While pursuing our strengths of craftsmanship and advanced technologies, we will establish optimal foundations for global production and bolster our production capacity to industry-leading levels. By doing so, we will further enhance our production operations in terms of quality, cost, delivery, safety, and the environment (QCDSE).

The Strengths of Yamaha’s Production
Craftsmanship and Technologies

Amid our long history of being involved in the production of musical instruments, we have refined the craftsmanship capabilities that have helped us put the finishing touches on even better musical instruments. Craftsmanship involves creating products through the vision and handwork of people, and our craftsmanship is a significant element in differentiating ourselves from other companies. Linking our craftsmanship capabilities with our proprietary technology for the scientific evaluation of assessing human sensibilities is another important factor in realizing further differentiation.

While pursuing our strengths of craftsmanship and advanced technologies, we will establish optimal foundations for global production and bolster our production capacity to industry-leading levels. By doing so, we will further enhance our production operations in terms of quality, cost, delivery, safety, and the environment (QCDSE).

Global Production Structure

From early on in our history, we have established overseas production bases. Currently, we have key production bases in Japan, China, Indonesia, Malaya, and India. The establishment of a global production structure optimized to each of our business domains is another factor that contributes to our overwhelmingly high level of competitiveness.

Yamaha Technical Skills Training
Putting the finishing touches on a musical instrument is a kind of craftsmanship that represents both an art and a technology. By visualizing and transform tacit knowledge of craftsmen to explicit knowledge, we established the Yamaha Technical Skills Training, thereby enabling this know-ho and craftsmanship to be transmitted and shared across the Company. In this way, we made it easier for our young technicians to inherit the exceptional skills of their predecessors and pass those skills down to future generations. Recently, we have been making use of IT and IoT within this training.

In our efforts to establish a global production structure, the Yamaha Technical Skills Training has been playing a key role in cultivating personnel responsible for production at each production base.

Approach of NEXT STAGE 12

We made progress with the major initiatives of the previous medium-term managementplan and results were generally in line with our expectations.

- We also worked to establish a new factory in Indonesia, which is slated to start production during fiscal 2020. As for our strategy to reduce costs, we were unable to achieve the amount of cost reductions we aimed for due to soaring procurement prices for electronic components. However, we did make such accomplishments as energizing our production processes and establishing a global procurement structure. For our supply chain management (SCM) strategy, we standardized business processes by improving our current systems and made progress with collaboration between business units. We also enhanced the precision of our production plans. Additionally, we have been gradually moving forward with preparations to introduce new SCM systems under the new medium-term management plan.

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Our production strategy under the new medium-term management plan is built upon the three pillars of production engineering, production information management, and global production services. For production engineering, we will create value by innovating our production methods. In terms of production information management, we will consider how we can best manage production information with a view to improving and evolving our overall production operations. Global production services essentially boils down to establishing a production infrastructure, as this part of our strategy involves the organizational and personnel structure of our production operations as well as the procurement of materials and components. In tandem with pursuing the three pillars of our production strategy, we will combine our craftsmanship capabilities and advanced technologies at a high level, thereby further enhancing our production operations in terms of quality, cost, delivery, safety, and the environment (QCDSE).

In regard to the continuous reduction of production costs, a major theme of the new medium-term management plan, we aim for a gross cost reduction of ¥10.3 billion and a net cost reduction of ¥5.5 billion over the plan’s three-year period. To reach this target, we will promote the following three efforts. Recognize our global production processes, reduce procurement costs by promoting bulk purchasing and value analysis/value engineering, and automate production processes at overseas factories.
In our business domains centered on sound and music, we will expand and optimize our contact points with customers and strive to gain an accurate understanding of market trends and customer needs. At the same time, we will promote the value that our products and services offer to the greatest extent possible. In these ways, we will aim to expand sales.

The Strengths of Yamaha’s Sales
Global Sales Activities That Are Deeply Rooted in Local Communities
We have established sales offices in over 30 countries and regions around the world, thereby rolling out our business on a global scale. In key markets, we have established direct sales networks supported by our local subsidiaries. In emerging markets, we approach customers through our authorized distributors. Our sales networks cater to local characteristics and span a wide range of outlets, including specialty stores, chain stores, mass retailers, and e-commerce. The ability to ascertain local music cultures and customer needs through these sales networks and promote sales strategies in accordance with local characteristics represents one of our major strengths.

