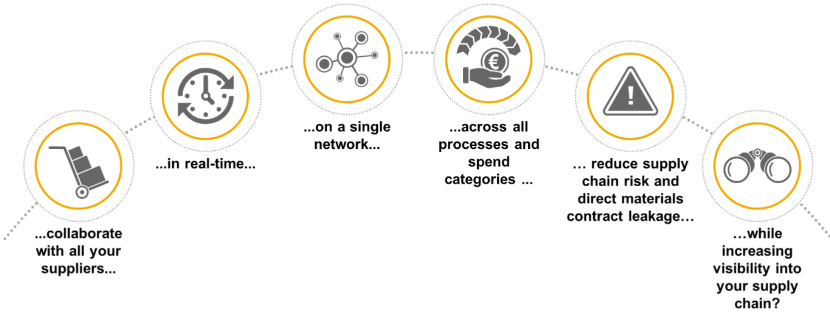


**Figure 4.4:** Supply chain collaboration. Source: Omare (2017b).

value chain by designing models that create value for all stakeholders, supply chains, communities and the planet. Complex supply chains bring inherent risk. They extend around the world and are vulnerable to the influence of poor labour conditions, natural disasters and conflict. They also face the issue of increased resistance to globalisation, as local supply chains are now perceived as more ethical from an environmental perspective. Despite these challenges, there are opportunities for organisations to help improve the human, economic and environmental impact on every society and organisation they touch. Globalisation has resulted in the rise of global partners through global supply chains as organisations seek to leverage scale and synergies in sourcing and supply chain operations. However, globalisation has placed many local and small to medium-sized organisations (SMEs) at a disadvantage. In response to this, many organisations have developed sustainability initiatives that are designed to help SMEs in the local communities in which they operate.

## Responding to Climate Change

Around the globe, governments are confronting the reality that, as human-caused climate change warms the plant, rising sea levels, stronger storms, increased flooding, harsher droughts and dwindling freshwater supplies could drive large populations from their homes. The poorest and most vulnerable are most likely to suffer the impacts of climate change (Schwartz 2018). This demonstrates a direct correlation between global warming and the social and economic sustainability of people who reside in countries vulnerable to climate impacts.

The landmark Paris Agreement in 2015 between the parties to the United Nations Framework Convention on Climate Change (UNFCCC 2019) was a major step towards combatting the effects of climate change on a global scale. This concern about climate change extends beyond the UN and federal government level to all areas of both the public and private sector. Those aligned with the goals of the agreement have vowed to take steps to establish and adhere to practices that actively reduce their contribution to global warming. The key elements of the agreement are detailed in Table 4.1.

**Table 4.1:** Key elements of the Paris Agreement 2015.

| |
|---|
| Keeping the global temperature increase 'well below' 2.0°C (3.6°F) above pre-industrial levels, with the goal of reducing that amount further to 1.5°C. |
| Limiting the amount of greenhouse gases emitted by human activity to the same levels that the trees, soil and oceans can absorb naturally, beginning at some point between 2050 and 2100. |
| Requiring all members to establish and communicate a nationally determined contribution (NDC) with reviews every five years to assess each country's progress and set new goals. |
| Encouraging developed countries to help developing nations by providing 'climate finance' – funds to help adapt to climate change and switch to renewable energy. |

*Source:* UNFCCC (2019).

Many companies have committed to becoming carbon neutral within a specified time frame to help reduce global warming. A review of the sustainability reports of several global companies provides insight to the actions being taken to respond to climate change in their supply chains. For example, Unilever aims to reduce its environmental footprint by 50% by 2030 (Unilever 2019), Carlsberg is committed to zero carbon footprint by 2030 (Carlsberg Group 2017), GlaxoSmithKline (GSK) has set a target to be carbon neutral by 2050 (GlaxoSmithKline 2019) and Shell has set targets for 2035 and 2050 (20% reduction in carbon footprint by 2035 and 50% reduction by 2050) (E&T 2018).

