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JOTUN: INTERNATIONAL STRATEGY

“The pace of Jotun’s long-term growth will be determined by how quickly we seize emerging opportunities in existing and new markets.”

– Morten Fon, President and CEO, Jotun (2015)

Since its establishment in 1926 in the town of Sandefjord in South Eastern Norway, the Jotun Group has become one of the world’s leading manufacturers of paints, coatings and powder coatings, with annual total sales surpassing USD 2,0 billion (16,3 bill NOK, 2015). The group is present in over 100 countries.

Over the last decades, the company’s geographic expansion has been characterized by a bold entrepreneurial spirit as main footholds have been established in places such as Dubai, Kuala Lumpur, Shanghai, and Singapore. However, continuing the growth could prove more challenging. Primary markets are now maturing, and Jotun needs to revisit its internationalization strategy to understand the attributes of success and ensure continued growth. The company now faces two key questions:

1. Will “The Jotun Way” be a recipe for success in the future?
2. Where and how can Jotun grow in the future?

INDUSTRY

The paints and coatings industry is highly fragmented into numerous market segments that generally fall into either decorative paints or industrial coatings. The products include wet and dry types of paints and coatings.

The decorative segment, which targets households, accounts for 45% of the global paint and coatings market. In the most industrialised markets such as Western Europe, Scandinavia and North America, the industry is considered to be mature, with customers demanding high customization and superior quality. In Scandinavia, the household market started to mature as early as the 1960s, when Norway had, and continues to have, one of the highest levels of paint consumption per capita in the world. The consumption of paint per capita in developing markets is expected to grow in line with the improvement in economic prosperity. The decorative market tends to be local, both in terms of customer preferences reflecting climate characteristics and cultural tastes.

Coatings for industrial use include segments such as the automotive industry, metal industrial, (original equipment manufacturers OEM), light metal industry, Powder Coatings, coil, packaging, marine industry and, industrial maintenance and protection (onshore and offshore construction). Like the decorative segment, the market for protective coatings used in industry is largely local. Increases in demand come mainly from either developing markets that are becoming industrialized or from projects such as new oil rigs and pipelines. The latter represents a high-growth market, demanding premium anti-corrosion coatings with a long lifespan. An example of this is the more than 200,000 km of pipelines passing through Siberia to deliver liquefied natural gas. A small hole caused by corrosion can lead to significant financial losses and environmental damage. To give some indication, authorities in Dubai recently spent USD 10 billion to renew pipelines.

Moreover, the need for different types of protection vary from industry to industry which offers niches for differentiation, with distinct technologies being used for different purposes. For instance, the protection required for the hulls of ships is quite different from the waterline protection for offshore oil and gas rig construction. Moreover, the characteristics of each industry also play a role. The marine industry is largely global and cyclical with uniform needs around the world, whereas coatings for construction are highly fragmented and local. Although the marine segment accounts for only a small share of worldwide market consumption (3 – 4%), it is highly demanding in terms of the quality levels and is a financially lucrative segment in which to be involved.

The value chain generally varies based on the specifics of each segment, with some common raw materials. These are a mix of commodities and rare materials such as copper, titanium dioxide and epoxy that go into the production. The suppliers are largely global and concentrated. A major concern is the volatile nature of raw material prices, which could have a significant impact on the bottom line. There are only a few substitutes for these coatings, including cathodic coating and stainless steel. In the distant future, some paint and coating niches could be challenged by the popularization of 3D printing technology, which features built-in colouring of objects.

Environmental concerns have sparked the major current market trends for eco-friendly products that ensure sustainability and safety. Growing concerns among consumers about the environmental impact of products and the consideration of health issues such as allergies to certain components have raised challenges to manufacturers.

At the same time, government regulations are emphasizing CO₂ emissions reductions and requiring production of solvent-free paint products, placing major constraints on manufacturers as this is one of paint's main components.

From a technological perspective, there is great interest in the use of nanotechnology. However, this has not yet been fully explored by most companies due to the significant commitment required and the unproven track record of its commercialization

The industry is capital-intensive and the profitability of individual companies varies according to factors such as technological expertise, and degree of production efficiency as well as market positioning, level of experience and local adaptation.

INTERNATIONAL MARKETS

The global paint and coatings market was estimated to total sales of USD 126 billion in 2015 (Jotun's own figures). Jotun is targeting around \$ 75 billion of this market. In 2015, the split between industrial coatings and decorative paints output was 49% and 51% respectively, but decorative accounted for only 44% of total sales value due to pricing.

