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EXTENDED ENTERPRISE PERFORMANCE MANAGEMENT

A VALUE CO-CREATION PERSPECTIVE

MARIA LAMMERDINA BOBBINK, ANDREAS HARTMANN

- **Authors:**

Maria Lammerdina Bobbink, Department of Construction Management and Engineering,
University of Twente

Dr. Andreas Hartmann, Department of Construction Management and Engineering, University
of Twente

- **Contact :**

Maria Lammerdina (Wilma) Bobbink

m.l.bobbink@utwente.nl

- **Professional biographies**

Wilma Bobbink MSc, started her professional career in International Development Co-operation in 1988. She started as a researcher and advisor in water management, gender and natural resource management, after which she continued in the field of organisational and institutional development. In 2005 she returned to the Netherlands and became trainer and consultant in project and process management. Since 2013 she is employed as a PhD-candidate on '*the co-creation of key performance indicators in public railway infrastructure*' at the department of Construction Management and Engineering at the University of Twente.

Dr. Andreas Hartmann is Associate Professor at the Department of Construction Management and Engineering, University of Twente, The Netherlands. His research interest focuses on organizational, environmental and contractual issues in the management of infrastructure assets. His most recent research has been on the introduction of performance-based contracts in the infrastructure sector and the optimization of decision-making throughout the life-cycle of infrastructure assets. Andreas has published several book chapters and articles in scholarly journals, including *Supply Chain Management: An International Journal*, *Construction Management and Economics*, and *Building Research & Information*.

Extended enterprise performance management: a value co-creation perspective

Abstract

The allegiance of partnering organisations and their employees to an Extended Enterprise performance is its proverbial *sword of Damocles*. Literature on Extended Enterprises focuses on collaboration, inter-organisational integration and learning to avoid diminishing or missing allegiance becoming an issue. In this paper we will argue that interrelating the marketing literature on the Service Logic with the performance management literature on Extended Enterprises will provide a new perspective on how to deal with this issue. Simultaneously flexible co-created performance indicators play a key role in enhancing this perspective.

Keywords: extended enterprise, value-creation, value co-creation, collaboration and improvement processes, flexible co-created performance indicators

Design/methodology/approach

This paper is of conceptual nature and builds upon recent development on performance management and measurement of extended enterprises. By adopting an perspective of value co-creation it goes beyond the production focus of previous frameworks and deliberately addresses the collaboration and improvement processes of an extended enterprise.

Findings

The theoretical perspective of value co-creation on extended enterprise performance management literature addresses the hitherto missing need for a service logic among the partnering organisations as an important aspect in the management of Extended Enterprises. Addressing the performance measurement of extended enterprises from a value co-creation perspective reveals there is a need for flexible co-created indicators and that value co-creation is applicable beyond dyadic relations.

Originality

For a scholarly and practical audience the paper provides an understanding of the significance of the discerned value co-creation processes and the related need for flexible co-created performance indicators for the performance of an extended enterprise.

Paper type: Conceptual paper

1 Introduction

In an extended enterprise (EE) various actors, both suppliers and customers, focus on maximising the value of their overall supply-chain output. They do this through collaboration, inter-organisational integration, decentralisation and the exchange of knowledge to learn how to maximise their supply-chain output for the benefit of their customer. (O'Neill and Sackett, 1994, Bititci et al., 2005, Braziotis and Tannock, 2011). In performance management literature the coming into being of an EE is frequently seen as an organic process of moving from sharing information to co-ordination and collaboration (Braziotis and Tannock, 2011) (Estampe et al., 2013). With this the relation between the partnering organisations moves from inter-organisational contact to trust-based collaboration. Simultaneously the focus on the organisations' own organisational objectives and output becomes

aligned with the EE's overall objective and outputs. Therefore the biggest threat to an EE's performance is considered to be the allegiance of the partnering organisations to their own organisation. Not surprisingly, performance management and measurement literature on the extended enterprise focusses on collaboration factors, the interlinking intra-and inter-organisational performance measurement and learning. However, what is missing in this literature is the organisational logic that contributes to the focus of the partnering organisations on an EE's objectives and output. In this paper we suggest that the marketing stream of literature on the Service Logic can fill this missing link. From a Service Logic perspective it is argued that the focus of supplying organisations should be on the value creation of the customer, to enable value co-creation between customer and supplier. We argue that it is this value co-creation perspective that can enhance our understanding of the performance of the extended enterprise and that the co-creation of flexible performance indicators among the partners can contribute to the performance measurement of the extend enterprise.

