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## Steinway's Strategic Orientation

Steinway & Sons, which turned 150 years old in April 2003, is generally regarded as the finest piano maker in the world. Founded in 1853 by the Steinway family, the firm was sold to CBS in 1972, taken private in 1985 by John and Robert Birmingham, and sold again in 1995 to Dana Messina and Kyle Kirkland, who took it public in 1996. Steinway & Sons is the piano division of the Steinway Musical Instruments Company that also owns Selmer Instruments and other manufacturers of band instruments (<http://www.steinwaymusical.com>). Piano sales in 2002 were \$169 million, down 7.6% from the prior year and mirroring the general economic downturn. Since going public, Steinway's corporate revenues have grown a compounded 6-7% a year, while EPS have advanced, on average, a compounded 11%. The financial performance for the overall company in 2002 was slightly below industry averages.

The Steinway brand remains one of the company's most valuable assets. The company's president notes that despite only 2% of all keyboard unit sales in the United States, they have 25% of the sales dollars and 35% of the profits. Their market share in the high-end grand piano segment is consistently over 80%. For example, 98% of the piano soloists at 30 of the world's major symphony orchestras chose a Steinway grand during the 2000/2001 concert season. Over 1,300 of the world's top pianists, all of whom own Steinways and perform solely on Steinways, endorse the brand without financial compensation.

Workers at Steinway & Sons manufacturing plants in New York and Germany have been with the company for an average of 15 years, often over 20 or 30 years. Many of Steinway's employees are descendants of parents and grandparents who worked for the company.

### The External Environment

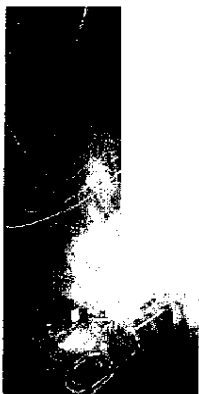
The piano market is typically segmented into grand pianos and upright pianos, with the former being a smaller but higher-priced segment. In 1995, about 550,000 upright pianos and 50,000 grand pianos were sold. Piano customers can also be segmented into professional artists, amateur pianists, and institutions such as concert halls, universities, and music schools.

The private (home) market accounts for about 90% of the upright piano sales and 80% of the grand piano sales, with the balance being sold to institutional customers. New markets in Asia represent important new growth opportunities.

The piano industry has experienced several important and dramatic changes for such a traditional product. Industry sales, for example, dropped 40% between 1980 and 1995. Whether the decline was the result of increased electronic keyboard sales, a real decline in the total market, or some temporary decline was a matter of debate in the industry. Since then, sales growth has tended to reflect the ups and downs of the global economy.

Competition in the piano industry has also changed. In the United States, several hundred piano makers at the turn of the century had consolidated to eight by 1992. The Baldwin Piano and Organ Company is Steinway's primary U.S. competitor. It offers a full line of pianos under the Baldwin and Wurlitzer brand names through a network of over 700 dealers. In addition to relatively inexpensive upright pianos produced in high-volume plants, Baldwin also makes handcrafted grand pianos that are well respected and endorsed by such artists as Dave Brubeck and Stephen Sondheim, and by the Boston, Chicago, and Philadelphia orchestras. Annual sales are in the \$100 million range. Baldwin was recently sold to the Gibson Guitar Company. The European story is similar. Only Bösendorfer of Austria and Fazioli of Italy remain as legitimate Steinway competitors.

Several Asian companies have emerged as important competitors. Yamaha, Kawai, Young Chang, and Samick collectively held about 35% of the vertical piano market and 80% of the grand piano market in terms of units and 75% of global sales in 1995. Yamaha is the world's largest piano manufacturer with sales of over \$1 billion and a global market share of about 35%. Yamaha's strategy has been to produce consistent piano quality through continuous improvement. A separate handcrafted concert grand piano operation has also tried to use continuous improvement methods to create consistently high-quality instruments. More than any other high-quality piano manufacturer, Yamaha has been able to emulate and compete with Steinway.



## The Steinway Organization

Steinway & Sons offers several different pianos, including two brands (Steinway and the less expensive Boston brand) and both upright and grand piano models. The company handcrafts its grand pianos in New York and Germany, and sells them through more than 200 independent dealers. About half of the dealers are in North and South America and approximately 85% of all Steinway pianos are sold through this network. The company also owns seven retail outlets in New York, New Jersey, London, Munich, Hamburg, and Berlin.

