

Local embeddedness as a driver for innovation: The story of VMC and steel transformation¹

‘We have to look towards the future, and be confident, but never forget that the history of VMC is deeply embedded in the past and the surrounding towns’ (Christophe Viellard – President of VMC, June 2010)

Viellard Migeon & C^{ie} (VMC)² is a more than bicentenary industrial family-owned company specialised in the transformation of steel. The company is involved in three main activities: (1) the manufacturing of fish hooks and other fishing tackle, (2) production and distribution of welding consumables and methods, and (3) manufacturing of automobile, aerospace fasteners and medical implant devices. While all these activities take their roots in the forge industry in the Eastern part of France, one is particularly representative of the fine balance that the family has managed to maintain over the generations between tradition and innovation, and of the development of acquired knowledge to other activities: *fish hook manufacturing*. In line with the production of steel string, VMC started to make fish hooks at the beginning of the 20th century to now being one of the most important actors of this sector with four millions fish hooks produced per day. VMC is also the world market leader in the production and sales of treble hooks. The company exports 70% of its production over 70 countries and is still run by the Viellard family from the same area where the 4th generation started this industrial fishing tackle story.

FISH HOOK MANUFACTURING HISTORY: FROM MARKET RESPONSE TO WORLD LEADER

The story begins in Morvillars, a small town close to the Swiss and German borders. In 1796, Jean-Baptiste Migeon and Jean-Baptiste Dominé acquire the forges of Morvillars and start the industrialisation of the town (see Appendix 1). In 1835, Laure Migeon, Jean-Baptiste Dominé’s granddaughter and Jean-Baptiste Migeon’s daughter, marries Juvénal Viellard who goes on to run the company and to diversify its activities. The two names are now reunited to

¹ Version written by Nicolas Battard.

² <http://www.viellardmigeon.com/en/>

form Viellard-Migeon and C^{ie}. At the time, VMC has not yet developed the fish hook branch. Indeed, a non-compete agreement was signed between European manufacturers of bolts and screws. Each company has its own geographical B to B market: G** for the British and British Empire markets, K** for the Germanic and central European markets, Mustad for the Scandinavian market and VMC for the French and French Empire markets. However, in 1909 Mustad starts a fastener manufacture in France and, therefore, breaks the non-compete agreement. In response to that, VMC decides to invest in the manufacturing of fish hooks, a promising market in which Mustad is already present. In 1910, VMC acquires a hook brand of diverse fishing items as well as manufacturing instrumentation located in Redditch in England. The instruments, together with ten families are brought back to France to safeguard the specific techniques that are required to shape fish hooks and swivels.

The growth of this activity goes along with a willing to focus on downstream activities because of the difficulties in the fastener industry. In the aftermath of World War II, the company faces the need to renew and automatise its equipment because of the Norwegian competition³. The production of salt water hooks is, therefore, enhanced with the acquisition of a tunnel oven allowing a 60% increase without hiring personnel. Still in order to meet the growing demand in the French Indochina and in the United States, two other factories are built – one in Brittany (Blain) and a second one in Switzerland (Courchapoix). Henri Viellard selected the site of Courchapoix because it is close to the border, located only 60km from Morvillars, to manufacture treble hooks for the US market. Then, an increase from 7.8% in 1939 to 12.1% in 1950 of the turnover shows the success of these activities.

The loss of Indochina (Dien Bien Phu in 1954) brings the period of prosperity to a premature end. The Swiss factory is sold and the salt water hook plant in Blain is closed. A definitive stop is even considered given the fierce Norwegian competitor Mustad. Turnover falls from 6 400 000 francs (about 17 593 000€, actualised value) in 1950 to 9 431 francs (about 26 000€, actualised value) three years later. The decision to cease the activity is, however, postponed and a reorganisation of the halieutic branch is undertaken. Ranges are reduced and more automation is implemented. Along with these measures, the number of employees is downsized from 300 to 196 and advertising is improved. Although a slight improvement can be noticed, the activity remains in deficit by 17 000 000 francs (about 46 733 000€, actualised value). Orders of 4 million hooks per month do not manage to balance the high fixed costs related to production, and the number of employees has again to be downsized from 126 to 95.

