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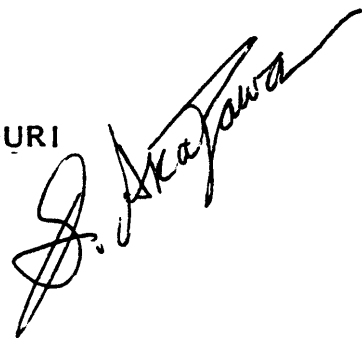
REMARKS

OF

MR. SHOICHI AKAZAWA  
EXECUTIVE VICE PRESIDENT OF FUJITSU LIMITED  
TOKYO, JAPAN

AT THE  
1981 INTERNATIONAL CONFERENCE  
SOCIETY OF AMERICAN VALUE ENGINEERS

APRIL 27, 1981  
ST. LOUIS, MISSOURI

A handwritten signature in black ink, appearing to read "S. Akazawa", written in a cursive style. The signature is slanted upwards to the right and overlaps the printed text below it.

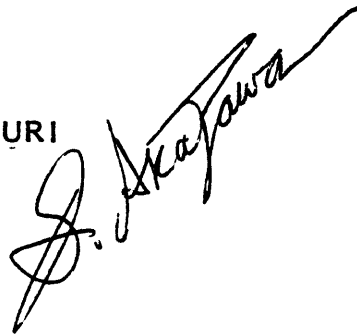
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PRODUCING RESULTS BY USING VALUE ENGINEERING IN JAPAN

AT THE 1981 INTERNATIONAL CONFERENCE  
SOCIETY OF AMERICAN VALUE ENGINEERS

MR SHOICHI AKAZAWA, EXECUTIVE VICE PRESIDENT, FUJITSU LIMITED  
TOKYO, JAPAN

Mr. Chairman, Distinguished Guests, Ladies and Gentlemen:

I am honored to have been invited to speak at this important conference and grateful for this opportunity to exchange ideas with you today. Our countries will benefit from more frequent and franker exchange of ideas. And I rejoice at the chance to visit the historic city of St. Louis in this delightful season.

This is my first visit to St. Louis. But the name of the city has been deeply inscribed in my mind ever since I first listened to the "St. Louis Blues," and heard about Charles Lindberg's "Spirit of St. Louis" decades ago. I spent all of yesterday enjoying the city and its sights. Beautiful live music that I heard at a restaurant last night vividly lingers in my ears today. I wish I could talk to you about music, but that is not the subject that drew you and me to this meeting today.

I would like to open my discussion by describing the current economic situation of my country, and then elaborate on value engineering, through my first-hand experience in that discipline, as it is successfully implemented in Japan.

Japan's economic growth declined drastically during the OPEC oil boycott of 1973. Gradually recovering thereafter, we posted a 5.9 per cent gain in real GNP in 1979, compared with the 3.5 per cent average increase in other industrialized countries. Our consumer price index was up 3.1 per cent in the same year, compared with an average 8.5 per cent increase in Europe and the U.S. Unemployment stood at about 2 per cent in Japan, but averaged 6 to 7 per cent in Western nations. It is estimated that in 1980 the Japanese economy grew nearly 5 per cent.

Let us consider the years, 1973-1974, in which the world economy plunged into whirlpools of recession and inflation, as the launching pad of "Rocket Japan."

When this economic rocket lifted off, it kept yawing for a few years before it was brought under total control. In the 5 or 6 years after liftoff, the unstable rocket finally managed to adjust its course by careful steering and by boosting its power, and has been put into the orbit of stable economic growth, more or less at the rate of 5 per cent a year. Rocket Japan has so far been making a successful journey. However, there may be some problems in the future. A violent magnetic storm may hinder its steady orbital course. We do not know for sure when such a storm may come or how we should

cope with it. In such a situation we will have to provide a new thrust to bring it to its destination. That thrust is sound crisis management.

Three levels of cooperative effort have resulted in our current economic success: first, government's statesmanlike economic policies; second, private enterprise's forward-looking managerial policies; and third, organized labor's public-spirited bargaining policies.

Let me explain. Our government's policies emphasize financing and monetary measures, in common with others all over the world. In addition, what is peculiar to Japan is the diligent promotion of carefully thought-out industrial policies by the government. In early 1970, the Ministry of International Trade & Industry, MITI, adopted national measures to emphasize knowledge-intensive industry and directed the entire business establishment in that direction. The priority target was the electronics industry which encompasses computer, integrated

circuit, and software technologies. In addition, telecommunications technology was considered of high importance, "mechatronics" technology is becoming more significant, and energy-saving technology flowered in the wake of the 1973 oil crisis. Mechatronics is a word coined by Mr. W. Michael Blumenthal, former Secretary of the Treasury and now Chairman of Burroughs. It means a combination of mechanical and electronic measures.

