

The German Business Model: The Role of the Mittelstand

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Abstract

Mittelstand firms are small and medium-sized enterprises that form the backbone of the German economy. Mostly export-orientated and with high levels of productivity and quality standards, these group of firms have contributed significantly to Germany's post-war economical success. They combine strategic focus with geographic diversity, emphasize factors like customer value and closeness to customers, rely on their own technical competence and create mutual interdependence between the company and its employees. In this paper, we research the clues of this very successful model and the main causes of its competitive advantage.

Keywords: Mittelstand, small and medium-sized enterprises, innovation, product quality

JEL Classification: L10, M10, M53

1. Introduction

In every country the business model has differences in many aspects: the way of investing, the conception of risk, how much debt is acceptable, the management styles, the perception of innovation, etc. Also the structure of the companies has to be taken into account: Are they locally or globally focused? Family or non-family based? Big or small? The great majority of German companies that support the economy of the country are called Mittelstand, which actually means the middle class in business terms. A similar kind of structure is common in other European countries with different names but with almost the same basis. The Mittelstand has served the German economy very well since World War II. Mittelstand firms are small and medium-sized enterprises (SMEs) with annual revenues up to 50 million Euro and a maximum of 499 employees. 99% of German firms are Mittelstand and account for 68% of Germany's exports. Of them, 80% are active in the B2B segment, their customers often being global leaders themselves, and 70% are based in small cities or rural communities. They are the most export-orientated group of firms in Germany's business landscape contributing significantly to Germany's sustained export success. As such, Mittelstand firms clearly form the backbone of the German economy. Ludwig Erhard, the Economics Minister who crafted the post-war Germany's economic miracle, emphasized more qualitative characteristics which embody the German Mittelstand, as an ethos and a fundamental disposition of how one acts and behaves in society (Erhard, 1956). According to Erhard, it is the idea of business and the spirit of management what defines if a company is a Mittelstand or not. Companies are part of complex socioeconomic systems. In a global economy, competition is increasingly between these systems rather than between companies alone. Germany's ability to design a cohesive economic and social system that adapts continuously to changing requirements goes a long way toward explaining the country's competitive success. In this article, we research the clues of this very successful model and the main causes of its competitive advantage.

2. Main characteristics and competitive strengths of Mittelstand

Mittelstand companies focus on niche leadership on global markets, staying away from large and price-driven volume markets. They compete through value addition and not cost cuts. They maintain a low level of debt. The funds come from the retention of profits and the own equity, which reduces dependency on external capital and allow anti-cyclical strategic moves.

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The economic crises and recessions are used to strengthen the market position and core competencies are never outsourced. Their deep insight into customer needs is a valuable source for further innovation and the solving of key customer problems provides Mittelstand companies with a premium competitive position. We could distinguish six main characteristics and competitive strenghts.

2.1. Ownership and culture family-based

Family values are an important part of a culture and it really defines a society. With Mittelstand companies, there is an emotional link when talking about business and family. Traditionally it has been very important to keep a generational continuity, even for big companies. Lean hierarchies are typical in the German business model in all around the country, but also quite common in neighbor countries like Austria and Switzerland. According to development bank KfW, more than 235,000 Mittelstand companies will be looking for a successor by the end of 2020. Yet hardly any of the current owners want to look outside the family. More than half of all senior managers want to see the transfer of ownership go to someone within the family. Many of the businesses were set up in Germany in the post-war years, and the owners are now approaching retirement age, creating a generational gap. Managing this generational shift will not be easy as Germany's low birth rates since the 1970s have severely reduced the supply of potential successors. And there is a trend in new generations to be skeptical in keeping such conservative traditions. They understand the familiar spirit behind the success of the company but they have curiosity in exploring new ways of doing business. In fact, family members are increasingly unwilling to assume corporate responsibility while the country's labour market offers plenty of alternative job opportunities.

2.2. Decisions focused on long term results

Thinking long term requires a good system for planning all the relevant investments and financing decisions in order to keep alive the company through generations, for long term existence. In politics, especially in the south of Europe, is usual to prioritize short term government decisions and the main reason is that every four years there is the risk that they can be changed democratically. So they don't have any incentive to promote actions with a positive repercussion in more than two or three years, in case they were not in the power anymore and the opposition would appropriate their good results and deceive the voters. That way of thinking is really harmful in the long run, as it can cause irreparable problems with a high social cost. Most of the short term solutions consist in spending huge quantities of financial resources in popular but not productive projects. This is clearly not a real solution. In German business culture it is easily perceived the obsession with the consequences in the future. Somehow, not only in companies but also in families and politics. Being aware of what is about to come does not mean not taking risks, but being prepared for possible scenarios. Investment into the workforce is an example of a long term decision.

