



Upgrading to a New Version of an ERP System: A Multilevel Analysis of Influencing Factors in a Software Ecosystem

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Agenda

- **Motivation**
- **Research question**
- **Background of the project**
- **ERP software ecosystem**
- **Research method**
- **Data source**
- **Emergent model**
- **Discussion and conclusions**



Motivation

- **ERP customer organizations are regularly faced with the prospect of upgrading their implementations (Kremers and van Dissel, 2000; Chang et al. 2008)**
- **Contemporary ERP software ecosystems consist of multiple players (Campbell-Kelly, 2003; Kude and Dibbern, 2009; Antero and Holst, 2011)**
- **Little is know about how the players in the ERP software ecosystems influence the upgrade process.**



Research question

- **Who are the players that shape the composition of an ecosystem for ERP systems implementations and how does the composition of the ecosystem influence the diffusion of a new/upgraded version of a packaged enterprise system from vendor to customers?**



Research setting and background

- **The 3gERP project is a joint research project between Copenhagen Business School, Copenhagen University, and Microsoft Development Center Copenhagen.**
- **Aims at researching the next generation of enterprise systems (including ERP) and their surrounding business environment.**

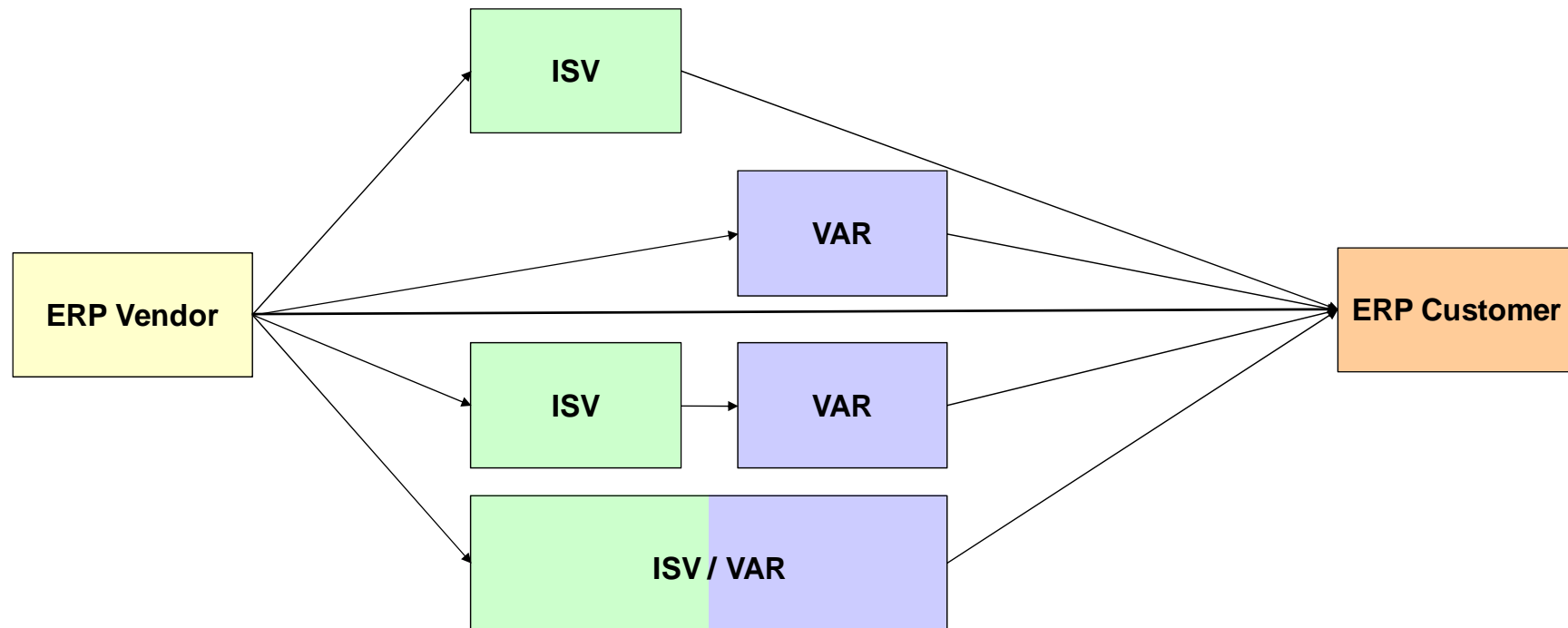


The ERP software ecosystem

- **The ERP vendor only sells and implements its systems through a network of partner companies.**
- **The software ecosystem consists of two types of partner companies:**
 - **Independent Software Vendors (ISVs): Develop add-ons for the core ERP system.**
 - **Value Added Resellers (VARs): Implement the core ERP system + add-ons and make customer specific customizations.**