Added Value Promotion and Price Optimization
We give sufficient consideration to such factors as the market environment, competitive relationships, and product features in order to promote efforts to optimize our prices so that they appropriately reflect the value a product offers. In addition to revising the sales prices of existing products, we work to enhance added value when introducing new products, or when adding new services to existing products, and attach prices that appropriately reflect this added value.

Artistic Relations and Service Locations
To develop even more attractive products and services, we are expanding and enhancing our locations for maintaining relations with artists around the world. Our extensive network with the world’s top artists and music education institutions is another one of our major strengths.

Review of NEXT STAGE 12
We promoted “enhance customer interaction,” a key strategy adopted under NEXT STAGE 12, in each country and region of operation, helping to grow sales by 8% over the three-year period of the plan. We steadily promoted sales activities with a particular focus on expanding our sales networks, promoting activities to popularize music education based on local needs, improving our personnel structure to strengthen customer support, and expanding our products and services to meet customer needs. In the musical instruments business, we took steps to establish sales networks and music schools centered on emerging countries, thereby expanding our customer contact points. For the audio equipment business, in addition to strengthening our internal personnel structure, we significantly increased the number of audio contractors who partner with us. This enabled us to cultivate new customers and establish a foundation and structure for the next stage of growth.

Status of Music Popularization Activities

<table>
<thead>
<tr>
<th>Music Schools (as of June 2016)</th>
<th>Sales Growth by Region (new/currency change in actual basis that excludes the impact of exchange rates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan (total for children and adult)</td>
<td>2,000</td>
</tr>
<tr>
<td>Overseas (total from over 60 countries and regions)</td>
<td>1,500</td>
</tr>
</tbody>
</table>

- Plan to increase the number of overseas students by 30% over the next three years

Expansion of School Project* (as of March 2016)

As the number of customers who are not overly concerned with ownership of a product rather than owning one, there has been a growing number of customers who are not overly concerned with ownership. To place more emphasis on the value of lifestyles enabled by musical instruments and to form broader, deeper, and longer ties with our customers, we will continue to make proposals that relate to the life stages of each customer and strive to maximize our LTV.

Improving Ability to Communicate Brand and Product Value
Thus far, our contact point with customers has been through our authorized retail shops, and expanding that contact point has led to the expansion of our business networks overall. Going forward, we will establish frameworks that allow us to form direct relationships with customers and promote the value of our Yamaha brand via digital platforms.

Improving Service Value
As more value is gradually being placed on the experience of using a product rather than owning one, there has been a growing number of customers who are not overly concerned with ownership. To place more emphasis on the value of lifestyles enabled by musical instruments and to form broader, deeper, and longer ties with our customers, we will continue to make proposals that relate to the life stages of each customer and strive to maximize our LTV.

Establishing Direct Digital Marketing
In addition to our conventional approach of promoting the value of our brand at stores, we will promote direct marketing via digital platforms. Over the three-year period of the new medium-term management plan, we will set up a structure for establishing direct ties with customers on a global basis. As a manufacturer, efforts to communicate the value of our products and brand to customers will help us strengthen customer value. These efforts will also encourage customers to visit our stores and experience the value we offer firsthand. To ensure

Establish global management foundation

Key Strategies

- Improve ability to communicate brand and product value
- Improve service value
- Expand contact points with customers
- Establish global management foundation

Strategies by Function

SALES

Strategies under the New Medium-Term Management Plan

Targets for Fiscal 2022 (Based on IFRS)

<table>
<thead>
<tr>
<th>Revenue (billion yen)</th>
<th>474.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always growth rate</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

Encouraging customers to seek out the Yamaha brand by promoting customer value
Promoting new sales frameworks on a global basis

Direct Digital Marketing
Communicate value to customers through direct marketing
Promote reform to sales frameworks
Develop broader, deeper, longer ties with customers through the introduction of lifetime value (LTV) as the enhancement of product support services, etc.
Accurate growth in emerging countries such as India and ASEAN by incorporating demands from the middle class, promoting e-commerce and store-based e-commerce, introducing models centered on each region, and expanding the music-playing population.

Establish global management foundation
Build common enterprise resource planning (ERP) systems

Improving Ability to Communicate Brand and Product Value

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Expanding Contact Points with Customers
To expand the new demands generated by the growing middle class in emerging countries such as India and ASEAN, we will establish an omnichannel approach that integrates e-commerce and physical stores. We will also promote the adoption of new business models at stores to place more emphasis on experiences, in conjunction with efforts to expand our sales networks.

