

Date and time:

Thursday, June 22, 2023, 13:30-14:45 (JST)

Respondents:

Masahiro Katayose, Senior Executive Officer, President, Chemical Business, Global
Katsunori Yamaguchi, Senior Vice President, Business Planning & Administration, Chemical Business, Global

Ichiro Kitano, Senior Vice President, Strategy Management, Chemical Business, Global
Mitsuhiro Watanabe, Vice President, Investor Relations

1) You have disclosed the sales breakdown by business (oleo chemicals, performance chemicals and information materials). I would like to know the past trends for each business as well.

We started with the oleo chemical business, and later grew as we added performance chemicals and information materials. Our policy is to grow all of these three businesses in principle.

Sales vary depending on raw material prices, but when looking at trends over the long term, the performance chemical business and information material business have been growing.

Does that mean this trend will not change going forward?

Regarding the oleo chemical business, we will further grow downstream products and fat and oil derivatives. We aim to create a business structure that has high profitability and is resilient to changes in market conditions for natural fat and oil. There is a possibility for the share of sales to grow slightly in the performance chemical business and information material business. In any case, we intend to grow all three businesses in principle.

2) Regarding the strategic businesses that you have included under your specific actions in the material, I would like to know the market share and Kao's superiority for each business.

Adjuvants:

The current large market is not for drones, but for general spraying. The market size is 100 billion yen, and the market share in this area is approximately 5%. Markets for adjuvants used in drones and for oil palm farms will be established in the future. We wish to grow by expanding business in these new upcoming markets in addition to existing businesses.

Highly durable asphalt modifier:

Sales are still small. Kao has functional superiority, so it will create a market in addition to initiatives for replacing existing modifiers. Therefore, the current market share is extremely small.

The key point is whether this modifier will be used in public roads, including highways. At

present, the modifiers are in the process of being evaluated by public institutions. Should the modifier be qualified for public roads, we believe that we can achieve significant growth in sales.

Inkjet inks:

Kao specializes in water-based inkjet inks, and has a market share of approximately 10% in this area. We seek to accelerate growth by creating printing modules in combination with inks, and by rolling out technology in Japan to the Americas and Europe where we have sites.

Semiconductor chemicals:

Kao has chemicals with many applications, but it is focusing efforts on cleaning processes. The market share in the field of water-based cleaning agents is approximately 30%. We have a wide range of technologies with respect to cleaning for household and industrial applications. We are utilizing these technologies to develop and provide chemicals for next-generation cleaning.

Are competitors unable to create a highly durable asphalt modifier?

We have utilized the technological insight related to polyesters that we have cultivated in the toner business. Through this, we have successfully developed and introduced this highly durable asphalt modifier. Therefore, no competitors exist at present for polyester-based modifiers.

What is the approximate market share for water-based inks and semiconductor cleaning agents within inkjet inks and semiconductor chemicals in general, respectively?

Water-based inks:

At present, the market share for water-based inks is small. The trend is toward a shift from solvent-based inks to water-based inks. However, the market size for solvent-based inks is still larger. There will be a shift to water-based inks in the future, and so we will seize this market opportunity and provide Kao's technologies to gain market share.

Semiconductor chemicals:

The market size for the areas in which Kao has strengths is approximately 80 billion yen.

3) The chemical industry is fundamentally cyclical. Even when looking on a global scale, only an extremely small number of companies are able to stably achieve an operating margin of 8% to 10%. How is Kao able to achieve profit stably?

Approximately 50% of our products are commoditized and are easily affected by changes in

market conditions. However, the other 50% consists of customized products as well as niche, differentiated products. This latter percentage is large. Even among commodity products, we have products in the field of fat and oil derivatives that have a large market share and that can lead the market.

In other words, we can gain stable profit through technological differentiation in niche areas, and we also have products that can lead the markets in terms of some commodity products. We believe that these two factors are the reasons why we are able to achieve stable earnings.

