THE ENTERPRISE ARCHITECTURE VALUE FRAMEWORK

Henk Plessius, Marlies van Steenbergen, Raymond Slot & Johan Versendaal
HU University of Applied Sciences Utrecht (NL)
Contact Author: henk.plessius@hu.nl

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Towards an EA Value Measurement Instrument

WHY

In literature:
- Authors do not define central concepts like goal, benefit, etc
- Benefits of EA are assumed, but no proof is given
- No explanation is given of what exactly is meant with a benefit
- No commonly accepted classification of EA benefits exists
- Hardly any discussion on costs of EA

→ RQ1: How can a classification scheme of benefits and costs of EA be constructed from definitions of these concepts?

EAVF

Definitions*:*
- *(Organizational) Goal*: A desired state of affairs which an organization attempts to realize (Etzioni, 1964).
- *EA Activity*: Activity (the work that a company or organization performs to create a certain output; BPMN, 2011) that is related to the EA, i.e. either creating or implementing the EA or resulting from the EA.
- *EA Benefit*: The positive contribution from (one or more) EA activities towards the desired state of affairs for an organization as stated by some goal of that organization (based on Renkema and Berghout, 1997).
- *EA Cost*: The negative contribution from (one or more) EA activities towards the desired state of affairs for an organization as stated by some goal of that organization (based on Renkema and Berghout (1997) who call this a sacrifice).

→ EA Benefit/Cost = f(Goal, EA Activity)

ENTERPRISE ARCHITECTURE VALUE FRAMEWORK	Financial & Accountability	Customer	Internal Processes	Learning & Growth
	Financial : Shareholder Value; Costs; Revenues; Asset Utilization; … *Accountability* : Compliance; Governance; Risk Control; Sustainability; …	*Customer* : Experience; Relationships; … *Market* : Position; Strategy; … *Suppliers* : Collaboration; Supply Chain; …	*Primary* : Logistics; Operations; Marketing & Sales; Service; … *IS & IT* : Information Systems; Data; Information Technology; Support; … *Support* : Project Management; Administration; (non-IT) Technology; Procurement; Innovation; HRM; …	*Human Capital* : Competencies; … *Organization* : Culture; Communication; Alignment; Agility; … *Information* : Knowledge Management; Technology Use; Evaluation; …
Development				
Initiation : Organize architecture function; Scope architectural work; Set up governance; … *Architecture Concept* : Identify stakeholders; Identify trends; Assess business capabilities and agility; Establish architecture principles and constraints; … *Architecture Design* : Develop the business architecture; Develop the information systems architecture; Develop the technology architecture; … *Roadmap* : Perform gap analysis; Perform impact analysis target architectures; Finalize architectures and roadmap; …				
Implementation				
Solution Design : Define migration projects; Contribute to portfolio management; Create solution architectures; … *Architecture Governance* : Review architecture compliance; Guide implementatation projects; … *Transition* : Prepare for organizational changes; Activate implementation of changes; …				
Exploitation				
Use : Monitor performance; Look for reuse; … *Support, Maintain and Dispose* : Evaluate architecture; Govern technical debt; Create architecture history; …				

VALIDATION

- *Comprehensive:* the EAVF covers fully the domain of organizational goals (Cobbold et al., 2002; Boucharas, 2010b). By definition, the EAVF covers all EA activities. It follows that all instances of EA benefits and EA costs can be classified in the EAVF.
- *Concise* and *robust*: the EAVF has twelve cells in two dimensions making it easy to understand while at the same time it offers enough detail to differentiate between various kinds of EA benefits and EA costs.
- *Explanatory* and *extendible*: by their nature, the EAVF-categories combine instances of EA benefits and EA costs based on corresponding organizational goal and EA activity. When necessary however, both axes can be subdivided further to show more detail (see figure).
- *Unambiguous* and *useful in practice:* These will be addressed in our further research.

→ Other classifications of EA benefits (e.g. Niemi, 2008; Tamm, 2011; Jusuf and Kurnia, 2017) can be (and have been) mapped on the EAVF

FURTHER RESEARCH

- **RQ2**: *Which indicators as reported in literature can be used in a measurement instrument for EA benefits and EA costs based on EAVF?*
  - literature study → first version measurement instrument
- **RQ3**: *Which indicators and accompanying metrics constitute a sufficient base to define a measurement instrument for EA benefits and EA costs based on the EAVF?*
  - case studies → improving the instrument
- **RQ4***: Are results of measuring the value of EA with the measurement instrument independent of the measurer?*
  - Action research → validating the instrument
- **RQ5**: *How can the EAVF be used to optimize the effectiveness of the architectural practice?*
  - Action research → usefulness of the intstrument

→EA Value Measurement Instrument

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