Working on the Railroad

Interview with Hiroshi Suda, president of Central JR, by Toshio Iwasaki, editor of the Journal of Japanese Trade & Industry

The old Japanese National Railways had a spider web of track stretching to every nook and cranny of the archipelago. As the nation's most convenient and widely used means of transport, JNR contributed immensely to Japan's development. Trains ran on time and, as epitomized by the *Shinkansen* "bullet trains," utilized the world's best transport technology.

Yet just as the easy availability of air transport and the profusion of automobiles drew people away from rail transport worldwide, so they eroded JNR's position in Japan. In 1964, JNR operations started running a deficit that grew with the speed of an express train until by April 1987, when the railways were privatized, JNR was ¥37 trillion in the red.

JNR was reorganized into six regional passenger lines and one national freight line, and renamed the Japan Railways (JR) Group. In the two years since then, the JR Group has confounded skeptics and done very well indeed. All of the seven companies are showing a profit.

The one that is doing best is Central Japan Railway Company with operating responsibility in the Tokai area. How have these companies engineered such amazing turnarounds? What is the secret of their success? The *Journal* talked with Central JR President Hiroshi Suda to find out.

Question: *Led by Central JR, all of the JR Group companies are performing much better than expected. Having served as the last director of passenger services for the old JNR, you have a unique perspective on the changes that have taken place. What is the difference between today's profitable JR Group and the deficit-running JNR?*

Suda: Very roughly, there are three main differences. The first is the change from a national organization to local companies. While this has meant a shrinkage in each company's operating territory, it enables the companies to be more attentive and responsive to local needs. It puts them closer to the people, and makes them more market-oriented.

The second change is that the companies are able to operate with a longer-term perspective than the JNR could. Like the national budget, the JNR was on a one-year tether, and it was very important that plans be formulated and implemented within this annual framework. As a result, it sometimes happened that problems requiring longer-term responses got put aside and lost in the shuffle. Since privatization, it has been possible for the different companies to deal with their problems in the long-term perspective.

And third is that we were able to make the move from pure rail companies to total-service

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organizations. The JNR was legally restricted to providing rail transport. Today, that restriction no longer applies, and we are now able to offer everything the modern traveler needs.

All of these things are making a difference, and they are still ongoing. Rather, the way has been opened, and we are starting to take advantage of these new opportunities. It is this willingness to innovate and grow that accounts for the strong performance so far.

Q: *The factors that you just mentioned apply equally well to all of the JR Group companies. But within the group, Central JR is doing better than the rest. Why? What is so special about your company?*

A: To be sure, Central JR is leading the pack if you just look at the figures for the past two years, but this leadership is very fragile. If you look at the realities behind the figures, you will see that, by and large, we have been lucky, and that this performance is not really attributable to any special structural strengths.

The first area we were lucky in is that the Japanese economy is doing well. The Central JR territory includes the Tokaido *Shinkansen*, and this *Shinkansen* accounts for 85% of our earnings. As you probably know, since most of the *Shinkansen* passengers are businesspeople, *Shinkansen* use fluctuates quite a bit depending on how well the economy is doing. When times are good, there is a lot of *Shinkansen* business travel, and we have been the beneficiaries of this phenomenon. Yet there is no guarantee that this will continue. And when there is an economic downturn, there will inevitably be less business travel and lower *Shinkansen* earnings for us.

The second area is that our people, labor and management alike, are highly motivated and working hard. We are a new company, and everybody is anxious to make a go of it. At the same time, the local areas have been very supportive. We are doing everything we can to sustain this community spirit, since it has definitely been a factor in our strong start, but it is hard to tell how long it will last.

On the dark side, the recent tax reforms have cut into our advantage by reducing the price differential between air and rail travel. So when you factor in everything, we have made a good start, but we are going to have a very hard time maintaining the pace over the next few years.

Earlier I mentioned that the *Shinkansen* provides a substantial portion of our earnings. Well this line was laid 25 years ago, and its upkeep is getting more and more expensive every year. We are looking at major repair and replacement costs not too far down the road.

So when you take everything into account, Central JR is actually in a bit more precarious a position than the other JR companies are. So we find it difficult to be unabashedly proud of the last two years. Instead, we are using this honeymoon to prepare for the hard years ahead.

Q: *What, in particular, are you doing to ensure your long-term profitability?*

A: There are two things that we need. One is diversification into non-railway transportation areas, and the other is to ensure stable growth in *Shinkansen* earnings. For example, we need to enable the *Shinkansen* to handle more passengers. This has to mean expanding routes, since we are very close to the inherent physical limits even now. This means we will need to institute radical and major renovations—such as laying new track and building new trestles—and this will inevitably disrupt service schedules at some times and in some places.