Our country lacks indigenous natural resources. We had to face up to the shortage of oil which is the indispensable energy source for our people and our industries. How did we cope with this problem and guide our industries in the right direction? One way was to develop new methods of material's conservation and energy saving; the other was to make the most of the best assets already in our possession: knowledge, technology, and an intelligent, motivated, and disciplined people. In response to the energy crisis, we became more aware of MITI's industrial policies, just mentioned, and mobilized the nation behind them.

Let me give you some statistical data on energy consumption and computer installations as background for my coming discussion of value engineering.

According to a report compiled by the Japanese steel industry, using Japan's consumption of energy to make one ton of crude steel in

1973 as a base of 100, West Germany stood at 112 and the United States at 135. In 1979 the United States posted 131, a 3 per cent reduction from 1973; West Germany was at 104, a 7 per cent cut; and Japan was at 90, a 10 per cent decrease. Furthermore, it is reported that we lowered our consumption to 87.5 in the first half of last year.

Now let's look at computers. In 1973, our country had 23,000 of them valued at 1,600 billion yen installed. By 1978 the number had soared to 58,900 units, worth 3,220 billion yen. The number of computers made at home accounted for almost 70 per cent in units and about 53 per cent in value. During the same period, the performance of Japanese-made computer systems achieved an outstanding improvement. My own company, Fujitsu, recently became the largest Japanese supplier. Fujitsu's large-scale FACOM computer speeded up their performance by a factor of 16. In the meantime, in spite of rising costs and inflation, the price of these FACOM machines rose only 1.5 to 2 times.

It is usually pointed out that computers contribute to labor saving. Actually their contribution to society is far greater than that. I firmly believe that they are the means for increasing industrial productivity, improving product quality, and bettering management efficiency.

These figures, I think prove how hard Japanese industry has strived to achieve a high level of success under government guidelines.

So far I have noted that Japanese industrial progress resulted from the coordinated and conscious collaboration between our government and our industries. Although I said that private enterprise in Japan has been striving for economic growth in collaboration with the government, I do not mean that we always blindly follow the policies or guidelines of the government. For the company's survival, business expansion, and increases in profits are essential. Therefore, we do not accept a governmental policy unless it fits into the corporate vision and strategy.

Labor's contribution was also a significant factor in our success. Labor unions in Japan are basically organized at the company level. But we also have union federations at the industrial and national levels, which frequently conduct national campaigns to push general demands such as salary hikes.

However, actual negotiations are conducted between corporate management and its labor unions, which are composed of the company's employees. The union works in cooperation with the company. Relations are amicable. The union considers not only the soaring price index but also productivity and profitability of the company before it takes any decisive actions. Japanese labor unions have always welcomed value engineering activities within the companies. They are still positively concerned with value engineering and are major driving forces to make it successful. They and management are not engaged in an endless confrontation with each other.



Now I would like to tell you a success story of value engineering within my company, based upon my own experience. I do not consider myself a value engineering professional, as you are, but I believe I am qualified to talk about the subject because of my unique experience in the field. In addition to being one of the three top executives of Fujitsu, I am concurrently "Value Engineering Promotion Executive Director." This tells you something about the importance Japanese companies attach to value engineering. Do you know of any American manufacturer where one of the top three officers is responsible for value engineering?

Long before I assumed this position four years ago, we had studied value analysis and value engineering methods, and had actually sought to achieve significant reductions in manufacturing costs while maintaining high reliability.

To stimulate value engineering at Fujitsu, I have fostered two systems: a committee system and an idea proposal system.

For the purpose of setting up a reliable apparatus to promote value engineering, eleven committees have been organized within the company and a capable influential manager has been appointed chief of each committee. Each of these managers works as an equal with each department head in the company and with other managers. I summon these eleven officials to a meeting once every month, so that they can report on progress and exchange information. The monthly meeting becomes the nucleus of the effective promotion of value engineering. At a monthly meeting, managers in one division are informed about experiences in other divisions. They establish a concensus on what value engineering

The Value Engineering Promotion Headquarters, which is under my direct supervision, is staffed with seven full time professionals. Their responsibilities are mainly to set forth administrative goals, encourage active involvement among individual workers, plan on-the-job training for value engineering techniques, and coordinate activities among the different divisions. However, company headquarters never forces an idea down anyone's throat. The real implementation of the value engineering concept rests upon conscious and active participation of the individual workers everywhere in the company. Implementation also rests with the personnel of each shop.