The dealer network is an important part of Steinway's strategy because of its role in the "concert bank" program. Once artists achieve a certain status, they are invited to become part of this elite group. The performer can go to any local dealer, try out different pianos, and pick the one they want to use at a performance for only the cost of bringing the piano to the concert hall. The concert bank contains over 500 pianos in more than 160 cities. In return for the service, Steinway is given exclusive use of the performer's name for publicity purposes.

Creating a Steinway concert grand piano is an art, an intricate and timeless operation (although alternate methods have been created and improved, the basic process hasn't changed much). It requires more than 12,000 mostly handcrafted parts and more than a little magic. The tone, touch, and sound of each instrument is unique, and 120 technical patents and innovations contribute to the Steinway sound. Two years are required to make a Steinway grand as opposed to a mass-produced piano that takes only about 20 days. There are three major steps in the production process: wood drying (which takes about a year), parts making, and piano making.

Wood-drying operations convert moisture-rich lumber into usable raw material through air-drying and computer-controlled kilns. Time is a critical element in this process because slow and natural drying is necessary to ensure the best sound-producing qualities of the wood. Even after all the care of the drying process, the workers reject approximately 50% of the lumber.

After drying, the parts-making operations begin. The first of these operations involves bending of the piano rim (the curved side giving a grand piano its familiar shape). These rims are formed of multiple layers of specially selected maple that are manually forced into a unified shape, held in presses for several hours, and then seasoned for 10 weeks before being

joined to other wooden parts. During this time, the sounding board (a specially tapered Alaska Sitka spruce panel placed inside the rim to amplify the sound) and many other case parts are made. The final critical operation with parts making involves the fabrication of the 88 individual piano action sets that exist inside a piano. Piano "actions" are the intricate mechanical assemblies—made almost completely of wood and some felt, metal, and leather—that transmit finger pressure on the piano keys into the force that propels the hammers that strike the strings. The action is a particularly important part of a piano because this mechanical linkage gives Steinways their distinctive feel. In the action department, each operator was responsible for inspecting his or her own work, with all assembled actions further subject to 100% inspection.

Piano-making operations include "bellying," finishing, and tone regulating. The bellying process involves the precise and careful fitting of the soundboard, iron piano plate, and rim to each other. It requires workers to lean their stomachs against the rim of the piano to complete this task. Because of individual variations in material and the high degree of precision required, bellying takes considerable skill and requires several hours per piano. After the bellying operations, pianos are strung and moved to the finishing department. During finishing, actions and keyboards are individually fit to each instrument to accommodate differences in materials and tolerances to produce a working instrument. The final piano-making step involves tone regulating. Here, the pianos are "voiced" for Steinway sound. Unlike tuning, which involves the loosening and tightening of strings, voicing requires careful adjustments to the felt surrounding the hammers that strike the strings. This operation is extremely delicate and is performed by only a small handful of tone regulators. The tone regulators at Steinway are widely considered to be among the most skilled artisans in the factory. Their voicing of a concert grand can take as much as 20 to 30 hours. All tone regulators at Steinway have worked for the company in various other positions before reaching their present posts, and several have more than 20 years with the firm. Finally, after tone regulation, all pianos are polished, cleaned, and inspected one last time before packing and shipment.

Steinway produced more than 3,500 pianos in 2002 at its New York and Hamburg, Germany, plants.

Almost 430 people work in the New York plant and all but about 100 of them work in production. They are represented by the United Furniture Worker's union. Seventy-five percent of the workers are paid on a straight-time basis; the remainder, primarily artisans, are paid on piece rates. Keeping workers has proved increasingly difficult as well-trained Steinway craftspeople are coveted by other manufacturers,

and many of the workers could easily set up their own shop to repair or rebuild older Steinway pianos. Excess inventories due to weak sales both pre- and post-September 11 forced Steinway to adjust its production schedule; workers in its New York plant reported to work every other week rather than lay off the highly skilled workers needed to build its pianos.