Mittelstand companies are committed to people, more specifically, continuity of employees. Many of the executives running Mittelstand foreign operations have been in charge of their units for more than ten years. The revolving door that characterizes many large multinational corporations is rare among the hidden champions. As a result, managers know they probably will be working with the same customers ten or more years and then are highly committed to them.

Leaders who are technically competent, willing to get their hands dirty, and genuinely concerned about employees are key to creating an atmosphere in which workers are motivated and involved. These traits are rare in large corporations. Employees of the Mittelstand are, in turn, loyal to their employers. Despite high growth in employment opportunities in Germany, 44% of the employees in the leading Mittelstand have been with their company for more than ten years. When one takes into account new recruits, the rate of employee turnover is very low, roughly 3.2% a year. Workers identify with the company and are highly motivated to help the company succeed. And the hidden champions actively involve workers in the business. More than 80% of them offer incentives for workers to contribute new ideas, more than 50% have quality circles, and about 40% offer profit-sharing programs. Strikes and labor conflicts are extremely rare, and internal problems absorb much less managerial energy than in large companies.

2.3. Innovation and product quality

Probably the most used word to describe German industry is "innovation". It is on the news, on articles, studied in university projects and even on TV advertisements.

There are historical examples of innovation in the Germanic territory, going back to the printing press technology in XVth century. The European Commission defines Germany as a leader in the European Innovation Scoreboard. The culture of innovation brings some connected values that make an approach to how society is. Independence in the decisions and flexibility to face obstacles is crucial to survive in a competitive world, and that is just what having an innovative entrepreneur spirit means.

A key to success is an innovation policy based on the promotion of public-private collaborations in applied research, and a vocational model of dual education. The support to institutional intermediaries, basically Fraunhofer institutes, act as R&D centers oriented for SMEs, and public investments for financing industrial research. The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 72 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of more than 25,000, who work with an annual research budget totaling 2.3 billion euros. Of this sum, almost 2 billion euros is generated through contract research. Around 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects (Fraunhofer Society, 2014). German companies with less than 250 employees have access to direct grants of up to €350,000 for industrial research projects, and research support for initiatives that given the high financial cost and uncertainty of the return would not produce alone (Kaiser & Prange, pp. 395-408). Germany's comprehensive innovation strategy helps firms engage in R&D, fosters collaboration between researchers and the private sector, and enhances the competitiveness of manufacturers and the regional economies in which they reside. Thanks to this organized effort, a wide variety of firms, particularly Germany's *Mittelstand*, have been able to reap the benefits of public and private research to outperform international competitors (Blind & Grupp, pp. 451-468).

While the term innovation may invoke radical breakthroughs such as the internet or the iPhone, most firm-level innovation is actually incremental in nature, and therefore relies on a broad swath of the workforce. The complex and capital-intensive systems that increasingly define manufacturing demand qualified production workers who possess the practical knowledge, creativity and adaptability to implement and improve new processes and technologies. And it is workers' ability to complement machines that increasingly determine their productivity, and therefore the wages they can command.

2.4. Competitive clusters

There is a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field, increasing the productivity with which companies compete. Resources and competences reach a critical threshold, giving the companies a key position in a given economic branch of activity, and a sustainable competitive advantage (Porter, 1998). One implication of the globalization of the economy is the growing importance of highly specialized industrial regions, such as California's Silicon Valley, the industrial districts of north Italy, Tokyo's Otaku district or Baden-Württemberg in southwest Germany. Such regions often consist of many small, innovative companies tied together in complex business networks. One outstanding German industrial region is the southern state of Baden-Württemberg, with competitive advantage in machine-tool manufacture. But Baden-Württemberg did not always have a dynamic economy. During the industrialization of Germany in the late-nineteenth century, the region was sparsely populated and comparatively backward. Baden-Württemberg's companies and their industrial organizations realized that the only way to succeed in the new manufacturing economy would be to find specialized niches overlooked by large mass producers in Germany and other countries. They devised a regional economic strategy of importing metals from the heavily industrialized Ruhr to build machines needed for mass production by other industries, turning Baden-Württemberg into the center of Germany's machine-tool and machine-making trade.

