

Service Supply Chain (SSC) Integration in Multi-Organisation Networks (MON) – Aligning Process Capabilities and Associated Performance Metrics

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Agenda

- ❖ Introduction
- ❖ SSC Definitions
- ❖ Research Methodology
- ❖ Evaluating Network Integration
- ❖ Case Study Research
- ❖ Findings
- ❖ Conclusions



SSC: Service Supply Chain



Introduction

- Despite extensive SCM literature over the last 20 years and the increasing importance on services, SSC is largely unexplored
 - (Ellram et al 2004, Sengupta et al 2006, Niranjan 2007, Baltacioglu et al 2007, Avery 2008, Spring 2008)
- This gap in the academic world has recently started to be addressed by:
 - Directly using the SSC concept (e.g. Ellram et al 2004, Baltacioglu et al 2007, Avery 2008)
 - Identifying similarities and differences between product and SSC's (e.g. Niranjan 2007, Sengupta et al 2007, Spring 2008)
 - Suggesting frameworks specifically for SSC's (Ellram et al 2004, Baltacioglu et al 2007)



SCM: Supply Chain Management
SSC: Service Supply Chain



Introduction cont.

- Previous research has stressed the importance of process integration in SC management and stressed the importance of integration
 - (e.g. Frohlich and Westbrook 2001, Bowersox et al 2003, Rosenzweig et al 2003, Van Donk et al 2007, Saccani et al 2007)
- HOWEVER**
- Despite current findings, there is a gap in the current body of research
 - A deeper understanding of SC integration is required capturing the perspectives of all the various partners involved in the integrative activities (McCarty & Gollicic 2005)
- This identified the need for research at multiple nodes across MON and
 - addressed the importance for a more integrated approach towards capability and performance measurement assessment (Iakovaki & Srjai 2008)
 - as well as a comprehensive definition of the processes that support network integration (Croxtton et al 01)



SC: Supply Chain
MON: Multi-Organisation Networks



Alternative SSC Definitions

Definitions described SSC as:	References
'network of resources'	'Cohen et al 2006', 'Srjai 2007'
'a SC that enables efficient after-sales support'	'Gosling & Colborn 2004', 'Waar & Kemper 2004'
'an adaptive SC incorporating planning and execution capabilities'	'Poole 2003'
'a SC that matches the urgency and criticality of its customer needs'	'Cohen et al 2003'
'the management of information, processes, service performance, resources, capacity and funds'	'Ellram et al 2004', 'Baltacioglu et al 2007'



SSC: Service Supply Chain
SC: Supply Chain



Proposed SSC Definition

In summary the key concepts that have emerged are:

- SSC as a network of resources
- SSC as a service offering
- "Flexibility" in SSC
- SSC as a customised solution