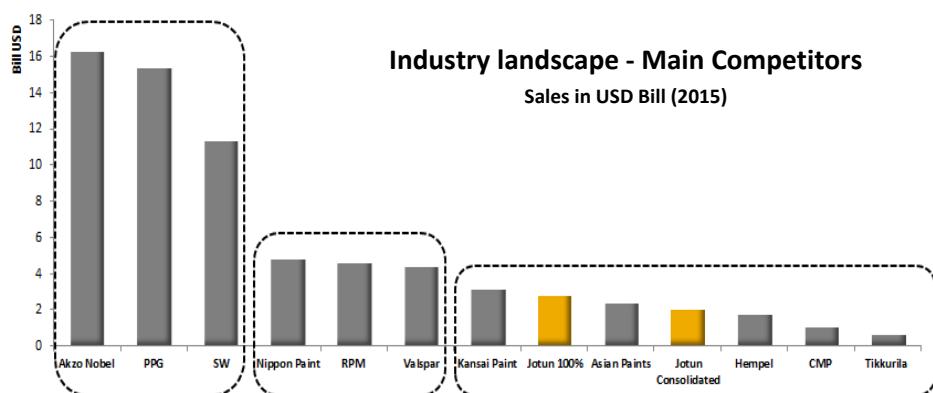
Markets are generally regional. In 2015, the global market grew by nearly 5%, driven by increased demand in Asia-Pacific.

The Asia-Pacific region is the world's largest regional market for paint, accounting for 40% in terms of revenue. China accounted for more than half of this market. Europe is the second-largest market, accounting for 30%. The dynamics in the European market vary, with most growth coming from Eastern Europe. The Middle East and Africa are generally viewed as part of the European market. There is uncertainty regarding the largely untapped markets on the African continent that represent potentially high rewards. North America is a mature market that accounts for 19% of global sales, with expected moderate growth potential in coatings as the infrastructure is expected to be renewed. Finally, the South American and Latin American regions accounted for 7% of the global market and are expected to continue to grow, given China's continuous growth. Africa is the other growth engine of this market. (See below)

The global market for Paints and Coatings is today valued at around 135 bill USD, expected to grow around 5 % YOY to a doubling by 2030¹.

Historically, increased per-capita income has led to an upward trend in consumption, with paint-market growth 2-3%

points above GDP growth. Globally, the industrial market (non-Deco) is growing faster than architectural. Jotun holds a 3% share of the global market, a top-10 position among direct competitors and has shown strong growth over the last 10-year period.



The paint industry has been characterized by traditional business models, but this could change the next 5-10 years. Three main factors behind such a development are:

- 1. Asian growth** – The market will be driven mainly by growth in Asia, accounting for over 70% of total increase in value. China and India will grab the lion's share.
- 2. Innovation driven by end-consumers and new technology** – Technological progress and changing demand patterns will bring about significant advances in performance, aesthetics and environmental properties of paints and coatings. Functional coatings will increase.

¹ Source: Companies and Markets.com, 2016

3. Business approach – Paints and coatings markets are consumer-driven and under increasing pressure to differentiate. Manufacturers will have to adapt to local needs for business- and product-development.

GLOBAL COMPETITIVE SITUATION

The industry consists of a few global rivals and a large number of small regional and national actors. Small companies can compete successfully in the local decorative segments due to the diversity of needs between market segments, which could be challenging for global firms. Recent years have been characterized by on-going structural consolidations between large players that could have an impact on the competitive landscape.

Global Competitors

AkzoNobel is a large global paints and coatings producer and a major producer of specialty chemicals. Akzo Nobel has sales of around 11 billion USD with paint and coatings segment. Based in the Netherlands, it is known for its Dulux, Sikkens, International and Eka brands. The company is involved in decorative (27% of revenues) and performance coatings (40%), the latter consisting of marine & protective coatings. AkzoNobel explores innovative solutions within industrial coatings, with a special focus on eco-friendly technology. Speciality chemicals accounts for the remaining 33%.

The future focus of the company is on the development of emerging markets, further consolidation in the global powder coatings market to gain a leading position, strengthen their performance coatings segment and continue business development of the decorative paint segment.

PPG, (US), is the largest company in the coatings industry. It is present in more than 60 countries within industrial, transportation, consumer products and construction markets and maintenance. Historically PPG has had many brands and subsidiaries within six main business segments: performance coatings (31% of net sales), industrial coatings (24%), architectural coatings – Europe, Middle East and Africa (14%), optical and specialty materials (8%), commodity chemicals (11%) and glass (7%). The performance coating segment competes directly with Jotun Group, especially its subsidiary Sigma which specializes in protective and marine coatings. PPG's technical advantage is in its leadership in waterborne technology used in primers. These feature high quality, durability, anti-corrosion, good adhesion and reduced drying-cycle time.

PPG's strategy in recent years has been to gradually transform from being a diversified, multi-business manufacturer into a focused coatings and specialty products company.

Sherwin-Williams (US) produces industrial coatings and decorative paints. The company's competitive advantage lies within its focus on technological innovations within liquid and powder coatings, mainly US and South America. Sherwin-Williams is well known in the do-it-yourself (DIY) market for paints distributed through exclusive shops while private labels and own brands such as Dutch Boy, Krylon, Minwax, Thompson's and Water Seal are distributed through a number of channels such as exclusive stores, leading large stores, home improvement centers, independent paint distributors, hardware stores, car retailers, distributors and industrial dealer sales in more than 70 countries.

