

Olaf Plötner, Johannes Habel, Bianca Schmitz

ADVANCED PREMIUM PRODUCTS

Understanding the success
formula of hidden champions

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Understanding the success formula of hidden champions

In the following booklet, we introduce companies that have achieved sustained market success through outstanding product quality. It is often not large corporations, but rather lesser-known medium-sized enterprises – so-called hidden champions – that have reached a leading position in specific industrial market segments. We analyze these companies' success factors with a special emphasis on their technical expertise and ability to respond flexibly to customers' needs. In addition, we examine how to establish a positive brand image as a B2B company before highlighting the limitations that should be considered when developing unique competitive advantages in industrial markets.

INDUSTRIAL PREMIUM PRODUCTS FROM CHINA

Tongxian Guan, president of ZPMC, looked out the window of his small, spartanly furnished office on the edge of Shanghai's eastern city limits. His closest colleagues had gathered behind him. He turned to them and said, "I will only be satisfied when we sell complete container cranes to American ports. If Americans buy equipment from a Chinese manufacturer, customers in other countries will also be convinced of our products' quality."

It only took a few years for Guan to receive ZPMC container crane orders on the table from Miami, and then Vancouver.

Guan founded ZPMC in 1992 when he was 59 years old. He led the company for 27 years with great personal commitment, sacrificing his private life in favor of the company's global expansion. Each year, he only allowed himself to take three days off from work, which he spent with his family in Beijing. Guan adopted a simple lifestyle. He made sure that ZPMC executive salaries, including his salary as president, did not exceed four times the salary of a skilled worker. Guan was generally considered to be very loyal to the Chinese Communist Party. That did not prevent him from occasionally criticizing individual party members – even in front of other people. This was especially the case when he felt that officials' behavior was working against the best interests of ZPMC.

The newly founded ZPMC initially produced spare parts for the cranes of established Western manufacturers such as Liebherr and Terex. ZPMC then sold these parts directly to the crane users. Although these customers were offered price savings of up to 85 percent, the business was highly profitable because of the high prices for established manufacturers' replacement parts and ZPMC's location-driven cost advantages. Yet, instead of paying out profits, Guan reinvested them into research and development (R&D) in the 1990s. The company was soon able to produce entire cranes independently.

ZPMC engineers ultimately developed the "double container crane" (see Figure 2.1), which allowed just one crane to move two containers simultaneously. ZPMC patented this crane innovation. It proved to be a tremendous help in ship loading and unloading processes, and it served the interests of port operators and shipowners alike. ZPMC offered port operators another advantage. Because the company's cranes were delivered pre-assembled, they did not have to be assembled on site. This saved weeks of time for port operators, allowing them to earn more money with loading and unloading processes.



Figure 2.1: ZPMC harbor crane transport

By 2007, ZPMC container cranes had a market share of more than 75 percent worldwide. The company has been able to maintain this dominant position to this very day. In the years following 2007, ZPMC diversified its portfolio of services, including the manufacturing of special-purpose vessels, steel bridges, and oil platforms.

For the purposes of this introduction, we intentionally chose an emerging-market company for our case example. It is important to emphasize that marketing premium industrial products worldwide is no longer the privilege of Western companies. Today, we know that excellent wines can come from countries such as South Africa and Argentina. In the same way, the competitive landscape in industrial premium markets has become increasingly globalized.

When we refer to industrial products, we mean gas turbines, trucks, and lathes, just to name a few examples. These items are not purchased to be consumed. They are not business-to-consumer (or B2C) products. Instead, they are business-to-business (or B2B) products – items bought by business customers. Industrial products are used in business customers' value chains. The industrial product examples mentioned above are characterized by a high degree of materiality. They are "tangible," so to speak. In practice, we apply the same logic to product-related services such as installation, maintenance, and repair work.

Whether or not an industrial product belongs in the premium category depends on customers' willingness to pay. This means that customers are willing to accept higher prices for premium products than they would for similar products with the same technology and functional principles. The price for an internal combustion engine truck capable of carrying a 16-ton payload, for example, varies between €30,000 and €120,000 worldwide. Beverage bottling systems are available for €2.5 million. The most expensive ones cost up to €12 million. By contrast, the price differential for premium-priced combine harvesters can be 20 times higher than those of low-priced products.

Customers' greater willingness to pay for a premium product is based on the perceived quality advantage. However, the valuation is based on the customer's perspective rather than the seller's. For industrial goods, this type of quality advantage is usually linked to functional properties such as greater performance, operational convenience, or the greater durability of parts. Suppliers achieve quality advantages of this type through the use of state-of-the-art technologies, high-quality materials, and first-class workmanship. Quality advantages that go beyond technical and functional uses, such as attractive design and social-status aspects, are less important for industrial products than they are for consumer goods. Although it is not frequently discussed, B2B markets do indeed have purchasing criteria that go beyond cost efficiency. We discuss this later in more detail.

Creating products that use state-of-the-art technologies or high-quality materials generates high costs. Customers' willingness to pay more for some premium products can more than compensate for these costs. In such cases, a premium supplier's profit per unit is much greater than for cheaper products, in spite of the higher manufacturing costs. The iPhone is a frequently cited example within the context of the consumer goods sector, where much more information is available on this topic than in the industrial sector. As a premium manufacturer, Apple has been able to achieve significantly higher margins in recent years than those of its competitors with cheaper products. Reports from 2017 noted that Apple generated 87 percent of the smartphone industry's profits, even though the company only produced 18 percent of the devices sold worldwide.¹

As a result, many suppliers who sell to target markets with customers who have a lower willingness to pay now want to enter premium segments. Entering such markets may or may not be the right strategic decision, however. There is no automatic relationship between improved quality and increased profits. In fact, companies must consider a number of factors. Indeed, it is only with the right mix that they can succeed in the market. The most important success factors are presented on the following pages.

THE STRONG FOCUS OF HIDDEN CHAMPIONS

Hermann Simon conducted a key study on these success factors. He announced his findings by coining the term “hidden champions.”² He did not focus on well-known global companies. Instead, he examined medium-sized companies with annual sales of no more than €5 billion. In addition to their relatively low profiles, these companies are characterized by the fact that they occupy a leading position in their markets (i.e., they are among the leading three vendors worldwide and/or number one on their respective continent). Most of them market premium products. It indicates, among other things, that the prices for their offerings are significantly higher than those of their competitors. Unlike other market leaders, hidden champions’ high market shares are not based on price concessions. Rather, they are based on product offerings that customers value more than those of competitors.