In the following section we will shortly elaborate on extended enterprise performance management and introduce the *Extended Enterprise Performance Management Model* of Bititci et al. (2005), after which we will introduce the concept of value co-creation . Then we will relate the concept of value co-creation to performance management and measurement of an EE and introduce our Extended Enterprise measurement framework from a value co-creation perspective. We finish with a short discussion conclusions .

2 Extended Enterprise performance management: the essence

An EE is a special kind of supply chain that integrates the related processes of both supplying and customer organisations in maximizing the value of the supply chain's output for the customer(s). (O'Neill and Sackett, 1994, Bititci et al., 2005, Braziotis and Tannock, 2011). Bititci et al. (2005, p.25) developed the Extended Enterprise Performance Measurement Model (EEPMM) to capture this interrelatedness. The EEPMM (fig 1) is a generic framework that provides the necessary information for managing an EE's performance. The EEPMM describes the overall objectives and scorecards, hereafter performance indicators, of the strategic level of the partnering organisations separately. Subsequently the objectives and performance indicators of the interrelated organisational sub-units are linked and transformed into strategic objectives and performance indicators at the EE-level, path 2 in the EEPMM. The strategic objectives of the EE are translated in the EE business process and then to the sub process, path 3. Each enterprise of course also has its own strategic objectives and will translate these to their own business units and processes, path 1.

The EEPMM reveals the complex structure of the EE's performance management and measurement. The EEPMM underpins the importance of inter-organisational relationships involving matters like joint planning, implementation, monitoring and evaluation in order to revise the joint strategy when and where necessary. Therefore the challenge of an EE is a management challenge. The more so because conventional organisational hierarchy can neither control, nor lead the performance of an EE. (O'Neill and Sackett, 1994, Post et al., 2002, Braziotis and Tannock, 2011). Instead of top management taking decisions regarding performance, decisions are taken throughout the EE in multi-organisational teams. The efficiency and effectiveness of these teams depend on the social skills of the involved, the fit between the interrelated processes and the allegiance to the purpose of the EE. (O'Neill and Sackett, 1994, Jordan and Lowe, 2004). According to O'Neill and Sackett (1994, p. 44) the performance of an EE therefore needs:

“... a common standard of ‘meaning’ to enhance the sharing of information between people, rather than organisations...”(ibid., p.44).

A standard-of-meaning that is understood in a syntactic, semantic and practical manner (Carlile, 2004) enabling not only the mutual knowledge exchange on ‘how to balance the interrelated supply chain output-processes’, but also the joint learning on ‘how to improve on and account for it’; both from the intra- and inter-organisational perspective. In an EE-setting this standard-of-meaning thus has to be steered from an organisational logic that counteracts the opportunistic behaviour of individual partners and strengthens the collaborative effort. This requires a change from the *Goods-Dominant Logic* to a *Service Logic* to enable *value co-creation*.