Sherwin-Williams's latest advancement in paints features zero VOC1 high-quality interior and exterior paints differentiated on their high quality, durability and best-in-class environmental performance. Moreover, the US government has selected the Sherwin-Williams Product Finishes Division to develop a chemical agent-resistant coating (CARC) powder topcoat for use on military vehicles and support equipment.

This unit produces global industrial coatings for protective and marine, automotive and OEM coatings, with a special focus on the latter by providing local support via a full complement of finishing equipment and supplies, on-site technical assistance, customized color and design services, as well as process improvement expertise. To further develop its focus, the company plans to expand in architectural coatings in key emerging markets in the Asia-Pacific region and to continue its steady growth within automotive and industrial coatings in Europe and North America.

Hempel is based in Denmark and is one of Jotun's closest rivals due to its historical origins in marine paints, its product portfolio, and the industry segments that it covers. As with Jotun, Hempel has a strong focus on innovation, resulting in the long-lasting partnership with the Danish Institute of Technology (DTI). Since the development of the world's first antifouling coating for ships' hulls in 1917 by this partnership, Hempel's technological advantage has been based on antifouling and fouling release technology. In 2012, Hempel's revenues were NOK 9.29 billion, with 5,000 employees based in more than 80 countries.

Hempel's three core segments are decorative, protective and marine. The marine segment's performance is particularly strong in Asia, the Americas, the Middle East and central Europe. Acquisitions are a major part of the growth strategy, including the acquisition of Crown Paints in 2011, one of the strongest decorative brands in the UK and Ireland. Hempel also acquired the US-based protective coatings manufacturer Blome International Inc. in 2012 to access a broad range of high-technology products as well as the US oil and gas industry and support the fast growth in the US, especially in the protective market. Customer relations, understanding its customers and service are crucial parts of Hempel's operations.

The company's focus for the future is on further development and investments and capacity expansion in India, Saudi Arabia and Russia, the extension of sales channels in Asia, increasing production efficiency in the decorative segment in the UK and further investment in Brazil and South Africa.

STRONG COMPETITORS IN ASIA

Kansai was established in 1918 and is one of the Japan's largest paint manufacturers with an established international position. It has an extensive presence throughout Asia, including in China, Thailand, Singapore, Taiwan, Vietnam, the Philippines, Indonesia, Malaysia and Korea, while India and Japan account for 16% and 59% of total sales, respectively. South Africa accounts for 8% of its sales, with the remaining sales coming from Europe, especially the United Kingdom, Turkey and United Arab Emirates, and the Americas, especially the US, Canada and Mexico.

Kansai provides products and services in four main business areas: automotive coatings (39% of 2012 sales), industrial coatings (28%), decorative paints (25%), and marine and protective coatings.

Kansai's has strong focus on responding to environmental concerns and the company is making significant efforts along all phases of the supply chain, from responsible purchasing and production to innovative products, with a dedicated committee overseeing this process. For example, one of the outputs of such a process was ALES COOL, a high-performance solar radiation-reflective coating for roofs that can reduce the heat energy penetrating into a building from a sun-exposed roof during hot summer days.

Nippon was established in 1881, making it one of the world's oldest paint companies. Since 1962 it has been part of the Nippon Paint South East Asian (NIPSEA) group, which covers 15 countries in Asia and has more than 30 manufacturing facilities. Its product portfolio consists of paint and non-paint divisions. The non-paint division manufactures various surface treatment chemical products as well as electronic component materials. Nippon produces paints and coatings for automobiles, construction, architecture, steel structures, maritime, metals, machinery, roadways and electrical equipment such as phones, computers, and hard drives. In addition, it sells products for the interior and exterior decorative markets, which it promotes heavily through social media such as mobile apps. In 2008, chemicals accounted for only 4.8% of net sales while paint and coating products accounted for most of the remainder, with 37.2% coming from automotive coatings, 16.6% from industrial coatings and 41.4% from the remaining products including auto refinish, marine coatings, household paints and road maps etc.

Nippon's future focus is on maintaining a leading position in decorative coatings in the Asia-Pacific region and expanding its automotive, marine and other industrial coatings. Additionally, Nippon plans to expand to the European and North American regions.

Asian Paint is India's largest paint company and the third-largest in Asia operating in 65 countries (mainly India) with 24 paint manufacturing facilities, including plants in Jamaica, Bahrain, Barbados and Singapore. It manufactures a wide range of decorative and industrial products such as interior wall paints, protective, powder, floor and automotive coatings and road markings. Asian Paint's business approach has drifted towards tailor-made product lines, although the margins are small on small cans of paint. Additionally, signature stores are used as showrooms for the presentation of colors to consumers. These measures reflect the company's strategy of penetrating the decorative and home improvement market, which accounted for up to 75% of 2011 sales in India. To further establish itself in the home improvement market, in 2012 Asian paints acquired Sleek Group, a manufacturer, retailer and distributor of modular kitchens and kitchen components, including wire baskets, cabinets, appliances, accessories, with a pan-India presence. Furthermore, Asian Paints has formed several 50/50 Joint Ventures with PPG in the industrial coatings business area.

