Royal Danish Bearings

Royal Danish Bearings (*RDB*) is a successful multinational company operating in the ball bearing industry. *RDB* was set up in 1915, in Denmark, by a Danish machinist called Henrik Holstein. Henrik was a visionary. He foresaw the expansion of the ball bearing industry in the twentieth century, which was largely due to the growth of the automotive sector. Ball bearing technology contributed to engineering progress throughout the twentieth century, especially in the secondary sector of the economy. Today, the outlook of the ball bearing industry is still promising: its market size is predicted to further expand over the next decades. "High-tech industries" such as computer software and artificial intelligence attract considerable attention and capital; however, most global industrial output continues to be mechanical devices. For example, ball bearings are found in all types of vehicles, such as in gearboxes and wheel suspension; there are even ball bearings in fighter jets and space shuttles.

RDB has always operated in the business-to-business (B2B) market. Throughout the twentieth century, it expanded by internal/organic growth. Consistent with business thinking of that era, the company concentrated its manufacturing in three megafactories (very large factories) located in Denmark, northern Germany and Sweden, where the workforce had become highly skilled in operating machinery for industrial production. Benefiting from several economies of scale, *RDB* created thousands of jobs, supporting the "company towns" where they were the main employer, held in high esteem both locally and regionally.

In the 1930s, *RDB's* market position was determined by the high quality and high price of its ball bearings. *RDB's* two main competitors were *UAB* and *FIB*; *UAB's* ball bearings were medium quality and medium price, and *FIB's* ball bearings were low quality and low price.

Immediately after the second world war, *RDB* began to face competition from new Japanese companies, which used their low labour costs to gain entry into the ball bearing market. Thanks to its well-established reputation for high quality, *RDB* maintained its market share.

By the 1970s, the competitive environment changed again. As Japan's economy developed, wages rose substantially. To remain competitive, Japanese companies moved to just-in-time production. Using this method, they could respond faster to specific customer needs. Their flexibility became their unique selling point (USP); it represented an important competitive advantage against other companies such as *RDB*. They also met international quality standards, making it easier to export to different regional trading blocs.

Valdemar Holstein's efficient leadership

Valdemar Holstein (the son of *RDB* founder Henrik Holstein) started working at the company in 1951, when he was only twenty-one. He spent his entire career at *RDB*, including several years as a machinist. In 1965, he replaced Henrik as Chief Executive Officer (CEO). Under his leadership, *RDB* kept thriving, as he successfully implemented several changes. Although the company maintained a tall organizational structure, Valdemar empowered his middle managers. He also adopted management techniques that were fashionable at the time, such as total quality management (TQM), benchmarking and Kaizen.

RDB remained profitable and maintained brand loyalty. However, financially, gross and net profit margins were lower than previously, which Valdemar thought was unavoidable. Internally, some maintenance and technological upgrades were being delayed – but Valdemar did not pay attention to this. Externally, some environmental campaigners started to put pressure on *RDB* because of the high pollution levels in the vicinity of *RDB* factories – but Valdemar ignored their claims.

Valdemar was proud of the company's traditions. It remained privately owned by members of the Holstein family. Valdemar, like his father, had a paternalistic leadership style – though he could occasionally be autocratic, especially when the workers' collective bargaining agreements were being renegotiated. Although there were few opportunities for promotion, the employees liked *RDB's* corporate culture. They too were proud of working for a well-known, well-established and well-respected company. They were well paid, enjoyed working in a culturally homogeneous environment, and felt that their jobs were secure. Many of the workers' fathers and, in some cases, their grandfathers, had worked for *RDB*. Work patterns and practices followed the northern European Christian calendar and local traditions. Getting a job at *RDB* was like "joining a family". The employees all appreciated their job security, their high standard of living and their working environment.

