

Q&A on "Monozukuri (Manufacturing) Reforms" Briefing Session

Q: How is the progress of the automation and future manufacturing reforms at the domestic production bases other than JVCKENWOOD Nagano, i.e., Yokosuka Business Center for the Media Service (MS) Sector and JVCKENWOOD Yamagata for the Public Service (PS) Sector?

A: We also have production bases in Nagaoka and Yamagata, each of which manufactures PS and MS products, and we are considering automation for these bases as well. When we began to consider automation in Nagano, the need arose to train expert personnel in Yamagata, Nagaoka, and five overseas locations. For this, we invited people from each base to Nagano for intensive training and have conducted a variety of skill training, including how to use the robotic arm. We are in the process of sharing the results of automation in Nagano while bringing back those training results. Efforts have also been initiated to automate communications equipment for professional use for public safety, including projectors. We would like to make the transition at the appropriate time. Especially since we will be manufacturing in Japan, automation of production, including labor saving, must be promoted to a certain level. In addition, by outsourcing work that is not suited for automation to partners with whom we can strategically collaborate, we hope to coexist and co-prosper with these partners to raise Japan's production skills and capacity, and restore them to their former state. For this reason, we also plan to promote automation at other locations based on a certain plan.

Q: The yen has been weakening considerably, but can we take it that a series of initiatives will be more effective if the yen's depreciation in exchange rates starts to take hold?

A: The recent depreciation of the yen has created a very difficult situation for our company. With the goal of increasing the local procurement rate when expanding into overseas, we currently have a certain number of dollar-denominated transactions for parts. However, if we are to return production to Japan, we will naturally increase transactions with Japanese partners, in other words, transactions in yen will also be included in our measures. We aim for manufacturing that can properly respond to the various changes that are occurring in the world today. At the same time, we will secure profits and return them to our stakeholders through various hedges in our financial strategy led by the CFO. This is the kind of manufacturing we are aiming for.

Q: You said that the design change has considerably lowered the cost of parts and the number of parts, but there are differences in labor costs and investment costs related to automation. When all of these factors are taken into account, now that automation is in full swing, how is the cost competitiveness compared to when the company was producing products in the Indonesian factory? What kind of curve will we go through in the future to reduce costs?

A: When we formulated the Medium-Term Management Plan "VISION 2023", automation was one of the major challenges, and there were internal discussions about positioning it as a strategic investment in the cash allocation process. As we studied the automation of production, we found that there were still quite a lot of areas that could be solved with technical solutions, so we switched from strategic investments to normal investments.

Therefore, while we have made a certain amount of investment in automating production at JVCKENWOOD Nagano, the amount of investment was kept under control. We have restructured our plan to recover all the capital investment related to production automation at JVCKENWOOD Nagano in the current product lineup, the year 2022 model. As of the start of production in February, the product's profitable structure has been strengthened to the state where its operating profit margin is higher than that of the previous model. What we need to watch closely is how the external environment, including foreign exchange rates, will move, as it is changing very significantly. Since we have hedged risks to some extent this fiscal year, we do not expect such a large impact on our business performance. We believe that we will be able to achieve results as planned. As a person in charge of manufacturing, I believe that this should not be positioned as a strategic investment in such a way that they become over-invested and cannot be recovered. Keeping in mind that there are areas that can be solved through technology, we will also reduce the cost of production facilities while keeping them within the framework of recoverable investments. In other words, our goal is to carry on our business with normal investments.

Q: What will be the market share and competitiveness against other companies as a result of returning to domestic production? Since you mentioned the need for immediate delivery, can we expect the JVCKENWOOD's position in the industry to be further enhanced by returning to the domestic market, especially for domestic automakers and for dealer-installed products?

A: Regarding competitiveness with other companies, we believe that the inventory management is a very significant factor in advancing our business. As an automotive supply manufacturer, we deliver directly to automakers, but to ensure the so-called "kanban method," in which a certain quantity is delivered at a certain time on a certain day, it was necessary to control overseas production with a considerable amount of inventory. Being able to fine-tune production plans without much inventory will of course increase our corporate strength, and since we manufacture domestically, we can respond flexibly to sudden increases in production. We will also foster cost competitiveness. We will focus on speedy production and prompt delivery of attractive products, such as by expanding the quality of "Saisoku Navigation" to dealer-installed products, and will proceed with the business firmly.

Q: How much improvement in operating margin do you aim to achieve? What is the difference in operating profit margin between production at the Indonesian factory and domestic production? Can you tell us quantitatively, if possible?