JOTUN GROUP

"Jotun has always been willing to accept risks, but not more than we can handle"

— Executive Group Vice President Geir Bøe

Jotun's history is shaped by the family members who have been at the company's helm for nine decades. In 1920, Odd Gleditsch, a young and talented Norwegian businessman, opened a paint distributor's shop after serving in a shipping fleet where he saw the importance of paint as the protection from corrosion. The whaling industry was prospering and Gleditsch soon worked his way into the business of supplying paints to whaling fleets in the cities of Sandefjord, Tønsberg and Larvik (in southeast Norway).

As sales to the whaling fleet increased, Gleditsch saw the potential in manufacturing the paint himself. In 1926, Gleditsch invited shareholders to invest in the new company which was formed from two entities: a newly founded Jotun Kemiske Fabrik A/S and the plant of Gimle Oljemølle A/S that had been closed due to bankruptcy. Odd Gleditsch was the Managing Director of the new organization. The acquired company was located just outside Sandefjord and had facilities for producing antifouling and marine paints.

From the very start, Odd Gleditsch placed great emphasis on quality. In 1951 a new factory together with a new state-of-the-art laboratory was built in Gimle outside Sandefjord. Rivals considered it madness, but Gleditsch had a vision: *"Our future success depends on an investment in research and development."* These R&D investments led to improved product quality, which in turn had a positive effect on Jotun's sales.

In the late 1960s conditions in the Norwegian paint industry became increasingly difficult. Several manufacturers were competing in a small market, with paint dealers and users reaping the benefits with marketing costs rising steeply. In August 1971 the four companies Alf Bjercke A/S, Fleichers Kjemiske Fabrikker A/S, A/S De-No-Fa og Lilleborg Fabrikker and A/S Jotun Odd Gleditsch decided to merge to avoid losing their market share to foreign rivals. Odd Gleditsch Jr., the owner of the youngest and fastest-growing company in the deal, played a major role in bringing about the merger.

At the end of 1960s, the discovery of oil in Norway and the transformation of whaling ships into tankers brought new opportunities for Jotun. Not only did Jotun start to supply oil tankers, but it also began providing protective coatings for the construction of the oilfield installation Ekofisk, the first Norwegian oil rigs. This experience, that took place under the toughest conditions of the North Sea, led to the development of the technology that set Jotun apart from its global competitors. In 1968, Jotun entered the powder coatings market. Powder coatings were a new concept in the paint industry and the company's management saw its strong market potential. About 20 years ago, Jotun decided to focus on those products where Jotun's competence was superior, and the company gradually divested other product categories such as furniture varnishes, light industry products, downgraded refinish and products for the automotive industry. Context-related factors such as the competitive strength of Norwegian clusters, Norwegian firm's competitive advantage within

particular industries and path dependencies from Jotun's initial business experience shaped the strategic choice of Jotun's segments and its offerings.

Jotun is organised into seven geographical regions, and today the group comprises 63 companies in 45 countries, including 37 production facilities in 21 countries. In addition, Jotun has legal companies, agents, branch offices and distributors in more than 100 countries. Currently Jotun has more than 9 900 employees (from which over 50% are employed in Asia). The parent company, Jotun A/S, still has its Head Office in Sandefjord, Norway. The main shareholders are; the Gleditsch family 54% and Orkla, a large Norwegian conglomerate controls about 42% of the shares.

Exhibit Organisational chart

JOTUN's INTERNATIONALIZATION

As a supplier of marine coatings to the Norwegian merchant navy, Jotun had contacts throughout the world. In 1962, Jotun established its first international plant in Libya, at that time a kingdom. The country was involved in oil exploration and there were indications of a potential increase in demand for paint that would come from rapid economic growth fuelled by the oil industry. As part of Jotun's management, Odd Gleditsch Jr. initiated the establishment of Linoco; Libyan Norwegian Industrial Company. Valuable experience was gained in the establishment and running of an international company and this became the platform for Jotun's later expansions. At the end of the 1960s Jotun constructed a facility in Thailand, which was its first factory in the Far East. See **Exhibit** for the detailed history of the internationalization of Jotun and **Exhibit** for Jotun's geographical presence.

After the merger with four largest paint manufacturers in Norway in 1971, Jotun continued to invest in R&D and geographic expansion. The limited Norwegian market for decorative products and Norway's strength in marine industry were the two main reasons behind Jotun's international expansion.