Simon’s study includes companies from around the world. His findings are interesting because most of the hidden champions he identified are found in industrial markets. Examples include EOS, a global leader in additive manufacturing (AM), and Rosen AG, which surpassed a corporation like GE to become the world leader in large pipeline maintenance. Another hidden champion is the company Heraeus. Its expertise in processing precious metals has already made it the market leader across a whole range of industries – whether it be the tiny carbide balls for ballpoint pen refills, the gold rims on high-quality beer glasses, or the silver pastes found in photovoltaic cells. We return to each of these company examples in the pages that follow.

When viewed within the framework of Porter’s generic-strategies concept, hidden champions focus on a quality leadership approach. They concentrate on a single market segment. (For narrowly defined markets, hidden champions fall under the quality leadership approach. For broadly defined markets, they pursue a focus strategy. See Booklet 1 for more information.) Due to their strong focus on specific customer requirements, the sales volume potential of hidden champions is very limited. This is the primary reason why they avoid regional constraints and strive to conquer markets abroad. This helps them to not only increase revenues, but also to achieve cost-cutting economies of scale – in spite of their focused set of product offerings.

Hidden champions do not always have to leave their own country in order to achieve a high market share worldwide. The Carl Zeiss business in so-called “EUV optics” (EUV stands for extreme ultraviolet) is one such example. The business division is based in Oberkochen, a small town in southwestern Germany. The company is developing components there that bundle laser beams for computer chip manufacturing systems. Chip manufacturers such as Intel order this type of equipment for their worldwide production centers almost exclusively from ASML, a Dutch company that dominates

the market for these production systems worldwide. ASML buys high-quality EUV optics for its systems only from Carl Zeiss due to their technological and operational excellence. Therefore, Carl Zeiss has become, by default, the global market leader in EUV optics. The company actually achieved this market position without having to fly salespeople around the world or set up production facilities outside of Germany.

This example is an exception because in EUV optics the business of Carl Zeiss is dominated by a single customer. Under a more typical scenario, even the most focused suppliers have to address a number of customers and be internationally active on the ground. Hidden champions in industrial markets have a manageable number of customers, nonetheless. They have a narrowly defined range of products based on customer requirements. As a result, it is all the more important for hidden champions to identify relevant customers and address their needs. That is why these companies must choose the right focus.

In practice, finding that focus is not always easy. At the same time, hidden champions must achieve the right balance between maintenance and development. They must be picky about business opportunities that go beyond that defined focus. Because although those opportunities may seem attractive at first sight, companies run the risk of getting bogged down in details. In that case, a company loses the very focus that made it strong in the first place. On the other hand, companies should not maintain their existing market focus for too long if target markets shrink. Hidden champions’ customer segments are typically small. When customer demand declines, it can jeopardize the company’s economic viability. Consequently, suppliers with a particularly strong focus need to be sensitive to changes in customer requirements and the competitive landscape. They must be open to strategic reorientation. To illustrate this topic, we now look at the example of the company EOS, mentioned above.

When Dr. Hans Langer founded EOS in 1989, it was a corporate pioneer in AM, or industrial 3-D printing (see Figure 2.2). The machines EOS developed were able to “print” different products such as turbine blades and dental prostheses by fusing layer upon layer of fine powder. One particular advantage of the 3-D process is that it provides a greater degree of freedom in product design. It also enables better and lighter construction while using fewer materials. Unlike milling, which renders objects by cutting away excess material from a larger block of material, 3-D printing creates products without generating any scrap.



Figure 2.2: 3-D printing lightweight part produced by EOS

The AM market was initially small, and limited to prototype production and special applications. EOS sold the machines for product manufacturing – including the required powder – to a select number of customers. In addition, EOS advised customers on how to produce product designs that were 3-D compliant and optimize production processes.

Langer was convinced that industrial 3-D printing would soon grow out of its niche existence. He anticipated a multibillion-dollar market and expected that AM would soon be used to mass-produce manufactured goods – provided that manufacturers had already considered the opportunities and specific requirements of additive processes during product development. In an effort to rethink this concept on a broader level – and to accelerate the diffusion of AM technology – Langer licensed its patents to other companies. This included EOS customers and competitors.

Just as Langer had expected, starting in 2010, the use of 3-D technology grew rapidly. Industries began to use AM processes for more and more products. At the same time, EOS developed more specialized know-how. It focused on specific industrial and product applications as well as the technology and materials used by 3-D printing machines. As a result, it has become increasingly difficult for EOS to shape these developments, let alone lead them. In order to live up to its claim and reputation as a premium supplier, EOS had to shift its focus within the rapidly growing, industrial 3-D

printing market. From a strategic perspective, Langer had to answer the following questions:

- Should EOS focus on specific areas of the 3-D product manufacturing process (e.g., machines only)?
- Should the company focus on a particular industry, such as dentures, thereby allowing it to deliver the complete value chain, and potentially even the end product?
- Given the fact that financially robust manufacturing companies had already entered the AM market, should EOS focus instead on marketing its engineers' technical expertise and position itself as a consulting firm?
- Alternatively, should EOS actually consider abandoning the mindset of a premium, medium-sized company altogether and try to become a large, broadly positioned company within the AM market?

For Langer, the last option was out of the question. He felt like an entrepreneur and wanted to avoid bureaucratic corporate structures. He eventually pursued each of the first three options, but he only did so selectively, and not exclusively beneath the EOS corporate umbrella. Instead, he launched new, independent companies focused on profitable niches within the AM market. To achieve that, he built up Scanlab, which marketed galvanometer scanner components – an important element in 3-D printing – across industries. By 2018, Scanlab was already the world's market leader with more than 50,000 scanner heads sold. In addition, Langer's AM Ventures Holding invested in numerous startups focused on industry-specific AM applications, such as printing human arm and leg prostheses, and on producing certain materials such as high-quality aluminum alloys. He left mass markets such as 3-D footwear production to other firms. Even then, he still partially participated by pursuing the worldwide commercialization of his patents. Finally, within the EOS organization, he founded the consulting group Additive Minds, which specializes in AM applications.

STRIVING FOR THE TECHNICAL EDGE

We now return to ZPMC. The development of the double-container crane was decisive in driving the company's success in the worldwide container crane business: The crane could load and unload two containers simultaneously instead of just one. This technical innovation represented a competitive advantage over competitors' products. Technical product advantages of this kind are typical of industrial companies that operate in premium sectors.

This technological edge is typically accompanied by high levels of investment in a company's R&D activities. If Siemens, GE, or Mitsubishi develop a new type of gas turbine, it will cost them around a half billion euros. Airbus invested €10 billion for developing the wide-body aircraft A380. But it is worth noting that, in spite of such enormous R&D budgets, traditional industrial companies are no longer setting the records in R&D spending. The top positions have now been taken over by younger technology companies, particularly Amazon and Alphabet (Google), with \$22.6 and \$16.2 billion, respectively (see Figure 2.3).