Other ways organisations can commit to running their businesses in a more sustainable manner include:

1. setting up business forums and networks to encourage suppliers to share best practices on sustainability;
2. implementing packaging redesigns that reduce environmental footprint;
3. supporting developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production;
4. protecting natural resources through energy waste and water management and preserving biodiversity;
5. measuring energy efficiency and using low-carbon energy sources;
6. reducing emissions;
7. reclaiming more waste for beneficial reuse, recycling and recovery and striving to add zero waste to landfill;
8. increasing the share of renewable energies in the total energy mix;
9. creating a low-carbon advantage and developing the organisation in support of the Paris Agreement and United Nations Sustainable Development Goals ambitions.

## Relationship Between Business Behaviours and Brand Value

There is now more value placed on brand identity, customer loyalty and employee engagement. Business behaviours impact the balance sheet's intangible assets such as goodwill, customer lists and intellectual property. Figure 4.5 highlights a fivefold increase in the relative value of intangible assets on the balance sheet between the years 1975 and 2015 (Ocean Tomo 2017). Purpose-related behaviours therefore now have a more significant impact on organisations than ever before. Further, Figure 4.5 illustrates the components of S&P 500 market value based on market capitalisations of the 500 largest companies having common stock listed on the NYSE or NASDAQ (S&P 500).

Companies with strong performance in sustainability outperform the market by 4.8% and gain cheaper equity financing owing to reduced risk (Columbia University 2016). Sustainable investments now account for a large proportion of the stock market. Globally, nearly $60 trillion is managed by more than 1,300 investment firms that have signed up to the UN Principles for Responsible Investment. In 2006, there were only 100 signatories, controlling approximately $6.5 trillion (Rotchild 2017).

Procurement is best placed out of all corporate functions to drive the purpose agenda. It is procurement that manages the sourcing activities and contract awards, develops supplier and other third-party relationships and manages compliance with codes of conduct (both internally and externally). In addition, procurement has a role to play in ensuring the organisation sources in an ethical manner that protects our natural resources and rewards suppliers that avoid unfair labour practices. The development of diverse supply chains not only brings innovative ideas and solutions to organisations but it can also help increase competitive advantage and market growth. Transacting with

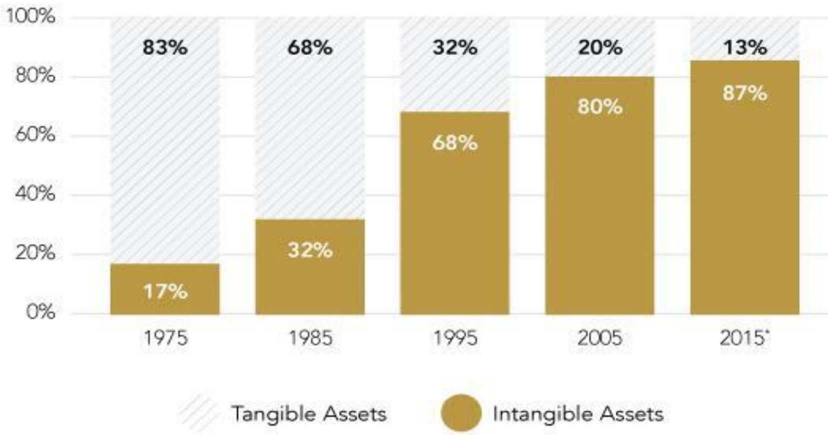


**Figure 4.5:** Components of S&P 500 market value based on market capitalisation. Source: Ocean Tomo (2017).

small minority-run organisations helps reduce socio-economic inequality and boost local economies.

Procurement can manage provenance effectively across supply chains that are enabled by digitalisation. With blockchain, transaction data is bundled into digital blocks. Each new block is linked to the previous block, creating a continuous chain. When a block gets added, the blockchain node sends the data to the network to be verified by all the other nodes. This triggers a consensus algorithm for authenticity. This ensures that no one can undo the block, remove an old transaction, or create a new block to cover up any wrongdoing. For example, data is available at every part of the supply chain to trace raw materials or components to the point of their origin. Also, companies can use the same technology to track the price build-up for produce across the supply chain and gain visibility of the supply chain partners profit margins in relation to the price paid to farmers.