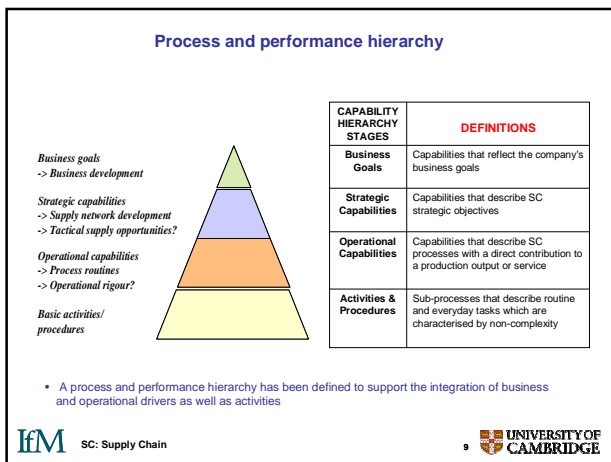
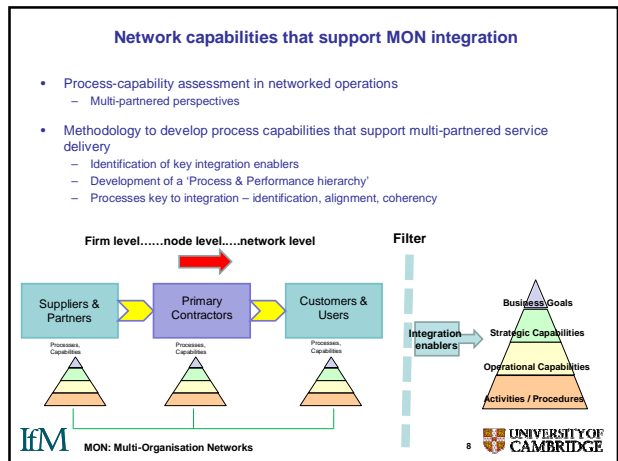
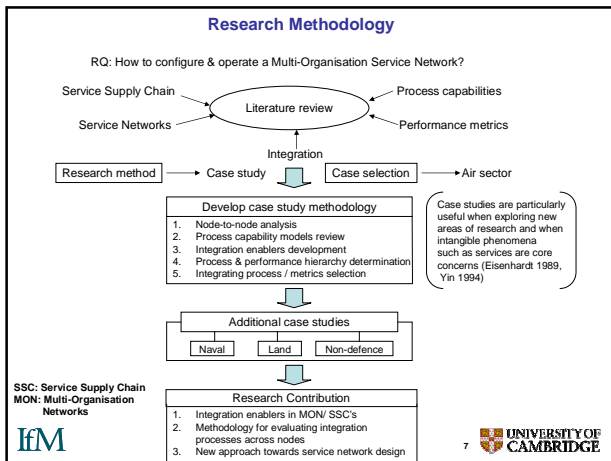
The determination of these key elements led to the proposed SSC definition:

"SSC is a network of inter-connected organisations that utilises resources and transforms their inputs (skills and knowledge) into the service offering to enhance the delivery of a "flexible" customised solution"



SSC: Service Supply Chain





Network Integration Enablers – Cluster review

Network Integration Enablers	Definitions
Common Goals	Build meaningful and cooperative relationships with clearly defined roles, integrative resources and joint ownership of decisions
Shared Risk and Rewards	Set up appropriate risk management mechanisms that remain flexible and adaptable for collective responsibility of risk and benefit sharing
Network Synchronisation	Executing activities and operations in an optimum sequence that maximises responsiveness through effective material and information flows to enhance the way at which essential functions are performed
Collaborative Resources	Exploit organisational routines through the ability to make use of complementary resources that can contribute to create decision-support capabilities in the future
Knowledge Sharing	Willingness to exchange key technical, financial, operational and strategic information to appropriate stakeholders via effective use of information systems that contribute to quick, accurate and proactive decisions

- Evaluating the extent (H,M,L) to which these enablers are incorporated in the capabilities establishes the capabilities contribution to network integration

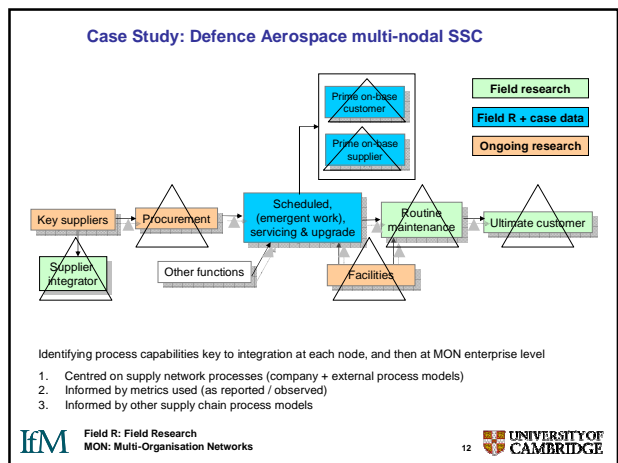
H: high, M: medium, L: low

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Network Integration Enablers – Literature review