³ Lamard, P. 1996. De la forge à la société holding: Viellard-Migeon et Cie (1796-1996). Polytechnica: Paris.

Even though the automation of the production continues, the bad conjuncture and the competition put pressure on this activity and the deficit increases to 40 000 000 francs (about 109 959 000€, actualised value). From 1961, an increase of the orders from European countries enables the number of employees to increase from 75 to 98.

When Christophe Viellard heads this activity in May 1968, the activity is very unstable. However, Christophe Viellard succeeds in convincing the board that this activity has some potential. Equipment needs to be improved and an investment of 3 500 000 francs is made. With internal knowledge and competencies, a new technology is created and enables, four years later, to drastically improve the productivity of treble hooks from 5 000 pieces per day per employee to 60 000 per day per employee. With the first benefits comes the question of autonomy for the fish hooks manufacturing branch and after debates about the fear of losing control of the activity, a new subsidiary is created, VMC Pêche, with a capital of 2 600 000 francs. In 1981, as the activity increases, two new subsidiaries are created: one in the U.S., V.M.C. Incorporated U.S.A in Saint Paul, Minnesota; and one in Canada, V.M.C Pêche Canada Limited in Halifax, New Scotland. By being closer to the local markets, suggestions and complaints are treated more quickly. To counter a new kind of competition coming from Asia, the company undergoes more restructuration. The branch now exports in 60 countries and has become the second hook manufacturer in the world. In 2000, now world leader on the treble hook market, VMC Pêche merges with Rapala, the world leader in lures, in order to form one of the major actors on the fishing tackle market. Sport fishing is an important and growing globalised market which encompasses various technical products (see Appendix 2) where quality is of tremendous importance for users.

HOOKING INNOVATION INTO LOCAL KNOW-HOW

At the time of the acquisition of the machines, employees were still doing manual work with the help of specific tooling. However, shaping fish hooks is directly related to the working of steel wires, as they both concerned the transformation of steel wires. In this sense, this acquisition provided more than just new machines and the start of a new business; it brought complementary knowledge to an existing know-how. Even though the activity was growing, the increasing international competition and the loss of markets forced VMC to innovate. An increase of the production was needed but without compromising the quality of the product and the financial health of the company. Automation was a way to reach such objectives. A key innovation came in 1970s with the development of a machine which would automate the

full process from the steel wire to the treble hook. This apparently simple product requires various very specific steps to be made such as cutting the point and the barb, bending the wire and shaping the eye to be knotted on the line. A fish hook can take various shapes and sizes to suit the fish that needs to be caught and the type of fishing that is practised. Treble hooks make the automation process more complex as three hooks must be welded together and hold in place when a fish is caught. Although this major innovation could have come from an external new engineering process, it was developed by a local employee who had always been immersed in this culture of ironwork. This new instrument has not been patented and is kept secret within the factory in Morvillars. Even after forty years after its conception, this instrument is part of the competitive advantage that VMC holds over its competitors.

To innovate, VMC combines both the know-how embedded in the culture of ironworks and that of professional fishermen. They created the lightest hook for competition, new reels, and so on and also improved their top-end products. These two types of innovation are both equally important as they provide the company with a competitive advantage regarding the manufacturing and new ideas for the shaping of the hook itself in terms of shape, size as well as other features. This fine balance which has enabled VMC to reach the position of world leader on this market is made possible by the involvement of the Viellard family in this market for over a century. By staying involved in this market despite the market and financial losses, personnel downsizing and crises, the Viellard family has gathered, over the years, a strong knowledge of this market and its dynamics. This involvement enabled the company to go through a phase of discovery and to build technological barriers such as this automation system in the 1970s. It also enabled the family to understand the underlying trends, technological innovations, macroeconomics effects and so on that are peculiar and significant to a market.

Whilst family stability enabled the gathering of knowledge, geographical stability enabled a culture to be forged. Although relocating production may have enabled the company to lower its production costs, this would also have jeopardised the knowledge related to ironworking and probably made it disappear. Indeed, it is the deep-rooted nature of the knowledge in the family and also in the local community that enables the process to be improved. Machines as well as the production process are, in this way, constantly improved by the operators and products by the collaboration with professional fishermen. It is this two-way innovation process that provides the company with a sustainable competitive advantage.

