

Heineken netherlands  
reengineering is it



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Heineken Netherlands B. V. : Reengineering IS/IT To Enable Customer - Oriented Supply Chain Management In June 1993, Jan Janssen, financial manager of Heineken Netherlands B. V. and the person responsible for Information Systems (IS) and Information Technology (IT), and his IS manager, Rob Pietersen, faced the challenge of developing an IS/IT configuration that would add value to the business and support the ongoing transformation of Heineken's supply chain management system.

This system was extensive, not only supplying the Dutch home market, but also providing a significant part of the supply to more than 100 export countries served by the Heineken Group. Supply chain management central to enterprise-wide transformation. Management was committed to a process-driven organization, customer service partnerships, 24-hour delivery lead time, major innovations in the transport system, and resulting changes in the way people worked. And Janssen knew that all of these-and more-required fundamental changes in the way this new work was to be supported by information systems and technology.

Janssen was convinced that the effective management of information as well as a more appropriate IT infrastructure were critical to achieving Heineken's goals of increased flexibility, greater coordination, and a sharper focus on customer needs. In his mind, the change program initiated in 1990 in the IS/IT area had just been the beginning. Now, he and Pietersen needed to design an information systems and technology backbone that would be flexible enough to evolve with the changing business needs and adapt to continuous changes in technology.

HEINEKEN NETHERLANDS B. V. Heineken Netherlands B. V. was the principal operating company responsible for operations in Heineken's home market. It also accounted for a significant part of Heineken N. V. 's worldwide exports. Of the 60. 4 million hectoliters' of beer produced worldwide under the supervision of the Heineken Group in 1994, a significant portion was produced in the company's two Dutch breweries- Zoeterwoude and `s-Hertogenbosch (Den Bosch).

Likewise, 11 percent of the Heineken Group's sales took place in the domestic market, and more than 5400 employees worked for Heineken Netherlands. Supply Chain Management The supply chain at Heineken Netherlands began with the receipt of the raw materials that went into the brewing process, and continued through packaging, distribution, and delivery. Brewing took six weeks; it began with the malt mixture of barley and ended with the filtering of the beer after fermentation.

Depending on the distribution channel, the beer was then packaged in " one-way" or returnable bottles or cans of different sizes and labels, put in kegs, or delivered in bulk. The variety of outlets meant that the company had to manage differences in response time (beer for the domestic market was produced to stock, while exported beer was produced to order) and three distinct distribution channels. While each channel consisted mainly of the same steps from the receipt of raw materials through brewing, they differed greatly in packaging and distribution.

Beer could be distributed to either on-premise outlets (hotels, restaurants, and cafes, where it was delivered in kegs or poured directly into cellar beer tanks), off-premise outlets (supermarkets, grocery and liquor stores, where it

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was sold in a variety of bottle and package sizes for home consumption), or to export markets (export deliveries were made to order). Ongoing Transformation With key customers requesting faster response times, the development of a process-driven view of Heineken's supply chain activities became critical.

The company started the transformation of its supply chain management system by creating customer-service partnerships with its largest domestic customers. The overall objective was to improve the logistics chain dramatically for these customers. In response, delivery lead times were reduced and the transport system was changed. However, the supply chain transformation was seen as a never-ending process. New Customer-Service Partnerships In these new service partnerships, Heineken was requested to reduce the time from the placement of the product order to the actual delivery.

Before, this delivery lead time had been three days, but the supermarket chains wanted Heineken to supply their warehouses in the Netherlands in 24 hours. Each of the warehouses carried only 8 hours of stock at any time, so the supermarket chains depended on quick and flexible delivery to maintain low inventories and fast response times. To further enhance its close cooperation with customers, Heineken had embarked on a pilot test of a new logistics improvement called "Comakership" with Albert Heijn, the largest supermarket chain in the Netherlands.