The ERP software ecosystem





Research method

- **Grounded Theory Method as the overall research methodology.**
- **Following the guidelines for doing Grounded Theory in the IS field according to Urquhart et al., 2010:**
 - **Constant comparison (concepts identification and re-coding)**
 - **Iterative conceptualization (identify themes, form concepts)**
 - **Theoretical sampling (collect further data to extend analysis)**
 - **Scaling up (higher level constructs, theorizing, diagrams)**
 - **Theoretical integration (compare with literature)**
- **Result: code table, by the end of the final iteration of coding a total of 1080 instances of data had been coded and 93 theoretical memos had been written**
- **Tool used: Atlas.ti**



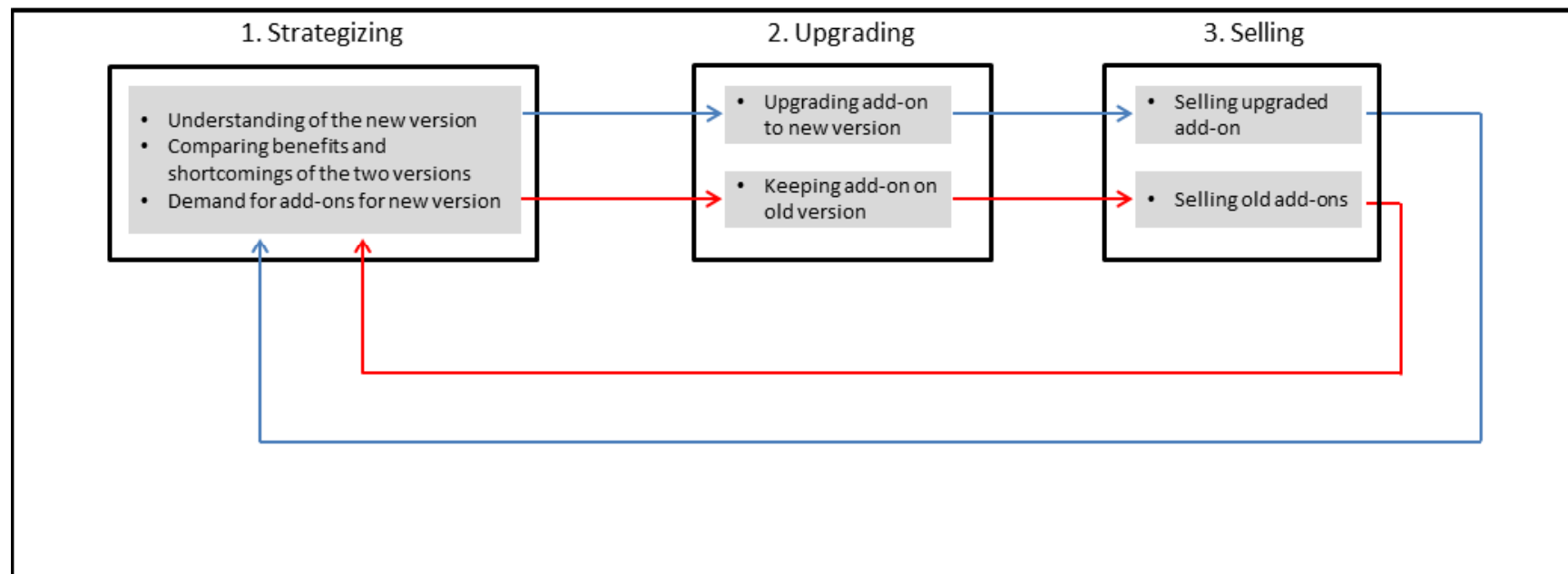
Data

- **Data types:**
 - Interviews
 - Participatory observations
 - Documents
- **Data sources:**
 - The ERP vendor
 - 10 partner companies
 - An ERP customer