1. **What is the company's general environment?** Steinway's external environment is only moderately uncertain and not very complex. Socially, Steinway is an important part of a country's artistic culture and the fine arts. It must be aware of fickle trends in music and display an appropriate sensitivity to them. Politically, the organization operates on a global basis and so must be attuned to different governmental and country requirements in its distribution and sales networks. The manufacturing plant in Hamburg, Germany, suggests an important political dependency that must be monitored. Technologically, Steinway appears reasonably concerned about the latest breakthroughs in piano design, materials, and construction. They are aware of alternative technologies, such as the assembly line process at Yamaha, but prefer the classic methods they have always used. Ecologically, Steinway must be mindful. Their product requires lumber and they are very picky (some would say wasteful) about the choices, rejecting many pieces. It is likely that environmentalists would express concern over how Steinway uses this natural resource. Together, these environmental forces paint a relatively moderate level of uncertainty. Most of these issues are knowable and can be forecast with some confidence. In addition, while there are several environmental elements that need to be addressed, not all of them are vitally important. The environment is not very complex.
2. **What is the company's task environment?** Steinway's industry is moderately competitive and profit pressures can be mapped by looking at five key forces. First, the threat of entry is fairly low. There are some important barriers to cross if an organization wanted to get into the piano business. For example, Steinway, Yamaha, and Baldwin have very strong brands and dealer networks. Any new entrant would need to overcome these strong images to get people to buy their product. Second, the threat of substitute products is moderate. On the one hand, electronic keyboards have made important advances and represent an inexpensive alternative to grand and upright pianos. On the other hand, the sophisticated nature of many of the artists and audiences suggests that there are not many substitutes for a concert grand piano. Third, the bargaining power of suppliers, such as providers of labor and raw materials, is high. The labor union has effective control over the much-sought-after craft workers who manufacture and assemble grand pianos. Given the relatively difficult time that most high-end piano manufacturers have in holding onto these highly trained employees, the

the critical nature of wood to the final product, timber suppliers can probably exert significant influence. Fourth, the bargaining power of buyers varies by segment. In the high-end segment, the number of buyers is relatively small and sophisticated, and the small number of high-quality pianos means that customers can put pressure on prices although they are clearly willing and able to pay more for quality. In the middle and lower segments, the number of buyers is much larger and fragmented. It is unlikely that they could collectively exert influence over price. Finally, the rivalry among firms is severe. A number of well-known and well-funded domestic and international competitors exist. Almost all of them have adopted marketing and manufacturing tactics similar to Steinway's in the high-end segment, and they are competing for the same customers. The extensive resources available to Yamaha as a member of their *keiretsu*, for example, suggest that it is a strong and long-term competitor that will work hard to unseat Steinway from its position. Thus, powerful buyers and suppliers as well as keen competition make the piano industry only moderately attractive and represent the key sources of uncertainty.

The following questions are important in assessing Steinway's strategic orientation:

1. **What is the company's strategy?** Steinway's primary strategy is a sophisticated niche and differentiation strategy. They attempt to meet their financial and other objectives by offering a unique and high-quality product to sophisticated artists. However, its product line does blur the strategy's focus. With both Boston and Steinway brands and both upright and grand models, a question about Steinway's commitment to the niche strategy could be raised. No formal mission or goals are mentioned in the case and this makes it somewhat difficult to judge the effectiveness of the strategy. But it seems reasonable to assume a clear intent to maintain its dominance in the high-end segment. However, with new owners in 1995, it is also reasonable to question whether goals of profitability or revenue growth, implying very different tactics, have been sorted out.
2. **What are the company's technology, structure, measurement systems, and human resources systems?** First, Steinway's core technology is highly uncertain and moderately interdependent. The manufacturing process is craft based and dependent on the nature of the materials. Each piano is built and adjusted with the specific characteristics of the wood in mind. So much so that each piano has a different sound that is produced as a result of the manufacturing process. The technology is moderately interdependent because the major steps in the process are not linked in time. Making the "action sets" is independent of the "bellying" process, for example. Similarly, the key marketing program, the concert bank, is independent of manufacturing. Second, the corporate organization is divisional (pianos and band instruments), while the piano subsidiary appears to have a functional structure. The key functions are manufacturing, distribution, and sales. A procurement, finance, and human resources group is also reasonable to assume. Third, formal measurement systems within the production process are clearly present. There are specific mentions of inspections by both the worker and the organization. For example, 100% inspection (as opposed to statistical sampling) costs time and manpower and no doubt is seen as critical to quality. In addition, there must be some system of keeping track of work-in-progress, finished goods, and concert bank system inventories. Fourth, the human resources system is highly developed. The reward system includes both hourly and piece rate processes; the union relationships; worker retention programs; and global hiring, compensation, benefits, and training programs.

ment. Its moderate product line breadth gives it some flexibility and efficiency as well. It can achieve some production efficiencies in the upright and medium-market grand piano segments, and its brand image helps in marketing these products. The alignment between its strategic orientation and its environment appears sound.