Comakership was part of Albert Heijn's Efficient Customer Response project, "Today for Tomorrow." The Albert Heijn retail stores sent their sales information as scanning data to the computer in their central head office.  
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There, the data for Heineken products were scanned out and separated. The beer sales information was then relayed via a standard EDI system (provided by a value-added network operator) from the central office of Albert Heijn directly to Heineken's Zoeterwoude brewery. Heineken was usually able to deliver within 18 hours.

Although the pilot had been initiated in only one of Albert Heijn's distribution centers (and the set of stores it served), it had already resulted in lower lead times, decreased costs, and less complexity in the distribution system. Moving to a 24-Hour Delivery Lead Time As a result of these successes, top management concluded that delivery lead time could be cut to 24 hours for most domestic customers. However, it would require major shifts in the company's stock levels, distribution centers, work organization, transport system, organizational structure, and information systems.

The 24-hour lead time allowed for greater stock turnover and for lower stock levels in the customer distribution centers. There was, however, more interdepot traffic and higher stocks of packaging material ("returnables") on the brewery premises (which had been located elsewhere along the supply chain). But management believed that as less total inventory was held in the system, these packaging material stocks might be reduced over time. New Transport System Until 1991, Heineken Netherlands had contracted out the transportation of its products from the two breweries to about 50 transporters.

All of them used a lorry-trailer system with "dedicated" drivers—a driver and his "truck" could make an average of 2.1 deliveries per day. To meet the 24-hour lead time, Heineken had to completely change the fleet used for <https://assignbuster.com/heineken-netherlands-reengineering-is-it-research-paper-samples/>

transport and reduce the number of transporters from 50 to 10. Heineken then contracted 4 cabin trucks from each transporter (40 cabin trucks in total) and paid them for the use of the trailers. The ability of the driver to move from one trailer to another without waiting for unloading meant that he could make an average of 2. deliveries per day (a cost reduction of approximately G1. 5 million ). New Information Management (IM) Needs Heineken's customer-service partnership with Albert Heijn and the other changes Heineken had implemented in its supply chain activities brought new information requirements to support the more stringent delivery dictates. With the pilot testing of the Comakership logistics improvement, Heineken needed to implement systems which could manage this new transfer of information, and make appropriate modifications in work activities and organizational structure.

Furthermore, the new IS/IT infrastructure needed to be flexible enough to handle and reflect individual retailer and customer beer purchasing patterns. In the context of these changes in supply chain activities, Janssen reflected on the beginnings of the transformation of IS/IT: The transformation of IS/IT and the shifts occurring in our supply chain activities were concurrent without causality. That is very strange, but it just happened that way. I can't say to you that it is a " chicken and egg" kind of story. Of course, there was a link but not an explicit one. Somewhere in our minds, when you do one you do the other, too.

Jansen knew that the relationship between information management, information systems, and information technology had to be clearly defined to have optimum support for the new approaches to value creation. Information

management focused on supporting customers and creating new " bundles of goods and services. " Information systems focused on developing applications software, managing data, and supporting the new business processes. Finally, information technology related primarily to data and text services, and the underlying operating systems, interfaces, hardware, and networks.

PHASE I: RECOGNIZING THE NEED FOR CHANGE In July 1989, at the beginning of all the changes at Heineken, Janssen (then at headquarters and responsible for IS/IT worldwide) received a request for a second mainframe at Heineken Netherlands, costing G6 million (with another G6 million required in three to four years); Janssen brought in the consulting firm Nolan, Norton, Inc. to evaluate the IS/IT infrastructure, first at the corporate level and then at the operating company level for Heineken Netherlands: A proposal to purchase a second mainframe focused everybody on our IS/IT infrastructure.

You have to have some kind of crisis to get people thinking. IS/IT Benchmarking Nolan, Norton, Inc. benchmarked Heineken's IS/IT cost structure against the beverage industry IS/IT average and it was clear that Heineken was indeed not competitive-the company was spending twice themoneyfor half the functionality. " The Nolan, Norton report confirmed what a very wide group of the users thought," Janssen commented. In response, management recommended decentralizing the data center and having each business area manage its own computing resources.