The **1970s** was the period when Jotun expanded in marine coatings by acquiring the British marine coatings manufacturer Henry Clark & Sons Ltd. in 1970 and the US marine coatings factory Baltimore Copper Paint Co. in 1974. Further expansion followed in the Middle East with the establishment in Dubai in 1975. Dubai has since played a major role in the internationalization of Jotun since it became a hub in the region. The Singapore paint factory opened in 1976 and Jotun's first powder coatings company outside Norway, Corro-Coat, was constructed in Thailand in 1978.

The **1980s** were exciting times for Jotun, characterized not only by expansion and innovation, but also by situations that called for tough decisions. Jotun had revitalized following near-bankruptcy resulting from a factory fire in Sandefjord. Internationally, the 1980s brought further developments with the opening of three new paint factories in Saudi Arabia, Egypt and Malaysia and a powder factory in Turkey. With its Powder Coatings Company in the UK, Jotun continued to strengthen its market position.

The **1990s** witnessed extensive internationalization for Jotun. The company entered 10 new countries and achieved further growth in its existing markets. In Europe, Jotun established a factory in Spain through the acquisition of a Spanish company and it purchased a marine coatings factory in Italy, a paint factory in Turkey, Corro-Coat in the Czech Republic and acquired a stake in Finish paint producer, Nor-Mali OY.

Meanwhile in the Middle East and Africa regions, Jotun continued to develop the coating segment by establishing Corro-Coat UAE. This establishment was based on the anticipation of expected growth in the region's industrialization and promises by the government to turn Dubai into the world's shipping capital. This never came about. In 1997, Jotun established a presence in South Africa through the establishment of a new paint manufacturer.

Jotun was also active in Southeast Asia by acquiring a paint manufacturer in Australia, establishing a marine coatings factory in Korea, a paint factory in Vietnam and setting up a joint venture in marine coatings with the shipping company *Cosco* in China in which it owned 51%. In 1996, PT Jotun Indonesia, Jotun's 33rd new factory outside Norway, was the first to manufacture both liquid and powder coatings. In 1999, a similar factory was opened in Thailand, which was Jotun's single largest investment to date. In addition, after closing its Baltimore factory in the US in 1989, Jotun regained its presence in the US market and access to local technology by acquiring Valspar's marine unit in the US and Canada in 1999.

In the 1990s Jotun started to invest in regional laboratories in Dubai for the Middle East, Kuala Lumpur for Southeast Asia and for marine coatings in South Korea to be closer to the market and increase its responsiveness to local needs.

At the start of the new century Jotun acquired the marine coatings company PRS Inc. in the US and opened a new paint factory in Spain in 2000. There was further expansion into Eastern Europe and Central Asia mainly through the licenses, sales offices or projects. Jotun also entered India and Russia by committing to build production facilities in addition to penetrating the North African region and a few remaining countries in Southeast Asia by 2014.

One example of Jotun's internationalization strategy is "the Turkish model". Jotun representatives first made contact with an agent in Turkey in 1986 to manage a marine coatings account. By 1989, the company had established a joint venture with two partners in Istanbul, who began bidding for contracts in the marine and protective segments and evaluating the market for decorative paints. In the early 1990s, Jotun began construction of a wet-paint factory, invested in warehousing facilities, and acquired a powder coatings factory. It should be noted that during this period, the Turkish economy suffered from high inflation, but economic reforms put in place in 2001 helped stabilize prices and laid the foundation for future growth. With production capacity for all four segments in place, Jotun was in an excellent position to serve Turkey's rapidly expanding economy and growing middle class. By 2011, the two companies were already wholly owned by Jotun and staffed by more than 300 employees. Jotun controls a leading market share in all segments, and the company has become a vital distribution hub for Jotun's growing business in Eastern Europe and Central Asia.

Jotun has a particularly strong foothold in the Middle East and with its strong position especially within Marine segment in North East Asia, more than half of the group's sales came from these two regions in 2015. See **Exhibit map** for regional differences.

JOTUN'S STRATEGY

In 2015, Jotun ranked among the top 10 world's leading coating suppliers. The company's strategy consists of three core elements:

- focus on four main segments (decorative paint, marine coatings, protective coatings and powder coatings),
- differentiated approach, and
- organic growth.

Firstly, the company focuses on paint and coating products within four main segments. Any diversification, into other product areas, market segments or along the value chain, is avoided. This is based on its desire to make efficient use of resources. Moreover, the management believes there are enough growth opportunities within these fields. As a tool to ensure this focus across the whole group, the company is using a centralised Business Review process. Conducted twice a year, this helps coordinate subsidiaries and align group-wide efforts by establishing the general agenda from headquarters. In addition, it facilitates monitoring, guiding and knowledge-sharing. This facilitates execution power by local management and is also a support tool. Another prioritised area is a strong focus on an uniform approach in overall branding and regional marketing to build one strong global brand. In contrast to many other companies, Jotun has one global brand.

Secondly, local units have some degrees of autonomy to adapt flexibly to local needs. This is seen as necessary in most of Jotun's markets in order to timely utilize local growth opportunities. This means that issues such as final pricing and product characteristics vary from region to region to reflect local preferences and environmental conditions. This flexibility contrasts with and is balanced by the centralized control established by the Business Review.