VMC provides a good illustration of how innovation can be fostered by both capital and geographical stability. By staying involved in the fish hook manufacturing for over a century, the Viellard family have learnt and understood the dynamics of this sector. They have been able to improve their production and the quality of the product by investing in new machines and also by taking advantage of the knowledge and know-how that are embedded in the company and the local community. This long-term involvement secures both the day-to-day activity and future developments by providing support and back up to middle managers. Indeed, as the family sees in an activity not only the return on investment or the internal rate of return, but also whether it is strategic for the company and whether it will secure its longevity, innovation is given a frame within which both employees and managers benefit from a space of freedom and are allowed to take risk and to innovate. By remaining 'loyal' to a product, a local area and the know-how of what the company has been doing for over a century, VMC has gone through crises, overcome the major economic downturns and is still maintaining its position as world leader.

QUESTIONS

You are mandated by the Viellard family to help them to make a diagnostic of the company and to answer important questions regarding its future.

1. What are the strategic resources of VMC? Which ones are the most strategic?
2. What advice would you give to the Viellard family to further protect its strategic assets?
3. In context of fierce competition, cost control and managerial control are crucial for any company. Discuss the different options that the Viellard family has to maintain its costs without compromising its values. To what extent being a Henokiens (see Appendix 3) can influence the propositions?
4. Sport fishing is an important market in which VMC is growing. Growth of firms can lead to challenge the structure as well as the governance of firms. To what extent the growth of VMC might bring new challenges to its core values?

Appendix 1. Key dates for VMC and the fish hook manufacture



1796: Jean Baptiste Migeon, associate and son in law of his associate Jean-Baptiste Dominé, becomes director of the Forges in Morvillars.

1835: Juvénal Viellard marries Laure Migeon, Jean-Baptiste's daughter. He will, then, run the company and develops the activity of steel manufacturing and steel strings.

1910: In response to the construction of a fastener manufacture in France, Charles Viellard buys the production activity of fish hooks from Redditch in England to able the production of fish hooks and organise the venue of ten English families to Granvillars.

1938: The activity is transferred from Granvillars to Morvillars where a fish hook-dedicated factory is created.

1960: Decolonisation leads to the loss of several markets but also to the scarcity of raw materials and to the decrease of their quality.

1971: Christophe Viellard takes over the activity and brings new dynamics to the business.

1974: The first automated machine that enables the making treble fish hooks is created.

1996: VMC celebrate its 200th anniversary and becomes a member of the Henokiens Association.

2000: VMC joins Rapala, a lure manufacturer, to form Rapala-VMC.

2005: VMC strengthens its participations to become the first Rapala-VMC's shareholder.

2010: The Company receives the label 'Living Heritage Company' which rewards companies for both their industrial and traditional skills.

Appendix 2. Fish hook's market

Fish hook is one of the most ancient tools of mankind and was first made out of wood, shell, bones, and later steel and different types of alloy. The oldest fish hook was discovered in the East Timor and dated between 16 000 and 23 000 years old.⁴ Although the fish hook got its basic ideal shape thousands of years ago, it is a very technical tool. Indeed, depending on the fish