A cautious manager, Valdemar always tried to manage risks. He regularly consulted economists and other specialists in order to minimize the impacts of changes in the external environment. Over the years, these efforts proved worthwhile. For example, *RDB* remained largely unaffected by the 1970s energy crisis. Every year, Valdemar reviewed *RDB's* contingency plans; this helped him avoid a possible technological disaster in 2000 with the so-called "millennium bug". A crisis that Valdemar had not foreseen was the sudden collapse of Icelandic banks Kaupthing and Landsbanki in 2008; *RDB* had funds in saving accounts in those two banks. However, it later managed to recover most of these funds.

In terms of operations, *RDB* manufactured standard-sized ball bearings in a flow production process. It sometimes used batch production for deliveries to established customers who used non-standard-sized ball bearings, and sometimes job production for one-off special orders, such as large ball bearing systems for power stations or mines. In all respects, from human resource management to operations, Valdemar felt that *RDB* was ready for the twenty-first century.

Anna Holstein and "*RDB* 2020"

It was long anticipated that, when Valdemar retired, his daughter Anna would replace him as CEO of the company. Unlike her father, she had no experience as a machinist; she did not "work her way up" from the factory floor and had less empathy for the factory workers. After earning her IB Diploma in Copenhagen, followed by a degree in "green" engineering at university, she completed an MBA postgraduate degree and worked for an investment bank in New York. In 2005, shortly after her thirtieth birthday, she took her first position at *RDB*, in the Engineering Department, where she immediately began to implement "green" approaches to manufacturing.

Anna had big ideas for *RDB*. A scientific and analytical thinker, she had carefully studied the external environment in which *RDB* operates. She knew that demand for ball bearings was slowing down in Europe, whereas it was growing substantially in countries such as Brazil, China and India that were going through a phase of strong industrialization. From her research, she also concluded that manufacturing in the twenty-first century would be accomplished in smaller, more flexible factories, instead of the huge modernist structures typical of the late nineteenth and twentieth centuries. Time would be the critical factor; having factories close to customers' locations would reduce response time and improve logistics, including distribution and delivery. This would also shorten the working capital cycle – an important benefit for *RDB*.

Given her international experience, working at *RDB* made Anna realize that her colleagues in the Engineering Department, and even the entire *RDB* workforce, needed a better cultural understanding of their customers. The best way to achieve this, she thought, would be through a workforce that resembled *RDB's* customers, and increasingly they would be from Asia, India and South America. She was also convinced that *RDB* had to focus on "green" technologies and its corporate social responsibility. The company would have to significantly increase its spending on research and development (R&D) and also examine its impact on the environment and on its customers' carbon footprint. The two are linked, Anna reasoned: the ultimate aim of innovation in the ball bearing industry is to save energy, which is fundamentally what ball bearings do by reducing friction. For users, better ball bearings mean less friction and, in turn, less friction means that less energy is wasted. Thus, less energy is needed.

Anna's vision for *RDB* was to make the world's most technologically advanced, energy-efficient ball bearings in small "green" factories located near its customers. This would require selling the two megafactories in northern Germany and Sweden, and significantly downsizing the one in Denmark. *RDB's* production would be offshored to 12 small factories to be opened around the world, mainly in Brazil, China and India. In terms of workforce planning, each of those new *RDB* factories would be jointly managed by one experienced *RDB* senior manager from Europe and one local manager familiar with the language and culture. Some machinists from *RDB's* European factories would be offered key positions. Most of the existing jobs in Europe would be made redundant, as most of the new workers would be recruited locally on lower wages. Northern European countries have generous redundancy payments, largely funded by the employers, and these costs would be significant in the short term. In the long term, however, *RDB* would lower labour costs.

Marketing would also play a major role in the new *RDB* that Anna imagined. *RDB's* marketing department had always been "sleepy", with a small budget and unchallenging objectives. Advertising and promotion were limited to some trade journals and trade shows. Anna thought that this should change. She believed that *RDB* should advertise in a wider range of publications, including e-zines (online magazines) and professional web sites for industrial design and architectural robotics. She wanted to use information and communication technology (ICT) to communicate to a wider range of external stakeholders. That way, *RDB* would create brand awareness in the design community, and not just in the manufacturing community. The marketing department should start carrying out market research, both primary and secondary. Anna also pictured groups of *RDB* "engineers-turned-salesmen" calling on major manufacturers to generate orders, whilst other staff would pressure politicians for more legislation and incentives to support environmentally-friendly products.