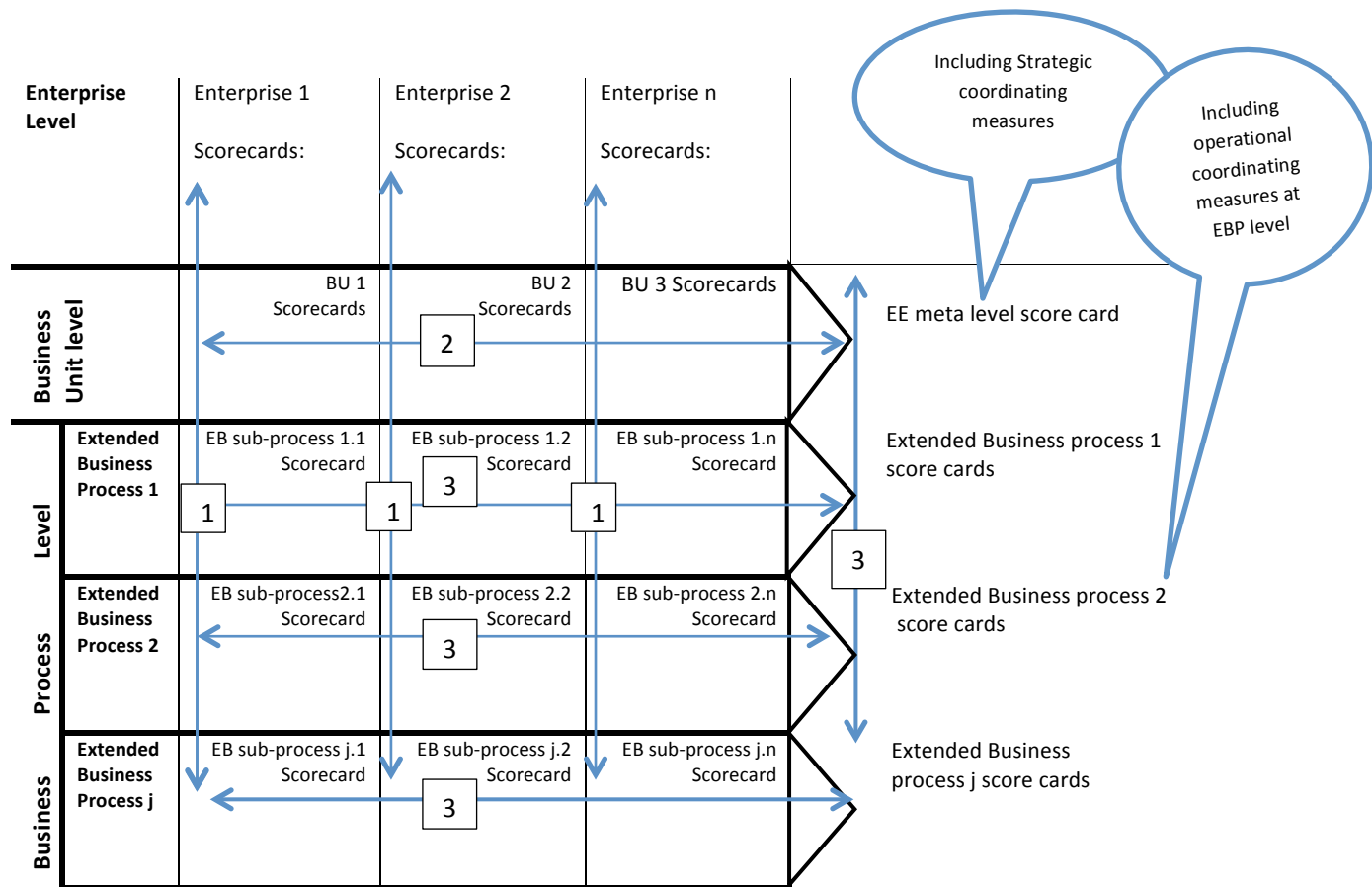


Figure 1: The extended enterprise performance measurement model after Bititci et al. (2005, p.23)

3 Value co-creation: the missing link

Since Adam Smith’s *Wealth of Nations* in 1776, value increasingly became synonymous to the exchange of a supplier’s product for customer money. This growing importance of exchange-value officially condoned a single-mindedness on the own organisation without necessarily taking customers and society into account. Vargo and Lusch (2008) call this organisational logic that focusses on exchange-value, the *Goods Dominant Logic* (GD-logic). To organisations reasoning from this logic, inter-organisational relationships or collaboration with suppliers, customers let alone competitors is at best an additional task and at worst a compulsion. While collaborating the allegiance of these organisations’ representatives is with their organisation. A situation which in the worst case may lead to opportunistic behaviour, a deadly ingredient for collaboration. (Jordan and

Lowe, 2004). This focus on exchange-value is still prevalent, though changing due to environmental concerns, increasing customer knowledge and demands, and ever more complex technologies that transcend the capacity of stand-alone hierarchical organisations. Consequently in the organisational landscape inter-organisational and collaborative relationships like EEs become more and more important. (Bititci et al., 2012), requiring organisations to apply a *Service logic*.