Is it possible to maintain this structure in the future? For example, there is higher volatility in the palm kernel oil market, and this volatility may further increase in the future. Will Kao's measures be able to keep up with these conditions? In addition, if you are to continue expanding into niche areas, what is the situation on your technological sales force? I would like to know whether or not these elements will become risks in the future.

Regarding palm kernel oil, there is the possibility that market volatility will increase in the future. We are collaborating in joint ventures within the fatty acid and alcohol businesses. We aim to further reinforce these relationships and ensure stable procurement. In addition, we will incorporate raw materials other than palm kernel oil. Also, for products that use palm kernel oil, we will expand fat and oil derivatives and further expand downstream products so that we can absorb the impact of volatility.

In Chemical Business as a whole, we aim to increase the number of businesses in areas that do not have volatility. Our strategic businesses and new businesses are generally in areas that are not related to palm kernel oil, and so we will expand these areas.

Sales personnel with a technical background make up 60% to 70% of our entire sales force. In the past, we have tended to carry out push marketing. However, now that digital technologies have become more available, we will also use a pull marketing approach to carry out sales and development activities with greater effectiveness.

- 4) Is my understanding correct that Kao and P&G are the only two household and personal care products manufacturers who are carrying out in-house production of fatty alcohols? If this is true, is my understanding correct that you are maintaining your competitive superiority, because the core aspects of the competitive environment have not changed compared to 10 years ago?**

Your understanding is correct regarding household and personal care products manufacturers who produce fatty alcohols. Palm plantations are enhancing their abilities.

Is my understanding correct that Kao has achieved growth for fine chemicals such as tertiary amines within this field?

You are correct.

I heard that internal transactions accounted for about 40% of the chemical business sales. Have there been any changes regarding this percentage?

Sales for our Consumer Products Business make up approximately 10% of the entire Chemical Business. Sales are growing on a global scale compared to the past, and so the percentage of internal transactions is decreasing.

If you create an innovative product for the field of household and personal care products, do you have rules regarding whether it should be sold externally or used internally?

We do not have clear rules, but we will use it internally if it is an extremely unique product. For commodity products, we will also sell externally and reduce costs.

I would like to know your strengths in the context of a comparison between competitors' fatty alcohol business and Kao's business, as well as how those strengths are related to future developments.

Kao's strengths are cost competitiveness and quality. I believe that competitors procure process technologies and catalyst technologies from outside. However, Kao develops these technologies in-house. In addition, Kao has businesses other than oleo chemicals. Therefore, we believe that one significant difference from competitors is that we can roll out oleo chemicals not only for consumer applications but also for a wide range of industrial applications.

Among the raw materials that you produce in the Chemical Business and utilize in the Consumer Products Business, in which raw materials would you say you have the greatest confidence?

We have confidence in the skin-mild cleansing agent that is used in *Bioré* skin care products. The Bio IOS surfactant is currently only used in laundry detergents, but we believe that it has potential in many areas.

5) I would like to know about the impact on profit, and about the price mechanism. The results in the first quarter were lower than the plan. However, I believe that you were in a transitional period in the second quarter and that you plan to recover performance starting in the third quarter. How will you recover profit from the third quarter onwards?

There are many factors that have an impact on profit.

Market conditions constitute one of these factors. With commodity products in particular, we sell these products at a lower price when market conditions are severe, and so profit decreases. Palm kernel oil prices rapidly fell over a short period from 2022, in a way that has hardly been seen in the past. In oleo chemicals, if raw material prices fall, we will make products using our high-cost inventory. However, we need to lower the selling prices as the market conditions fall, and so profit decreases. Conversely, if raw material prices increase, profit tends to increase. Regarding the reason why palm kernel oil prices have drastically fluctuated from 2022 to 2023, the causes are the Russia-Ukraine crisis and Indonesia's ban on palm exports. Raw material prices continued to fall in the first quarter, but they have finally stopped falling recently. We expect that raw material prices will increase going forward, and so we expect that the oleo chemical business will change for the better.