Thirdly, Jotun is committed to grow organically, unless it involves a legally required partnership or a technology-driven acquisition. This is closely connected with Jotun's strong corporate culture, which has been built over time.

"While Jotun continues to pursue an organic growth strategy, the company has taken steps to accelerate business development to reduce the time it takes to identify and establish operations in promising new markets and segments."

– Morten Fon, President and CEO, Jotun Group (2014)

Jotun has historically had great success in growing organically, and has favoured organic growth over acquisitions. Through organic growth the new entity is "infused" with the group's corporate culture which helps manage and control Jotun Group's numerous subsidiaries effectively and efficiently. CEO Morten Fon explains: "Jotun's values are grounded in our history and are the key to our future success." **Exhibit: Values.** This builds on core elements in the major owners, the Gleditsch family's core approach; a good group of owners and the ability to think long-term. This corporate culture helps to standardize expectations and serve as guidelines, especially in the context of culturally different regions such as Scandinavia, Asia and the Middle East. Following this logic, the idea of a family owned company surpassed the variation of cultures:

"I believe there are more similarities than differences when it comes to culture. Through internal training programs, job rotation and social arenas knowledge and experience is shared, networks are established that strengthen what we call the "Penguin Spirit."

Per-Harald Engesæth, Group Vice President Human Resources

There are good reasons to believe that the strong corporate culture along with internal development and career opportunities explains the relatively low turnover of employees in the company.

Vietnam represents a useful example of how Jotun's organic growth model works. Jotun had been active in Vietnam since 1992, with the company serving both marine and protective customers with personnel sourced from Singapore. The company opened its first representative office in Ho Chi Minh City in 1994, which was staffed with five people. As the economy grew, Jotun opened a small factory in 1998 and, over the next few years, established operations in other parts of the country, including the Haiphong maritime hub near the capital, Hanoi. Jotun began marketing decorative paints in 2003 and a year later the company extended the factory with a larger, modern production facility. In 2015, Jotun employed about 296 people and was the market leader in the marine and protective segments. Employees were hired locally and came from the local regions. In addition, experienced expat managers from other Jotun organisations played an important part in the growth.

The Southeast Asian region exemplifies the Jotun's strategy. The total turnover in the region has tripled from 2005 to 2015. The increase in the decorative market is partially explained by locally adapted innovation processes introducing several successful products each year. In addition, the company exploited synergies between subsidiaries. Another factor was the expansion of Multicolor Centers, which are Jotun shops with automatic colour tinting in-shop which reached 2,801 units in 2015, compared to 614 in 2005. See [Exhibit MultiColor](#).

Jotun has focused on further expansion in Cambodia, Bangladesh, Myanmar and the Philippines. Since the group already has good coverage in Asia and the Middle East, Jotun's new and promising areas for expansion are emerging markets in Africa and South America and continued penetration in emerging markets in Eastern Europe. Jotun plans to invest around 7% to 8% of total sales in new and existing markets. Jotun has also dramatically increased its rate of investments in extending new capacity in the last couple of years.

PRODUCTS

By 2015, Jotun was supplying a complete range of conventional and sophisticated coatings, including environmentally friendly products in the following sectors: decorative paints and performance coatings including marine, protective and powder coatings. The breakdown of sales across these categories in 2015 was as follows: decorative (36%) and performance (marine, protective and powder coatings; 30%, 24% and 10%, respectively). See [Exhibit from Group Presentation 2015](#). Historically, the organisation has reflected the segments to a larger extent than the regions, but from 2013 Jotun has focused more on the regions and organized accordingly. Jotun has acknowledged that the momentum of their business is in their regions. Jotun provides an extensive product portfolio for yachting market. Jotun is among the top two suppliers of marine coatings, in the top three in protective, and among the top five for the powder and decorative segments.

Decorative paints. This segment offers customers a wide range of interior products, including the premium segment Lady and Jotun Majestic Pearl Silk, the medium segment Jotun Strax Easy Clean and economy segment Jotoplast Max. Jotun's exterior products are represented by its premium brand Jotun Shield for anti-fading caused by sun, rain and pollutants, tough protection with its medium segment Jotatough HiShield and basic protection with its economy brand Jotatough. To respond to the two megatrends of demand for more sustainable, eco-friendly products and products that care for health and well-being, Jotun developed Majestic EcoHealth Paints. A paint that is both environmentally friendly and cares for consumers' health at all stages of the product's lifecycle featuring 100% APEO-free (free from formaldehyde and heavy metals), dual anti-bacterial and anti-fungus protection and ultra-low in VOC (company document, regional marketing PowerPoint presentation). In the decorative segment, Jotun is well-known for developing the Multicolor machines for DIY markets that allows massive customization, i.e. obtain almost any color, mixed directly at the point of sale. In addition, extensive branding, sales activities and emphasis on superior quality allow Jotun to position itself in the premium segment, which the company aims for in each of its markets.