In contrast to the GD-logic, organisations using a *service logic* reason that value is experienced by those perceiving it, which makes the customer the value creator (Vargo and Lusch, 2008) (Grönroos, 2008). Consequently the product or service of all product producing or service delivering organisations should be *valuable 'in use'* (Ng et al., 2010), i.e. the customer uses the provided product/service to improve its life or business. In contrast to the GD-logic this logic is called *Service Dominant Logic* by Vargo and Lusch (2008). Grönroos (2008, p. 300) argues that the term *Service Logic* would be more appropriate, because

"Adopting a service-centred perspective is not a matter of adding weight to the service aspect of a logic in order to become service-dominant. Rather, it is a new logic in itself." (ibid., p.300)

To us dealing with value from a phenomenological perspective indeed is a new logic, that goes beyond a supplier giving attention to the customer. Instead the customer's value creation process is the starting point, to which the supplier's service or product delivery is tailored. Therefore we choose to use the term Service Logic too. A new logic that is slowly gaining ground, e.g. customers not buying an engine, but paying for the trouble-free, enduring use of the engine. (Ng et al., 2009).

The customer being the value-creator' (Grönroos, 2008, Grönroos, 2011, Vargo and Lusch, 2008, Ng et al., 2010) infers that the supplier is a provider of potential value. Since the customer realises the supplier's outcome, the supplier needs to understand the value creation process of the customer, which makes direct interaction with the customer vital. (Payne et al., 2007). The more so when the interaction with the supplier is initiated by the customer, because this may lead to value co-creation. (Grönroos, 2011).

From a service logic perspective value co-creation does not concern a supplier requesting customers advice on how to improve its product or service. In this case the customer is used as a resource to improve the exchange value of the supplier and a case of 'old wine in new bottles'. Value co-creation may occur when a customer invites a supplier to assist in improving their value creation process. (Grönroos, 2011). A supplier may start such a process, but seen the prevalence of the goods dominant logic the chances are high that the initial value creation focus will change into an exchange-value focus. Grönroos and Voima (2013) claim therefore that value co-creation is only possible in the joint sphere where the value creation process of the customer is connected to the output-process of the supplier through direct interaction. It is in this joint sphere where learning about the value creation process and the contributing supplier output processes takes place and the necessary information for their improvement is obtained.

The essence of a well-functioning EE therefore is its ability to develop a standard-of –meaning that is based on the value-creation processes of its customers and geared towards value co-creation.

4 The performance management and measurement of an EE from a value co-creation perspective

Creating a standard-of-meaning that leads to value creation needs a relationship that enhances mutual knowledge and understanding of the involved parties in their intra- and inter-organisational situation. This goes beyond the present prevalent practice of dyadic relationships (organisation-supplier, organisation-employees, organisation-customers), and deals with multi-actor relationships (Post et al., 2002). The predicaments and possibilities of the different organisations in relation to the value creation process have to be mutually known, because only this leads to a realistic standard-of-meaning enhancing this process. In addition, this mutual understanding is the ingredient needed to take up joint action on future intra- and inter-organisational performance.(Reams, 2010). Hence, collaboration is key for an EE. Braziotis and Tannock (2011) suggest that beyond the contractual factors related to the formal strategy (the who, what and where), the performance changing difference of the EE is caused by the *enabling collaboration factors* related to the “how” (like training of multi-organisational teams, operational methods for the EE etc.) and *enhancing collaboration factors* related to the “when” (the intensity of the collaboration). The enabling and enhancing collaboration factors can contribute to a standard-of-meaning among the EE-partners that goes beyond simply copying patterns of thought and related actions from the past. For example, the training and subsequent implementation of an operational method how to deal with an unplanned interruption in interrelated sub-processes can enhance the internalisation of the standard-of-meaning of the EE among those trained.