Initiatives in Key Emerging Markets

- China: Increase number of outlet stores to 3,300 (15% increase)
- Increase number of piano specialty stores to 470 (two-fold increase)
- Commerce-in-houses e-commerce initiatives and direct delivery from factories to cover the entire country

For the School Project in emerging countries, we will contribute to education-related social issues by creating opportunities for children to play musical instruments as a part of their school education. By doing so, we will create future demand.
The Strengths of Yamaha’s Research and Development (R&D)

We have inherited the craftsmanship capabilities and sensibilities toward sound created that Yamaha has cultivated over its long history, which spans generations. With these capabilities and sensibilities as our foundation, we possess a deep understanding of and vast insight related to sensibilities for determining a good sound and a good sound environment. These serve as our unique strengths and enable us to differentiate ourselves from our competitors. We have established sensibility evaluation technologies as a means to effectively utilize our insight on sensibilities. Leveraging these technologies, we are striving to meld our various other technologies, such as our acoustic, digital, and electronic technologies, which in turn will enable us to offer unique products and services that cannot be imitated by competitors. Our foundation of organizational knowledge pertaining to sensibilities toward sound, which have been cultivated over our long history, and sensibility evaluation technologies serve as a major source of our competitiveness in the global market.

Review of NEXT STAGE 12

One of the four key strategies adopted under the previous medium-term management plan was to develop products with distinctive individuality. By combining the numerous unique technologies we possess, we developed and launched products with distinctive individuality and competitive products that our competitors cannot imitate. These included Verovia™, a casual wind instrument that realizes a rich tone with a compact size, as well as the TransAcoustic™ Guitar, which enables brand-new musical performance experiences. The development and launch of such products contributed to our business performance growth.

Reflecting on NEXT STAGE 12 with an emphasis on technologies, we made gradual progress with research on sensibility evaluation technologies, analysis and measurement technologies, materials technologies, and spanning technologies, all of which we focused on as major themes. In addition, we saw positive results from our product development and activities, which contributed to our solid performance.

What Does the Combination of Technologies and Sensibilities Entail?

Yamaha’s strength in combining technologies and sensibilities essentially boils down to gaining a scientific understanding on the value of sensibility centered on sound, and leveraging this understanding to commercialize products. The value of human sensibilities for determining what constitutes a good sound and a good sound environment is not something that can be represented by simple quantitative data. In addition, scientifically analyzing the appeal and value of music and incorporating these elements into products is also something that requires a deep understanding on the value of sensibility centered on sound. At Yamaha, we have cultivated such a scientific understanding and insight through our long history, which began with the creation of musical instruments. Drawing on this sensibility value as our core competence, we are able to provide truly unique products and services through the combination of our wide range of technologies.

Various Technologies That Serve as a Source of Competitiveness

- Acoustic technologies: Technologies that support acoustic musical instruments, craftsmanship capabilities, materials analysis, manufacturing processes, etc.
- Digital technologies: Electronic technologies, best represented by our digital signal processing technologies.
- Sensibility evaluation technologies: Evaluation technologies pertaining to human recognition and sensibilities toward sound.
- Analysis and simulation technologies: Analysis and simulation technologies related to sound, audio, music, etc.
- Manufacturing technologies: Technologies pertaining to production processes, such as manufacturing methods and R&D.
Efforts to Promote Sustainability within Our R&D Activities

In tandem with the aforementioned strategies pertaining to cutting-edge technologies, we are also actively engaging in efforts to promote sustainability. Cultural value is something that is encapsulated in human nature. We therefore believe it is our job to ensure the sustainability of music culture. Music culture is a valuable asset of humankind, and it is our hope that future generations are able to enjoy music culture in the form of musical instruments and audio equipment. We believe that R&D will play a significant role amid our earnest quest to determine how we can make music culture sustainable.

Timber is essentially a sustainable resource. In the future, rather than refraining from and moving beyond the use of timber, it is essential that we use timber in an appropriate manner to ensure that it remains sustainable. As a company with a base of materials technologies, we believe that we can play a major role in establishing supply chains that allow for the creation of musical instruments with quality sound. Researching what type of timber to use and the ideal ways to use it is a means for us to discover new solutions. We have already concluded a comprehensive research agreement with Kyoto University, and we will pursue further collaboration with outside research institutions and companies over the medium to long term as we move forward with the development of new sustainable materials and other endeavors.

