

**Toyota Production System**  
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**Lecture – 20**  
**See Yourself to Understand the Situation**

Welcome friends, now we are coming to end of week 4 and this is the 20th session of this course on Toyota Production System and in this four week we have completed 3ps of Toyota production system 4ps are there and 3ps we have already covered and we have seen that how philosophy is the basis of entire production system. Once you have a well-defined philosophy and that well defined philosophy is conveyed properly to all the levels of your management then next things are possible.

Next we focused on processes that we need not to focus on product. If we focus on process and if we have the right process it will automatically result into the right product and we discussed in detail about various principles of Toyota production system which can help us in improving our processes which can give empowerment to our processes and if the process is empowered lot of waste can be minimized from the system.

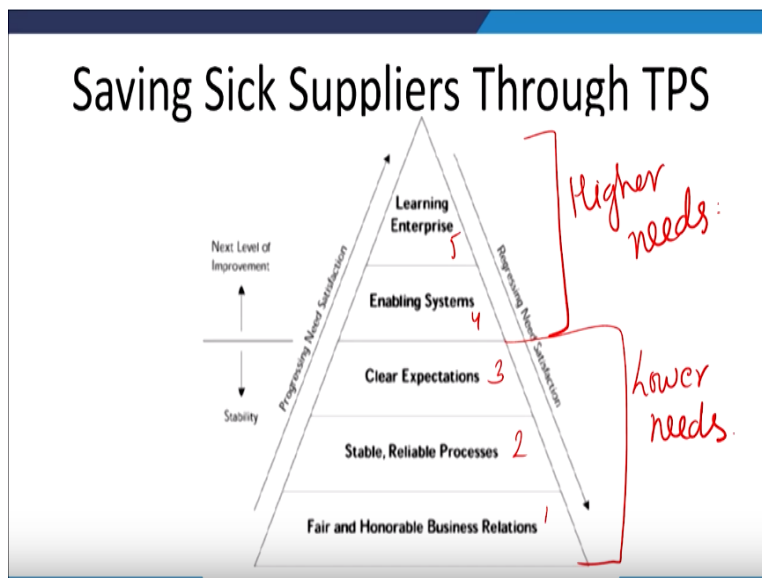
Then we discussed about people and partners, we discuss about employees, our customers and in the partners in our last session, we were discussing about our suppliers, our vendors, our service providers, our logistics partners and we need to respect them, we need to challenge them so that the it is not only my growth but their growth is also very essential for my growth. So in our last session we focus that the empowerment of or the development of my partners.

And we also need to see that if we are having this kind of a voluntary study groups it will help us in mutually learning from each other. The experts of Toyota production system will be part of that voluntary study groups and the representatives from the vendor side will bring lot of a shop floor issues and then collectively the development or the value addition in Toyota production system will take place.

So that is what we discussed in our various sessions. In the last session, we were discussing about that how Toyota production system helps in improving the performance of our suppliers, the extended partners. So this session we will start with that concept and then we will go to this aspect that see yourself to understand this situation which is basically the last P of our Toyota production system, the fourth P of Toyota production system.

So let us first see that how Toyota production system is helping sick suppliers to improve their performance to go that learning organization level. So here this particular diagram, this particular pyramid is based on the Maslows need hierarchy system.

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And in this you see that we have 5 stages and 3 stages like we say in case of Maslows need hierarchy these 3 stages are related to lower needs and these 2 stages are related to higher needs. So in the lower needs, if you compare it with the Toyota production system you are achieving stability. So stability is going to help you in fulfilling your lower level needs. If you compare it with the Maslow model.

And then when you start developing your own thought process you become a learning organization that is actually the fulfilment of higher level needs. When we were talking of how do develop individuals, how do develop teams in that also we had a comparison that how

Maslow model and Herzberg model are helping, you can say in achieving the Toyota production system.

So we already had a kind of compatibility between various motivational theories and the Toyota production system. So therefore this is also very easy to understand that how Toyota production system will develop or can be implemented for improving the performance of your suppliers. So like it starts with fair and honorable business relations. The first important thing which a supplier wants that he or she should have a constant business relationship.