At the same time, Janssen asked Heineken Netherlands, the largest operating company, to develop a new IS/IT plan based on new computer <https://assignbuster.com/heineken-netherlands-reengineering-isit-research-paper-samples/>

technology, " which meant looking for mid-range platforms, decentralized computing, and standard software packages, rather than developing customized programs for every new application-previously the standard practice. " Before determining an appropriate IS/IT plan, Janssen made sure that information management scans were conducted in every functional area. Managers were asked, " What do you need and how can that used to create information plans.

Working with KPMG Management Consultants and Nolan, Norton, Inc. , Janssen developed a list of priorities for IS/IT and selected a new IT platform (IBM AS/400)-both were accepted in July 1990: The AS/400 became the core of our new IT platform for two reasons: first, we had been a client with IBM for roughly 40 years, and it was not their fault that we used their mainframes in the wrong way; second, we already knew that huge masses of application software were being written for the AS/400, as a quick scan easily confirmed.

Furthermore, we were starting to think about an appropriate IT architecture and we were considering the possibility of using personal computers as peripherals linked together through local area and wide area networks.

Implementation of the New IS/IT Plan Before the end of 1990, Janssen was appointed financial manager. He became the person responsible for IS/IT at Heineken Netherlands and was to oversee the implementation of the new IS/IT plan. Janssen concluded that outsourcing would play a critical role in this process: The decision to outsource was part of the plan.

When we came to the conclusion that a major change was necessary, that we should look for midrange computers, that we should go for standard software, that we should not go for dumb terminals but for personal

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computers as peripherals, it became clear to us that this was a big operation and we could not evolve to it. We could not manage just to keep the old systems in the air with all the problems and have enough management attention for building up the new systems. So we told the organization, "Gentlemen, we are going to outsource, and we are going to freeze the applications to free up management time. PHASE 3: OUTSOURCING TO DEVELOP THE NEW IS/IT INFRASTRUCTURE Outsourcing enabled the IS group to keep the " old" mainframe applications running while it developed a new IT approach-focusing on the development of its client/server distributed processing infrastructure, the appropriate new IT architecture, and the IS people and skills to achieve these new objectives. Outsourcing In 1991, after scanning the outsource market, Janssen chose Electronic Data Systems (EDS), the largest provider of computer services in the United States.

EDS provided the expertise and infrastructure required to meet Heineken's information systems and technology needs, and career possibilities for Heineken's mainframe personnel, both vital to the successful transformation of its IS/IT infrastructure. Finally, the five-year contract (with declining involvement each year) provided " guaranteed continuity" while Heineken maintained control. The plan indicated that the last mainframe program would be replaced in 1996 and the contract with EDS would end. Development of the New IT Architecture The development of the new IT architecture took place almost concurrently:

We moved in two directions-one, to outsource our operational concerns, and two, to focus on our new architecture development, eventually replacing everything which was on the mainframe with standard packages on AS/400s.

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With the decision to downsize-to move off the mainframe platform-and to decentralize the information management and systems, Janssen chose a comprehensive client/server strategy using a combination of workstations, local and wide area networks, mid-range systems such as AS/400s, and local area servers to complete the technology architecture. (Refer to Figure 1 for Heineken's IT architecture. " Personal computers" became " Heineken workstations" to eliminate the confusion and " mess" of having 2000 " personal" workstations-in this way, every workstation had the same setup. Furthermore, the sales force began using " Notebooks" for customer sensing and information sharing. Changing Over to Standard Packages and Developing Greater Flexibility to Serve the Business In 1993, Rob Pietersen became IS manager at Heineken Netherlands. He believed that the decentralized IS/IT operations gave more " computer power to the people," and enabled the " user" to become the process owner.