Performance coatings

Marine coatings. Jotun is one of the leading coating suppliers for the marine industry. Its competitive advantage is partly due to its location advantage and its proximity to demanding customers. For decades, Norway's historical strength in the maritime sector and its global presence has facilitated Jotun's growth in this segment. The value proposition goes beyond just its colour offering. The main demand was in superior rust and anti-fungal protection. Such protection could increase the working lifetime of a ship, helping to maintain the ship and directly helping make savings on repair costs for ship owners. Preparation and application are crucial for the quality and end result. More than 1000 Coating Advisers globally ensure that quality standards are met. This sought-after superior quality could only be attained through the use of highly knowledge-intensive technology. These high performance requirements and the technological difficulties mean there are only a few rivals competing in this segment. Jotun's technological advantage in this niche is difficult to imitate by other incumbents, with the exception of Japan-based Nippon. Pricing per litre for this product is consequently sometimes as high as expensive French wine! Furthermore, besides its price, the profitability of this segment results from the high volumes demanded; the internal water supply reservoir of a large ship is comparable to the size of soccer pitch. Another success factor in this segment, besides the superior quality of its products, is the company's presence in ports. Global port presence is important because you have to deliver where ships are sailing.

Protective coatings. As a leading manufacturer and supplier of coatings for industrial and offshore structures, Jotun offers products that protect against corrosion and passive fire for steel structures as well as providing protection and decoration for concrete. It is a trusted name for numerous international projects, including the Burj-Al Arab Hotel in Dubai, the Eiffel Tower in Paris and the world's largest passenger vessels. This market is similar to the marine coatings segment in terms of its preference for high-quality coatings due to the associated risk of corrosion. As an example, an entire oil rig has to be reassembled if even a small part of it corrodes due to failure of the coating.

Powder coatings. Products in this segment comprise architectural, functional, industrial, and specialty coatings that include aluminium extrusions, pipeline and rebar coatings, domestic

appliances, metal furniture and fixtures and general industrial coatings. Jotun Powder Coatings' headquarters is located in Dubai with a large distribution network to cover over 75 countries worldwide. In 2015, the company's powder operations included 10 manufacturing facilities located in the Czech Republic, Turkey, the United Arab Emirates, the Kingdom of Saudi Arabia, India, China, Pakistan, Thailand, Malaysia, and Indonesia. Powder Coatings have been designed to meet the latest industry standards and are developed with sustainability in mind, using the latest technologies. With three decades of experience, Jotun is at the forefront of offering customers products specifically suited to local conditions. Furthermore, the new products cure at a lower temperature, representing a major innovation leading to reduced energy costs and a smaller carbon footprint for customer. The environmental aspect is a growing concern among users and since powder coatings do not contain VOCs, the division offers an alternative to wet paints

Yachting. There is an extensive product portfolio for yachting and mega yachts designed for long-lasting protection of boats and to help them achieve their best performance. Products include antifouling design systems, yachting primers and undercoats, topcoats, yachting epoxy fillers, varnishes and a range of advanced products for the maintenance of all areas of boats. This segment is strongest in Scandinavia.

TECHNOLOGY AND R&D

There are clear production synergies between segments since 80% of the paint and coating products are identical or address the same need for rust protection. To a large extent the main differences are between the general classification of wet paint and dry powder and variations in products' base mix ([Exhibit shows the basic production process for wet and dry paints](#)). There are clear technological synergies between the segments in terms of scale and focus. For instance, liquid paint is used in the decorative segment and powder coating uses the same pigment-mixing technology to create the right colours. However, figures show that powder technology or dry paint is less capital-intensive than liquid paints used in the protective and marine segments. Comparing the segments further, the decorative and performance segments vary in their application method and their base. Decorative is largely water-based and used mostly in rolling application, while most of the products under the performance division are more solvent-based and applied by spraying with only a few products applied by rolling.

Despite the common perception of paint as a commodity, most of the paint and coating range offered by Jotun is of premium quality and is highly knowledge-intensive in nature. Jotun has secured two major patents, which contribute to its competitive advantage: one for the binder and the other for paint distribution). Although binder is widely available in the market, its quality is still lagging behind the desired level and Jotun's patent improved this. The other patent was used in the decorative segment and involved innovative colour blending, namely the Multicolor digitally controlled mixing machine invented in 1970's. This Jotun innovation allowed customers to choose between 16,000 colours mixed in store at the time of purchase, providing mass customization that was otherwise not possible to achieve (see [Exhibit for Multicolor Center images](#)). Although many generic systems followed, the difficulty of duplicating this process and Jotun's unique proprietary software and operating system were essential for this competitive advantage. In addition, rivals did not make much investment in the ability to customize colours.

