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Realising Benefits from current ERP and CRM systems implementations: an empirical study

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Introduction and Motivation: Issue for Scholarly Research

- Identifying and managing ERP benefits is an area of theoretical and practical concern for scholarly researchers
- Extensive research effort has been directed towards understanding the nature of ERP benefits (Legare, 2002; Murphy and Simon, 2002; Shang and Seddon, 2002; Staehr, Shanks, and Seddon, 2002; Stratman, 2007).
- Current research is focused into three main areas:
 - Benefits classification
 - Benefits as success (CSF/success measurement models)
 - Benefits in context



Research Programme

- **Deriving an extended classification to track benefits in context and over time**
- **Framework for mapping and discussing ERP motivations and benefits in the context of systems implementations**
- **Identifying and (where they exist) describing and explaining variations within and between organisations**
 - **in different industries**
 - **different size**
 - **different stages of maturity**
 - **different project motivations and goals**



Objectives of this Investigation

- **Validate framework specifically the already established codes**
- **Identify new codes**
- **Focus of this paper: on projects that are dedicated to upgrading and/or extending existing ERP/CRM systems.**
- ***Research question: What benefits are companies actually realising from their current ERP and CRM implementation projects?***



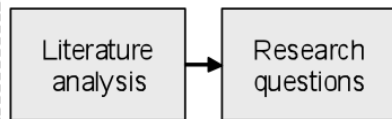
Data Source: eXperience Initiative

- Description of the organisations and actors involved as well as the national regulations;
- Business scenario, partners, and company strategy;
- Objectives, expectations, and desired benefits;
- Actual outcome of the project (enterprise system solution);
- Advantages achieved and the shortcomings observed (learnings)
- **>120 cases** (note: we have coded >50 and use 14 for this study)