Old mainframe programs were replaced with new standard application packages that covered all the functions in the supply chain. Heineken started this " changeover" by focusing on the software applications dealing with clients: order entry, delivery, transport, invoicing, and accounts receivable. Selecting Standard Software Packages To increase flexibility and customer responsiveness, Pietersen knew that Heineken had to shift from the " waterfall approach" to the development of standard software packages: At that time in the mainframe world, we were developing software applications using a methodology often referred to as the " waterfall. " You started with a requirements definition from the users, developed a design and the code to implement that design (getting signoffs at each point along the way). You

put the code in production, tested the code, released the code into operation and then you maintained it. When you adopted the code, you went back to the users and asked them if this was what they wanted, and often they said "What? This waterfall process took 18 to 36 months or more, and by the time it was completed, the users' requirements often had changed. Pietersen began using the PILS (Project Integral Logistics) - named after the successful approach developed to select appropriate logistics software - to test and select standard software packages (refer to Figure 2). The PILS approach involved: Oidentifying appropriate software packages; Osetting the top two package vendors against one another in a "shoot-out" as in the American "Wild West"-where the specific elements of each software package were compared and contrasted;

O implementing it; O evaluating its performance. For IS people, this meant moving from COBOL programming to developing a thorough knowledge of the business. Pietersen chose PRISM for the logistics area and J D Edwards for the financial area. Pietersen found that the new systems and policies better fit the information needs of the company: We needed more flexibility, more power, and less cost. Our current systems have scored high in each of those areas. Computer power is now where it belongs: not with the IT people, but in the hands of the people who need it. IS Group Reconfiguration

Outsourcing the mainframe and mainframe applications to EDS led to a change in the configuration of the IS group as well. Contracts with employees from software houses were stopped, and many of the individuals working on the mainframe went with the mainframe systems to EDS while other staff shifted to other areas of the IS group, such as systems

management. Pietersen was convinced that the competencies and capabilities of the IS group had to be expanded to align the use of IT with the evolving supply chain, rather than simply promoting IT solutions as "answers" to the company's information management "problems. Pietersen understood that this change in approach for the IS group required not only a deeper knowledge of business processes and strategy, but also an understanding of how people used the information. Pietersen therefore transformed the IS department from units for application development, customer support, and operations (a functional structure) to teams solution, and customer-service areas-the "process owners" (a team-oriented business approach). (Refer to Figures 3 and 4 for the IS organization before and after 1993. The information management needs of the business areas were thus defined by people from both the business areas and IS. These account teams helped select standard application packages and, afterwards, adapt the business process to the software package or adapt the software package to the business process. These teams thus developed and implemented systems that gave the required support for the respective business processes and delivered information to enable a better control of the supply chain. Shrinking from 130 to 40 people, the IS group was now "doing what they had been doing differently. Pietersen and Janssen believed that increasing overall access to information would support management's efforts to enhance the employees' empowerment. Client/server systems also fostered teamwork and horizontal decision making. They were fast, flexible, and permitted greater communication with customers and suppliers, which resulted in improved customer service. And they promoted the development of a "process view" (focusing on total processes rather than on discrete

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tasks). Furthermore, the new configuration of the IS group, with its more team-oriented business approach, also promoted a spirit of greater cooperation and communication.

Pietersen commented, " If we still had the mainframe, all this would not be possible. " Evaluating IS Performance In 1995, Pietersen and Janssen were still trying to determine how to measure the performance of the IS/IT department. They agreed that IS/IT needed to serve the business, and different service level Agreements were to be negotiated with the different functional areas (as shown in Figure 5): What is our business? Is it information technology? No, our business is brewing and selling premium beer of high quality.

We changed our IT policy to make it clear that IT supports the business, but doesn't drive the business. We started to focus on having a beautiful bottom line rather than beautiful IT applications. IS performance then became based on the timely and successful completion of projects. The most important measure was the improvement of the business process for which a system or service was meant. In the future, Pietersen and Janssen would be trying to develop criteria to measure the impact of an IS project on improving overall business performance.