One way to avoid this schedule disruption would be with bypasses, preferably with the maglev trains now being developed by the Railway Technical Research Institute. This maglev technology is fantastic. Using magnetic force to lift the car up off the track, it thus eliminates friction and enables the train to achieve very high speeds. For example, maglev technology could probably cut the time from Tokyo to Osaka to one hour—a mere one-third of what it is today.

Q: *I have heard that maglev technology will not be available commercially for at least another 10 years. What do you plan to do in the interim?*

A: We are working very hard on rollingstock replacement, and we are putting on more and more of our new double-decker cars. This does three things for us. First, it contributes to passenger safety by removing obsolete cars from service. Second, it provides more attractive services and makes us more competitive against other modes of transportation. And third it enhances our operational efficiency. More modern rollingstock and other equipment are easier to service and allow us to get by with smaller crews.

In fiscal 1987, we put on 48 of these new double-decker cars, making three full Hikari superexpress trains. In 1988, we upped this by 12 trains, and this year we plan to add another 16. This will mean that half of our Hikari superexpress trains are double-deckered, which should be well worth it in terms of additional market appeal alone.

But that is still not enough to see us through

the rest of the decade, and we are making service another major priority area. We are, for example, working on developing yet another new model car that will enable us to run at higher speeds. The current *Shinkansen* has a top speed of 220kph. This is only 10kph faster than the first ones had in 1964. The new design we are working on–which we have dubbed the super-Hikari–will have a top speed of 270kph and will be able to do the run between Tokyo and Osaka in two and a half hours. And the 21st-century maglev expresses that we are looking at will have a top speed of 500kph.

The prototype for the super-Hikari should be ready by the end of the year, as soon as we get the last bugs worked out. Part of the problem is the additional vibration and added noise that seem to go with higher speeds. We have promised people living alongside the track that we will do everything we can to keep vibration and noise down to the agreed levels, and we are now trying to find ways to mitigate the trade-off so we can raise running speeds without breaking our promise to these people. A number of improvements have already been made, and we are going to be testing the new model under actual operating conditions next year. If all goes well, we hope to put it in service as early as 1991.

Q: *And if that goes well, you will be ready to start maglev operations in the decade after that. Of course, maglev technology is going to be used for more than just Central JR's* Shinkansen *bypasses. Hopefully, this will be a major application of superconductivity, and all of the JR Group companies and everyone else wants in on the action. But what does it mean for you?*

A: One of our first problems is that we have no idea what it would cost to build a maglev *Shinkansen* line between Tokyo and Osaka. The old JNR did some calculations and came up with a figure of ¥3 trillion, but even that was disputed. And one of the reasons we cannot do the arithmetic yet is that we still do not know what the maglev's capabilities will be or what new problems we will encounter.

For example, what will happen when two maglev trains pass each other at very high speed in a tunnel? How much of a problem is wind turbulence? Until we know that, we do not even know how the tunnels have to be designed. For another example, how steep a grade can the maglev handle?

We need to build a test track to get some actual experience with these problems, but the only one we have so far is the seven-kilometer line at the Railway Technical Research Institute in Miyazaki (Kyushu)–and that is too short to do anything but try out the basic technology. We need a 20–50 kilometer test track where we can do tunnel tests, grade tests and all the other tests that have to be done before we know enough to design the track, rollingstock and all the rest. The Ministry of Transport has appointed a committee to look into the various candidate sites, and I hope we will get a decision by the end of this fiscal year on where the test track should be built.

While this testing will give us a better handle on the construction costs, it will not make things any cheaper. We are still talking about trillions of yen. This will have to be a national project, and we will need interest-free public finance if it is going to be at all feasible. Unless we get that kind of backing . . . .

At the same time, while the maglev technology now being developed obviously belongs to all the JR Group companies, I would say Central JR has the most immediate claim on it in view of the fact that today's *Shinkansen* are already operating very nearly at capacity and that much of the rollingstock needs to be upgraded and modernized anyway.

Q: *We have spent a lot of time on the* Shinkansen, *and that certainly is the jewel in your crown, but many of the other lines are still operating at a loss. How are you going to reconcile your need to maximize profits as a private company and your need to serve the local communities as a quasi-utility?*

A: The old JNR could use the *Shinkansen* profits to offset the losses generated by local lines. We cannot do that. The local lines are going to have to fend for themselves and prove their own economic worth.

Of course, each line is different, and there is no pat formula for survival, but some of them might want to band together with similarly situated lines and try to come up with common policies. Central JR, for example, has basically two kinds of local lines–urban commuter lines and scenic lines that depend on the tourist trade–and we are devising different strategies for each group.

While the old JNR was unable to be anything but a railroad, we are able to branch out and provide the full range of transport services that people need. We can use our stations as more than stations, and I think this new potential should make it possible for us to survive and even to thrive–making a profit while serving the people.

We need to diversify in non-railway transport areas, and ensure stable growth in Shinkansen earnings.

The old JNR could only be a railroad, but we can provide a full range of transport services.