



Analysis of TPS's Actualization Problem in China and the Countermeasure

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Abstract

As an effective production system, TPS (Toyota Production System) has been gone in for by numerous domestic and foreign factories recently. However, it is not effectively as in Japan actually, and many problems appear. This article analyses TPS's domestic operational status, and put forward a set of reasonable countermeasures and proposals. This analysis will promote the TPS applicability research and guide the domestic enterprises to push TPS entirely.

Keywords: TPS (Toyota Production System), Problem, Countermeasure and proposal

1. Introduction

TPS (Toyota Production System), what is concluded by Taiichi Ohno as "The necessary products, must be completed only in the necessary time, spending the lowest cost, as the necessary number", has promoted Toyota and even the whole Japanese manufacturing industry's development. In this increasingly competitive society, how to reduce waste, lower cost and maximize profits would be the most important point to the manufacturers. TPS, as a resultful system, turn to the focus, however, in China, for the implementation of TPS is still in the initial stage, and our domestic social and cultural environment is very different, TPS brought not much production as we expected. Under such environment, systematic analysis of domestic implementation of TPS become very necessary, therefore, this paper analyses TPS's domestic running status, and on this basis, brings forward reasonable countermeasures.

2. Brief Introduction of TPS

TPS came forth in 1947. Taiichi Ohno, as its founder, studied from the appropriate cooperation of people and machine, and gradually created popular TPS in 1974.

TPS, taking Just-In-Time, Total Quality Management, Team Working methods and Concurrent Engineering as platform, is a production mode, which enhances enterprises' competitiveness through the elimination of all waste and thereby the shorten of products' Production cycle. Its guiding ideology is "Maximize output via minimize input through optimization of the overall production process, improvement of technology, elimination of superfluous production, availability of making use of resources, reduction of cost and improvement of quality.". Besides, Taiichi Ohno pointed out that the two backbones of TPS are Just-In-Time and automation.

3. Analysis of the Problem that Came into Being in the Process of TPS's Implantation in China

Since TPS came out, manufacturing has acquired tremendous achievement. Many Chinese factory saw its magic power and began studying and actualizing but resulted a little. After all, TPS doesn't give birth to desired effect and our current domestic situation is in badness. The reason for this is various and can be divided into the following aspects:

3.1 National character

TPS's inbeing is challenge to high-point and unremitting reform. And Japan is a tiny country, lack of materials, in addition, often suffers from disasters, which makes Japanese people hold a sense of crisis and tragedy, so they can experience and observe meticulously and saving a lot. Whereas our national domain is more expansive, which makes

Chinese people can't understand economy forethoughtfully.

3.2 Social culture

For a long time, some factors in our social cultural make Chinese people create few of habits which go against TPS's implementation.

3.2.1 Paid by the job

Piece wage system once increased production efficiency, and promoted the development of enterprises, but in the side of mobilizing staff's enthusiasm continuously, this system is adverse. And the piece-wage system essentially encourage employees to produce more, as well as production logistics' status of China is not very optimistic, so this will inevitably lead to an increase in inventory, and waste, which is go against TPS.

3.2.2 Crack-down

Chinese enterprises' pervasive "culture of punishment" is also a major obstacle to practice TPS. No error in work is impossible. In China, once the employee make mistakes, often be accused of not doing in accordance with the regulations and be punished. Very few companies will reflect on whether or not a reasonable business regulations, let alone start to improve this.

3.2.3 Lack of coherence and obligation

Chinese corporate culture and living environment make staff lack of cohesion and sense of responsibility, which is also difficult to implement TPS. Toyota's products' quality relies on self-inspection and checks each other, which, by contraries, will bring contradiction and alienation between the staff.

3.2.4 Lack of awareness of obeying

In Japan, staff will definitely obey orders of leadership, but it is not feasible in China. We are in defect of such awareness and our self-centered awareness is too strong, which makes it more difficult to accept TPS for the Chinese.

3.2.5 Agriculture thinking

We Chinese are used to keep food to prevent natural disasters. Enterprise also like keeping raw materials, semi-finished and finished products, if not, they will be fear. We all know that it run afoul of Just-In-Time, Therefore, in order to learn TPS, we must get out of this agricultural sense.

3.3 Only learning is useless

Many Chinese companies have learned or be learning TPS, but only learn not practice. The essence of TPS is "doing", and only the reform in practice is really reform.

3.4 Copy is of no effect

Currently, most of the enterprises learn TPS and copy it as a method, in fact TPS is only an ideological manner, and its specific method should be combined with company's specific instance.

3.5 Weak management foundation

The implementation of TPS need a higher level of management foundation, Such as: advanced operation methods, reasonable logistics system, scientific standards and intact equipment. However, most of domestic enterprises have developed for few years and own weak basic management.

3.6 The sense of equipment is more important than management

Chinese factories pay more attention on equipment level and technology ability. As long as implement TPS, they call for more and more equipment. But factually, implementation of TPS needs us to improve efficiency and get rid of waste.

3.7 Fine division of work

Chinese companies have detail work division internally. Firstly, our Chinese consider that duty must be clear. Secondly, we still think fine work division can result higher efficiency. And lastly, unstable employment policy cause those Chinese enterprises would not like to bring up employee chronically.

As a result, lack of flexibility lead staff can't support each other. Otherwise, TPS system needs staff not only has his party.

4. Countermeasure and Proposal

Through the above analysis, problems with TPS's implementation in China are obviously, and then corresponding proposals are as follows:

4.1 Improvement is basis

Aiming at the status quo (majority of enterprises have weak management foundation), this paper suggest that

implantation of TPS begin from continuous improvement. Begin from practicing 5S, improving operation methods and so on.

4.2 Employee training

As an enterprise, who employ employee, should self-reflect the reason for staff's resignation. As long as setting up good employment mechanism, and do long-term pre-job training or job training to staff, companies can practice glancing job division, which is the base of TPS.

4.3 Corporate culture with coherence

Only united organization can make staff improve production continuously, can also provide ancillary components to ensure timely production. Therefore, try best to form united organization is also necessary.

4.4 Action is always more useful than learning

Only training and learning is of no use. In current time, efficiency can't come from thinking. We must grasp the opportunity and do action.

4.5 Advanced equipment is not the focus

Advanced equipment is not the focus of TPS, enterprises must change thinking, and start from where they are, use where they own. Here we quote a very important improvement order: the first step: improve operations at not cost but wisdom; step 2: improve equipment; step 3: improve layout.

4.6 We should protect environment

Chinese economy is in a period of rapid development, but how to ensure our economic development while protecting environment is the task that every company face. We should not damage to our environment for the sake of temporary development.

5. Conclusion

China's implementation of TPS is still in the initial stage, so we need more learning and reform. Besides, it must be pointed out that if Chinese companies combine the TPS's successful example with their own characteristics, and find a mode for themselves, TPS will bring us more!

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