SMEs don't maintain leadership in costs. The resultant price of the product is not low by international standards, but they concentrate their resources to ensure superiority in the areas customers value most. As a result, their strengths are well matched to customers' real needs. What customers value most are product quality, closeness to the customer, service, economy, quality of employees, technological leadership, and innovativeness. The *Mittelstand* companies underperform in some areas, but only in those that their customers care less about. The example is price. But this is not surprising, given the high level of German wages (Franch, 2018). For most hidden champions, being less competitive on this factor is not too serious a concern because demand for their products is relatively insensitive to price.

2.5. Social responsibility

The German model is a distinctive form of capitalism with blurring boundaries between society and business, the public sphere and the private sphere, politics and markets. What often look like constraints on managerial power at the level of the individual company turn out to be powerful sources of flexibility for the German economic system as a whole. The system has adapted remarkably well to new competitive realities in the past, and there is little evidence to suggest it won't continue to respond in the future. They do not talk of a "free market" economy, but of a "social market" economy, or *Soziale Marktwirtschaft*. The term reflects the German conviction that the economy and society are interdependent, not two separate realms. In Germany, business has a responsibility for providing a stable order, both for the economy and, more indirectly, for society. And nonbusiness institutions—for instance, unions and government—have a say in business and management. The constraints that Germany's more social version of capitalism places on individual companies has the paradoxical result of increasing the flexibility and responsiveness of the economic system as a whole. Nowhere is this dynamic more visible than in labor-management relations. In Germany, employers and unions are known as *Soziale Partner*, or "social partners". Although it was only a small part of their original intention, the unions helped to shape a national competitiveness strategy centered on high skills and high wages. They contributed to transforming a government-funded quality-of-work program into a modernization strategy for private industry. The concept of the social market economy doesn't only shape the relationship between German companies and unions. It also helps structure relationships among companies in the same industry or in the same geographic region. For example, one reason Germany's SMEs are so successful is that nearly all of them belong to powerful and active trade associations. This allows the regional economy to combine the best of both worlds, the flexibility and innovation of highly specialized small companies with the strategic coordination provided by regional institutions (Hoeckel & Schwartz, 2010). Because relationships among the various players in the local economy are highly organized, the system as a whole is able to adjust quickly to new market conditions.

As social aspects are so characteristic of this business model, it is not a surprise to talk about the social responsibility within companies. Being consequent with the actions and the decisions of a company towards the environment is really important to reach the success. Voluntary programs promoted by corporations, scholarships, training programs involvement in town issues, awareness with the nature and other examples demonstrate strong regional ties of the businesses. Moreover, being socially friendly with the place the company comes from and having the chance to understand the picture outside the walls of the office is clearly related to the family spirit mentioned before. Being able to have a sense of responsibility is not only good for the inhabitants of that area, but also really profitable for the company itself, as they can obtain information about the public they want to reach and prepare detailed strategies focused on customer needs, detect niches and keep great relationships with suppliers and other business to possibly create synergies. In fact, economic activities are embedded in social activities, and the social glue binds clusters together. In regional and rural areas, significantly more innovation takes place in communities which have stronger inter-personal networks (Wear, 2008).

The fact that the owner-manager was often born and raised in the same town as his employees leads to more intimate relationships than those that exist in large corporations. *Mittelstand* managers help foster such closeness. Some CEOs even know many of their employees by name. And despite substantial wealth, these managers live modestly. Many CEOs are also active in local clubs, often as presidents, and heavily involved in community matters. While big companies tend to operate under the rule that trust is good but control is better, the reverse is true for most leading *Mittelstand*.

2.6. Workforce training

Another key to success is the importance of workforce training system. Manufacturing high-quality products for export depends on the existence of a highly skilled work force. Creating and maintaining that work force depends on extensive apprenticeship, training, and retraining programs. The employees are a key point in the efficiency of any organization, so having a developed function in Human Resources stands a great difference between success and failure. Courses and training lead to workers involvement and give them a say in corporate decision-making. The nationwide worker-training system functions with close cooperation between the social partners that design and administer the system. The international culture is remarkably strong and the educational system enhances the development of language skills as well as exchanges and international practices. If innovation continues to be the key to raising living standards, human capital and training remains a critical determinant of innovation.