Developing Products and Technologies with Distinguishable Individuality


topics

Yamaha Instruments Registered as Japan’s Leading Historical Technologies by the National Museum of Nature and Science

In September 2019, the National Museum of Nature and Science, an independent administrative institution, registered Yamaha D-1 electronic organ, DX-7 digital synthesizer, and YM3526 and YMU757 FM sound-generator LSIs as Japan’s Leading Historical Technologies (Intangible Technological Heritages). In addition to being the first time Yamaha’s technologies were registered as Technological Heritages, this also marked the first time that musical instruments and LSIs achieved registration.

RIVAGE™ Digital Mixing System

In order to reproduce the deep sounds of analog devices using our CiCP digital sound field processor technology, we developed virtual circuitry modeling (VCM) technology that accurately models element levels in analog circuits at world-class levels. This VCM technology has been installed in such products as our PA equipment, digital musical instruments, and guitar amps.

TransAcoustic™ Piano

By having a transducer convert digital sounds into vibrations and transmit those vibrations to the soundboard, the TransAcoustic™ Piano’s soundboard takes on the role of a speaker to produce distinctively rich sounds.

Virtual Circuitry Modeling Technology

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Causal Wind Instrument Venova™

The casual wind instrument Venova™ is a transformer that leverages innovative technology to produce the clear, crisp tones of a saxophone.

Audio Equipment

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**Intellectual Property**

We are advancing a global intellectual property strategy and working to create, protect, manage, and utilize intellectual property. In these ways, we are taking steps to maintain and enhance corporate value and brand value.

Yamaha founder Torakusu Yamaha himself made many inventions and acquired patents for these inventions. Since the Company's founding, in coordination with our business activities, we have taken steps to create, protect, manage, and utilize intellectual property. Over many years of R&D and business activities, the Company has accumulated a range of intellectual property, such as designs, trademarks, and copyright-protected works. Through the use of patents, design rights, trademarks, copyrights, etc., we will continue to appropriately protect, manage, and utilize this intellectual property, thereby contributing to the Company's business operations. Moreover, to maintain and enhance brand value, we are taking steps to acquire intellectual property rights in a variety of fields in countries around the world. We are also aggressively implementing countermeasures to counterfeit products.

**Patents**

To differentiate itself from its competitors, gain a business advantage, ensure greater business flexibility, and enable licensing to third-parties, Yamaha has formulated patent strategies tailored to its operations in specific business segments. Every year, we conduct evaluations pertaining to such factors as our current patent utilization status and the future potential of patent utilization with the aim of rigorously distinguishing and organizing intellectual properties that contribute to our product development and enhance our competitiveness. By optimizing the number of patents we hold and the content of these patents, we are working to leverage our intellectual properties in a logical manner.

As of March 31, 2019, the Group possessed approximately 2,600 patents in Japan and roughly 3,500 patents overseas, centered on the United States, Europe, and China.

**Designs**

Yamaha views design as a critical element in setting its products apart from other offerings in the market, and consequently the Company makes every effort to properly safeguard and utilize these assets. As one part of those initiatives, Yamaha has strengthened its efforts to acquire design rights in various countries and regions where there are frequent issues with counterfeit products. As of March 31, 2019, the Yamaha Group held a total of approximately 1,280 design rights, roughly 460 in Japan and roughly 820 overseas.

**Trademarks**

In 1986, Yamaha formulated management regulations for the Yamaha brand, and we have established Companywide-management committees. We are working to sustain and enhance brand value by taking steps to realize the proper use of trademarks. As one part of those efforts, Yamaha has widely trademarked its brand in almost every part of the world. Furthermore, for product and service brands, which are positioned as sub-brands, the Company works to appropriately conduct preliminary investigations into product and service names and to acquire trademarks.

**Copyrights**

In addition to industrial property rights, such as patents, designs, and trademarks, the Yamaha Group produces numerous copyright-protected works, primarily in the fields of sound and music. Music-related copyrights are of particular importance to Yamaha in terms of its overall intellectual property policy. The Company takes steps to ensure their proper management and use, including undertaking legal action when necessary.

**Promoting the Value of Our Brand through Our Brand Promise**

In January 2019, we established the brand promise of Make Waves, and have since been communicating this promise on a global basis. With this new medium-term management plan, we will promote the value of the Yamaha brand through our brand promise and develop customer interfaces with a focus on digital marketing. In these ways, we will move forward with efforts aimed at improving our brand value.

**Internal Branding**

To create a robust brand, the active participation of our employees is essential. To that end, we are holding global workshops to discuss how we can convey the value of our brand to customers, centered on our brand promise. We are also hosting international conferences where we present the accomplishments of brand-related activities in each country. Through these means, we are creating opportunities to communicate the value of our brand to customers.