Today you give a order to your supplier, tomorrow you do not give order to that supplier then that trust feeling will not be there and some amount of uncertainty will always be there about the business proposition for that particular supplier. So therefore the most basic need is that you have a fair and honorable business relation, that constancy is there. Then second is stable reliable processes that you are supplying and you will get the money.

You will get the payment in let us say 10 days, 15 days so if that type of stable processes are there, level processes are there then it is further going to help you in fulfilling your stability needs, your lower level needs and then like social needs in case of Maslows need hierarchy model we expect that I am aware that what is expected from me by my OEM, by my customer. If I know that the my customer is looking these things in the supply then I will be able to provide those qualities, those characteristics in my supplies.

So these are the basic thing and here Toyota is completely following all these things so that if sense of stability, a sense of permanency is there in the mind of the supplier, then comes the learning part, then comes the improvement part, then comes the empowerment part and that is the higher level needs. So you create that kind of enabling systems where the enabling system is like that where we create that voluntary study groups.

You are forcing your vendors that you come and study and when you have that kind of platform where vendors can come and the people those who have championed Toyota production system for 10 years, 15 years, 20 years are also sitting with the vendors and creating a system where

they can share their thoughts with each other. So that is the process of mutual learning. So that is the important thing in this enabling system kind of concept.

And finally we develop a learning organization, even our vendor can teach something to Toyota because of innovativeness, because of that culture of employee empowerment that we have discussed that employees are empowered so much that whenever they see that some defect is happening they are empowered to stop the line. Now why that line is being stopped what type of defects were generated, what type of solutions were taken to eliminate those defects?

All these are the learning, all these are the knowledge and by learning system, I mean to say that there are platforms where that knowledge can be shared with fellow colleagues where that knowledge can be shared with the Toyota employees where that knowledge can be shared with the employees of other organizations. So like in our previous session, we discussed that how that factory which was producing P valve for a Toyota got a major fire.

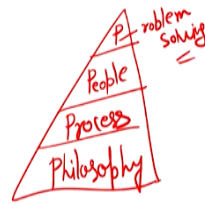
But other suppliers could only prepare P valve within 2 days because there was a constant culture of sharing the knowledge. Every organization was a learning organization, enlightened organization and therefore they had a very high degree of adaptability and according to situation, according to condition, they could adapt to develop their facilities to produce additional P valve. So that is how this idea of Toyota production system is going to help the various vendors who are not able to perform up to the mark.

So that they also lead and they also become the respected partner of Toyota. So that we could not discuss in our previous session. So we included that discussion in this session. Now coming to the topic of this particular session where we need to have that fourth P the problem solving that is at the top of that pyramid.

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## Section IV:

# Continuously Solving Root Problems Drives Organizational Learning



If you remember our discussion of Toyota production system pyramid there are 4 Ps and the basic P was philosophy, the second was process, the third is people and now the fourth is problem solving. So now we have moved to this fourth P, the last pre-verse of this Toyota way of doing the business. Now what it says that the you need to continuously solve root problems that will lead to if you are continuously solving the root problem.

So that will lead to organizational learning that will lead to organizational learning. So otherwise how new knowledge will be generated, without solving the problems new knowledge will not be generated. And for a learning organization it is very important that you are becoming more and more knowledgeable that is the meaning of learning organization you must understand, you must learn from your mistakes.

So whatever wrong thing is happening in your organization, you should be able to learn from those wrong things. So that is what we are going to discuss in this particular session. So there are about 3 principles which are related to problem solving. So in this session, we are going to discuss this principle.

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## Principle 12:

Go and See for Yourself to Thoroughly  
Understand the Situation (Genchi Genbutsu)

Which is go and see for yourself to thoroughly understand the situation and the Japanese name for this we have already discussed this particular term in one of our earlier sessions Genchi Genbutsu that you are not relying on the secondary data. You are going to the shop floor, you are going to the place wherever is the problem, you are seeing on your own and you are taking decisions based on your own direct input.

Many of times many times there are people who can give you this kind of excuse that because we are leading such a big organization. So it is not possible for me to go to each and every problem area and see everything on my own. So I have to prioritize where I can go and where I cannot go. But on the other side, you see many examples you see see many examples, particularly into the fields of new product development.

