



Enterprise Systems as an Enabler of Fast-Paced Change: The Case of Global B2B Procurement in Ericsson

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ERP

Outline

- ◆ This chapter
 - studies the deployment of the SAP B2B (business-to-business) procurement application in Ericsson between 1999 and 2003, and
 - argues that it enabled complex organizational change in a three-phase process.
- ◆ This chapter presents enterprise systems as flexible and responsive infrastructures that enable organizational change.

The Market

- ◆ Telecommunication industry in Spain
 - a period of explosive growth
 - followed by an unexpected market downturn.
- ◆ For three years Ericsson reported heavy operating losses and the company undertook radical restructuring
 - Offshoring, Outsourcing, & Downsizing
 - the information system infrastructure, based on SAP applications, served as a key enabler of these changes.

Transformation Process Phases I

- ◆ Growth
 - ◆ The Spanish subsidiary implemented the system as an enabler for agility and control in the MRO (materials, repairs, and operations) materials procurement process.
 - ◆ The implementation of B2B procurement allowed the company to
 - reduce the number of suppliers,
 - reduce the number of employees in the purchase area, and
 - reduce maverick spending, as well as to
 - develop a process that was both flexible and controlled

Transformation Process Phases II

- ◆ Market Downturn
 - ◆ the system was rolled out into the Iberia Market Unit (Portugal and Spain) as an enabler
 - ◆ This centralization allowed the company to further
 - reduce the number of purchasing employees throughout the area,
 - reduce costs of the purchase-to-pay process by an average of 30%,
 - and to build up a network of regional suppliers.

Transformation Process Phases III

- ◆ Global
 - ◆ Ericsson implemented a global and centralized e-procurement model, designed to reduce costs worldwide.
 - ◆ This entailed outsourcing services to a Nordic marketplace for the time-consuming activities of supplier activation, content management, and integration with suppliers.
 - ◆ This phase allowed the company to develop a network of global suppliers and to obtain greater visibility throughout the whole process.

PHASE ONE: DEALING WITH GROWTH

◆ External Context: Market Drivers

- Huge growth of telecommunication between 1999-2000 because of
 - the expansion of new telecommunication technologies and services such as mobile phones,
 - huge investments in the facilities and infrastructures required to support mobile networks.
 - this period coincides with the technological bubble and the “dot.com” enterprises market

PHASE ONE: DEALING WITH GROWTH

◆ External Context: Technology Drivers

- ERP systems had been implemented by the majority of large companies worldwide, e-procurement. Therefore, many companies had decided at the time to develop their own custom-made applications
- When Ericsson Spain decided to purchase an effective e-procurement application rather than use that developed earlier by Ericsson’s head office, SAP was searching for companies that wanted to implement the SAP e-procurement functionality as a pilot test, in order to fine-tune the first version

PHASE ONE: DEALING WITH GROWTH

◆ Internal Context: Corporate Strategy and Business Model

- Before 2000 Ericsson's corporate strategy had been one of a decentralized global company.
- At that moment "each subsidiary concentrated on its own business, and it was unusual to collaborate among different countries"
- the local IS department developed and bought software independently, according to its own needs, given that Ericsson's business model permitted internal capabilities in each area or business process.
- The company had also deployed an Excellence Center (Ericsson Business Consulting), composed of 160 consultants in Spain.

PHASE ONE: DEALING WITH GROWTH

◆ Internal Context: Structure, Culture, and Processes

- It developed many core capabilities (e.g., manufacturing, R&D, and network installation) locally, along with support processes (e.g., purchase, administration, and systems).
- Creativity, independence, and an entrepreneurial spirit were all part of the company culture.

◆ Implementing SAP R/3 in 1997-8 through its Excellence Center, having been encouraged by the company's head office

- This project meant having to embark on the standardization of processes and systems throughout the organization.
- After a period of time, the company had extended SAP into many areas or processes.
- The implementation of SAP B2B procurement formed part of this diffusion strategy.

B2B Procurement Implementation Process

- ◆ The implementation process consisted of six stages:
 - (1) initiation,
 - (2) process design and gap analysis,
 - (3) implementation,
 - (4) mutual adaptation of organization and technology,
 - (5) supplier adaptation, and
 - (6) establishment of a routine.

Initiation

- ◆ Explosive market growth and the internalized service culture of “always arriving first” had encouraged the need for a faster and more flexible execution of business processes
- ◆ Although customers were satisfied with the high level of quality and speed of Ericsson’s services, the company had sacrificed efficiency and control of its back-office processes
- ◆ Procurement of MRO materials exhibited the following shortcomings:
 - Widespread maverick spending: “Everyone was placing orders to every supplier,”
 - Invoices without purchase orders.
 - Lack of standardized processes: “There was a different process for almost every purchase,”

Initiation

- ◆ The only way to work at this market speed was to implement a B2B procurement application.
- ◆ Began to implement SAP B2B procurement
 - The aim was to design an efficient, controlled, and flexible process
- ◆ The company decided to choose SAP because of ensured integration between the new functionality and the ERP system.
- ◆ For SAP it was an exceptional opportunity to test and fine-tune its B2B procurement application.