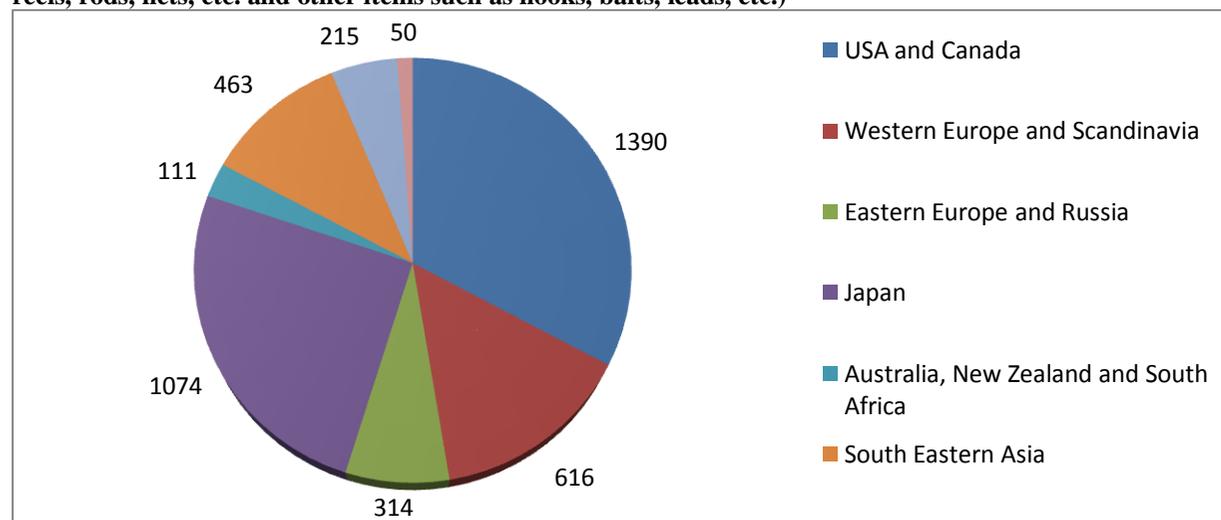


to catch, the characteristics of the fish hook such as the point, barb, bend, shank, and so on can take different forms. Innovation and the improvement of each of these characteristics are very important as even a tiny modification can increase the chance of catching a fish. Fish hooks are not only assembled with a mere line but also on different types of baits.

Sport fishing items are a growing market that is spread worldwide. North America and Japan are the most important market with respectively 33% and 25% of the world's wholesales (see graph below). However, Japan is the first country in terms of Average annual individual spending.

⁴ Corbin, Z. 2011. Archaeologists land world's oldest fish hook. Nature News, Nov 24, 2011. Last consultation: Feb 2, 2014. URL: <http://www.nature.com/news/archaeologists-land-world-s-oldest-fish-hook-1.9461>

Sport fishing world's wholesale in million US \$ - June 2010 (including both equipment articles such as reels, rods, nets, etc. and other items such as hooks, baits, leads, etc.)



Sport fishing: World estimations (June 2010)

(million US\$)	USA and Canada	Western Europe and Scandinavia	Eastern Europe and Russia	Japan	Australia, New Zealand and South Africa	South Eastern Asia	Central and Latin America	China	<i>TOTAL</i>
Hooks	42	18	16	31	5	23	11	7	153
Snelled hooks	25	30	12	48	2	32	11	1	161
Finished lines	5	11	4	9	1	7	5	0	42
Spinners	39	17	15	18	5	6	4	0	104
Hard baits	108	30	19	37	11	17	9	1	232
Soft baits	78	13	10	25	7	9	4	0	146
Other baits (flies, etc.)	7	1	1	3	1	1	1	0	15
Total	304	120	77	171	32	95	45	9	853
Fishermen (million)	50	20	25	26	6	30	51	20	228
Average annual individual spending (US\$)	27,8	30,8	12,56	41,31	18,5	15,43	4,22	2,5	18,57

Appendix 3. The Henokiens

The Henokiens⁵ is an association of companies that have been within the same family for at least two centuries. Created in 1981 by the Chairman of Marie Brizard, a descendant of the creator of the first anisette, the Henokiens were placed under the protection of Henok (or Enoch) a patriarch of the bible and Noah's great-grandfather. The association gathers family-business from Belgium, Netherlands, England, France, Germany, Italy, Japan and Switzerland and from various sectors such as craft industries, trades, services, publishing, heavy industry, and so on.

Being in the same family for two hundred years is not the only condition to become Henokien. Indeed, companies must be in good financial health and share the philosophical values which are the core of the association: the value of the concept of family companies, a real alternative to multinationals.

Each company has a fascinating and inspiring history that challenges our conceptions of doing business. Indeed, they are deeply embedded in economic reality and manage to maintain the fine balance between modernism and tradition, or between transmitted know-how and innovation. Power is not a criterion to become Henokiens and solidity along with longevity is favoured. This why companies of various sizes and from famous to less known to the general public can be found among the Henokiens.

⁵ For more information, visit the Henokiens' website: http://www.henokiens.com/index_gb.php