Creating Frameworks to Form Ties with Customers Improving Lifetime Value (LTV)

Today, with the overabundance of information available to customers, it is becoming more difficult to communicate a brand message. At the same time, there is a greater demand for high-quality services that suit customer needs. In light of this situation, we are working to build a customer data platform to analyze the important information and behavioral history of registered members in our database. This in turn will allow us to offer proposals optimized for each customer. Going forward, we will aim to realize even more effective communication with a view to improving our LTV. At the same time, we will promote the value that our brand offers in a manner that caters to the individual life stages of our customers.
Yamaha has always placed emphasis on design. In 1963, we established an in-house organization dedicated to design, which has since helped us build the Yamaha brand. In recent years, we have expanded the area of operation for this in-house organization, working to design various contact points with customers with the aim of enhancing our brand value.

**The Five Elements of Our Design Philosophy**

- **INTEGRITY**
  - Design that respects the essence of the object.
- **INNOVATIVE**
  - Creative design.
- **AESTHETIC**
  - Beautiful design.
- **UNOBTRUSIVE**
  - Restrained design.
- **SOCIAL RESPONSIBILITY**
  - Design that aims to ease the flow of society's energy.

**Taking on Challenges at Milan Design Week 2019**

**A Training Ground Where Brilliantly Individual Designers Voice Their Opinions and Deepen Their Thought Processes**

Yamaha held an exhibition at Milan Design Week 2019, one of the world’s largest design-related events, which was held in Milan, Italy from April 9 to April 14, 2019. We have participated in the event four times in the past from 2005 to 2008, presenting pieces created through our unique design ideas. Our most recent exhibition marked the first time we have participated in Milan Design Week in 11 years. Titled “Pulse,” our exhibit featured four sound-related pieces created through our unique design ideas. Our most recent exhibition marked the first time we have participated in Milan Design Week in 11 years. Titled “Pulse,” our exhibit featured four sound-related pieces created through our unique design ideas.

By taking on challenges that differ from our day-to-day product design activities, the purpose behind holding this exhibition was to have our designers communicate Yamaha’s unique worldview as well as the value systems that they themselves cherish. We also held this exhibit so that our designers could witness firsthand reactions from industry specialists and visitors from around the world when viewing Yamaha’s designs. In these ways, the exhibit helped our designers deepen their personal understanding on design philosophy and better define their own identity.

**Yamaha’s Design**

**Supporting Yamaha’s Growth by Working to Enhance Our Brand Value from the Perspective of Design**

**WXC-50 Wireless Streaming Amplifiers**

The WXC-50 wireless streaming amplifiers utilize a prominent physical volume knob to represent both a new take on network audio and the ubiquitous identity of an audio component physical volume knob to represent both a new take on network audio and the ubiquitous identity of an audio component. Based on the product concept of simple and flexible, the WXC-50 pursues a retro-modern appearance, with the brushed surfaces of everything but the knob giving it a form that is familiar and subtle.

**STORIA™ Acoustic Guitar**

STORIA™ Acoustic Guitar was created for millennials, who value connectivity and empathy with others, based on their own unique style. The design makes it easy to plug in and play, freeing up guitarists to delink parts of people lives. To that end, the guitar produces a beautiful, clear sound and a shape that makes it easy to play. With its inner colors, uniform metal parts, and other features, the STORIA™ acoustic guitar was crafted with attention to detail.

**VXS-100 VOCALOID™ Keyboard**

The VXS-100 VOCALOID™ keyboard is a lightweight, slim, over-the-shoulder keyboard that was designed so that people can play the instrument while standing and moving with it close to their bodies. This design was chosen in consideration of the various operations in which people could use this instrument, such as when singing karaoke. The grip section has purposely been set at an angle that the playing surface is vertical to the body, making it convenient to strike the keys while sliding the device for improved playability. The elimination of any unnecessary decorations and tooling has produced a pure shape that fits on a canvas upon which VOCALOID characters can be projected, a perfect match for the product concept.

**VKS-200 Portable Speakerphone**

From a user’s perspective, a strong emphasis was placed on the design of the VXS-100 vocal communication speakerphone, where designers made proposals for a detailed design that achieves a balance between a compact size and high sound quality. Paying particular attention to each aspect, including the way the buttons light up and the quality of sounds produced when operating the device, Yamaha placed emphasis on the design of the buttons and the circuitry design. To achieve the balance of sound, by doing so, the VKS-200 achieves a subtly designed that enables it to naturally blend in to the atmosphere of a room.