So the marketing team is developing some kind of analysis so that new product development team can develop a new product for Indian rural markets. Now neither the marketing team nor the new product development team nor anybody else has gone to those rural areas. They all are sitting in the corporate office but they are developing products for the rural market. So this is really irony that how somebody without having a first-hand experience can do something for that particular market.

So it is a common thing and therefore we have so many cases of failure of different phenomena's whether it is new product development, whether it is related to some kind of policy of governments because many at times you do not know the ground situation, you do not have the first-hand information. When you go to some kind of I give you an example which is totally different from what we are discussing.

You write a research paper and when you are writing a research paper you give lot of references in that research paper so you cite something and then in the end of the research paper you give that detail of complete paper. You will be surprised to know that most of the references which we give are from the secondary sources we have not even seen that paper on our own but we are citing that paper in our research paper.

So that type of thing is really dangerous because you do not know in which context the original research was made so somebody else has used that research in his or her context and now from that paper I am writing in my research paper without understanding the original context. So therefore the quality of research many at times becomes very questionable because we are not putting that sincere hard work in reading those original papers.

And then whether that is useful to my particular research or not useful, I am not able to take a call. Same thing happens when we go for syllabus making exercise. Whenever we make syllabus, in the end of the syllabus, we need to give some suggested books and you write some 7, 8 suggested books at the end of the syllabus and if you ask people those who made these syllabus many of these books they have not even seen but still they are writing them as suggested reading.

So it is also something which is antithesis to Toyota production system unless until you have a first-hand information you have seen this situation then only you will be in a better position to say something with respect to that particular problem that particular defect and you will take better decisions. So this whole principle is based on this premise.

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## Deeply Understanding and Reporting What You See

- genchi genbutsu : going to the place to see the actual situation for understanding.
- Gemba : actual place and means about the same thing as genchi genbutsu.
- The first step : grasping the actual situation, which requires going to gemba.
- Toyota promotes and expects creative thinking, and innovation is a must, but it should be grounded in thoroughly understanding all aspects of the actual situation.
- This is one of the behaviors that really distinguishes someone trained in the Toyota Way they take nothing for granted and know what they are talking about, because it comes from firsthand knowledge.

Now what it says that you have to deeply understand and report what you see, without understanding on your own you cannot actually create a good report. Those people who in research go to the field collect data on their own they come with really some very useful insights. But those people who nowadays there is a very dangerous trend which is happening that you are making questionnaire.

And that questionnaire you are circulating through some kind of IT help using different kind of email services or some kind of data collection services you circulate your questionnaire to take the responses. So that research will not create any kind of serious impact because you do not know what is the reality at the ground and those researchers who go to the respondent and collect data one by one from the individual respondents with face to face interaction.

That is they are chances that these researchers will give more insights which are practical, which can be used for policy framing because when you are going so you see so many other things also, you see so many other things also. So it is not simply that quantitative response which you are getting you also got lot of qualitative responses when you are collecting the data on your own from the field.

So that is a what this principle also says that deeply understand and report what you see. So as a this Japanese term we say that Genchi Genbutsu, so going to the place to see the actual situation



for understanding. So it emphasizes that talk management as far as possible should visit the site and then only you should report because that gives you a entirely different picture. And it is also known in some of the literature with the name of Gemba.

So Gemba is the actual place where is the action, so Gemba means the place where action is. So it is actually the same thing Genchi Genbutsu but because of a smaller word many at times we use the Gemba also. Now in this approach of Genchi Genbutsu or Gemba, the first step is grasping the actual situation which requires going to that particular place. So you need to go to that particular place where the action is.

Now Toyota promotes and expects creative thinking and innovation, but it should be grounded in thoroughly understanding all aspects of the actual situation. So Toyota is a company which is known for innovation, it is promoting innovation, new thinking, creative thinking, but that creative thinking that innovation should be properly grounded into the actual reality of the situation.

Without knowing the situation, we are talking of solid waste management systems but without knowing what is the current situation of solid waste management, without seeing that system I cannot propose a new system unless until I understand the nuances of current system, how can I propose a new system. So and to know the current system if I rely only on the secondary data, the published reports which are in public domain I will not be able to do justice.