Procurement has the ability to drive positive impact on society and the environment during each state of a procurement cycle, as shown in Figure 4.6.

There are several non-financial pressures that support the case for investing in a purpose-driven business. Organisations need to realise the importance of how their behaviours are perceived, e.g. respect for the local communities in which they operate and paying the living wage. Further, those with stronger sustainability performance can reduce their average turnover over time by 25–50% and reduce their annual quit rates by 3 to 3.5%. Consumer expectations are also rising, with nearly two thirds of consumers believing they have a responsibility to purchase products that are good for the environment and society. From an organisational perspective, around 60% of investors view non-financial disclosures as essential or important to investment decisions. Finally, stock exchanges and governments are increasingly issuing requirements for companies to report on corporate responsibility data in annual reports (Whelan & Fink 2016).

For any organisation, leading with purpose means a number of actions have to be taken. These include: training suppliers to recognise the warning signs of modern slavery and consider the environmental impact of their operations; aligning procurement practices with human rights due diligence (for example, lead times, prices and support given to implement code of conduct requirements); and supporting social enterprises through initiatives such as Buy Social Corporate Challenge in the UK. Further there is a need for the monitoring of environmental risks to minimise impact on the well-being of people and the planet, and investing in technology to improve collaboration with supply chain partners and increase transparency and responsiveness.

Modern supply chains can include multiple partners, with services and sourcing managed across many organisations and around the world. Supply chains are becoming more complex across extended ecosystems. This reduces visibility into supply and drives up supply chain risks, including the use of forced labour. There is clearly more pressure for brands to behave more ethically than

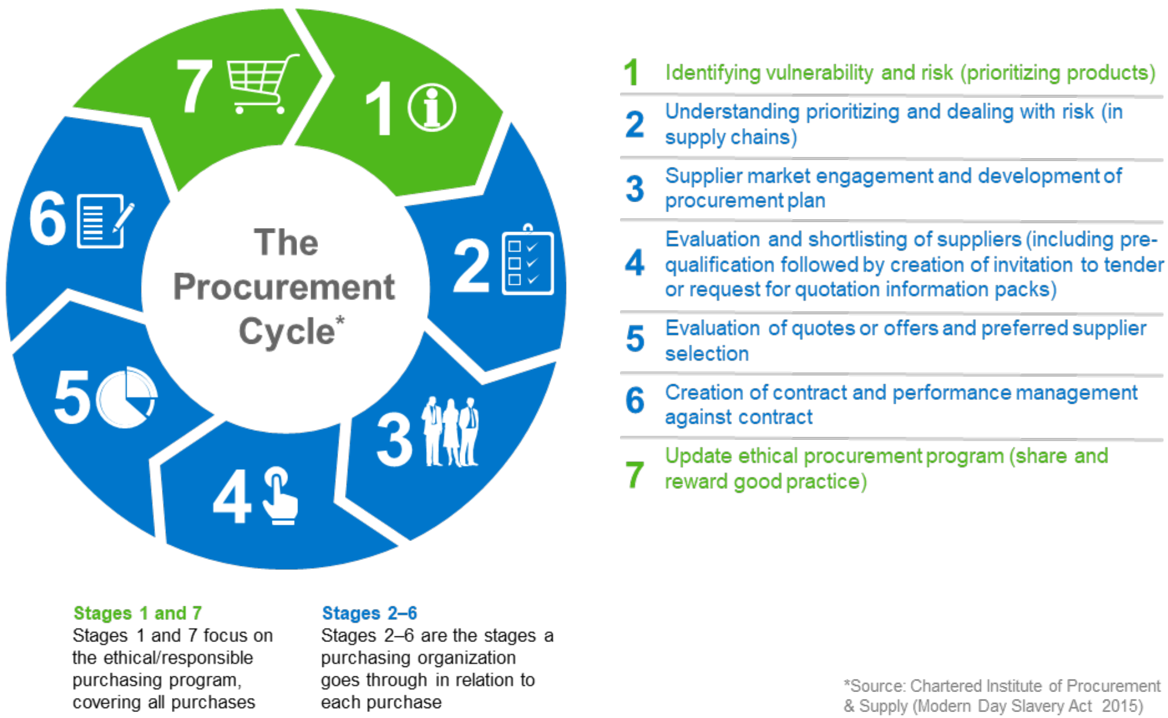


**Figure 4.6:** The procurement cycle. Source: Chartered Institute of Purchasing & Supply (2015a).

before. Yet, procurement is typically still focused on sourcing and continues to be measured on year-on-year costs savings. How can we tackle this complex dilemma? Is procurement prepared, or even authorised, to pay more for products sourced ethically? Is procurement prepared to terminate and invoke harsh penalties for bad practice or even develop their own suppliers?

