Big data and data analytics in SSCs

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Organising for data analytics and big data

Ian Herbert, Deputy Director, Centre for Global Sourcing and Services, School of Business and Economics – *Research project funded by CIMA*
The Centre for Global Sourcing and Services

Nothing’s changed but everything’s different!
“The Centre is dedicated to carrying out both academic and ‘focus on practice’ high impact internationally renowned research on how organisations source and manage business and IT services in a global context”........*Centre for Global Sourcing and Services Website*

The attainment of world-class business support services through the application of New Working Practices and Advanced Service Systems in a sustainable manner.
Some people will spend a lot of time getting data analytics right, and a lot of people will spend some time getting it wrong.
There are significant opportunities for generating insight through data analytics and big data. But...

- ... research by Loughborough University’s Centre for Global Sourcing and Services suggests that this potential may not be realised if organisations do not ask the right questions about the links between
  - business partners,
  - business process centres, and
  - business units.
Data analytics & big data

• Whilst corporate-wide master data has improved significantly in recent years, big data requires new thinking.

• This means creating a different culture that values and leverages data to better support global end-to-end processes which deliver real outcomes.
But first, a ‘recap’…..

What is the essence of the SSC model?

A simple idea that needs no big agenda!
Moving to a Shared Service Centre Model

Conventional Divisional structure
(support services embedded)

Semi-autonomous
Thinking like a business
Networking & benchmarking

Shared service centre structure
More than just a new organisation chart - The SSC model blends different approaches

Combining a market outlook with inhouse management control

Working across the organisation

Enabling a single source of the truth in real-time throughout the management chain

New structures, ‘philosophy’ & techniques
Shared service (&BPO) - Success factors

- Simplification
- Division of labour/deskilling
- Standardisation
- A single version of the truth
- Objective/independent
- Scalable
- Efficient & continuous cost reduction
- Finding the cheapest place on earth
- Networking and benchmarking
- Invisible to the business
- Phased migration, building on the wins

But... are these strengths compatible with the ‘brave new world’ of data analytics?
Organising for data analytics and big data

• Big data is messy and its application needs to be tailored around individual business problems.

• Data analytics: needs new structures and thinking to go with the technical opportunities?

• But, what if the talent pipeline dries up as the professional ‘training camps’ are offshored?
Segregated finance?

- SSC
- Finance operations
- Globalisation
- Retained finance
- Business Partners
Segregated finance?

- MI and analytics?
- Finance operations

Globalisation?

- Business Partners
- Buy in – MBAs or SSC training?
Big Data
Enterprise Data
Financial Data

Data analytics?

Complexity of Analysis

Scale and Complexity of Data
But before we go on..

What is essence of ‘big data’

And,

is it just a fad?
“Big data” refers to datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze.

*(Big data: The next frontier for innovation, competition, and productivity, McKinsey Global Institute, June 2011)*
WHAT IS BIG DATA – THE 4 Vs?

**Volume (Scale of Data)**
- 40 Zettabytes (4 × 10^21) of data will be created by 2020, an increase of 300 times from 2005.
- 6 billion people have cell phones.
- World population: 7 billion.

**Velocity (Analysis of Streaming Data)**
- The New York Stock Exchange captures 1 TB of trade information during each trading session.
- Modern cars have close to 100 sensors that monitor items such as fuel level and tire pressure.
- By 2016, it is projected there will be 18.9 billion network connections – almost 2.5 connections per person on earth.

**Variety (Different Forms of Data)**
- It’s estimated that 2.5 quintillion bytes (2.3 trillion gigabytes) of data are created each day.
- Most companies in the U.S. have at least 100 terabytes (101 billion gigabytes) of data stored.
- As of 2011, the global size of data in healthcare was estimated to be 150 exabytes (101 billion gigabytes).

**Veracity (Uncertainty of Data)**
- By 2014, it’s anticipated there will be 420 million wearable, wireless health monitors.
- 4 billion hours of video are watched on YouTube each month.
- 30 billion pieces of content are shared on Facebook every month.
- 400 million tweets are sent per day by about 200 million monthly active users.