The German education and training system has been particularly adept at preparing its manufacturing workforce to complement new technology. This preparation begins relatively early in the education system as compared to other countries. The most common pathway to a job is the dual system, through which students obtain field-specific workplace skills in one occupation. Training occurs mainly through a two- to three-year apprenticeship at a firm, where students train three or four days a week. Students spend the remaining one or two days per week at a part-time vocational school (Berufsschule) where they receive more theoretical training.

The successful companies invest 50% more in professional training than the European average. From the very beginning of the journey from school to work, dual system participants establish close relationships with employers. Companies sign contracts with young people under private law and provide them an hourly wage just below that of an entry-level worker. On-the-job training typically comprises two-thirds of the curriculum in the dual system and the contents of the curriculum as well as supervision are the responsibility of the hiring company, with active monitoring by the industrial chambers of commerce and state government to ensure training is in accordance with national occupational standards (Dual Training at a Glance, 2013). Firms also contribute about two-thirds of the overall costs. Employers participate in the dual system for several reasons. Evidence suggests that German manufacturers do not recoup the cost of training apprentices during the apprenticeship (Mohrenweiser & Zwick, 2018). Rather, they are viewed as a human capital investment that will pay off as apprentices become more skilled full-time workers upon completion of their training (Fougere & Schwerdt, pp. 317-346). Skill investments are justified because access to qualified labor provides firms a productivity advantage over their competitors, given that many technical skills remain relatively scarce. Additionally, solid worker protections from the country's powerful labor unions make firing workers more difficult than in countries like the United States. Apprenticeships allow German manufacturers to evaluate young workers before hiring them full-time, and significant investments in skills are more attractive to companies when they know workers will be in their factories long-term. Approximately 60 percent of Germans receive a relevant occupational certification by the age of 20, either through the dual system or a full-time vocational school.

The German education and training system significantly aids innovation within the manufacturing sector. First, the system endows manufacturing workers with general skills in different clusters of industries, providing a basic foundation so they can accrue very specialized on-the-job skills. Second, the occupational profiles take into consideration best practices in human capital development, with a strong emphasis on active learning and adaptability. This approach favors early-career apprenticeships in addition to lifelong training, often supported by companies, so technical workers can improve production processes and effectively implement innovations along the value chain as technologies change. And third, the entire training system responds to industrial and occupational changes due to close cooperation between companies, industrial chambers, research institutions, and government agencies. Drawing on this collaborative system to train their workers has helped Germany's world-renowned *Mittelstand* keep their products at the cutting edge of global markets.

3. The "hidden champions"

The "hidden champions" are leading companies of medium size, highly internationalized, technified and strongly linked to the territory. Many of them, of family origin. Although only 1.1% of the world population is German, the overall market share of German companies in that segment is 48%. They grow at 10% annual average, register 5 times more patents per employee than large corporations, and are extremely resilient: the 2008 crisis only ended with 10% of them. Technically, a "hidden champion" is a company that is among the first three global in its specialty, the figure sales is less than 5,000 million euros, and is little known among the general public. Of 2,700 companies with these characteristics in the world, almost half -about 1,300- are German. Nowhere else on the planet is there an industrial fabric with such density of leading companies, except in Switzerland and Austria. The "hidden champions" are the fruit of the *Mittelstand*, the clusters of German SMEs, which is the basis of German industrial power and maintains a quarter of its GDP in manufacturing production, creating stable and quality employment. The "hidden champions" are not subject to the short-term pressures of the financial markets. Their leadership has surprising life cycles of twenty years, which allows to maintain long-term strategic vision, make investments accordingly, and accumulate the necessary capital to compete in industrial sectors that are intensive in technology and applied knowledge.

The *Mittelstand* companies are champions of global competition but have remained largely hidden for two reasons. First, most of their products —for example, bookbinding textiles, labeling machines for beverages, metal filters, and sunroofs for cars— are used in the manufacturing process.

Hidden Champions are extremely focused in what they do. Jungbunzlauer, for instance, supplies citric acid for Cola-Cola worldwide, TetraMin is the number one producer of fish food, Uhlmann is the world leader in packaging systems for pharmaceuticals, and Flexi is the number one manufacturer of dog leashes worldwide. These products are therefore invisible to consumers. But more important, Germany's SMEs relish their obscurity. They shy away from publicity, and some have explicit policies of not dealing with the press.