As mentioned previously, the CPO needs to fully understand the sustainability goals of the organisation and determine how procurement connects with these operationally. The Buy Social Corporate Challenge is a groundbreaking initiative that sees leading corporates open their supply chains to include social enterprise suppliers. For example, SAP has integrated into its supply chain Brewgooder, a craft beer social enterprise that donates 100% of its profits to clean water projects around the world. Thus, without compromising on quality, SAP's purchases are directly providing clean water access, with a stated target of reaching more than 1 million people by 2025 (Brewgooder 2019).

Without question, more consumers are choosing brands based on sustainable sources and raw materials and on fair human and environmental practices. 'Purpose' is no longer something that's nice to have; it's become a must-have strategic imperative that is high on every organisation's agenda if they want to be perceived by their customers, employees, investors, partners, communities, and public entities as relevant, admired and innovative. Procurement has a role to play in driving forward the purpose agenda.

Society is demanding that companies, both public and private, serve a social purpose. To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society. (Larry Fink, CEO, BlackRock, in the *2018 annual letter to CEOs* (BlackRock 2018)).

## Conclusion

Digitalisation is helping organisations to transform their procurement operating models to stay ahead of the challenges of today's complex supply chain. Organisations are redefining their business models, operating processes and work. This trend is set to continue as technologies emerge as part of the digital revolution. Organisations need to consider the key requirements for successful deployment of digital technologies. Effective risk management been a challenge since the last global economic downturn. We experienced the collapse of supply chains due to the inability to suppliers to finance their work capital requirements. Today, digital technologies enable organisations to analyse data for multiple sources and convert into intelligent insights. This, coupled with real-time processing, allows organisations to identify risks and mitigate them. These risks include social and environmental issues that impact brand value and image. Digitalisation can provide opportunities for the CPO to contribute to the wider commercial activities of the organisation.

## References

BlackRock. (2018). BlackRock Larry Fink's 2018 chairman's letter to shareholders. Retrieved from: https://www.blackrock.com/hk/en/insights/larry-fink-ceo-letter [accessed 28 April 2019].

BrandZ. (2017). Top 100 most valuable global brands 2017. Retrieved from: https://brandz.com/report/global/2017 [accessed 18 April 2019].

Brewgooder. (2019). The craft beer on a mission. Retrieved from: https://www.brewgooder.com [accessed 29 November 2019].

Carlsberg Group. (2017). Carlsberg to achieve zero carbon emissions at its breweries by 2030 as part of industry-leading sustainability ambitions. Retrieved from: https://carlsberggroup.com/newsroom/carlsberg-to-achieve-zero-carbon-emissions-at-its-breweries-by-2030-as-part-of-industry-leading-sustainability-ambitions [accessed 28 April 2019].

Chartered Institute of Purchasing & Supply. (2015a). The procurement cycle, Modern Slavery Act 2015. Retrieved from: https://www.cips.org/Documents/Knowledge/Procurement-Topics-and-Skills/4-Sustainability-CSR-Ethics/Sustainable-and-Ethical-Procurement/3/Modern-Day-Slavery.pdf [accessed 28 April 2019].

Chartered Institute of Purchasing & Supply. (2017). Top six challenges facing procurement. Retrieved from: https://www.cips.org/en-sg/supply-manazgement/opinion/2017/september/the-top-six-challenges-facing-procurement-[accessed 18 April 2019].

