Qualities of customers using stations are gradually changing with the times. So, to create further customer value, we need to predict that qualitative change and add to station spaces new functions that customers require. The basic stance in those efforts is the “market-in” concept whereby a company works to provide what users want by gaining an understanding of their needs.

Changes in Users

About 17 million people ride JR East trains every day. Around 60% of those are commuter pass holders (going to work or school). And we have reached 1.2 million members of the “Otona no Kyujitsu Club” for senior citizens.

We have aimed to provide a variety of services and raise customer satisfaction based on such user data. But when thinking in a range of the next ten years or longer, we notice major structural changes have occurred.

First of all, Japan’s population has started to decline from a peak in 2004. While the figures change depending on how the birthrate is set, predictions are for the population to decline by 5 million people in ten years and 14 million in twenty years. Concentration of the population in major urban areas such as the greater Tokyo, however, will probably continue for the time being despite the population decrease. Senior citizens make up 23% of the population today, and that ratio is expected to increase to about 28% in ten years and 31% in twenty years. Women’s participation in the workforce is also increasing and more families are having both husband and wife working. Single-person household working people too are expected to increase.

On the other hand, the Japanese government has launched its “Visit Japan Campaign” to greatly increase the number of visitors to Japan from abroad. Just recently, visa regulations have been loosened to attract tourists from China. We can thus suppose that many Chinese will visit Japan in the future.

In light of the current and future situation, we can expect the qualitative nature of customers to change in the future. In other words, commuters to work will gradually increase and commuters to school will gradually decrease, with those commuting to work increasingly being from households where both husband and wife work and single-person households. The number of senior citizens and workers raising children will also increase, and passengers in wheelchairs too will probably become more common. We can further predict an increase in Asian tourists such as those from China, Korea and Taiwan.

Services demanded for stations are thus expected to change with that change in the nature of customers. For example, services for which there was little demand when the main passengers were commuters will come into demand. Those include barrier-free design where passengers in wheelchairs can move smoothly from the station entrance to the platform to their train, sign planning to help get to desired facilities without becoming lost, and station navigation that will give easy-to-understand directions if one does become lost. Thus, stations must be able to handle such diversification of customers.
Stations perform a role as public spaces and therefore need to meet a variety of demands from society.

3.1 Further Pursuit of Safety and Security
There is no end to the development of technologies and provision of services required to achieve safety and security. Large-scale terminal stations handle hundreds of thousands of passengers a day, making it difficult for station staff to keep an eye out for each and every passenger. We thus need technology to “watch over” passengers so we can identify the situation and take appropriate measures in cases such as when someone falls ill and is crouched over.

3.2 Consideration for the Environment and Resources
As society becomes more conscious of the environment, stations too must take the environment and resources into consideration. A variety of measures must be studied to find environmental measures that fit stations. Those include introducing LED technology with good energy efficiency without lowering brightness, installing solar panels that also serve as sunshades, and designing stations taking outside wind into consideration to minimize air conditioner use.

Examples of such measures have already been introduced in a variety of countries. For example, RFID token-type tickets that can be reused unlike paper tickets and lead to reduced resource use have come into popular use in places such as the Taipei Metro. In Paris and other European locations, bicycle rental systems have been introduced as environmental measures other than use of technology. If such a system is deployed centering on the station, a new lifestyle that works in conjunction with consideration for the environmental can be proposed (Fig. 1).

3.3 Positioning as a Landmark
We tend to be fixed on an isolated point of view when considering station functions, overlooking the outside community’s point of view. The station is a transport node used almost every day by the community, making it also a lifestyle node. In the future, the relationship between the station and the community can become even tighter, also housing public functions such as city hall branch offices at terminal stations. The station and community can also work together to create tourism demand.

The station thus goes beyond just having functional convenience. Its deep connection to the people of the community at an emotional level creates interest in innovative design that gives the station a landmark-like role and stateliness that befits a station.

3.4 The Provider’s Stance in Question
Conflicting problems also come up in the process of fulfilling such requests when they are taken up individually. In pursing energy conservation, comfort on hot summer days must also be achieved. We would constantly be searching for the optimum solutions befitting the station as a public space in response to ambivalent social demands. What is important in such a situation is for the provider to have a stance of being able to say to what extend solutions can be achieved based on rigorous analysis of existing data.

4 Market-in Thinking

4.1 Market-in as the Basic Viewpoint
Displays showing how many kilometers left to go are often shown onboard trains as they approach their destination. That is provider-side logic, the “product-out” thinking. Sure, the information provided would remain accurate even if the train were to make an emergency stop at that location. But what is important to the passenger is information on how many minutes to the destination as they can make preparations to debark based on that time. Providing information in such a manner is a “market-in” perspective taken from the customer’s point of view.

