CIPS KNOWLEDGE

Internal Strategic Integration

This knowledge paper is supportive of Procurement professionals operating at Professional level of the CIPS Global Standard

01 CPD HOURS

CIPS members can record one CPD hour

Introduction

Successful supply chain management relies on organisations working together and collaborating effectively (Carr and Pearson, 1999; Fynes et al., 2005; Lazzarini et al., 2001). This means that functions internal to the organisation (e.g. purchasing, engineering, manufacturing, marketing, logistics, accounting), as well as those external to it (e.g. end customers, third-party logistics firms, retailers, distributors, warehouses, transportation providers, suppliers, agents, financial institutions) should integrate to achieve the desired outcomes. (Monczka et al., 2009)

Internal strategic integration relies to a great extent on information technologies that link together P&SM; functions and activities, such as e-sourcing, e-procurement, e-tender, purchase order systems, marketplaces and business exchanges, contract registers/databases, supplier databases, business intelligence, e-invoicing, electronic point of sale (EPOS) and radio frequency identification technology (RFID). (CIPS: Summary of technology in purchasing)

To achieve internal strategic integration organisations typically use enterprise resource planning systems (ERP) (CIPS: Procurement's evolving role in enterprise supply chains). ERP is defined as "an integrated transaction processing and reporting system" … providing "the means for tracking organisational resources, including people, processes, and technology" (Monczka et al., 2009: 677). It is the backbone of an organisation providing the information and support needed for decision making and creating connections between organisational processes. (Monczka et al., 2009)

Although the use of ERP is important, another critical factor of internal strategic integration is successful change management: a systematic approach to adjusting and transitioning organisational processes, procedures, strategies, attitudes, functions or technologies from their existing state to one that is superior. (CIPS: Summary of technology in purchasing; Burnes, 2009)

Definition

Internal strategic integration in supply chain management refers to the way companies provide their employees with access to an integrated information system spanning multiple functions, activities and locations. (Zahay and Handfield, 2004)

Successful Application

Redesigning a company's approach to internal strategic integration involves engaging in change processes, which can be facilitated by Kotter's (1996) eight steps change model. First, it is important to establish a sense of urgency (examine market and competitive realities, identify and discuss crises, potential crises, or major opportunities) and to create a guiding coalition: assemble a group with enough power to lead the change effort. The company should develop a vision and strategy, communicate them, empower broad-based action and generate short-term wins. Finally, gains should be consolidated and new approaches anchored in the culture.

Steps to Successful Application

- Define the current process and use an ERP implementation team comprised of subject matter experts to document what the current process looks like.
- Define what 'best-in-class' business process looks like: at this point, the SME team must have a clear understanding of what the final objective of the process is, what the ERP system will replace and how the benefits will arise.

- Develop the system: this is an iterative process whereby consultants work in conjunction with managers familiar with the business processes in question.
- Work through all final bugs and then 'flip the switch', i.e. switch over from the old system to the new one.

Monczka et al. (2009)

Hints and Tips

- Prior to switching to a new system companies must be ready for a change: it requires an extensive action plan on how employees will be trained on the system's use (Monczka et al., 2009).
- After transferring to the new system, companies often find that they have underestimated the extent to which the new system needs to be completely configured to handle the specific activities that keep the business running (Monczka et al., 2009).

It can be beneficial to take gaps in the weeks scheduled for the implementation in the contract with the ERP vendor. For example, instead of eight consecutive weeks ask for a one week break between every two week implementation period (CIPS: Procurement's evolving role in enterprise supply chains).

Six steps to surviving a big technology implementation.

1 The business case: clear, detailed and realistic.
The expected deliverables, benefits and return on investment must be clearly outlined in the original business case and expressed as key performance indicators or outcomes that are capable of being subsequently measured and reported. The objectives that the organisation is trying to achieve should be prioritised and agreed by key stakeholders, based on the 'size of each prize' and/or the criticality of the issues that will be addressed.

2 Ownership: finance or procurement?
This is a contentious but vitally important issue: you need to be clear on ownership. Many firmly believe ownership sits with finance when it comes to P2P.The business case is that you can save some heads in accounts payable, so the business case is not procurement, it is accounts payable – which is a finance process.

Procurement have a role to play because we are interested in the front end and it's linked to our contract database so that we're only buying from approved suppliers, but the ownership of the whole cycle sits in finance. Others believe that procurement should 'own' any technology programme that addresses the full source-to-purchase (S2P) lifecycle, but agree that finance must lead the P2P element. For all other elements of an e-procurement product suite, procurement should partner with the other key stakeholder function to internally 'lead' and deliver the module.