Columbia University School of International and Public Affairs. (2016). Quantifying the costs, benefits and risks of due diligence for responsible business conduct. Retrieved from: https://mneguidelines.oecd.org/Quantifying-the-Cost-Benefits-Risks-of-Due-Diligence-for-RBC.pdf [accessed 18 April 2019].

Curtin, M. (2018). 73 percent of millennials are willing to spend more money on this 1 type of product. Inc. https://www.inc.com/melanie-curtin/73-percent-of-millennials-are-willing-to-spend-more-money-on-this-1-type-of-product.html [accessed 18 April 2019].

E&T. (2018). Shell pledges to reduce carbon emissions by 50 per cent by 2050. Retrieved from: https://eandt.theiet.org/content/articles/2018/12/shell-pledges-to-reduce-carbon-emissions-by-50-per-cent-by-2050 [accessed 28 April 2019].

EY. (2011). Consequences of supplier failure P.15. Retrieved from: https://www.cips.org/Documents/Membership/Branch%20Event%20uploads/1025154_Supplier%20risk%20management_CIPS%20Presentation_May%202011.pdf [accessed 28 April 2019].

GlaxoSmithKline. (2019). Our commitments. Retrieved from: https://uk.gsk.com/en-gb/responsibility/our-planet/our-commitments [accessed 28 April 2019].

*The Guardian*. (2017, 5 February). How high street clothes were made by children in Myanmar for 13p an hour. Retrieved from: https://www.the guardian.com/world/2017/feb/05/child-labour-myanmar-high-street-brands [accessed 28 April 2019].

The Hackett Group. (2018). Raising the world-class bar in procurement through digital transformation. Retrieved from: https://www.thehackettgroup.com/wp-content/uploads/2018/06/hackett-world-class-pro-1806.pdf [accessed 18 April 2019].

Ocean Tomo. (2017). Intangible market asset value study. Retrieved from: https://www.oceantomo.com/intangible-asset-market-value-study [accessed 18 April 2019].

Omare, F. (2017a). *SAP Ariba complexity in today's supply chain*. Internal report. Unpublished.

Omare, F. (2017b). *SAP Ariba supply chain collaboration*. Internal report. Unpublished.

Rotchild, L. (2017). Does corporate social responsibility influence our stock price? Huffington Post. Retrieved from: https://www.huffingtonpost.ca/leor-rotchild/does-corporate-social-responsibility-influence-our-stock-price_a_23015651 [accessed 18 April 2019].

Sacre, R. (2018). Is CSR slowly dying? FleischmanHillard Fishburn. Retrieved from: https://fhflondon.co.uk/2018/07/is-csr-slowly-dying [accessed 18 April 2019].

*San Diego Union Tribune*. (2016, 25 May). HRW reports use of child labor in Indonesian tobacco production. Retrieved from: http://www.sandiegouniontribune.com/hoy-san-diego/sdhoy-hrw-reports-use-of-child-labor-in-indonesian-2016may25-story.html [accessed 28 April 2019].

*SAP Digitalist Magazine*. (2019, 23 April). How procurement can create value in mergers and acquisitions. Retrieved from: https://www.digitalistmag.com/finance/2019/04/23/how-procurement-can-create-value-in-mergers-acquisitions-06197885 [accessed 28 April 2019].

SAP News. (2019). SAP Backs Social Enterprises Through £2 Trillion Procurement Platform. Retrieved from https://news.sap.com/uk/2019/04/sap-backs-social-enterprises-through-2-trillion-procurement-platform/ [accessed 10 October 2019].

Schwartz, E. (2018). Quick facts: How climate change affects people living in poverty. Mercy Corps. Retrieved from: https://www.mercycorps.org/articles/climate-change-affects-poverty [accessed 18 April 2019].

Unilever. (2019). Sustainable living. Retrieved from: https://www.unilever.com/sustainable-living [accessed 28 April 2019].

United Nations Framework (UNFCCC). (2019). What is the Paris Agreement? Retrieved from: https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement [accessed 18 April 2019].

Whelan, T. & Fink, C. (2016). The comprehensive business case for sustainability. *Harvard Business Review*. Retrieved from: https://hbr.org/2016/10/the-comprehensive-business-case-for-sustainability [accessed 18 April 2019].