Even if demands of the moment fluctuate, not meeting those demands when they are demanded leads to dissatisfaction. That applies whether the demand is for information on what train at what station to take to the destination, what to do if the train is late, a place to relax in a coolness on a hot day or anything else. The concept in which satisfaction level is “addition” where individual services are piled up and also “multiplication” where even one item of dissatisfaction left results in satisfaction level being zero is important.

4.2 Technology in the Shadows
No matter how high the level of technology used, the customer is seldom aware of that. However, if development personnel carry out individual technical development such as that on clear display devices, unified sign planning and cooling systems using radiated heat to optimize separately, they are apt to optimize for technology rather than for customers. It is important to always question whether you are taking the customer perspective in total. To bridge the gap between developer and customer perspective, technology must remain unnoticed in the shadows. Driving home market-in thinking where service is provided from a customer standpoint when seen in total is necessary.

4.3 Continuity of Lifestyles
The concept of ubiquity has become the norm in the field of communications in recent years. This is technical system whereby one can communicate anytime, anywhere. If that becomes universal, ubiquitous can come to mean a situation where one
can achieve what he or she wants anytime, anywhere. In other words, it can be seen as "continuity of lifestyles". This means the station can be positioned as a lifestyle facility in an extension day-to-day life.

We need to set targets on the extent to which we will add lifestyle functions to railway-specific boarding/deboarding functions, transfer functions and ticket-issuing functions to achieve a market-in perspective for stations that are easy-to-understand, secure, and comfortable. And we need to conduct technical development for that. In this perspective, technology works behind the scenes.

5 Total Design

5.1 Berlin Central Station with an Eye to the Future

Rejuvenation of stations has started around the world as railways are being reexamined. I had the chance to observe Berlin Central Station, completed in 2006, at the occasion of a trip to Berlin in 2009 (Fig. 2). It has a structure where trains running north and south intersect those going east and west on separate levels in a large atrium-like space consisting of three floors above ground and two below. Even in that large space, you can accurately identify where you are. The large departure and arrivals board like those seen in airports are easy to understand at a glance. Thanks to those, one can find without confusion the platform the desired train departs from, the transfer platform, and locations of shops and restaurants inside the station.

This station shows us how a spatial structure that allows the entirety to be grasped visually is easy to understand. I think various styles of guidance displays are unnecessary here, and unified signage is sufficient. I can also get a feel of why this can stand for long-term use. The structure shows that its background lies in thorough studies on a variety of levels for a station for the future befitting a new age for a city that attained reunification after long division between east and west.

Similarly, Seoul Station was also constructed at the occasion of the opening of the KTX (Korea Train eXpress rail system) in 2004. Like Berlin Central Station, it is centered on a large-scale atrium. It has a concourse with a clear line of site, providing a full view of line numbers, so it is almost impossible to get lost.

6 Further Customer Value Creation

6.1 Wonder and New Discoveries

Various marketing methods such as questionnaires and interviews are available to ascertain what customers expect. While those are the basics of customer value creation, such information replies based on things the customer has experienced up to then. Customers tend to have not yet made up their minds about highly innovative items and products and services that have not yet come about. One can only evaluate products such as Suica prepaid e-money card and iPhone upon actually using them, and only then do you experience the "wonder and new discoveries" of the innovation. For example, when a full-scale no-touch ticket gate system becomes a reality, passengers carrying luggage or pushing a stroller will be able to pass through the gates smoothly. I believe that it will be achieved by a professional awareness of problems and technological innovation with the pride of a researcher based on market-in ideas by the provider.

6.2 From Customer Satisfaction to Personal Satisfaction

Passengers in stations are inevitably large numbers of unspecified customers, but they are each individuals going about their own objectives. It would be ideal to meet the expectations of individual customers for multifaceted services in a timely and considerate manner. In other words, personal satisfaction (PS) where each person is an individual is important in addition to customer satisfaction (CS) for the masses. For example, if we could develop an analysis system that appropriately identifies individual preferences from past usage such as that for meals and seating (by improving the data accumulation method), we should be able to provide service that heights PS in later uses.

7 Conclusion

In creation of customer value, we tend to seek after something new. But no matter how the times change, providing the "same services as always" stably without change is also an important aspect of value creation. The reason is that various modifications are actually applied to the "same services as always" in line with environmental changes. And we must always be aware that the basis of providing services is a market-in perspective.