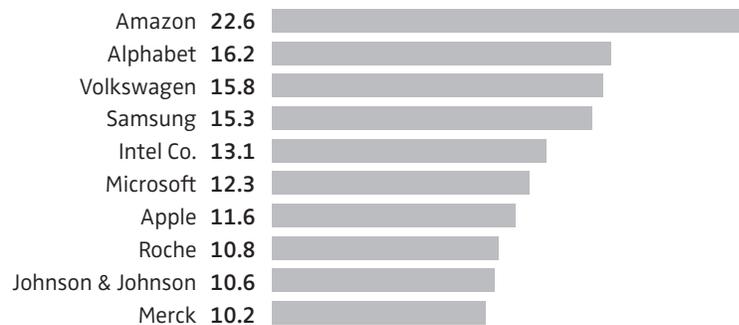


Figure 2.3: Companies with the highest spending on R&D in 2018 (in USD billions)
(source: Statista, 2020)

Given their size, many hidden champions invest more in R&D than do large corporations. For example, Simon's study found that at 5.9 percent, hidden champions invested nearly one-third more of their revenue into R&D than the 1,000 companies with the world's largest R&D budgets. (This percentage is higher for software companies, primarily because of their industry's extremely low production costs.) With their strong focus on R&D, hidden champions get more for their money than large industrial companies. This is demonstrated by the number of patent applications per employee,

which is five times higher than for large corporations. Furthermore, hidden champions bring four times more applied patents into business practice.³

These patents are used less to create the revolutionary innovative products that modern management literature calls "disruptive innovations." Instead, they mostly serve to improve the technology of existing product offerings (i.e., to make incremental innovations). The word "incremental" should not detract from the significance of these developments. Continuous product development is an imperative for hidden champions. It demonstrates an ongoing quest for technical improvements, which is deeply rooted in many of their corporate cultures. It also means never being truly satisfied with existing products. It challenges managers to critically question things and look for further optimization opportunities. In the 1980s, this attitude was characterized by the Japanese term "kaizen." At the time, *kaizen* emphasized optimizing production rather than product development. Yet, this approach still offers many interesting insights for companies wanting to operate in premium markets.

High levels of R&D activity and numerous patent registrations are no guarantee for market success; they only increase the chances of achieving a technological advantage. This advantage, of course, has to provide an actual customer benefit. It must overcompensate for a premium product's high price. Heraeus is a good example of this. The German family-owned company produces, among other things, silver pastes for photovoltaic panels. These silver pastes are used to convert sunlight into electrical energy. In the past, 82 percent of the produced solar energy was lost during the transformation process. The pastes were made of 90 percent pure silver; the remaining 10 percent consisted of a total of 30 elements. The mixing ratio was crucial for the paste's performance. In 2009, Heraeus developers produced a paste that could be applied more thinly, requiring less silver to coat the panels. With silver prices ranging from €1,000 to €1,500 per kilogram, this represented a huge cost savings. Secondly, the new paste's conducting properties were better than those of other products and lost less solar energy. Although this technical advantage only resulted in improvements in the per thousand range, it was enough to help a large solar park increase its energy production from 18 to 18.1 percent. This promised to produce millions of euros in financial benefits. As a result, Heraeus became the world's market leader, in spite of its expensive paste prices.

Of course, companies must be able to reliably implement that technical advantage in the products they manufacture. Although many companies have tried in recent years to optimize their production costs through outsourcing (i.e., allocate value-added activities to third parties), many hidden champions insist on creating a high portion of the value chain on their own. They prefer to produce in-house to achieve greater

control over the quality of their premium products. Because of product quality concerns, some companies have even reversed the trend toward relocating their production to countries with lower cost structures. For example, Stihl, a leading supplier of chainsaws, relocated its production from Brazil back to Germany in 2010.

Until very recently, other companies had had similar experiences with factories in emerging markets that did not live up to high-quality, premium product standards. Today, that is the exception. Heraeus has largely relocated the production of its silver pastes to China and is very satisfied with the product quality. At the same time, Heraeus now produces its silver pastes in close cooperation with its customers. The manufacturers of panels for photovoltaic systems are primarily located in China. In general, broad-based studies confirm that it makes sense for premium suppliers to organize production beyond their home markets. This includes a study published in 2014 by McKinsey and the VDMA on German mechanical engineering and plant manufacturing, and the impact of globalized production processes on profitability (see Figure 2.4).⁴

		SHARE OF PRODUCTION IN GERMANY		
		> 75–100%	> 50–100%	≤ 50%
PRICE SEGMENT	Premium supplier	6.1	6.5	8.7
	as well as	6.0	7.1	7.3
	Medium price segment	5.8	5.8	6.6

Figure 2.4: Profitability in German mechanical engineering depends on the customer's willingness to pay and the degree to which added value is globalized (source: VDMA and McKinsey, 2014)

By building a technical advantage and producing quality products, companies have a good start in gaining a competitive advantage. The true art lies in maintaining that competitive advantage. This includes preventing competitors from copying product development efforts. Among the many forms of intellectual property rights, the patent system is particularly important for the technical field.

Patents can be very valuable. Patent infringement, on the other hand, can be very expensive for companies. It is worth noting that some legally clever companies actually acquire patents – often from companies that have fallen on hard economic times. They then accuse other companies of patent infringement in order to be paid for those patents. Defendants are sometimes unaware of the (often only alleged) infringements. They usually have to pay nonetheless. Many established technology companies are even more concerned about suppliers who deliberately infringe patent rights. This is particularly true in developing countries, where companies do not face penalties under their own national legal systems. The colloquialism “pirates” is often used in this context to describe those who specialize in copying the profitable spare parts of established companies.

In the previous example of ZPMC, we know that the company entered the market before it became a supplier of innovative quality products using its own innovation. Keep in mind that European and American companies have ignored intellectual property rights in the past and gone unpunished in their home countries. Consider the well-known “Made in Germany” label. Now synonymous with high-quality technical products, the label was actually introduced in England in 1876 to warn domestic customers of the poor quality of cheap, copied products from Germany.

Given the challenges of using patent applications to protect successful technology innovations, a number of technology companies are avoiding this option altogether. They fear that patent office notifications actually draw the attention of unwanted counterfeiters, and that patent descriptions actually give would-be violators a product blueprint. That is why many companies only document innovative solutions internally or rely on the collective, institutional memory of their employees. Yet, this approach also carries risks. Firstly, the company's own product development can later be patented by others. Secondly, employees can leave the company. A particularly spectacular case example is the Chinese company Future Mobility. In 2016, the organization poached an entire group of BMW engineers who had been involved in developing the electric models i3 and i8.