#### INFORMATION ASSETS IN THE BUSINESS Executive Information Systems (EIS)

By 1995, Heineken's operational supply chain system-from supplier to end customer-was in its final phase, and the company had begun to add the decision support element. Decision-support or executive information systems would make it possible for managers to express their information requirements directly. Pietersen hoped that their ease of use would

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encourage managers to analyze past performance in greater depth and enable them to simulate the possible consequences of proposed actions more accurately.

When it came to selecting the appropriate software, Pietersen had chosen EIS Express: I call it the technical infrastructure; the basic logical infrastructure of all these systems is in place, and now we come to enabling real improvement, not just the EDI links we have with our retailers, but also such things as installing executive information systems (EIS) to give our management team the control instruments they need to navigate us through the more turbulent business environments we will face in the coming years.

The executive information systems gather their data from the data warehouses of the different business systems in all areas and can show this easily through different (graphical) viewpoints. One of Janssen and Pietersen's goals for the use of executive information systems was to have unity in the data. Janssen explained: Having unity in our data is crucial. Only a few years ago we discovered some departments were using different unit volumes than we were. And that just should not happen in any organization.

#### Better Planning Tools

A key part of the IS/IT strategy was to develop an integrated set of systems to plan and control the overall supply chain, both in the short run (bottle-line scheduling and daily operations) and over a longer horizon (sales forecasts and long-term operations research). The aim was faster and more flexible control of supply chain activities. Jan Janssen elaborated: What we are working toward is a coherent and consistent set of planning and scheduling

tools which are more or less compatible and interconnectible so that you can build up or build down the basic data.

Our goal is to be able to model business processes and to have the data, like sales forecasts, to support our decisions about capacity, bottling lines, and stocks. We want to be in a position where, if you have to make a decision, you can run simulations based on actual data. The concept of supply chain management ultimately served as the driver for to optimize the supply chain activities as well as to ensure better information management. (Refer to Figure 6 for Heineken's information systems. )

Janssen and Pietersen had put in place information systems to collect and integrate information on Heineken's " on-premise" customer activity. Information on each hotel, restaurant, and cafe/pub that Heineken Netherlands had contact with (as owner, financing agent, or product supplier) was included in these systems. In this way, Heineken Netherlands was able to provide the relevant sales force with an integrated view of their customers (large or small) as well as with information on competitors catering to the same establishments, beer sold, and contract terms. Janssen elaborated:

We are thinking about what the " next stage of the rocket" will be. We have defined the baseline and are looking at workflow, EDI and planning information systems-how should these planning systems interrelate? We are in the process of defining the next phase of the vision for Heineken as a business in the Netherlands and for the IS/IT fit to that. The current debate is just how far to go. This case is a condensed version of Heineken Netherlands

B. V. A&B. It was prepared by Research Associate Kimberly A. Bechler under the supervision of Professors Donald A. Marchand and Thomas E.

Vollmann, as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business situation. The names of the Heineken managers involved have been disguised. It was developed within the research scope of Manufacturing 2000, a research and development project conducted with global manufacturing enterprises. The authors wish to acknowledge the generous assistance of Heineken management, especially IS manager Gert Bolderman. Copyright © 1996 by IMD- Institute for Management Development, Lausanne, Switzerland. Not to be used or reproduced without written permission directly from IMD.

CASE STUDY QUESTIONS 1. Analyze Heineken Netherlands using the value chain and competitive forces models. Why did the company feel it needed to transform its supply chain? 2. Analyze all the elements of the new IT infrastructure that Heineken selected for its new business processes. Were Heineken's technology choices appropriate? Why or why not? 3. What management, organization, and technology issues had to be addressed when Heineken Netherlands reengineering its supply chain? 'Hectolitre = 22 Imperial gallons = 26. 418 U. S. gallons; Heineken 1994 Annual Report. 21000 Guilders (G) = approximately ? 368 = U. S. \$575 (at December 31,