Process Design and Gap Analysis

- ◆ The purchase of MRO materials accounted for 24% of annual purchasing costs (about 100 million Euros).
- ◆ One of the main shortcomings of the legacy process was the fact that orders were placed through “free text”
 - At that moment the department staff comprised 22 people.
 - the purchasing process was more expensive than the cost of the actual product

Process Design and Gap Analysis

- ◆ The process requirements were:
 - Simple and user friendly
 - Decentralization of the order process to employees
 - Use of catalogs with price and predefined supplier
 - Flexibility for managing the purchasing of non-codified materials (e.g., marketing campaigns) • Workflows
 - Automatic conciliation of invoice and order
 - Centralization of negotiation with suppliers
 - evaluation and selection of the suppliers based on
 - Price and quality of the delivered materials
 - ISO 9000
 - Delivery capacity, based on an examination of processes at the supplier's plant
 - IT capacity and plans for the future, also based on examinations
- ◆ Process design was performed using gap analysis of system and process requirements.

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Implementation

- ◆ Implementation of the new functionality took three months
- ◆ The implementation consisted of
 - the creation of catalogs,
 - the design of workflows,
 - System customization,
 - pilot testing, and
 - Training
- ◆ The project team was composed of
 - key users,
 - Ericsson's own consultants, and
 - the SAP consultants.

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Mutual Adaptation of Organization and Technology

- ◆ As a result of the gap analysis, adjustments were made to the organization and to the system, including:
 - Change in the procurement department's role: Purchasers were to spend more time on strategic tasks (e.g., negotiating with suppliers) than on transactional purchasing tasks.
 - Decentralization of the order process to employees.
 - Clear definition of order approval roles.
 - New role of cataloging in the procurement department: This role was responsible for the joint design and management of catalogs with suppliers.

Supplier Adaptation

- ◆ Important Changes for Suppliers
 - Eliminating a number of suppliers (from 4000 to 160)
 - Had to introduce the use of e-mail accounts to exchange information.

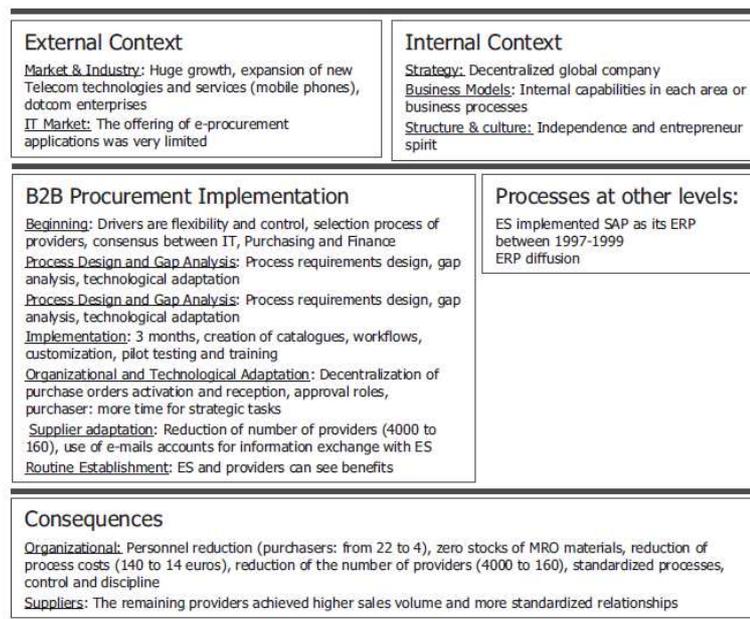
Establishment of a Routine

- ◆ Interacting through the new process and technology brought the benefits:
 - Personnel reduction (from 22 to 4)
 - Zero stocks of MRO materials, because suppliers delivered directly to users within two days.
 - Cost reduction- the cost of an order was reduced from €140 to €14.
 - Reduction of the number of suppliers from 4,000(listed) to 160 (active).
 - 10% reduction in the cost of MRO materials.
 - Standardized control and discipline processes.
 - SAP programmed new functionalities for its B2B application to improve its products and satisfy company requirements (e.g., free-text catalogs).
 - The remaining suppliers achieved higher sales volumes and more standardized relationships.