Tesla has taken a very different approach toward dealing with patents. Tesla, the manufacturer of battery-powered and software-dominated cars, has made a large

number of its patents available to anyone interested in them since 2014. Tesla is a prime example of another important trend among industrial companies: Products are increasingly defined by software, as well as the development of technical product advantages. Software development cycles, however, are shorter than those of traditional industrial goods. The development of new car models takes years. Software versions are developed in one-month intervals. This fast pace causes errors. There is hardly any new software without so-called bugs. This issue poses a dilemma for premium companies that combine hardware and software. On the one hand, companies want their customers to always enjoy state-of-the-art software. On the other hand, they do not want their products to be flawed.

We now turn to Bosch for an example of this dilemma. Bosch is the world's largest supplier of high-quality products in the automotive sector, including engine injection pumps and windshield wipers. In order to radically rebuild its product portfolio, Bosch has been increasingly using modern information and communication technologies for several years through its "3S" program, which stands for sensors, software, and services. In 2017, managers displayed posters in the lobby of its corporate headquarters as part of a broader campaign to communicate the company's error culture to employees. Using the slogan "Just do it," employees were encouraged to respond quickly and not hesitate to act. At the same time, a quote from company founder Robert Bosch seemed to advocate other priorities: "Whatever is made in my name must be both first-class and faultless."

Rapid response is a necessary prerequisite for market success in the software industry. Companies that sell out-of-date products will not find acceptance in technologically dominated industrial markets, especially not as premium suppliers. Even if customers do not expect perfection in terms of software that is free of defects, they still want high reliability. Meeting this requirement is a prerequisite for being a premium supplier. It was against this backdrop in 2017 that, under the concept "zero outage," companies such as IBM, Hewlett-Packard, T-Systems, and Cisco introduced a zero-defect philosophy into the information technology (IT) industry's premium segments.

STRIVING FOR GOLD SERVICES

Business management services are services that have no materiality. It is the main criterion for distinguishing them from tangible goods. This is why a turbine is considered to be an industrial good, whereas its financing or operation training is a service. When we talk about services in an industrial context, we are most often referring to after-sales services, which primarily involve maintaining and repairing industrial goods. The spare parts business also falls into this category. Strictly speaking, spare parts are not services.

After-sales services are traditionally very important to many industrial companies, as they generate high profits. This is mainly because customers for high-quality industrial goods are often left with few alternatives but to have them maintained and repaired by the manufacturer. Ultimately, the manufacturer has the technical product knowledge and the right spare parts. Customers who consider giving maintenance and repair work to other service suppliers – including copied spare parts – risk losing all product guarantees. As customers are in a dependent position, many suppliers are tempted to charge after-sales service prices that are far in excess of actual costs. At the same time, after-sales service quality is by no means always as excellent as its high price might suggest.

Over the long term, these business practices are problematic for suppliers in B2B markets. Increased disclosure requirements, as well as modern information and communication media, reveal suppliers' high margins on services being offered to customers. Indeed, who likes to be dependent or enjoys being financially exploited in this situation? As a result, suppliers run the risk of creating angry and dissatisfied customers.

In the following section, we discuss how to impress customers with product-related premium services so that high prices appear justified in their eyes. After all, even five-star hotels, despite their prices, have satisfied customers who come back without being forced to do so.

Modern technology offers opportunities for improvements to be made in the quality of the product. This is particularly true for after-sales services, which are very important for industrial companies. A poignant example of a company that employs this strategy is Voith. This global technology company is one of the larger family-owned companies in Europe and the full-line supplier to the paper industry. In the past, Voith's maintenance staff traveled around the world to check the condition of customers' machines and perform repairs. Today, these same employees mainly work remotely. More than 1,000 sensors in Voith machines permanently record the condition of every important

component. They also capture the products' manufacturing quality and the step sequences of manufacturing processes. By analyzing the data and evaluating it using algorithms, it is possible to find out where, when, and with what probability problems could arise on a machine. In this way, spare parts can be sent to the customer before a critical machine part becomes defective and fails. The customer's employees can then perform simple repairs thanks to OnCall.Video, an audio-visual connection with Voith specialists. With this offering, the customer gets the required support faster, and the full expert knowledge at Voith can be used. Furthermore, Voith and its customers save costs, as technicians only have to travel for complex repair jobs.

Once customers purchase a machine, Voith helps them adapt their production processes to meet their respective requirements. Wood, for example, is an important factor in paper and cardboard production. Yet, it varies in quality and price. Voith offers to analyze a large number of these factors and to constantly configure the production process in such a way that the machine's input and output remain optimally aligned. To achieve that, Voith creates a machine's virtual doppelgänger – a so-called digital twin. Technicians can then use the digital twin to simulate changes before applying them to the actual machine. Rather than making a machine's production processes as immutable as possible, Voith's service now ensures that customers can optimize their production processes for more flexible results (see Figure 2.5).



Figure 2.5: Voith device for the electronic support of after-sales service (source: Voith)

The many ways in which information services and communication technologies improve traditional services and deliver premium quality are currently being discussed using terms such as "remote control," "proactive maintenance," and "augmented reality." When new incoming data automatically improves a system's algorithms, it is also referred to as "artificial intelligence." When these technologies are successfully put into practice, however, the amount as well as the quality of the data are often problematic. The reasons for this are complex. There can be difficulties in converting the data into a uniform data format. The thyssenkrupp Elevator unit, for example, faced the challenge of translating elevator data into a unified database across more than one hundred countries – whereby many regions used different data formats and programming languages. Another difficulty may be that problems and product defects have not been sufficiently documented. This documentation is necessary to provide a robust database for further algorithm development.

Over time, businesses are likely to overcome these challenges, and automation in the service sector will continue to move forward. This does not currently include extensive and complicated repairs. As already mentioned above, specialists will continue to travel to the customer to perform this maintenance. This is because customers expect rapid turnaround times and a high degree of technical competence. Specialists must be flexible enough to adapt to the local corporate resources available as well as the culture of the company. There is still a tremendous opportunity for premium suppliers to build their reputations in industrial markets. Small and medium-sized enterprises often have good prospects, as the Swiss family business Rosen Group demonstrates in the following example.

In the 1980s, Rosen entered the pipeline inspection, maintenance, and repair business – a market with revenues of approximately €700 million worldwide. Customers include major oil companies that transport their products by pipeline. To inspect a pipeline, devices are used that move at high speed through the pipes (see Figure 2.6). When a vulnerability is discovered, it has to be resolved quickly and reliably. If oil transport is interrupted because of a pipeline problem, operators suffer significant revenue losses, not to mention major costs due to environmental damage. For this reason, customers gladly pay for inspection, maintenance, and repair work.