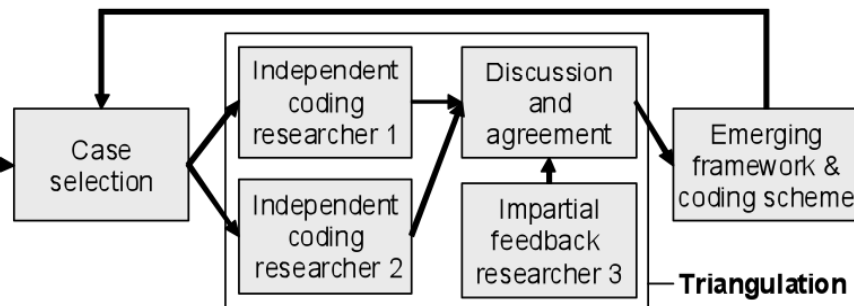


Research Steps

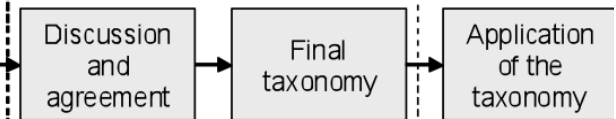
Step 1: Initialization phase



Step 2: Exploration phase

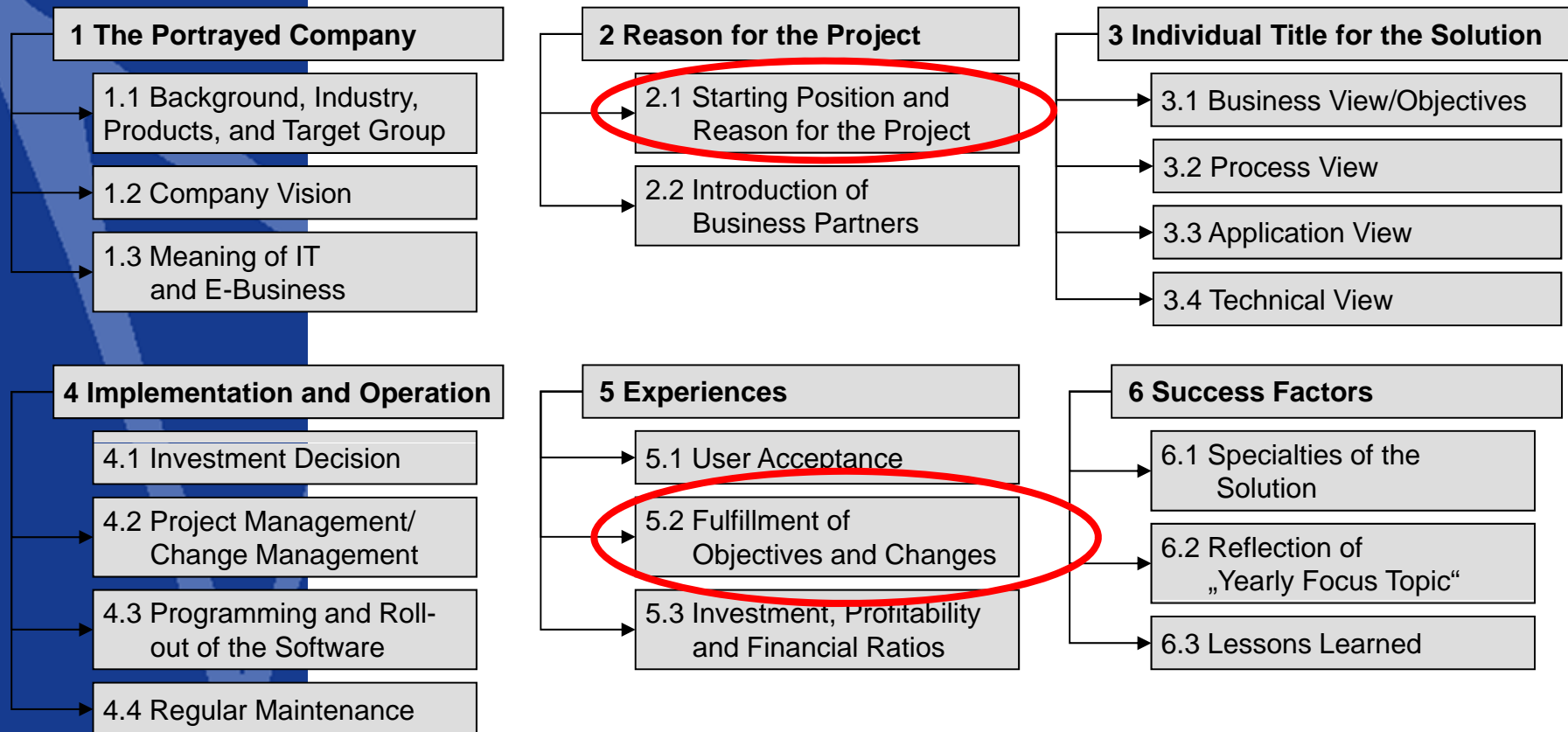


Step 3: Consolidation phase




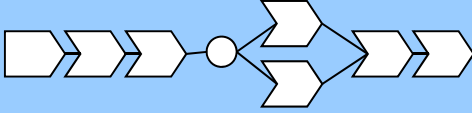




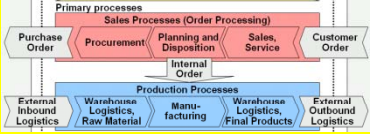






Drivers and Benefits: Extracting Knowledge from Case Studies





The Current Exp-Ben Framework Second iteration (July 2009)