Anna wrote all the details of her ideas in a strategic plan that she named "*RDB* 2020". She calculated that the transition costs for such a large-scale restructuring would be enormous. In order to generate 50 % of the funds required, *RDB* would need to sell the two megafactories in northern Germany and Sweden. For the rest of the funds, Anna would list *RDB* on the Frankfurt Stock Exchange: *RDB* would become a public limited company, with funds generated from the sale of newly issued shares. Anna was very pleased with her overall strategy for *RDB*; she found it coherent, consistent and forward-looking.

Valdemar's counterproposals

Valdemar was stunned when Anna explained her "*RDB* 2020" strategic plan to him. Although he recognized that manufacturing was shifting away from Europe, and that *RDB* had to become more environmentally conscious, he had major objections. "*RDB* is a Danish company", he insisted, "we managed to expand significantly after the first world war thanks to a major contract from the Danish government". He felt a moral obligation to provide jobs in Denmark. At times, *RDB* had also formed public-private partnerships with the Swedish and German governments for various projects. The workforce was local and loyal; Valdemar felt like a father to them; a major retrenchment would be a violation of the "social contract" he implicitly had with them. He also despised the idea of *RDB* going public. Despite Anna's assurances that the Holstein family would still be the major shareholder, he did not want to answer to shareholders who were not family members and had no sense of the company's history or traditions. He had a bad feeling about this. He also did not like the idea of the relocation of the factories. A lifelong industrialist, he loved to see his three megafactories in northern Europe. Their scale of operation was so vast that expansions had been coordinated with the local urban planning authorities; the Swedish factory was so large that railroad lines had been installed in order to deliver supplies and to transport finished products. It was beyond his imagination that small factories operating in industrial parks on the outskirts of Mumbai or São Paulo could accomplish the same as the European ones.

Despite Valdemar's objections, Anna told him that she would speak to other shareholders in the family and could collectively force the company to change. He asked her for time to come up with an alternative proposal that would incorporate "some" of her ideas.

A month later he suggested the following to her:

- Rebrand the company, changing its name from "*Royal Danish Bearings*" to "*Green Bearings, an RDB Company*" and adopt Anna's marketing strategy. *Green Bearings* would be "green" in name only.
- Remain in northern Europe, but divide each of the three megafactories into autonomous cells, each assigned to serve a region of the world and each with its own strategic and tactical/operational objectives. Local salesmen would be hired, paid low salaries, but with high commissions as an incentive. This would make the company look more international, but the current workforce in Europe would not change.
- Form strategic alliances with ball bearing companies in Brazil, China and India.

Valdemar admitted that he had thought about finding a major investor whose financial assistance *RDB* could use to modernize the current factories and make them environmentally-friendly. The Holstein family could sell a portion of their shares to the major investor. However, Valdemar rejected this idea. Though being "green" was good practice and was socially responsible, he hated the idea of having a shareholder who was not a member of the Holstein family.

Anna listened attentively, however, she was not satisfied. She thought that this plan was not enough to prepare *RDB* for the twenty-first century. Changing the name and reconfiguring the factories to cell production would be satisfactory in the short term, but it would only delay the major changes that would eventually have to come. She wanted *RDB* to have a first-mover advantage in terms of brand awareness and "green" practices. Developing a global identity and a global workforce was a strategic priority for her. Demographic changes in Europe would eventually undermine Valdemar's vision of *RDB* as a "happy European family". There was also the problem of European labour costs: in the long term, European workers would be too expensive and probably uncompromising when engaged in collective bargaining. Globalization, Anna argued, undermined the "social contract" that her father believed in.

Additional terms not in the Guide

Paternalistic leadership style
First-mover advantage

Companies, products, or individuals named in this case study are fictitious and any similarities with actual entities are purely coincidental.