*Figure 2.6: Inspection tool for pipelines from Rosen
(source: Rosen Technology and Research GmbH)*

GE had been the market leader in this business, but Rosen was able to challenge that position. To achieve this, Rosen not only developed test equipment that met all of its customers' technical requirements, but, first and foremost, it also delivered faster and more flexible service offerings. In addition, the company owner, Hermann Rosen, was personally available to his customers at all hours of the day and night in the event of serious pipeline problems. He ensured that his most competent employees immediately tackled the problem. The company kept its promises and, over time, Rosen was able to solidify customer relationships built on his personal commitment.

Creating trusting relationships and guaranteeing this kind of service is not easy for large corporations. Complex decision rules and comprehensive process regulations stand in the way of highly flexible service offerings. In addition, long-time family entrepreneurs can build personal trust more easily than corporate managers, who frequently change their roles and responsibilities.

Premium service does not just involve the boss. It requires all staff to behave with a customer-oriented focus – just as we expect in a five-star hotel. Hidden champions achieve this broad customer-orientation base by bringing a significant portion of their employees in direct contact with customers. According to Simon's study, the number

ranged between 25 and 50 percent. Large industrial companies are far from achieving these numbers.

In general terms, customer orientation in B2B businesses has always been linked to physical proximity to the customer. To ensure this proximity, a company must, among other things, be prepared to adapt to the region as the geographic focus of the customer changes. One example is the Heraeus silver paste business previously mentioned. Due to the increasing dominance of Chinese customers, the division moved its headquarters to Shanghai, where managers hired Mandarin-speaking sales and R&D staff.

Of course, hidden champions are not the only examples of premium service suppliers. Service quality is also an important benchmark for many companies, for example those in the pharmaceutical industry. It is imperative that hospitals receive medical supplies with the utmost reliability, just as doctors must quickly and flexibly handle emergency situations involving large numbers of seriously injured people. The aerospace and aviation industries offer numerous examples of high-quality service. In the meantime, the industries' service offerings have evolved well beyond maintenance and repair work. The most well-known example is the aircraft turbine manufacturer Rolls-Royce. With its "power by the hour" service, which it introduced in 1962, the company no longer sells aircraft turbines. Instead, it has a pure play service offering, which includes transport services. The turbines are owned by Rolls-Royce, and the company engages in numerous value-added activities previously performed by customers.

In the meantime, many industrial companies are seeking to establish themselves in their markets with similar business models. They are doing so because the data and analyses that can be gleaned from cross-customer product usage promise to deliver a whole range of advantages. In this way, these companies are transforming themselves into complex service solution suppliers, offering portfolios that go beyond industrial companies' traditional understanding of service. We discuss this topic in more detail in Booklet 4.

STRIVING FOR BRAND VALUE

In previous sections, we discussed how companies with technical advantages and superior services can offer objectively better product than their competitors. We now look at how customers need to perceive this offer before it can be successful. Objective reality and subjective perception do not have to be aligned. Figure 2.7 shows an example of this phenomenon. The middle circles in both pictures are the same size. Nevertheless, most people find that the middle circle in the left diagram is smaller than the one on the right. This is due to the size of the surrounding circles and their relative position to one another.

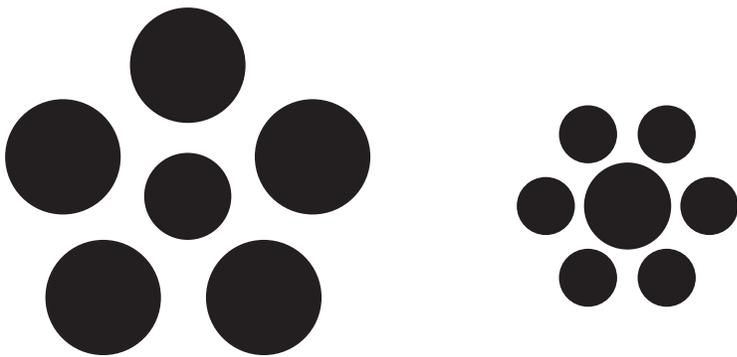


Figure 2.7: Objective reality and subjective perception

Premium companies, by analogy, must grapple with a series of related questions. What should its “middle circle” landscape look like in order to appear as big as possible? How can companies use branding to design a product landscape that presents customers with the most attractive image? This does not have anything to do with the offering’s rational elements. Instead, it addresses the emotional positioning of the offering’s value proposition. Successful brands ensure that the customer has made the “right purchase decision.” Making the decision to purchase is validated by the customer’s “good feeling.”

Business literature deals with the topic of branding primarily within the context of markets for consumer goods. References to industrial markets are the exception. The major reason is that there is a relatively low level of public awareness about these products. Large corporations such as Airbus and Boeing have clearly managed to

achieve name recognition worldwide. A closer look reveals a number of other industrial companies that are well known in their specific markets and whose brands are central to their business success. A prime example is Scania in Europe’s truck market. The same applies to American company Oracle in the worldwide database market, and Trumpf for laser machines.

A second reason why branding enjoys stepchild status in industrial markets is that customers themselves downplay – or even deny – the importance of non-rational aspects in purchase decisions. This is understandable. The individuals with the decision-making responsibilities have to justify their decisions. In a corporate environment, only business arguments are acceptable; personal and emotional reasons are taboo. Although scientific studies have shown that non-rational aspects of purchase decisions play a role in industrial markets, most B2B premium suppliers do not like to talk about the marketing advantages of their brands because of the taboos concerning their customers: B2B customers do not want to believe that they have spent money on emotional value.

A brand’s advantages are different in industrial markets than those for consumer goods. In B2C business, a brand’s most important impact lies in achieving status for customers. When people drive a Porsche or wear a Rolex, they feel privileged and hope to gain social recognition when purchasing these products. In B2B markets, on the other hand, companies are less inclined to view the enhancing of their customers’ status as a key brand benefit. Thorsten Borst, board member for marketing and sales for many years at EBM Papst, a medium-sized company producing electric motors and ventilators, is one of these rare exceptions. According to Borst, the presence of EBM Papst in Formula One racing is particularly relevant for Chinese customers. Purchasing the product makes them proud. Cases like this are the exception. In industrial markets, the more compelling argument is that a brand helps customers reduce levels of perceived uncertainty in making purchase decisions.

In fact, customers are unable to correctly analyze all of a product’s costs and benefits before making a purchase decision. On the one hand, the process is too cumbersome. On the other hand, customers cannot verify all product elements. Consider this analogous service example from everyday life: How are patients supposed to know the value of a particular dental treatment before they actually visit a dentist? Even when they do, they will not be able to assess all of the costs and benefits. How should they know whether or not the filling was properly performed or if the dental materials contain long-term carcinogens? Similarly, industrial customers cannot properly assess all transaction costs and benefits of a power plant or IT system before purchasing one. As a result, customers perceive uncertainty.