For my information it is okay, but if I want to take some decision in that particular field I need to go to some of the municipal corporations and I need to interview some people, I need to see how things are working at the ground, what are the challenges then only I will understand whether it is a behavioural issue, whether it is a technical issue, whether it is a supply chain issue or it is infrastructure issue.

So I will only be able to assess because many at times you think that the problem is lying here, but actually the root is somewhere else that is what we do in our fishbone diagram also. So that is what we are trying to say with respect to this principle. This is one of the behaviours with respect

to understanding the situation and reporting what you see that this is one of the behaviour that really distinguishes someone trained in the Toyota Way they make nothing granted and know what they are talking about because it comes from the first-hand knowledge.

So those who are well trained in Toyota production system, they will never give anything loose, they will only talk that much which they know, which they have experienced on their own. So that creates lot of credibility with respect to their reporting because the one who is consuming those reports he, she will also understand that these are based on real facts, these are based on real facts, these are not stories.

Rather these are the experience of these individuals so that gives you more credibility, more authenticity when you are reporting data. Now If I summarize this, so you say that.

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- Think and speak based on verified, proven information and data
- Go and confirm the facts for yourself.
- You are responsible for the information you are reporting to others.
- Take full advantage of the wisdom and experience of others to send, gather or discuss information.

Think and to speak based on verified, proven information and data. So data which is properly verified only on that data you need to create your reports, your documents. So data, which is not verifiable, data which is not having any kind of authenticity, you should not base your reports on that data. Then another important thing it says that for even the top management go and confirm the facts for yourself.

So you need to have lot of people around you those are your trustee lieutenants but at the same time if you go to the problem area that because of your experience long experience it is not that we are undermining others but because you are having more experience so when you go to the site you will have so many different perspective and you can easily identify where should I lie my solution.

You are responsible for the information you are reporting to others. When you are reporting something to others you should take ownership of that report, you are you should be hold responsible and this is the empowerment which Toyota production system creates that people become so much empowered that they feel pride in taking the responsibility of their reporting activities.

Take full advantage of the wisdom and experience of others to send, gather or discuss information because we are in a learning organization so others are also equally wise. They also have experiences so once you are confident, you know that I am self-reliant but I am also cautioning you that do not develop the feeling of ego at this moment. You also know that others are equally wise.

And therefore you can now discuss your findings, your information, your reports with your colleagues so that it can further be used by everybody. Now what it says further that we need to think and speak based on personally verified data.

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## Think and Speak Based on Personally Verified Data

- Problem Solving
- New Product Development
- Strategic Planning
- Customer Development
- Vendor Selection

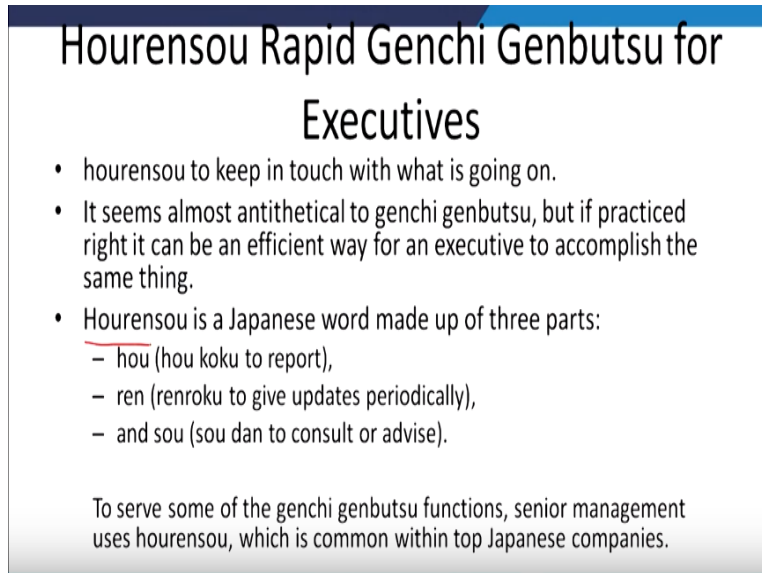
So there are so many things where you require some kind of decision making. So problem solving is very common. Different types of problem maybe at the operational level to at the strategic level different types of problems are there. So you need to think, speak based on your personally verified data and you need to create systems for that purpose we will just discuss. When you are developing new products, we discuss the case of development of products for rural India.