3 Choosing the right system: whom can you trust?
The starting point is to get the right functional and technical people involved in reviewing and agreeing exactly what the business requirements and priorities are, and then comprehensively testing the solutions available against this clear brief. To do this correctly will take significant time and effort upfront, which will need to be budgeted for

4 Future proofing: today, tomorrow, and beyond.

Blockchain, artificial intelligence (AI), automation… the speed of technological change in procurement is increasing

5 Integration: big bang or bit by bit?
You never know how bespoke your own ERP system is until you start to integrate things. Ford is in the middle of a P2P implementation that should have finished 2017 year but has been dogged by internal issues, notably that the company was trying to integrate into a system that had been 'customised to death' and had to be scrapped. Now the P2P project is secondary and securing time and resource to make it happen is challenging. Be realistic about resources, days of effort required, budgets, timings and

6 The people piece – the biggest issue?
Involve people early and often. Seek feedback on a weekly basis. Finally, bring suppliers on board early, talk to them about the change and how it will affect them. If possible pilot the system with a few key suppliers to see how it will really work in practice. You need to convince them that this change is of benefit to them.
(Harrington, S, 2018)

- Successful internal strategic systems integration requires team building skills, effective communication skills, technical skills, financial business skills and relationship building skills (Giunipero and Handfield, 2004).
- If you want to control purchasing processes you need purchasing to be integrated into the business.(Green, W 2014)

Potential Advantages

- Internal strategic integration systems empower users by equipping them with real-time data on sales, orders, stocks, changes, or problems arising across multiple organisational functions (Robey et al., 2002).
- Internal strategic integration, which utilises quality management systems, can help organisations to maintain quality compliance with international standards such as ISO, QS-9000, TS-16949, AS-9100, etc. (Priestley, 2010).
- ERP can enable employees to communicate across the functions and geographical locations of an organisation (Monczka et al., 2009).

Potential Disadvantages

- A 2005 survey of supply chain executives across 14 industries revealed that 71% believed that ERP delivered half or fewer of the anticipated benefits. Furthermore, 7% found that ERP solutions made things worse (Supply Management, 2006).
- Enterprise systems can be costly to implement: it is not uncommon for some larger companies to spend more than US$100m to implement an ERP system (Robey et al., 2002).
- If internal processes, such as collaboration with suppliers, are not already effective, companies will not reap the full benefits from internal supply chain integration (Supply Management, 2006).

Performance Monitoring

- Integration success can be measured by capturing data on financial expectations, such as revenue targets, cost reductions and market share growth (Halibozek and Kovacich, 2005).
- Actual performance data can be measured against stated goals and objectives (Halibozek and Kovacich, 2005).
- Training scores can be used to measure and assess which employees require further help transferring to the new system (Halibozek and Kovacich, 2005).

Case Studies

- IBM developed the first Materials Requirement Planning (MRP) software in the late 1960s and went onto build the Manufacturing Management Account System (MMAS), a precursor of ERP, in 1975 and the IBM System 34 in 1978. It was this latter system which eventually introduced capacity requirement planning alongside other key functions such as forecasting, purchasing, and full-scale master production schedule planning modules (Jacobs and Weston Jr., 2007).
- Recognising that many aerospace and defence (A&D) companies were dissatisfied with their on-time delivery rate, lead times and work in progress, Baan released ERP software to improve implementation in A&D supply chains. As a result one aerospace client reported a 33% improvement in on-time delivery (from 65% to 98%) (Supply Management, 2002).
- When Microsoft found it faced too many expensive systems, too little integration and burdensome administration, it implemented an integrated ERP solution providing accurate and real-time information. This allowed managers to make faster and better-informed decisions, and saved the company US$20m annually in procurement costs (Vaman, 2007).

Further Reading/Reference

CIPS Source Downloads

- CIPS: Relationship management
- CIPS: Technology in purchasing
- CIPS: Procurement's evolving role in enterprise supply chains
- CIPS: A report into the current use of technology in procurement by CIPSA, BOMweb & Vertical Talent
- Case Study: Best People Development Initiative - Surrey County Council
- Case Study: The Role of Procurement in Strategy Development - NATO

Web Resources

- Investing in IT to gain competitive advantage http://hbr.org/2008/07/investing-in-the-it-that-makes-a-competitive-difference/ar/1
- Harvard Business Review article on aligning internal processes http://hbr.org/product/aligning-internal-process-and-learning-and-growth-/an/1761BC-PDF-ENG
- Overview of SCM and ERP http://www.cio.com/article/40940/Supply_Chain_Management_Definition_and_Solutions
- Brief overview of strategic integration http://www.encyclopedia.com/doc/1G2-3273100277.html

- Advice, downloads and case studies on change management http://www.local.gov.uk/

Books

- Modern ERP: Select, implement & use todays advanced business systems, Marianne Bradford, ISBN 978-0557434077
- Enterprise Resource Planning, Mary Sumner, ISBN 978-0131403437
- Sams Teach Yourself SAP in 24 Hours, George Anderson, ISBN 978-0672335426
- Enterprise Resource Planning, International Edition, Wagner/Monk ISBN 978-1439081082
- Enterprise Risk Management, dacvid L.Olsen & Desheng Dash Wu, ISBN 978-9812791481

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Video

Analyst take: Enterprise resource planning
https://www.youtube.com/watch?feature=player_embedded&v=QnRzW3SswEI