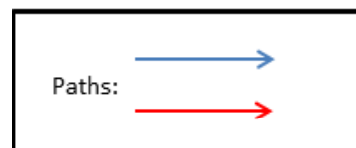
Table 1: Participating companies in the study

Company alias	No. of employees	Company type	Interviewee role
Vendor	90000 global/ 1000 local	Vendor	Product Marketing Manager
			Partner Technology Advisor
Customer	75	Customer	Internal Project Manager
Partner 1	28	ISV + VAR	CIO
Partner 2	1100 global/ 250 local	VAR	Unit Manager
Partner 3	50	VAR	Consultant
Partner 4	14	VAR	Chief Consultant
Partner 5	1	VAR	CEO
Partner 6	39000 global/ 250 local	ISV + VAR	Product Manager
Partner 7	50	VAR	Chief Consultant
Partner 8	180	ISV + VAR	Consultant
Partner 9	1800 global/ 80 local	VAR	Product Manager
			Consultant
Partner 10	23	ISV	CEO
			Product Manager

Emerging explanatory model - ISVs

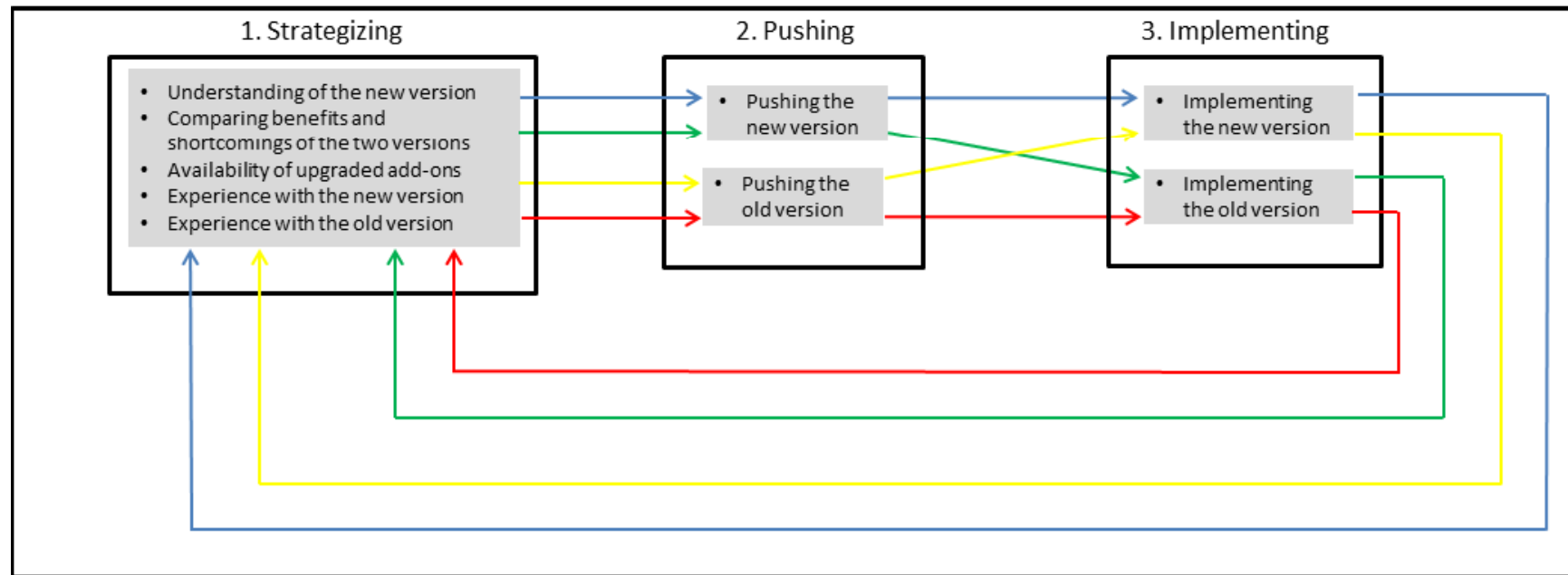


Legend



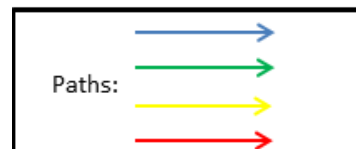
Transition process - ISV