I firmly believe that value engineering actions can be carried out successfully only when top management and all employees down the line are both involved. I do not believe that it can be practised and performed by just a handful of professional engineers.

To encourage individual workers to take part actively in value engineering, I have put into operation a value engineering proposal system in which every employee in the company is asked to make positive proposals for cost-reduction and improvement in procedures and processes. Let me note here that my company has 12 factories and 51 offices throughout Japan, with a total of <sup>35,000</sup>~~37,500~~ employees, and this entire establishment is involved in the proposal system.

Each year the number of resultant suggestions has increased. In the fiscal year just ended, the total approached almost <sup>37,500</sup>~~34,000~~, an average of about one for each employee. Every proposal is reviewed carefully and thoroughly by subcommittees of the aforementioned eleven major committees. All useful proposals are adopted promptly. In the recent past about 65 per cent of them has been accepted. The president of our company himself awards testimonials and bonuses once every year to the teams of workers or occasionally the individuals who authored the best suggestions. Our intra-company periodicals cover these events in words and pictures.

I would like to emphasize again that the entire company, from bottom to top, participates in value engineering. It would probably be impossible to teach every one of our employees about technical value engineering

methods and theories.

However, anyone can make it possible to increase productivity and reduce production costs at the shop he belongs to by applying value engineering concepts, if he is genuinely motivated. It is most important that employees be given adequate incentives and motivation. In addition value engineering methods should gradually be disseminated throughout the company through education and otherwise. At Fujitsu, we have an expression which will help you to see how worker attitudes help us achieve our value engineering objectives. It is, "Ware Ware Wa Puro Da," meaning, "We are professionals." When it comes to involving our work-force in value engineering, all our people are professionals.

I think my way of implementation has transformed the value engineering movement into a sort of popular campaign. I believe it was successful. And I feel confident that my approach fits best the Japanese style of management that stresses the formation of consensus and expects opinions to come from the bottom up as well as from the top down. What we have done is to make value engineering a company-wide state of mind.

Let me remind you of another important truth: that a top executive must assume responsibility for executing value engineering in his company in order to obtain the best results.

It is, of course, very important for employees to become cost conscious through the value engineering process. At the same time, however, management must present its employees with a yearly cost reduction target and also should make every endeavor to reach the goal by every means. Value engineering is one of the most important methods for that purpose.

To increase productivity through value engineering, capital investment must be maintained. But capital investment will not necessarily bring about more effective value engineering. It is important that top management consider capital investment for the whole company and then make its investment decisions, and that top management supervise value engineering activities. The responsible top management official does not have to be a professional value engineer. I myself am not, as I told you a moment ago.

These are the conclusions that I have reached from my experience with value engineering activities at my company. But I think these observations should be thoroughly tested in many more actual situations before they are accepted as a general rule.

During the last decade, Japanese productivity has increased remarkably while the United States productivity rate has fallen. The contrasting gap in productivity growth in the two countries is drawing worldwide attention.

Last January the Report of the Japan-United States Economic Relations Group was prepared for the President of the United States and the Prime Minister of Japan. One chapter of the report is entitled, "American Productivity and the Management of the United States Economy." It gives a detailed analysis of United States productivity, with concrete recommendations for its improvement. One interesting recommendation is that the U.S. government "sponsor a comprehensive research program on the measures Japan and other foreign countries have taken in the public and the private sectors to increase productivity and how these measures can be applied to the United States."

Technologies of improving productivity and the concepts of value analysis, value engineering, and quality control all have their origin in your country. From the 1950's to the 1960's Japanese companies dispatched many study teams to the United States to learn these technologies and concepts from you. And many American experts in the field were invited to Japan. As a result, the industries in our country have achieved the highest productivity growth rate in the world. I would say we did not do anything particularly remarkable. We merely introduced your ideas and implemented

Japan has been striving to modernize ever since the Meiji Restoration of 1868. I say modernize, not Westernize. The two are quite different. What we have done is to examine, to analyze European and American ways, accepting some, rejecting others, and modifying still others to make them fit our tradition and culture. The same process has been applied to the promotion of value engineering and the improvement of productivity in Japan.

The aforementioned Economic Relations Group strongly recommends that Japanese and American business leaders cooperate with one another to improve both countries' productivity. I totally agree. I believe that mutual cooperation between Japan, with the highest productivity growth rate in the world, and the United States, with the highest productivity standards in the world, will lead to mutually beneficial economic relations.

This conference will play a significant role in bringing about that objective and will generate an opportunity to enhance cooperation by our two countries.

I trust that you are having a successful conference and I extend to all of you every good wish.

Thank you.