Market conditions have started to recover in Japan and Asia excluding China, but recovery in the Americas and Europe is slightly delayed. In any case, the recovery of market conditions will have an impact on increased sales and improved profit. Another important factor is the extent to which we can increase the percentage of high-value-added products in the sales. In the second quarter, the profit margin is likely to recover to a level that is equivalent to performance in fiscal 2022.

Palm kernel oil prices appear to be stable. Do you expect prices to increase going forward?

Our palm plantation partners also have similar expectations. Depending on the balance between supply and demand, we expect that prices will increase if the production volume falls as a result of El Niño.

From the third quarter, you will start operations for tertiary amines in Germany, and you will increase production of aroma chemicals in Spain. Will these activities have a significant impact on performance?

We had considerable opportunity loss in the past because production could not keep up. Therefore, we expect that we can increase sales by operating these facilities.

- 6) I would like to know about the difference in profitability between the information material business and performance chemical business. Will toners, toner binders and other products in the information material business be affected by a global shift to paperless or by changes in office demand? In 2016 and 2017, you acquired water-based pigment inkjet ink companies in the United States and Spain. What kinds of synergistic effects have been produced? In addition, I would like to know what kinds of effects you expect in the future.**

We do not disclose specific figures regarding the profitability of each business. However, the profitability of the oleo chemical business is slightly lower than the overall profit margin, and the profitability of the performance chemical business and the information material business is higher than the overall profit margin.

We expect the toners and toner binders market to gradually shrink. Office demand will decrease, so we will increase business in toners and toner binders used for printing in industrial and commercial applications. Demand will decrease over the long term, but we aim to compensate for this with business in inkjet inks. With the increase in the proportion of digitalization of analog printing, we believe the market will grow significantly. We wish to achieve overall growth in toners, toner binders and inkjet inks.

After the acquisitions in 2016 and 2017, we have launched collaboratively developed products in the market and have engaged in other efforts, resulting in sales growth with an annual rate of about 8%. There have been some delays compared to our initial expectations due to the COVID-19 pandemic, but we have achieved steady growth.

- 7) I would like to know about your perception of the current issues regarding what you call specialty chemical products—in other words, the products that are not commodities and that account for half of sales. In addition, I believe that oleo chemicals make up around 70% of commodity products, but I cannot imagine that oleo chemicals will expand significantly in strategic and new businesses. I would also like to know about your current identification of issues regarding this point.**

There are many commodity products within the oleo chemical business. We will increase the percentage of fat and oil derivatives. We aim to reduce the volatility of the oleo chemical business itself while increasing profitability by expanding downstream. In addition, some of our fundamental products are customized and unique. Also, some of our specialty products have markets that will not grow, such as toners and toner binders. Therefore, we will concentrate resources in businesses that we wish to expand, including strategic and new businesses.

- 8) What is the approximate amount for capital expenditures and depreciation in the Chemical Business up to 2025? I would like to know the current progress in relation to Kao's Mid-term Plan "K25," when excluding the sales growth due to the rising prices of raw materials.**

Capital expenditures for the remaining three years (2023 to 2025) will be approximately 45.0 billion yen. The largest investment amount will be tertiary amines in the United States. However, we will continue to make investments, including reinforcements to other production

capabilities. Regarding the progress in K25, delays have occurred in customers' development plans due to the COVID-19 pandemic, and so progress is slightly behind as a result of this.

My perception of the Chemical Business as a whole is that depreciation will increase but sales will grow more than that, and highly profitable business will also grow, whereby the Chemical Business will generally achieve the expected target in the plan for K25. Is this correct?

You are correct.

Note

The content presented in this document is the opinion of the Company. The content is a summary of questions and answers in the Chemical Business growth strategy briefing. The Company makes no guarantee or promise regarding the accuracy or completeness of this information, which is subject to change without notice.

Forward-looking statements such as earnings forecasts and other projections are based on information available at the time of disclosure and assumptions that management believes to be reasonable, and do not constitute guarantees of future performance. Actual results may differ materially from expectations due to various factors.