Emerging explanatory model - VARs

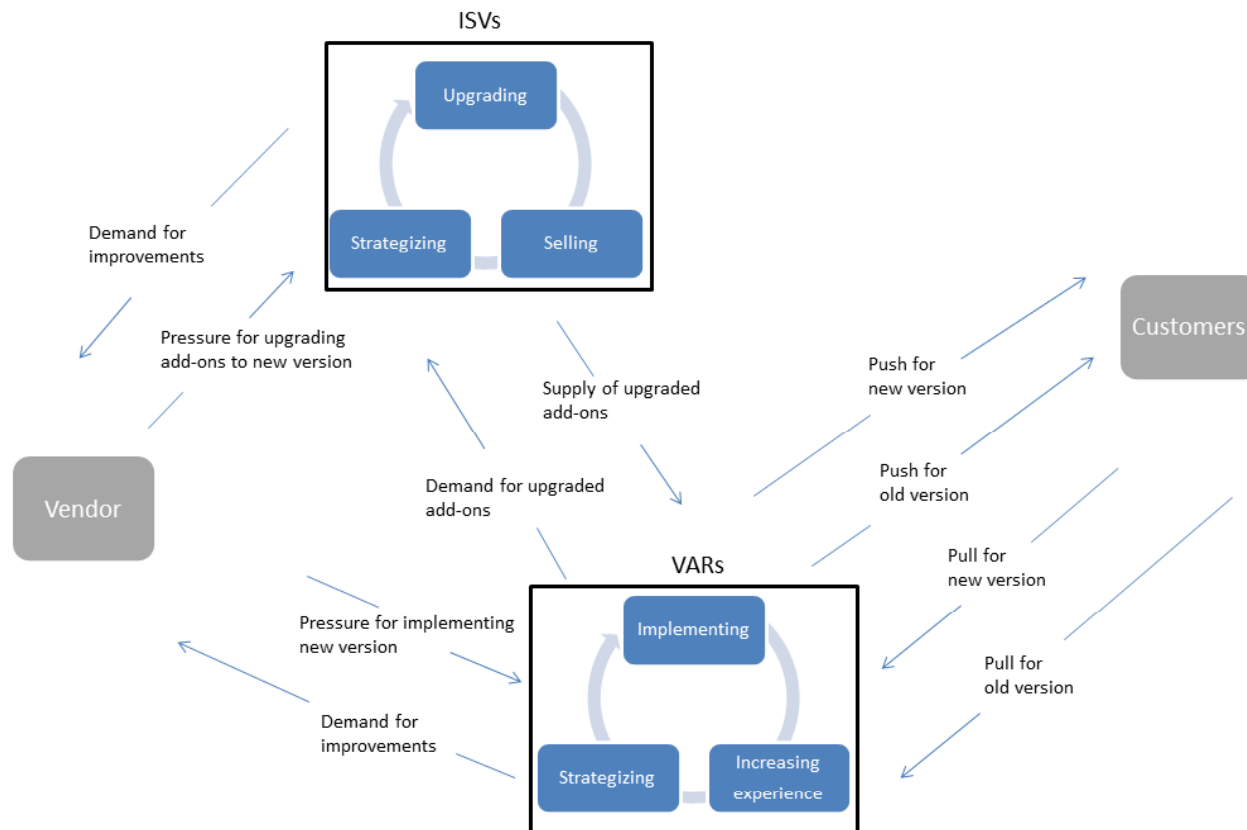


Transition process VAR

Legend



Emerging explanatory model – entire ecosystem





Conclusions

- **Reciprocal dependence among players in the software ecosystem may cause inertia in the transition process to a new version of the ERP system.**
- **Experience with the “old” version of the ERP system may bias VARs towards selling the old version.**
- **Customer demand for new features may speed up the transition process.**



Discussion

- **Supports viewing diffusion of innovations from a network (ecosystem) perspective.**
- **ERP vendors selling only through their partner networks are faced with a complex diffusion process in their software ecosystem.**



Thank you for your attention.

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