In 2015, Jotun had seven R&D laboratories around the world with two labs exclusively devoted to powder coatings. Jotun's research and development is aimed at introducing products that look good, offer simpler preparation, fewer coats and better protection to achieve longer periods between maintenance and cost savings. The laboratory in Sandefjord serves as the centre for and coordinator of all research. Regional R&D departments adopt a market-oriented approach to develop special locally adapted decorative products reflecting differences in weather conditions and needs.

Constant knowledge-sharing is provided by the Innovation Board by supplying updates on progress and status to avoid duplication of efforts. Generally, R&D takes place through separate innovation programs within each branch and checks are carried out whenever the technology is transferrable. For example, advances within marine and protective might benefit further from product lines in the decorative segment.

In response to increased market demand for healthier and more environmentally sustainable products, Jotun has developed a number of innovative paint solutions in recent years. In 2008, Jotun launched Sens, a paint designed to reduce symptoms associated with allergies and in 2010, Majestic EcoHealth, which is a low-VOC waterborne paint using sustainable raw materials. In addition, the company introduced a number of heat-reflective architectural coatings and continues to refine its premium silyl acrylic antifouling marine coating, Sea-Quantum, proven to help ship-owners reduce fuel costs and corresponding carbon emissions.

Jotun has always placed particular emphasis on health, safety and the environment in all parts of its operations with a vision of zero tolerance to serious incidents, adopting standards ISO 9001 (quality management), ISO 14001 (environmental management), and OHSAS 18001 (occupational health and safety) in addition to strict European regulations.

OPERATIONS

Since the raw materials are fairly generic, suppliers include several large global companies such as DuPont, BASF and Reichhold. Jotun's Group Purchasing department will be a coordinator and negotiate and enter contracts with global suppliers of raw materials.

Distribution is also arranged locally due to local regulations and pricing. For end-users in the decorative segment, consistent with the company's premium positioning, Jotun is committed to exclusive distribution through the Multicolor Centers, which are owned by Jotun in many of its markets, such as the Middle East, India and Africa (MEIA) region. This complements paint offerings with additional value through mass customisation and added service for the product. In contrast to some of its rivals, Jotun does not distribute products under private labels or through the wholesale channels.

In Jotun's performance unit, professional customers are handled by a dedicated sales force consisting of local, regional and global Key Account Managers supported by a high quality technical support team.

A strong emphasis is placed on regional marketing and sales and after sale services. Regional marketing follows a unified approach which offers many benefits in respect of product development, product management, communication and advertising materials, and managing brands. The Jotun brand name is considered one of the most valuable assets. To achieve this, the company focuses

strongly on close partnerships in the areas of local marketing, the retail/dealer sales and project sales. Outside Scandinavia only one brand is marketed – Jotun. Countries in each region work together in local teams to implement the strategy. This approach is adopted for product launches, distribution concepts, product and price management, project concepts and tools. The success of the marketing strategy depends on the implementation of the strategy in each local market, so it is very important that during development local teams understand customer needs and technical elements through market research, trade visits, site visits, etc.

STRATEGIC ISSUES

Jotun has come a long way since its inception. It has built a reputation on being a market leader in the development of innovative coatings solutions and responding to local needs. Since the 1980s, Jotun has achieved great internationalisation success in Southeast Asia and the Middle East by taking high risks and sending its own personnel, its “penguins”, into markets at an early stage. Another aspect of its success has been its focus on decorative and performance coatings, namely marine, protective and powder coatings, the segments in which its historical development is rooted.

However, the industry is changing rapidly. Competition is intensifying in the emerging markets covered by Jotun, with a major growth driver being the consolidation among incumbents. In addition, the volatile nature of the world economy could pose challenges as some of the industry is highly cyclical and positively correlated with general economic growth. Other challenges are shifting demand from consumers, who increasingly want health-conscious and eco-friendly solutions, and ever-more restrictive legislation focusing on eco-friendly products and production.

The challenges faced by Jotun are thus multifaceted. In order to maintain its current rate of growth, the company has several options. One is to pursue further expansion into new and promising geographical areas following the model of the 1980s. As management resources are scarce and organic growth occupies much of its time and focus, Jotun has to decide where to place its money and prioritise its investments to maximize value. Despite the common expectations, the cost of opening new plants does not represent a major challenge, and continuing expansion is therefore not constrained by cost.

The second option is to pursue structural growth, as incumbents are doing. Organic growth is slow and perhaps too slow in a dynamically changing industry structure. Could loyalty to Jotun's traditional strategy backfire? The corporate culture in which the company has always taken is facing the issue of an increasing turnover from a new generation of employees and less of the loyalty that was essential to its internationalisation model. This is in turn directly related to the scarce managerial resources as Jotun has traditionally developed the managerial capacity through internal career development.

Lastly, Jotun has restricted itself to the current product categories. Could excluding the option of product diversification restrain the company's competitive advantage in future? Could adapting the risk-taking exploration from its internationalization model to discovering new profitable niches like marine coatings turn out to be a success driver for Jotun in the future?

Source: Case writer based on company documents.