Trust compensates for perceived uncertainty. This is where a brand comes into play. It can influence customer expectations. When customers engage with a successful brand, for example, they assume that suppliers will keep their performance promises without neglecting care and reliability. In short, customers substitute their lack of control with trust in the brand. This not only increases their willingness to pay, but also the speed with which they make purchase decisions.

The less that customers can directly verify product quality and compare competing offers, the more important trust becomes. That is why a well-established industrial market brand is particularly relevant when suppliers launch market innovations. It is precisely in situations like these that customers cannot rely on other people's referrals or experiences. This, in turn, makes customers particularly uncertain before making a purchase decision. This doubt is magnified when they have to justify a buying decision to others. As mentioned above, this is a common situation in industrial markets. A brand's ability to reduce uncertainty is well-illustrated by the frequently quoted phrase "Nobody ever got fired for choosing IBM."

As in the IBM example, a B2B brand communicates more about the suppliers than their products. If the products are assembled in small batches and subject to constant changes due to technical advances, building a product-related brand is not worthwhile. Though there are companies in industrial markets that are able to offer several brands under a single roof. Daimler Trucks is one example. The company addresses target groups across different regions of the world with the brands Freightliner, Western Star, Mercedes Benz, Fuso, and BharatBenz. These are not product brands in the strictest sense of the term, but rather a broad range of products positioned under a single brand. Rare examples of successful B2B product brands are the Boeing "747," the IBM "Watson" program, and the Siemens "SIMATIC," all of which are positioned beneath a strong corporate brand umbrella.

Customers are the primary target group for branding. In the age of the "war for talent," managers are increasingly using brands to recruit and retain employees. In addition, a successful brand has a positive impact on financial investors and other stakeholders. Customers of customers are another interesting target group in industrial markets. These customers are the result of downstream demand in B2B markets where, by definition, suppliers do not sell to end-customers. Instead, they sell to customers who, in turn, serve their customers. When customers address customers, marketers refer to ingredient branding. The most frequently cited successful example is the slogan "intel inside". In the case of Intel, the supplier not only tries to market its products directly to customers (so-called push marketing), but also to generate demand among downstream customers (so-called pull marketing). Customers then put pressure on

computer manufacturers to use Intel chips in their devices. At first glance, ingredient branding is tempting for suppliers, as it promises to give them independence from their direct customers. At second glance, suppliers actually run the risk of alienating these very same direct customers – and potentially even losing them. Direct customers will not be enthusiastic when suppliers sidestep them and speak directly to downstream customers – a move that would weaken the direct customers' own power position in the value chain.

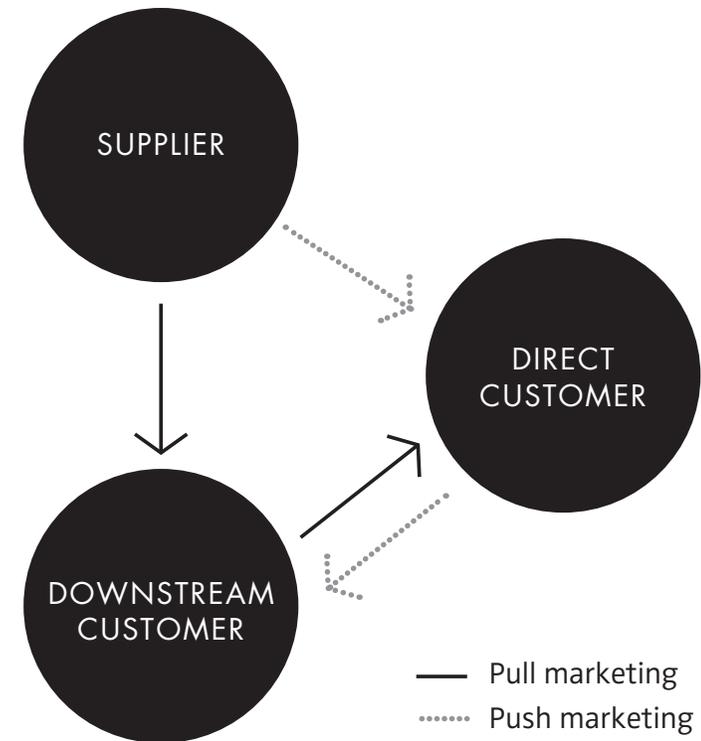


Figure 2.8: Push versus pull marketing

Regardless of which target group should be addressed, most companies ask themselves the following question: How do I build a premium brand?

At the very beginning of the brand-building process, marketers should be aware of the values or characteristics for which the brand stands. Brand-identity definitions, however, can quickly lead to a multitude of positive attributes being attributed to them – a common experience whenever humans pursue an ideal. Brands should appear modern and dynamic, convey tradition, stand for reliability, or look friendly and powerful, just to name a few of the most common examples. In fact, a brand's identity can be as diverse as that of a real person. Yet, brand managers must set priorities. This applies to external communication in particular. Joe Kaeser, the CEO of Siemens AG, limits himself to the three values of innovation, integrity, and sustainability when describing the corporate brand of Siemens in public.⁵

The premium company Trumpf is focusing on an even shorter brand message with its "Innovation promised" slogan. In addition to the focus on innovation, it is designed to underscore the brand's high reliability. These two words merely form the core of a broader set of values, which are divided into four categories: independent in attitude; open in dealings; convincing in performance; and strong in style. Incidentally, the Trumpf slogan is not used in its advertising. Rather, it is aimed primarily at employees to clarify the company's strategic direction.

Business literature and practice pay a great deal of attention to marketing communication actions in discussing brand management activities. Logos must be designed and placed according to fixed patterns. All advertising must follow a consistent visual and color language. The claim must capture the essence of the brand promise. In addition, a great deal of discussion is devoted to brand-consistent product design. For example, a brand that wants to convey modernity should express its products through contemporary design and the use of innovative technologies.

In industrial markets, reducing a premium brand identity to consistent communication policy and product design principles would be insufficient. B2C customers typically only experience a communication strategy's brand expression on its surface. In industrial markets, on the other hand, suppliers and customers have a closer relationship. They have a more diverse set of "touch points" to consider when trying to achieve a consistent market presence. If a brand is supposed to project reliability, service employees should not arrive too late for scheduled meetings. If the brand is supposed to be technically innovative, sales managers must master the use of modern communication. If the brand is supposed to stand for internationality, not all board members should come from one region. Employees are important brand ambassadors. The closer the relationship between supplier and customer, the more that the desired brand values need to be credibly rooted in the company. Credibility can only be achieved with authenticity.