The hidden champions combine strategic focus with geographic diversity, emphasize factors like customer value, blend technology and closeness to customers, rely on their own technical competence and create mutual interdependence between the company and its employees.

3.1. Technology and market knowledge

The hidden champions believe that when technology dominates, engineers become remote from customers, and customers suffer. But when marketers who focus on customers are solely at the helm, technology loses out. The ideal is for the people with technical knowledge to have a deep understanding of customer needs, which can only develop through close and frequent contact with customers. Direct contact between customers and the people in R&D is especially critical. One hallmark of the Mittelstand companies has been their tendency to "make" rather than to "buy" (Burton & Hansen, pp. 37-47). One leading machine company even runs its own foundry. Its reasons are typical: management is convinced that the extremely high quality and precision requirements for their products cannot be met without total control over the manufacturing process. The company sacrifices some economies of scale but believes that quality is more important than cost.

Hidden champions usually don't engage in formal market research. Some actually have never heard of marketing. Market research and planning cannot replace closeness to customers. Many large companies have whole armies of skilled marketers and researchers yet remain remote from their customers. Hidden champions success suggests that large companies are going in the right direction when they decentralize. Small units with high autonomy are more likely to achieve the kind of specialization, closeness to the customer, integration of technology and market knowledge that seem to meet today's competitive requirements. Cross functional teams that have frequent interaction with customers are also a good idea.

3.2. Specialization and globalization

The hidden champions consistently follow a strategy that combines technical competence with worldwide marketing and sales. They focus narrowly on a particular market niche, usually one that requires technical expertise, and direct all of their resources toward maintaining the top position in that niche. The idea of diversification is alien to them. They see any deviation from their focus as simply a distraction (Girotra & Netessine, 2013). Because of their high degree of specialization and relatively small size, these companies are at a disadvantage when it comes to economies of scale. But the way the hidden champions overcome this disadvantage is an integral part of their strategy: they leverage their product-market specialization across broad geographic markets. Globalization of marketing and sales provides sufficient scale to recover R&D expenses and to keep costs within range. When the firm is small, the front of attack has to be narrow. The business needs to be focused, finding customers for the specialty all over the world in order to recoup R&D investment. For many of these companies, globalization is not a phenomenon of the 1980s. They began to internationalize as far back as the 1950s and 1960s. One-hundred-year-old Heidenhain, for example, the world market leader in measurement and control instruments for lengths and angles, has earned more than half its revenues from exports since the 1960s. When Mittelstand companies expand abroad, they show a strong preference for full control over operations, in part because they view the relationship with the customer as something too important to delegate.

While these companies have overcome the disadvantages of small size, they have not overcome the risk associated with specialization. The more specialized a company, the more vulnerable it is to changes in the market and sometimes even to shakeups in just a few large customers. However superior a company, it can suffer along with its competitors when the market stagnates or migrates. The hidden champions accept this risk as part of the reality of doing business and find solace in the notion that if the market turns sour, the leader probably will be the last to suffer.

4. Conclusions

The German Mittelstand is at the forefront of a modern management model that builds flatter, innovative and networked enterprises. They develop a high degree of specialization and possess an extreme focus on the wishes of global customers. Mittelstand firms work with state-of-the-art in their sector and this level of dedication to their mostly B2B customers demands strong investment in innovation and R&D.

The persistent goal of Mittelstand companies is long-term value. Only a minority are listed on the stock exchange and they rely mostly on equity and not debt. Mittelstand managers and employees trust each other. Managers take to heart that it is their duty to help them grow, and employees devote to their task with motivation having a turnover rate of less than 3%. This personal relationship supports a collaborative spirit and a shared culture of trust and commitment. Mittelstand companies have the obsession to be the worldwide market leaders in their specialization. They draw strength from their tradition of family business. On the other hand, that is a disadvantage when there is no succession plan for the next generation, in a context of demographical decline. The companies also look outward for global management development and can recruit managers abroad. Mittelstand companies understand that excellent products are the foundation of a long-term customer relationship, and that leading in technology and innovation is first and foremost. Their core value is trust with both workers and customers.

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