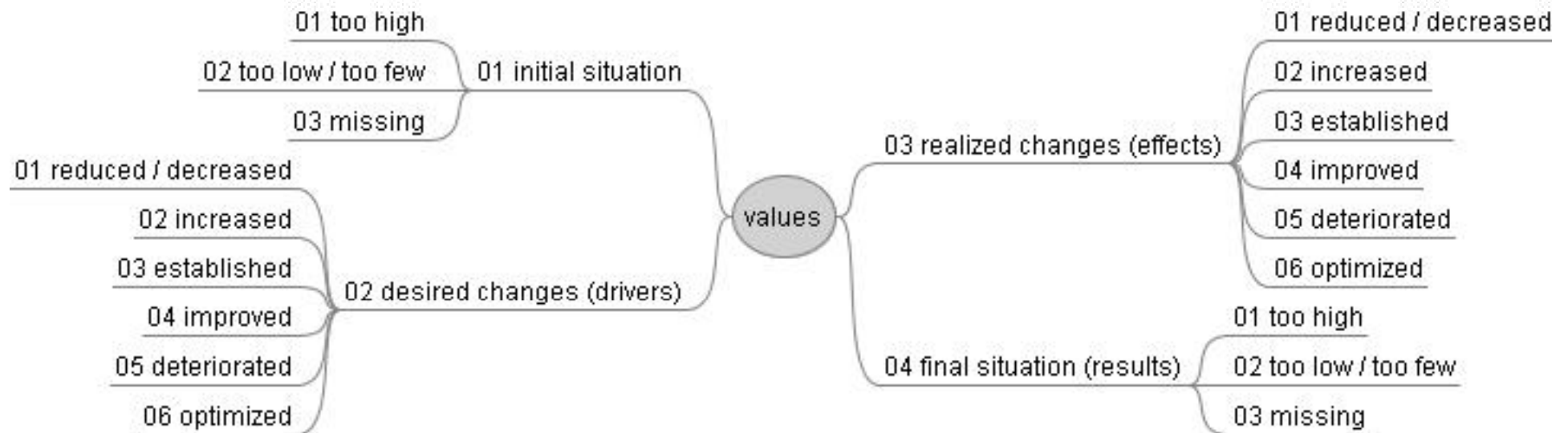
<p>Business Design</p>	<p>„Strategy and Processes“</p>  <p>Strategy</p>  <p>Business processes / Workflows</p>
<p>Management</p>	<p>„Resources“</p>  <p>Financial</p>  <p>Employees</p>  <p>Information</p>  <p>Products</p>
<p>Functional Areas</p>	<p>„Functions“ (ERP Modules)</p> <p>Suppliers/ Partners</p>  <p>Customers</p> <p>Sales Procurement Manufacturing PR/Marketing Accounting HR</p>
<p>Information Technology & Infrastructure</p>	<p>“Technology Components”</p>  <p>Data</p>  <p>Software</p>  <p>Systems</p>  <p>Networks</p>

Source: Williams/Schubert 2010, p. 4.



CODING: adding richness

Appraisal Values for the Codes





CODING: Open Coding of the original text

5.2 Der Auslöser des Projekts

5.2.1 Ausgangslage und Anstoss für das Projekt

Etwa zehn Jahre nach der Gründung hatte das Unternehmen eine Grösse und ein Mengenvolumen erreicht, die mit den organisch gewachsenen Organisationsabläufen nicht mehr wirtschaftlich zu führen waren. Es gab keine durchgängige Datenverarbeitung. Daten wurden in verschiedenen Insellösungen und selbst erstellten Excel-Tools mehrfach verwaltet. Dabei konnten einzelne Taschen eines Typs nicht separat abgebildet werden, obwohl es sich um Unikate handelte. Die Voraussetzungen für eine effiziente Abwicklung eines Onlinevertriebs an Endkunden waren nicht gegeben. Der bestehende Onlineshop aus dem Jahr 2000 war nicht mehr zeitgemäss und damit keine Unterstützung der Marke FREITAG. Noch schwerer wog, dass die Taschen-Unikate nicht gut genug abgebildet waren, was eine unbefriedigend hohe Retourenquote und unzufriedene Kunden nach sich zog.

FREITAG entschied sich, einen organisatorischen Generationenwechsel zu vollziehen. Dieser wird im Folgenden beschrieben. Er ging einher mit der Einführung des ERP-Systems ProConcept ERP und eines neuen Webauftritts inkl. Onlineshop.