Sources: McKinsey Global Institute, Twitter, Coca, Gartner, EMC, SAS, IBM, NEPTEC, G4S

From traffic patterns and music downloads to web history and medical records, data is recorded, stored, and analyzed to enable the technology and services that the world relies on every day. But what exactly is big data, and how can those massive amounts of data be used?

As a leader in the sector, IBM data scientists break big data into four dimensions: Volume, Velocity, Variety and Veracity.

Depending on the industry and organization, big data encompasses information from multiple internal and external sources such as transactions, social media, enterprise content, sensors and mobile devices. Companies can leverage data to adopt their products and services to better meet customer needs, optimize operations and infrastructure, and find new sources of revenue.

1 in 3 business leaders don’t trust the information they use to make decisions.

27% of respondents in one survey were unsure of how much of their data was inaccurate.

Poor data quality costs the US economy around $3.1 trillion a year.
“I think you’ll find that mine is bigger...”
What is the basis for finance professionals’ claim to be well placed to help unlock Big Data?

- Use core skills
- In business context to bring insight
- To influence people
- And lead the organisation

Efficiency:
- Data capture
- Reports
- Analysis
- Insight
- Influence
- Impact

Value

Comfort zone

Source: CIMA
Insight, influence and impact requires...

- Inspiration/creativity
- Leading-edge expertise
- Broad views & multidisciplinary collaboration
- Business connectivity & understanding
- Data security
- Intelligent information users
- Interpersonal skills
• For most companies, fully adapting to a data driven era of business remains a work in progress.

• ‘86% of the finance professionals we surveyed agree that their businesses are….

... struggling to get valuable insight from data, not least due to issues such as organisational data silos, challenges relating to data quality, or difficulties in working with unfamiliar non-financial data.’
Challenges in harnessing Big Data

- Bringing data together from different databases/business silos: 62%
- Ensuring the business captures reliable good quality data in the first place: 51%
- Extracting insight from non-financial data: 46%
- Ensuring insights gained from data are used to improve performance: 43%
- Identifying meaningful trends and insights in a mass of data: 39%
- Intelligent visualisation and reporting of data: 34%
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- Breaking down silos
- Capturing good quality data
- Extracting insight from non-financial data
- Making impact
- Identifying trends
- Intelligent presentation
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Organisation & SSC
Skills
Bus. partners
Technical back office
The competencies required for data analytics
The competencies required for data analytics
New roles for management accountants

- Data Champion
- Business Partner
- Data Manager
- Data Scientist

- Data culture
- Value creation
- Data management
- Analytics

Performance

Technical

Conformance

Commercial
Insight – an example of product extension

Baby wipes
Routes to enlightenment?

- inspiration
- brainstorming
- Focus Group
- intention data
- actual data
- consultant
Insight from data – people without babies buy baby wipes – but WHY?
Insight from data – people without babies buy baby wipes – but WHY?

Expert knowledge? - explicit

Domain knowledge? - tacit

Paralysis through analysis?

Extinction through intuition!
Questions?
Welcome!

Welcome to the Shared Services Project Website. A Resource for Academics and Practitioners

Here we'll tell the story of our investigation into the emerging phenomena of the Shared Services model. Through speaking with leading companies we have discovered a real need to understand the Shared Services model and come together to formulate best practice.

News

- Andrew Rothwell to present at Universities UK conference
- Malaysia Activity Report
- Intellectual capital: Optimising performance in SSCs
- Ian Herbert Participating in CIMA Expert Roundtable – 15th January 2013
- CIMA-Loughborough Sourcing event – 18th January 2013 – Colombo, Sri Lanka

If you have any query on the project, a story to tell from your Shared Service Experience, or if there is anything you would like to see added then please contact the team on ssc-research-team@lboro.ac.uk or let us know what you think through our Discussion Board.

In the Spotlight

Revisiting Ian Herbert and Will Seal's 2011 article 'Shared Services as a new organisational form: some implications for management accounting' – can you see any other issues that we must consider? Join the discussion by clicking here.