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Figure 1. Phase one: Managing growth



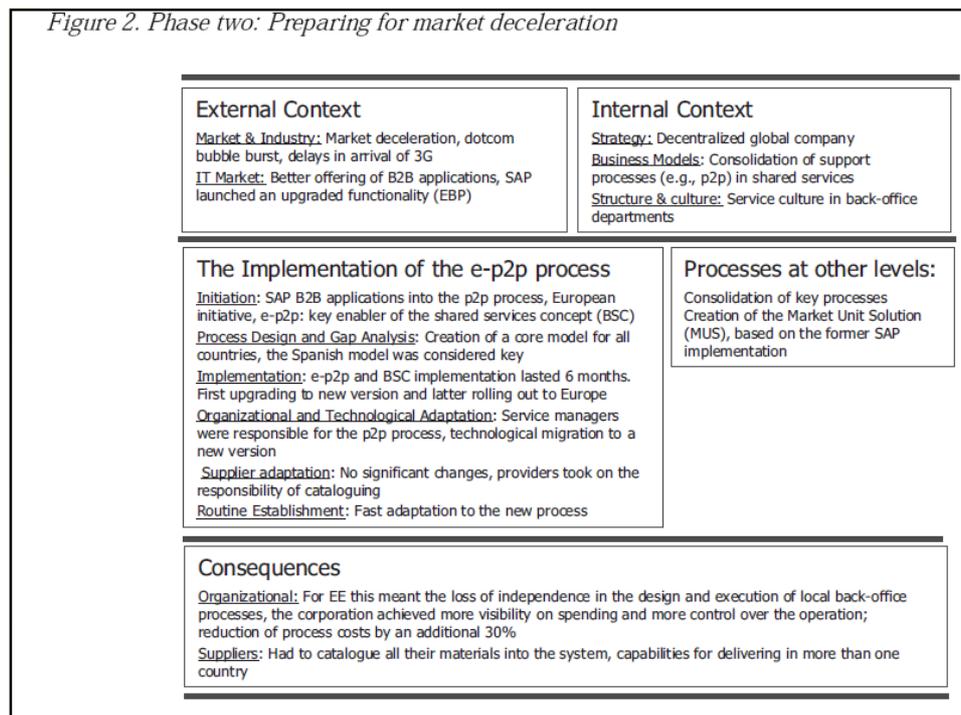
PHASE TWO: PREPARING FOR MARKET DECELERATION

- ◆ The second stage in the transformation process took place in 2001, when it became apparent that the bubble was going to burst.
- ◆ In 2001 the company started to lose money for the first time in its history, and by the year 2003 sales were half those of 2000

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Figure 2. Phase two: Preparing for market deceleration



PHASE THREE: COPING WITH THE MARKET DOWNTURN

- ◆ the third stage in the transformation process took place after 2001 and entailed the consolidation of back-office processes.

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Figure 3. Phase three: Coping with the market downturn

<p>External Context</p> <p><u>Market & Industry:</u> Heavy operating losses, telecom companies reduce their investments drastically</p> <p><u>IT Market:</u> The offering of B2B applications and marketplace solutions increased significantly. Diffusion of these solutions achieved 28% of the market.</p> <p>Market-place initiatives adopted in many sectors</p>	<p>Internal Context</p> <p><u>Strategy:</u> Crisis committee: global company and reduction of local capabilities</p> <p><u>Business Models:</u> Consolidation of subsidiaries, ES: EMEA, reduction of employees by 24%</p> <p><u>Structure & culture:</u> Centralization of back-office processes (e.g., IT and IS processes)</p>
<p>The Implementation of a global Purchasing Process</p> <p><u>Initiation:</u> Implementation of common global purchasing process for MRO</p> <p><u>Process Design and Gap Analysis:</u> The design of the new process was undertaken in a centralized manner</p> <p><u>Implementation:</u> The roll-out project took 4 months in each country. IBX as an e-procurement implementation partner, IBX delivers operation services and content management</p> <p><u>Organizational and Technological Adaptation:</u> For EE this project brought small changes in the former processes: simplification of workflows, link to IBX</p> <p><u>Supplier adaptation:</u> IBX marketplace, paying fees</p> <p><u>Routine Establishment:</u> Change resistance was higher than for previous projects</p>	<p>Process at other levels:</p> <p>Off-shoring and outsourcing</p> <p>Centralization</p> <p>Downsizing</p>
<p>Consequences</p> <p><u>Organizational:</u> Abrupt reduction of employees (103,000 to 51,000), development of global providers, global contract with local deliveries (e.g., Sun, HP, IBM, Corporate Express), EE loses control over its local processes</p>	