Kommentar [psc1]: Number of transactions have increased

Kommentar [psc2]: Organic growth could not be handled economically with existing IT any more

Kommentar [psc3]: Infrastructure: IT not integrated

Kommentar [psc4]: Isolated data silos

Kommentar [psc5]: Functionality insufficient for manufacturing

Kommentar [psc6]: Channel management: missing online channel for end B2C customers

Kommentar [psc7]: Online Shop is not timely any more

Kommentar [psc8]: Too many customer complaints, unsatisfied customers



Business Design

Business Area	Aspect	Criterion	Code
business design	processes	automation	BDE-PRO-AUT
business design	processes	effort of change	BDE-PRO-CHG
business design	processes	complexity	BDE-PRO-CXY
business design	processes	effectiveness	BDE-PRO-EFE
business design	processes	efficiency	BDE-PRO-EFI
business design	processes	integration	BDE-PRO-INT
business design	processes	optimization	BDE-PRO-OPT
business design	processes	speed	BDE-PRO-SPE
business design	processes	standardization	BDE-PRO-STD
business design	processes	transparency	BDE-PRO-TRA
business design	strategy	competitiveness	BDE-STM-COM
business design	strategy	fulfillment of requirements for future growth	BDE-STM-FUT
business design	strategy	internationalisation	BDE-STM-INA
business design	strategy	fulfillment of legal requirements	BDE-STM-LRQ
business design	strategy	outsourcing	BDE-STM-OUT
business design	strategy	quality of planning	BDE-STM-PLA



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Applying the Codes to the New Dataset



The Cases: Data Description (1/2)

■ Group A

- 7 cases
- customer facing aspects of ERP implementation
- primary processes, sell-side and manufacturing
- quotation or order entry/re-orders, internal shift of goods in the warehouse, manufacturing process.

■ Group B

- 2 cases supply-side
- purchase-to-pay process in large firms



The Cases: Data Description (2/2)

■ Group C

- 2 case studies
- extending the existing ERP system to the web (e-commerce functionality)
- back-end processes (order fulfilment)

■ Group D

- 3 cases
- customer relationship management and extending the use of CRM systems
- improving contact and customer data as well as the subsequent preparation of quotations.



Cases: Industry and Processes

Group A: Customer facing ERP systems projects

Case site	Industry/Products	Supply Chain Level	Type	Processes
Weiss+ Appetito (CH)	Building industry	Construction works and services	B2B/ B2C/ B2A	Quotations
ENGEL (CH)	Steel, building services and hardware	Trade and services	B2B	Warehouse management
Variosystems (CH)	Complete solutions for elec- tronics	Development, produc- tion and testing	B2B	Disposition and manufacturing
eltromat (D)	Systems for measuring and propulsion (print products)	Development, produc- tion, integration and maintenance	B2B	Quotations
ad AUGROS (D)	Car parts and accessories	Trade	B2B	Order entry
Blizzard (AT)	Sports equipment (ski)	Manufacturing	B2B	Re-orders
Finzelberg (D)	Phytopharmaceutical active ingredients for pharmaceu- tical products	Manufacturing	B2B	Production and approval



Cases: Industry and Processes

Group B: Supplier facing ERP systems projects

Case site	Industry/Products	Supply Chain Level	Type	Processes
UBS (CH)	Financial services	Services provider	B2B/ B2C	Order processing indirect goods (Purchase-to-Pay)
Schindler (CH)	Transport (elevators and escalators)	Manufacturing	B2B	Order processing components and transports (Purchase-to-Pay)

Group C: Projects extending ERP systems to web

Case site	Industry/Products	Supply Chain Level	Type	Processes
LeShop (CH)	Food retailing	Retail	B2C	Assembly part order
Digitec (CH)	Information technology and consumer electronics	Retail	B2C/ (B2B)	Order processing B2C

Group D: Customer relationship management systems projects

Case site	Industry/Products	Supply Chain Level	Type	Processes
HERWE (D)	Cosmetic products and oleochemical raw materials	Trading and manufacturing	B2B	Contact management
INTEC (D)	IT consulting and assembly	Consultancy and system vendor	B2B	Quotations
BSCC (CH)	Chamber of commerce	Services	B2B	Lead Management: creating new members