In addition to consistency and authenticity, time is also required to successfully establish a brand. Customers only build long-term relationships with brands that they have frequently encountered. Their brand experience has to be confirmed time and time again. That can take years. This is one important reason why the world's most famous brands are predominantly from industrialized countries. Companies in emerging markets, on the other hand, prefer to buy traditional companies with strong brands. In doing so, they are able to avoid years of brand-building efforts.

Companies can extend their brand's value by using it for their other products. This is known as brand extension. The Nivea brand, for example, has successfully pursued this strategy in the consumer goods sector. In addition to the brand's original skin cream product, it now markets shampoos, deodorants, shaving cream, and much more. The more versatile the product range, the more difficult it is to live up to the brand promise. Due to the resulting high level of complexity, companies run the risk of raising customers' expectations and then disappointing them. In small industrial markets, where customers know each other and exchange views, this can have disastrous consequences. After all, brands make a quality promise just like humans do in relationships: It takes a lot to build trust, but it takes very little to destroy it.

As we have seen, there are three ways for a company to distinguish itself as a premium supplier in industrial markets. Each way is a valid path toward winning the "premium medal." Figure 2.9 summarizes the most important elements once again.

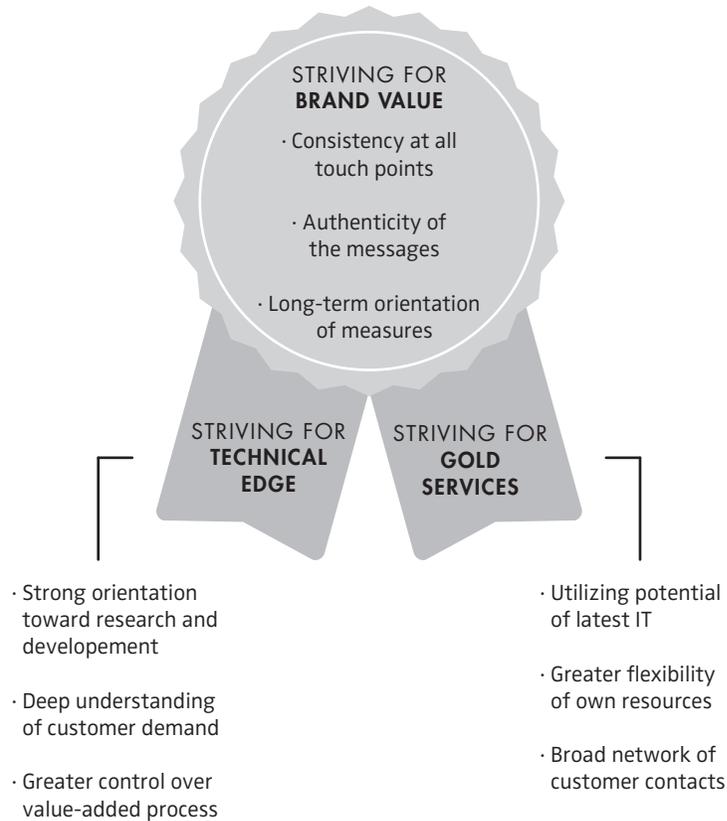


Figure 2.9: Core elements of the “premium medal”

THE DARK SIDE OF UNIQUENESS

All three paths seek to achieve the most unique market position possible with the help of a compelling, competitive advantage. Premium suppliers can, however, get on the wrong track. That can prove to be very expensive, indeed. The most important traps of unique product offerings are discussed below.

As already mentioned, technology companies in the premium sector are always working to further develop or improve their products. A new type of machine produces even more than the old one. A new truck is even more powerful than its predecessor. A new generation of computer chips is even faster than the previous one. That higher quality is usually associated with higher costs. Suppliers, in turn, want to sell their upgraded products at higher prices. There is a possibility that the majority of customers are not interested in product improvements. As a result, they may not be prepared to pay higher prices. The improvements do not add value in the eyes of these customers, even though the supplier’s product development team may still be very proud of them. In cases like these, we speak of product overengineering (see Figure 2.10). In this case, the supplier reduces the number of buyers to a few special customers, but the resulting revenues are too small to cover the total costs. Managers can counteract overengineering risks by adopting a more market-oriented product development culture, cooperating closely with customers, and using specific market research tools.



Figure 2.10: Example of overengineering (source: Victorinox)

A second type of unique situation can result from the peculiarities of B2B procurement processes. For many institutional clients, making purchase decisions from an economic perspective has become more important in recent decades. At the same time, purchasing departments have gained influence. Buyers are particularly interested in making side-by-side comparisons of product specifications, as well as bringing at least two suppliers into price competition with one another. Today, public institutions are sometimes not even permitted to conduct large-scale procurements without a call for tenders and obtaining several comparable, competitive bids. These rules do not apply, however, to vendors who have developed a unique product. Because other comparable competitive offers do not exist, other suppliers are disqualified by default.

For example, thyssenkrupp Elevator experienced this dynamic when the company launched the "TWIN" innovation in 2002. The innovation involves deploying two elevator cars inside a single shaft, which allows large skyscrapers to be designed for greater efficiency. Because passengers do not always want to ride from the lowest floor to the top, elevators often alternate between the floors, particularly when a high-rise building contains office complexes. This insight allowed the thyssenkrupp engineers to optimize elevator use. Under this concept, two elevators operate simultaneously in the same shaft. Passengers choose the floor they want by pressing a corresponding button before they actually enter the cab. As a result, a skyscraper that normally requires 16 elevator shafts can manage traffic with six single-car shafts and six twin-car shafts (see Figure 2.11). This eliminates four elevator shafts, allowing engineers to repurpose the extra space somewhere else in the skyscraper. Given modern skyscrapers' numerous floors, this can unlock enormous financial potential.

Although the TWIN technology was tested and proven to be safe, thyssenkrupp Elevator was unable to sell the concept on a large scale. The reason was the procurement process. Elevator contracts in high-rise buildings are usually awarded through a tendering process. In order to obtain comparable offers from several competitors, one bidding announcement specification called for elevator shafts that could accommodate single cars. In the above example, a contract for 16 elevator shafts was announced instead of 12. Due to this bidding specification, thyssenkrupp Elevator was unable to exploit the advantages of its unique TWIN product from the start.