And because we do not had any personal experience of rural India so we could not develop good products for that. Strategic planning, so without having your own understanding of the markets, the new product development, the new facility development, how can you develop some kind of strategic plan, the customer development, vendor selection, all these things and there can be many more this is not an exhaustive list.

You can add many things where the personal information, personal understanding of the top management is essential for making a good decision. And as I was just saying that there is always a chance that as you grow in the organization, you talk Prime Minister of India. Now prime minister of India if you say that you should go to each and every place to see the problem on your own and then use your first-hand information for solving the problem.

It is not possible. So how to do such kind of thing which is creating a balance between this concept of Genchi Genbutsu and the time available with the top management.

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**Hourensou Rapid Genchi Genbutsu for Executives**

- hourensou to keep in touch with what is going on.
- It seems almost antithetical to genchi genbutsu, but if practiced right it can be an efficient way for an executive to accomplish the same thing.
- Hourensou is a Japanese word made up of three parts:
  - hou (hou koku to report),
  - ren (renroku to give updates periodically),
  - and sou (sou dan to consult or advise).

To serve some of the genchi genbutsu functions, senior management uses hourensou, which is common within top Japanese companies.

And therefore this term, that is actually a combination of 3 Japanese words, one is hou, another is ren and another is sou. So Hourensou is a way through which you can do this kind of balancing where you have Genchi Genbutsu also and at the same time you are creating a kind of catalyst in between which will help you in direct contact with the face to face replacement. So it will keep you in touch with what is going on.

And it is as we say that it seems almost antithetical that is Genchi Genbutsu but if you practice it properly it can be an efficient way to accomplish almost the similar kind of task because in Genchi Genbutsu we say that face to face communication, our going to the site is more important. But if I am looking after a big responsibility if my plants are located across the globe so I cannot go to each and every plant for all types of problems.

So I need to develop a strong information management system. So that I get regularly that information which is required to me. In India there was a system which was known as partha system and under that partha system our old family business owners they used to just ask 2, 3 questions from their managers that how much cash in hand you have, how many assets we have, how many liabilities we have.

And with the help of that they used to assess what is the position of their business and that type of strong systems we need to develop what are the dashboard items which we need to have, which will help us. So this is a like hou means to report, ren means to give updates periodically and sou means to consult or advise. So we need to develop this kind of system that where we need to have regular updates, a regular reporting.

And then we can do some kind of consulting activities with the managers who are at the shop floor, who are at different plants. So that you can do some kind of a pinpointed questions which will give you a feeling that you are actually at the shop floor. So like nowadays we do video conferencing with various you can say plant managers across the globe and we ask a specific questions with them.

And with those specific questions we understand whether things are in line or not in line. So these kind of hourensou is a very common practice in various Japanese companies because nowadays most of the Japanese companies are available across the globe. They have their plants in different parts of USA, they have plants in India, they have plants in other African countries also.

So it is almost very impossible to travel across the globe for daily updates. So using this video conferencing systems and following the concept of hourensou you can get the real time information and IT as I am saying has become a big enabler for applying these concepts. Finally, to conclude this session I will like to say that,

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- The Way of Genchi Genbutsu Is Ingrained in a Country's Culture

The way of Genchi Genbutsu is ingrained in country's culture that how much effort you want to put in knowing the ground situation because when you go to Japan and you see that these things which we are discussing in a academic environment it has become their part of life and or you can say because it was the part of their life therefore they could take it to the shop floor also. So the whole idea of Toyota production system or the idea of we are actually interested to know the root cause of a problem.

It is a basically ingrained in a country's culture that is very important that the entire nation, it will be difficult for you to change roles if you are in the company then you have a different kind of approach and if you are at your home or some other market location, then you have a different kind of approach. So it will be much simple for everybody if we have similar kind of philosophy of work everywhere.

So it has to be ingrained in the country's culture, therefore. So with this we come to end of this session and we will continue with the more principles of Toyota production system in our coming classes. Thank you very much.