Excerpt from the Result Table

	BUSINESS DESIGN Strategy/Processes	MANAGEMENT Resources	FUNCTIONAL AREA Functions	IT & INFRASTRUCTURE Technology Elements
Weiss+ Appetito	Faster processes (e.g. customer quotations, final accounts, material and equipment dispositions) Group-wide reporting Increased transparency	Massive relief for employees in daily business Higher satisfaction and motivation at work All information is centrally stored without redundancies and available for all subsidiaries	Consistent target-actual comparison over the entire life cycle of a project (construction site) Timely construction cost controlling Key Performance Indicators (KPI) for each project	Integration of functional modules is optimized for information delivery Higher security and availability levels by hardware outsourcing
ENGEL	Massive acceleration of the processes (e.g. month-end closing 23 days earlier)	Improved inventory management leads to higher stock availability and lower capital lockup. Daily on-line analysis of the situation possible	New warehouse management allows a larger assortment	Through processing reduces error rates significantly Continuous coverage of the processes in the system
Vario-systems	Harmonization of business processes across all locations High process stability and success in inventory management Increased transparency and performance Quick adaptability to changing circumstances	Positive mood and calm working atmosphere Higher reliability of the KPIs Complete view of customers' orders Savings achieved	Pooling purchasing volumes results in better purchase prices and optimized scheduling Management cockpit (ad-hoc analysis)	



Strategy and Processes

- **Strategy: quick adaptability (agility)**
- **Strategy: realisation of parts of the business model (e.g. just-in-time, multi-channel with e-shop) with the help of the software**
- **Processes: faster processes**
- **Processes: increased transparency**



Resources

- **Information: availability of information (central, non-redundant, up to date)**
- **Information: improved data quality**
- **Finance: cost and time savings**
- **Employees: higher satisfaction and motivation**



Functions (ERP Modules)

- **Business intelligence (key figures)**
- **Improvements in the sales department**
- **Increased customer satisfaction**
- **Increased level of automation through workflows**



Technology Components

- **Integration of data and software systems, or functional modules**
- **Integration interfaces with partners**
- **Outsourcing of hardware and software**

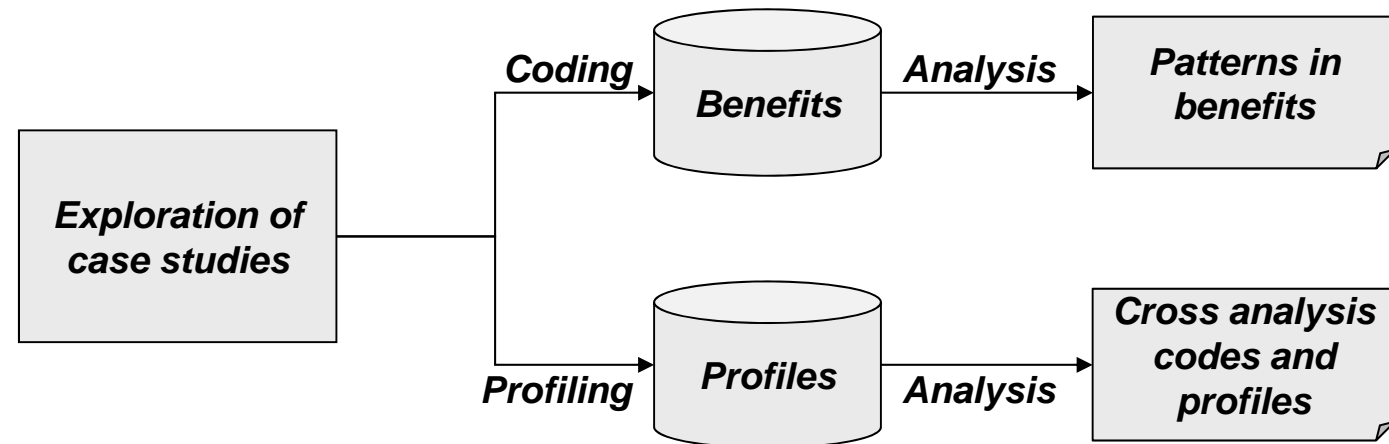


Conclusions

- **Identification of benefits being realised in recent implementations (extensions) → up to date picture**
- **In all the cases companies were seeking to obtain benefits in multiple areas (of the model).**
- **Benefits were achieved across all levels in particular those relating to integration.**
- **Benefits most frequently desired and obtained is the generation of better quality information and business intelligence.**



Outlook: Rich Data Allows for Cross-Case Analysis





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Thank you for your attention.

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