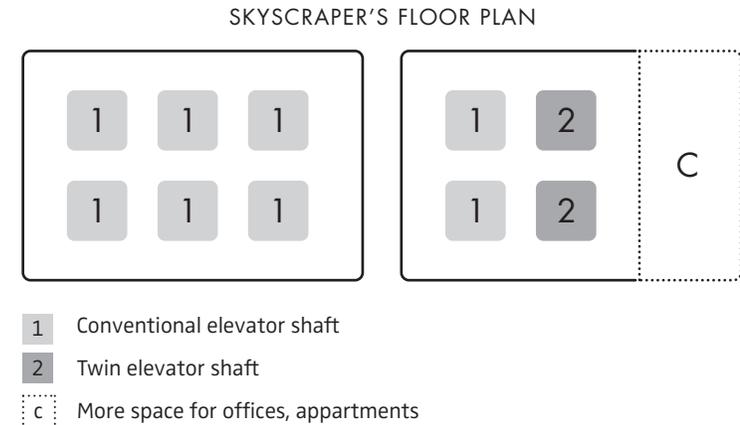


Figure 2.11: TWIN versus conventional elevator system

This example would not be complete without discussing what thyssenkrupp Elevator had learned from this experience. The company's recent innovation, "MULTI," is a cable-free elevator system. It allows elevator cars to move vertically and horizontally in skyscrapers. The company is currently exploring opportunities to market licensing agreements with competitors. During a tendering process, customers could then pursue price-based competition between suppliers with similar product offerings.

A third mistake comes into play when a supplier's market success or its profits are too large. This attracts the attention of regulators. Government officials intervene in cases where a supplier has a so-called dominant or superdominant market position. IBM experienced this in 2011, for example, thanks to its dominant position in the mainframe market. It made high profits in its after-sales business, which is standard for many industrial companies. The European Union authorities forced IBM to provide its parts to competitors so that they, too, could perform maintenance and repairs on IBM mainframes. Currently, data-driven companies such as Google are the target of competition authorities. This may be due to the company's size as well as public pressure. Experience shows that antitrust authorities are less likely to intervene in smaller industrial markets.

Why Premium?
Fewer potential customers but higher willingness to pay and better margins

Key learnings from hidden champions:

- Focussed on specific demand
- Narrow product offering but global sales approach
- Open to adapt the focus

Pitfalls of product uniqueness:

- Product overengineering
- Inept buying procedures
- Regulatory resistance

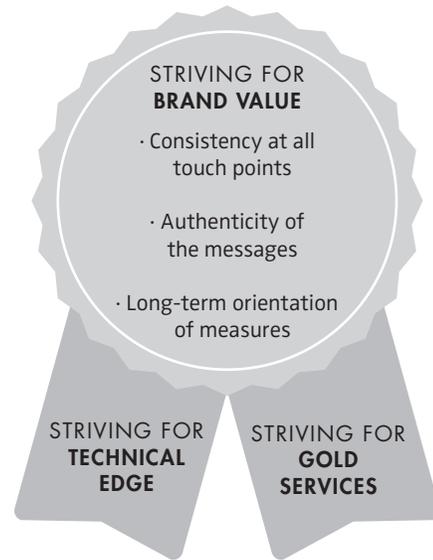


Figure 2.12: Key aspects for bringing advanced premium products to industrial markets

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THE AUTHORS

Olaf Plötner is a professor at ESMT Berlin and the director of ESMT's BTM Center. His research and teaching focus on strategic management in global B2B markets. His work is reflected in his most recent book, *Counter Strategies in Global Markets*, published by Palgrave Macmillan, Springer, and SDX Shanghai. His research has been portrayed in journals such as *Industrial Marketing Management*, the *Journal of Business and Industrial Marketing* as well as in leading international media such as CNN, the *Wall Street Journal Europe*, the *Times of India*, *Frankfurter Allgemeine Zeitung*, *China Daily Europe*, *People's Daily (China)* and the *Financial Times*. Olaf is a visiting professor at the Darden School of Business at the University of Virginia and the China Executive Leadership Academy Pudong (Shanghai).

Johannes Habel is an associate professor of marketing at the C. T. Bauer College of Business, University of Houston. His primary areas of interest are the digital transformation of the sales function and sales psychology. His research has been published in some of the world's most renowned academic marketing journals, such as the *Journal of Marketing*, the *Journal of the Academy of Marketing Science*, and the *International Journal of Research in Marketing*. Beyond academic research, Johannes has published case studies with Harvard Business Publishing and The Case Centre as well as managerial articles with journals such as *Harvard Business Manager* and *European Business Review*.

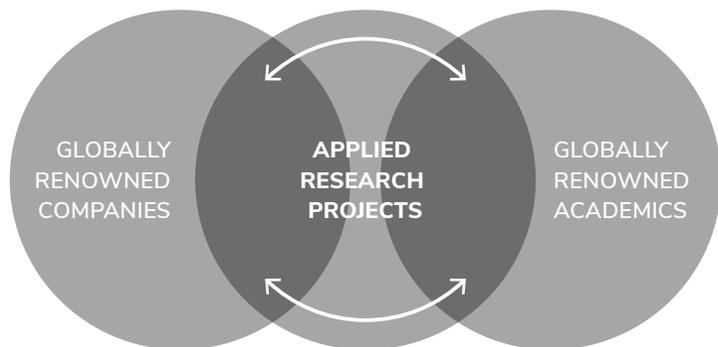
Bianca Schmitz is a program director and head of sales and operations for executive education at ESMT Berlin as well as one of the founding directors of ESMT's Hidden Champions Institute. Her research has been published in journals such as *Industrial Marketing Management* and the *Journal of Family Business Management*. Beyond academic research, Bianca has published a number of case studies and managerial articles on hidden champions and digital transformation.

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The BTM Center facilitates the successful cooperation between business executives and academic management experts

Cooperation partners:

TRUMPF, ZEISS, Siemens Smart Infrastructure, Oerlikon, Kapsch, Konica Minolta

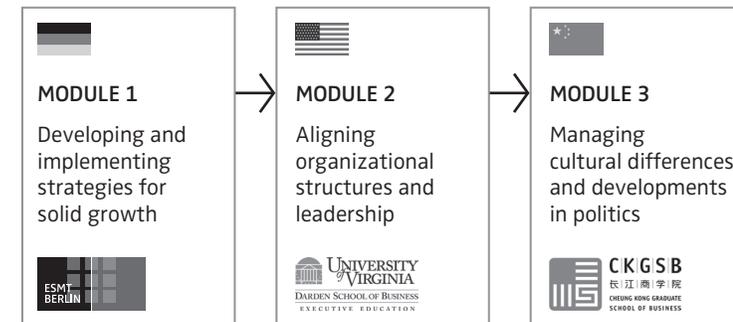


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An exclusive program for executives in global industrial markets

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BTM Center

ESMT Berlin
Schlossplatz 1
10178 Berlin
Germany

Phone: +49 30 212 31 1561

Email: btm@esmt.org
<https://esmt.berlin/btmc>