A: It is difficult to give a quantitative figure. However, since we have a considerable amount of lineup of products from high-end to low-end, we hope to create a profit margin in the various model mixes that will at least far exceed what we have been producing at our Indonesian factory. We would like to be confident in our manufacturing in this regard. Since the results are released every fiscal year, we would like you to check the results every year.

Q: You mentioned finding supplier partners for sheet metals and molds in the trend of returning to the domestic production. Is it correct to say that the manufacturing capabilities of these

partners have unfortunately declined from, say, 20 to 30 years ago? In what specific respects are manufacturing capabilities weakening?

A: Suppliers and parts manufacturers expanded overseas at the same time that we expanded overseas. Resin, molds, sheet metals, and other products are made with know-how, but these skills have been transferred out or leaked as production have expanded overseas. Some molding machines, for example, have been automated and mechanized so quickly that the number of Japanese engineers with master craftsmanship has decreased. Lack of successors can also be a contributing factor. They are simply losing the art of using the skill itself, and as a result, they may appear to be losing their technical skills. However, I believe that the power to restore such things is still strong and firmly rooted in Japan's manufacturing industry. When we expanded overseas, we increased our local procurement rate. However, this does not mean that we no longer do business with Japanese partners when we do business locally. When Japanese (automobile) manufacturers expanded overseas, we started up there together, so there are still Japanese partners who have been cooperating with us for a long time in terms of business relationships. Many partners are hoping to train successors and generate more sales. We would like to create an ecosystem by working together with such people.

Q: How did the robotic arm process come to be able to set up these new processes? Is it simply that the performance of robotic arms has evolved remarkably in recent years? Also, for this type of capital investment, should we look at depreciation using the straight-line method or the declining-balance method? Is there any risk of timing shifts, for example, introduction may be delayed in some countries due to differences in depreciation methods, or may go more smoothly in Japan?

A: As for the adoption of robotic arms, it is easier for us to stabilize our business base if we can make good use of robots that are distributed as mass-produced products to a certain extent rather than custom-made. Optimization can be achieved by building in unique processes. We want to change our mindset. By making good use of products available in the markets, we can keep up with market trends. We believe that maintaining such a state will improve corporate resilience. We decided that it would not be a good idea to do everything in-house custom-made, so we began by introducing a robotic arm. Although the video may have shown the arm moving smoothly, it was extremely difficult to mechanize the human movement. We were impressed once again by the human ability and have successfully implemented this human ability by replacing it with a readable text and program to a certain extent. We want to make this capability, this technology our internal asset. We will assemble our products well without being too particular about the tools we use, using general-purpose products that are available as much as possible. This is where we hope to find our strength. Depreciation for tax purposes must be done in accordance with each country's system, so naturally there will be delays and lengthening of the depreciation period. As we promote automation, we are pursuing an investment plan to ensure that at least those investments that are not currently strategic investments will be recovered in the relevant business. There may be some delays in amortization and payback, and some areas where accelerated amortization is not possible. We would like to make our investments with a view to achieving

the planned results when viewed from a life-cost perspective.

Q: JVCKENWOOD is working to obtain various certifications regarding cyber security. When did you start working on this? Is your company moving ahead of competitors? I think this is an initiative that will be a strong point for JVCKENWOOD, but how do you see your competitors' efforts?

A: Cyber security issues have become much more visible in recent years. Especially in the world of computers and the Internet, various incidents including malware and ransomware have been occurring for the past decade. I think it is only in the last 5 to 6 years that such things have spread to embedded products. This has become apparent in the era of automatic driving, which is known as CASE, and telematics services such as those represented by "connected," which are connected to the outside world and exchange a variety of control and information via electronic data. In response to these trends, forums and organizations around the world felt a sense of crisis, and a certification system was established. As an embedded product manufacturer, we are not slow in our efforts. We know that companies in the same business are responding with the same awareness as we are. We want to deal with the situation without falling behind. Since it is an endless battle with accidents and incidents caused by repetition of human behavior, we believe that our role is to avoid excessive investment while, on the other hand, ensuring business continuity by immediately returning to business when something happens. We will continue to engage in educational activities, including internal training, from management to front-line engineering staff, to enhance resilience. The certification system is still in its infancy in some areas, so we would like to work on it while keeping an eye on industry trends. The NIST SP800 and CMMC certification systems were announced as legislation for the U.S. in the fall of 2020. We have received various questions from government procurement and government procurement-based Tier 1 manufacturers to suppliers like us who are required to apply requirements. For the past three years, there has been a growing awareness of these issues in Japan as well as in the United States and Europe. We would like to continue to develop a system that will allow us to return to business as soon as possible if something should happen.