Table 1. Relevant factors affecting the transformation process

Relevant factors	Local implementation (1999 – 2000)	European implementation (2001)	Global implementation (2001 – 2003)
Alignment	<ul style="list-style-type: none"> • Technology considered as a means for better control in purchasing of MRO materials and services 	<ul style="list-style-type: none"> • Technology considered as a means to consolidate management of purchases of the countries in the hub 	<ul style="list-style-type: none"> • Technology considered as a means to centralize purchases and manage of local suppliers
Support from senior management	<ul style="list-style-type: none"> • Direct support from purchasing management 	<ul style="list-style-type: none"> • Direct support from BSC 	<ul style="list-style-type: none"> • Direct support from CEO
Specialists	<ul style="list-style-type: none"> • Internal consulting unit provided with enough resources • Participation of an SAP specialist from France • Participation of SAP partners for system personalization 	<ul style="list-style-type: none"> • Cap Gemini - Ernst & Young for design, launch and operation of the BSCs in western Europe 	<ul style="list-style-type: none"> • Accenture: global agreement for rollout • IBX responsible for the implementation • After implementation systems & IT management carried out by IBM and HP.
Project Management	<ul style="list-style-type: none"> • Project Director: a member of the internal consulting unit in Spain 	<ul style="list-style-type: none"> • Project Director: a member of the Iberia BSC, located in Madrid and in charge of Spain and Portugal 	<ul style="list-style-type: none"> • Project manager for the rollout of MUS-EBP-HRMS. • Project leaders with an aggressive, executive profile (from sales)
Change agents (super-users)	<ul style="list-style-type: none"> • Ten key users (mainly secretaries and people responsible for project supplies) who became promoters and trainers 	<ul style="list-style-type: none"> • Key users committed in the face of crisis 	<ul style="list-style-type: none"> • Key for identification of problems and monitoring suppliers, particularly after <i>outsourcing</i> systems & IT and purchasing personnel reductions

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Communication	<ul style="list-style-type: none"> • Clear and direct message from project drivers (via Intranet, boards, email) 	<ul style="list-style-type: none"> • Clear and direct message from project drivers (via intranet, boards, email) 	<ul style="list-style-type: none"> • Communication in stages, disclosing information in a controlled way. • Marketing and communication campaign: economic maladies + importance of centralized systems for cost reduction • Use of email, Intranet and project web page • Talks with super-users
Commitment	<ul style="list-style-type: none"> • Strong participation and customization • Users accepted the new model 	<ul style="list-style-type: none"> • Project managers and key users committed to key processes, through bonuses and long term implicit commitment (psychological contract) 	<ul style="list-style-type: none"> • The organization becomes aware of the seriousness of the crisis
Support for suppliers	<ul style="list-style-type: none"> • Basic training (half day) for suppliers, minimal technological requirements 	<ul style="list-style-type: none"> • Support in the extended cataloguing process • Collaboration with language barriers 	<ul style="list-style-type: none"> • Integration of suppliers to the IBX marketplace • Portal connection fees suspended • IBX works directly with supplier for catalogue management
Technological compatibility	<ul style="list-style-type: none"> • Supplier of the B2B functionality same as that of ERP 	<ul style="list-style-type: none"> • Upgrading to new B2B functionality from supplier already used in Spain. 	<ul style="list-style-type: none"> • Upgrading to new B2B functionality from supplier already used in Europe.

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DISCUSSION ON THE FLEXIBILITY OF ENTERPRISE SYSTEMS

- ◆ Anthony and Turner's (2000) reveal that IT infrastructure flexibility can be expressed in three factors: two related to technical issues and one to human issues.
 1. "integration," a merger of the dimensions of IT connectivity and IT compatibility.
 - Connectivity is the ability of any technology component to attach to any other component inside or outside the company.
 - Compatibility is the ability to share any type of information with any technology component.
 2. "modularity," a merger of the dimensions of application functionality and database transparency.
 3. "IT personnel flexibility"

DISCUSSION ON THE FLEXIBILITY OF ENTERPRISE SYSTEMS

3. "IT personnel flexibility" depth and breadth of four types of knowledge and skills:
 - (1) technology management knowledge and skills,
 - (2) business functional knowledge and skills,
 - (3) interpersonal and management skills, and
 - (4) technical knowledge and skills

Figure 4. ES flexibility at Ericsson

Integration	<p>SAP B2B functionality connects smoothly to the SAP back-office functionalities (e.g., Finance, MM).</p> <p>SAP B2B functionality shares information with other organizational departments.</p>
Modularity	<p>SAP B2B functionality adds easily new versions to previous implementations. Each migration was considered by users as a transparent process.</p> <p>SAP B2B functionality modifies previous configurations with no problems.</p>
IT personnel flexibility	<p>Ericsson personnel quickly implements and diffuses SAP B2B functionality throughout the corporation.</p>

Questions?