Jointly developed performance indicators that capture standard-of-meaning of an EE are necessary to further instil and improve it. For example the why of ‘conflicts of allegiance’ can be used to come to a standard-of-meaning about what collaboration entails. Based on this standard a joint performance indicator on collaboration can be created that is useful for the intra- and inter-organisational level, e.g. the number of hierarchical escalated conflict-resolution meetings. At the same time information derived from this co-created performance indicator may contribute to the standard-of-meaning on the value-creating collaboration within the EE. These co-created performance indicators thus are based on and contribute to an EE’s standard-of-meaning. As such they contribute to both individual and interactive learning, which is needed for innovative intra- and inter-organisational change. Co-created performance indicators are especially important for the standard-of-meaning of an EE, because:

- the context in which an EE operates may differ per organisational region, e.g. different constellation of partnering organisations.
- the constellation of an EE may change during time, due to changing supplying and customer organisations.
- the individual and interactive learning per differing context may lead to an improvement in performance that needs readjusted or new performance indicators.

Given these reasons, flexibility of an EE’s performance indicators is an important characteristic too, to create a best fit for these changing contexts.

The EE’s necessity for flexible co-created indicators is in contrast to the present practice of translating an organisation’s strategic strategy throughout the organisation by means of financial and technical measures. This practice and the use of only these indicators is more and more criticised, because of their enhancement of delivering what is being measured. The enhancement of this

attitude has a negative influence on individual and interactive reflective learning needed to cope with changing circumstances. (Antonsen, 2014).

As underpinned before the EE's standard-of-meaning depends on learning. In addition, the EE's future performance depends on learning from and improving the collaboration and the value creation and output processes too. Hence, steering this learning and improvement process is also vital for an EE and will need performance indicators too. The value creation and related output process, in addition to the collaboration and learning and improvement processes, therefore form the core processes of an EE.

5 Extended Enterprise: a value co-creation framework

Managing the core processes of an EE at strategic, tactical and operational management level is an intra- and inter-organisational responsibility. Based on Bititci et al. (2005, p. 23) Extended Enterprise Performance Measurement Model (EEPMM) we developed a framework for the performance measurement of an EE from the perspective of value co-creation. In this framework the organisation specific strategic objectives and performance indicators are their own prerogative. Subsequently the objectives and performance indicators of the organisational sub-units that are interlinked are transformed into strategic objectives and performance indicators at the EE-level. At this level the EE-strategy and the overall planning and implementation process are monitored, evaluated and revised, when required.

The EEs strategic objectives are translated into interrelated sub-unit output and value creation processes, the needed collaboration and learning and improvement processes and their performance indicators. With regards to the performance indicators of the output and value creation processes of the existing organisational sub-unit performance indicators will be checked and used when applicable. In case the performance indicators are not fit for the purpose of steering and learning from the performance of these processes, relevant performance indicators for both the intra- and inter-organisational situation will be sought in addition to the objectives and performance indicators on the core processes.