The second concern is the alignment of the design components. With respect to strategy, the individual elements of Steinway's strategy are mostly aligned. Steinway clearly intends to differentiate its product by serving the high-end segment with unique high-quality pianos. But a broad product line (both uprights and grands as well as two brand names) could dilute the focus. The market for higher-priced and more specialized concert grands is much smaller than the market for moderately priced uprights and limits the growth potential of sales unless Steinway wants to compete vigorously in the emerging Asian markets where the Asian companies have a proximity advantage. That hypothesis is supported by the lack of clear goals in general and policies that support neither growth nor profitability. However, there appears to be a good fit between strategy and the other design components. The differentiated strategic intent requires technologies, structures, and systems that focus on creating sophisticated and unique products, specialized marketing and distribution, and the concert bank program. The flexible structure, formal inspection systems, and responsive culture would seem well suited for that purpose.

The technology appears well supported and aligned with the structure. The production process is craft based and deliberately ambiguous. The functional structure promotes specialization and professionalization of skills and knowledge. Specific tasks that require flexibility and adaptability from the organization are given a wide berth. Although a divisional structure overlays Steinway's corporate activities, the piano division's structure is functional but not rigid, and there appears to be a cultural willingness to be responsive to the craft and the artists they serve. In addition, the concert bank program is important for two reasons. First, it builds loyalty into the customer and ensures future demand. Second, it is a natural source of feedback on the instruments themselves, keeping the organization close to the artist's demands and emerging trends in sound preferences. Finally, the well-developed human resources system supports the responsive production and marketing functions as well as the global nature of the enterprise.

Steinway's culture of quality and responsiveness promotes coordination among the production tasks, serves as a method for socializing and developing people, and establishes methods for moving information around the organization. Clearly, any change effort at Steinway will have to acknowledge this role and design an intervention

accordingly. The strong culture will either sabotage or facilitate change depending on how the change process aligns with the culture's impact on individual behavior.

Based on this diagnosis of the Steinway organization, at least two intervention possibilities are suggested. First, in collaboration with the client, the OD practitioner could suggest increasing Steinway's clarity about its strategy. In this intervention, the practitioner would want to talk about formalizing—rather than changing—Steinway's strategy because the culture would resist such an attempt. However, there are some clear advantages to be gained from a clearer sense of Steinway's future goals, its businesses, and the relationships among them. Second, Steinway could focus on increasing the integration and coordination of its structure, measurement systems, and human resources systems. The difficulty of retaining key production personnel warrants continuously improved retention systems as well as efforts to codify and retain key production knowledge in case workers do leave. This would apply to the marketing and distribution functions as well since they control an important interface with the customer.

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## SUMMARY

This chapter presented background information for diagnosing organizations, groups, and individual jobs. Diagnosis is a collaborative process, involving both managers and consultants in collecting pertinent data, analyzing them, and drawing conclusions for action planning and intervention. Diagnosis may be aimed at discovering the causes of specific problems, or it may be directed at assessing the organization or department to find areas for future development. Diagnosis provides the necessary practical understanding to devise interventions for solving problems and improving organization effectiveness.

Diagnosis is based on conceptual frameworks about how organizations function. Such diagnostic models serve as road maps by identifying areas to examine and questions to ask in determining how an organization or department is operating.

The comprehensive model presented here views organizations as open systems. The organization serves to coordinate the behaviors of its departments. It is open to exchanges with the larger environment and is influenced by external forces. As open systems, organizations are hierarchically ordered; that is, they are composed of groups, which in turn are composed of individual jobs. Organizations also display six key open systems properties: environments; inputs, transformations, and outputs; boundaries; feedback; equifinality; and alignment.

An organization-level diagnostic model was described and applied. It consists of environmental inputs; a set of design components called a strategic orientation; and a variety of outputs, such as performance, productivity, and stakeholder satisfaction. Diagnosis involves understanding each of the parts in the model and then assessing how the elements of the strategic orientation align with each other and with the inputs. Organization effectiveness is likely to be high when there is good alignment.

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## NOTES

1. D. Nadler, "Role of Models in Organizational Assessment," in *Organizational Assessment*, eds. E. Lawler III, D. Nadler, and C. Cammann (New York: John Wiley & Sons, 1980), 119–31; M. Harrison, *Diagnosing Organizations*, 2d ed. (Thousand Oaks, Calif.: Sage Publications, 1994); R. Burton, B. Obel, H. Starling, M. Sondergaard, and D. Dojbak, *Strategic Organizational Diagnosis and Design: Developing Theory for Application*, 2d ed. (Dordrecht, The Netherlands: Kluwer Academic Publishers, 2001).