Area of research	Author	Common goals	Sharing of risks & rewards	Network synchronisation	Collaborative resources	Knowledge sharing
SC collaboration	Cebal et al 08	x	x	x	x	x
	Bowersox et al 03	x	x	x	x	x
	Gimenez et al 08	x	x	x	x	x
	Bartoo et al 06	x	x	x	x	x
	Hollway et al 05	x	x	x	x	x
	Slank et al 01	x	x	x	x	x
	Mourkes 04	x	x	x	x	x
	McCormack et al 07	x	x	x	x	x
	Wardha et al 06	x	x	x	x	x
	Barratt 04	x	x	x	x	x
SC integration	Van Donk et al 08	x	x	x	x	x
	Vieira et al 09	x	x	x	x	x
	Asif et al 08	x	x	x	x	x
	Eltis et al 00	x	x	x	x	x
	Friedrich & Westbrook 01	x	x	x	x	x
	Slank et al 01-02	x	x	x	x	x
	Rosenzweig et al 03	x	x	x	x	x
	Jan Sadler	x	x	x	x	x
	Van Donk & Van der Vaart 07	x	x	x	x	x
	Sakun & Hirmanastun 05	x	x	x	x	x
McCarthy & Gallic 05	x	x	x	x	x	
Simatupang et al 02	x	x	x	x	x	
Lee & Whang 01	x	x	x	x	x	
Demand collaboration	Xu & Dong 04	x	x	x	x	x
	Kahn et al 06	x	x	x	x	x
Buyer-supplier relationships	Joshi et al 05	x	x	x	x	x
	Liker et al 04	x	x	x	x	x

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Findings: Process & Performance Hierarchy

Elements of commonality

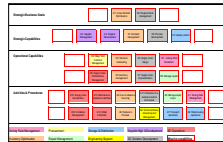
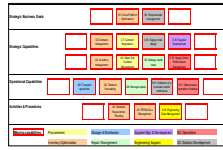
- Initial results showed an alignment of business goals across the nodes examined
 - Platform Optimisation & Requirements Management criticality

Elements of divergence of view

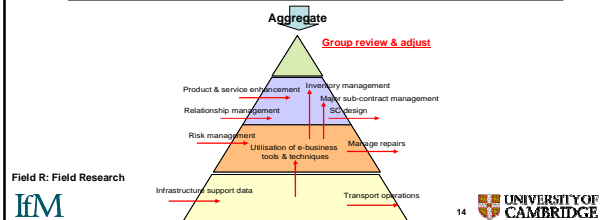
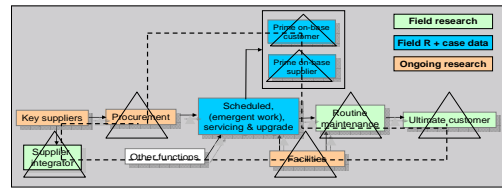
- Contradictory strategic and operational priorities
 - contextual complexity (supply network and product service) rather than competing commercial interests

Observations

- These differences identify an absence of a shared view on critical enabled processes across network partners
- Identified the need for an integrating methodology across multiple nodes under a "common, shared perspective"



Integrating Methodology across Multiple Nodes



Conclusions

- Need for a network / shared perspective on particular processes key to integration
- The methodology described allows the simplification and identification of processes that support network integration
- A process hierarchy has been defined to support the integration of business and operational drivers as well as activities
- A selection of five key integration enablers, (*Common Goals, Shared Risks and Rewards, Network Synchronisation, Collaborative Resources, Knowledge Sharing*), informed by literature and practice, have been used to cluster the suggested processes key to network integration
- Initial results demonstrate that using a common hierarchy with a "shared set of goals" and a common terminology within various network members can support process and metrics alignment
- The identification of a common set of critical processes that enable network integration, including their strategic and operational relevance, provide insights to service network design

Theoretical and Practical Implications

- Theoretical implications include a series of integration enablers for multi-organisational networks and a methodology for evaluating processes across network members
- Practical implications include an integration process tool and new approaches to multi-organisation service network design
- The outputs will be used to define key processes and performance metrics in managing or integrating multi-organisation networks

Thank you very much for your attention!
Questions?