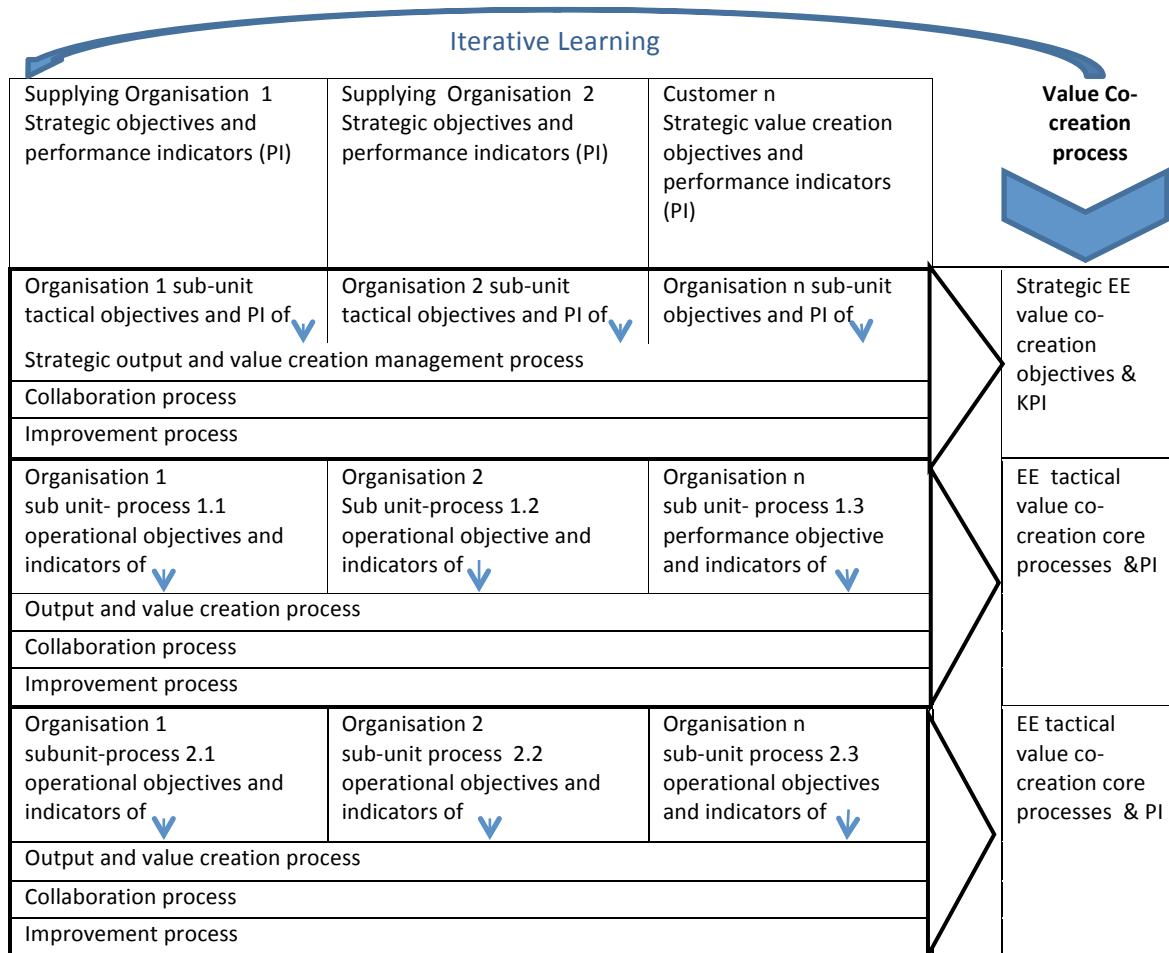


Figure 2 Extended Enterprise measurement framework from a value co-creation perspective

Discussion and Conclusions

The value co-creation perspective on an extended enterprise framework stresses the need for a service logic among the partners. In doing so it uncovers the goods-dominant logic practice that needs to be addressed by the collaborating partners to enhance the performance of EEs. These joint lessons can strengthen the standard-of-meaning within the EE and be transferred to improvements by making use of enabling collaboration factors (like a training on an operational method, or the delegation of a responsibility to a joint EE-team at operational level). The intended improvement of these collaborative factors can be captured in flexible co-created performance indicators to obtain information about how to increase collaborative and counteract opportunistic behaviour. Hence, the discerned core-processes are crucial to obtain value co-creation, and an optimal performance of the EE.

In Marketing literature the Service Logic and consequently value co-creation concerns dyadic relations between customer and supplier. Value co-creation is the joint sphere where the supplier actively contributes to the value creation process of the customer and learns how to improve its output process in return. The EE measurement framework from a value co-creation perspective

captures this joint process in the horizontal interrelated processes and shows the continued independent value-creation in the vertical separate organisation lines. In the framework it is shown that the service logic's value co-creation is well applicable to extended enterprises and clearly goes beyond dyadic relationships.

However, the practical applicability of this framework relies on the willingness of the concerned organisations to share inside information, which needs a thorough explorative research in co-operation with the concerned to detect the key improvement issue within the core processes of their EE and to co-create performance indicators for them. In the next phase of the research we will investigate this in two different regional railway-infrastructure management regions of an Extended Enterprise on railway infrastructure performance in the Netherlands.

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