

7 COMMON MYTHS ABOUT MANUFACTURING MANAGEMENT

WHAT CHINESE FACTORY MANAGERS NEED TO KNOW



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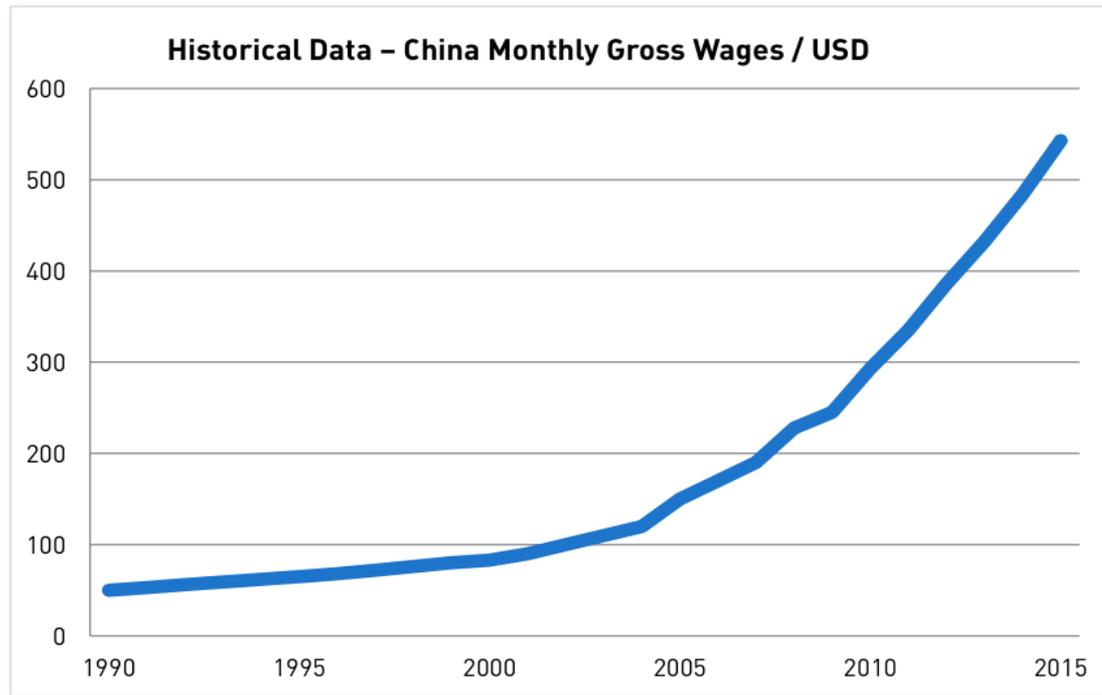
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Over the past 25 years, the monthly gross wages of Chinese workers has increased sharply. However the way factories are organized has changed very little. It is time for managers to revise their mental models.

MYTH NO. 1:

**ALL FACTORIES SHOULD TRY
TO AUTOMATE THEIR PROCESSES**

The factories that have invested to automate their processes fully have noticed several drawbacks:

- ▶ Their minimum order quantities have risen a lot, which means they can only serve large customers (who tend to negotiate low prices).
- ▶ The range of products had to be narrowed down, which again turns some customers away.
- ▶ Highly automated equipment is more complex and has more points of failure. Without very strong maintenance programs, breakdowns are very frequent.

The right thing to do is improve the flow and the processes while keeping the current equipment. Productivity is often multiplied by 3 to 6 when an average Chinese factory adopts lean manufacturing tools (balanced lines and one-piece flow, good tooling, mistake proofing, good planning...) and it necessitates no investment.

You can view an infographic that shows the History of Manufacturing Practices [here](#).

MYTH NO. 2:

TRAINING A CHINESE WORKFORCE IS USELESS

In most Chinese factories, the employee turnover rate is over 30% a year.

As a result, managers think that providing training to the workforce makes no sense. Unfortunately, this is the wrong approach for two reasons.

First, there are inexpensive ways to reduce the turnover rate down to 10-20% a year.

Second, training is the improvement activity with the highest leverage. One hour of training can bring incomparable benefits to the company.

We have applied training programs in several Chinese factories and it was instrumental in changing the organization's culture – not to mention, reduce costs and improve quality significantly.

You can read a case study that focuses on training by following [this link](#).

MYTH NO. 3:

LARGE BATCHES ARE GOOD FOR THE FACTORY

Chinese manufacturers like the idea of purchasing and processing large batches. However, high inventory levels have negative consequences:

- ▶ It increases costs – inventory costs about 2% a month in money carrying costs, transportation and warehousing, depreciation, loss, etc...
- ▶ It slows production down – There is actually a mathematical relationship (Little's Law) that states: **Cycle time for production = amount of work in process ÷ throughput at the bottleneck.** In other words, releasing more work-in-process inventory on the factory floor will lengthen the time needed for production.

A good production planner makes sure the purchasing and production departments never work on batches that are larger than necessary. A very simple tool to ensure this is a Kanban system.

A short video guide on Kanban can be watched [here](#).

MYTH NO. 4:

**PAYING PRODUCTION OPERATORS BY THE
PIECE IMPROVES PRODUCTIVITY**

Piecework pay schemes have many perverse effects:

- ▶ Operators want larger batches because it allows them to get used to the product and become more efficient (but large batches are not in the factory's interest)
- ▶ Operators want to work as fast as possible, without regard to quality
- ▶ Production managers are not encouraged to spend time optimizing the way operators work, since the factory's costs per employee are lower if productivity is lower.

The factories with the highest productivity don't rely on piecework. Instead, they have industrial engineers who help improve the way people do their work, and they have mechanisms (e.g. conveyor belts, takt time...) to ensure people work at a certain pace.

A short video guide on piecework can be watched [here](#).

MYTH NO. 5:

CLEAN AND SAFE WORKSHOPS ARE A LUXURY

In many Chinese factories, taking the time to clean and organize the working environment is seen as a waste of time.

Safety within the factory is often not considered. However, safety programs are very inexpensive. They generally involve a change in attitude from the production supervisors rather than material investments. Here are a few examples:

- ▶ Reducing fire hazards by setting simple rules
- ▶ Enforcing the discipline to wear personal protective equipment
- ▶ Improving ergonomics by improving the production layout

Having operators spend 5 minutes at the beginning of their shift on 5S activities delivers strong benefits in the long term for equipment uptime, productivity, safety and worker morale, and quality.

A short video guide on safety can be watched [here](#).

MYTH NO. 6:
HIGHER QUALITY MEANS HIGHER COSTS

Most Chinese managers think a lot of efforts (slower production, more inspection...) are necessary to achieve a higher quality level.

There are many ways to increase quality without increasing costs.

Actually, many of the tools we introduce in factories improve **both productivity and quality**.

For example, on certain production lines we add a control jig that catches problems more quickly and more reliably than the current inspection method.

In fact, low quality is very expensive for a manufacturer. It causes rework, scrapped material, production breakdowns, and lost customers. In certain factories, these costs amount to 40% of the sales turnover!

An in-depth video guide about Quality Improvement can be watched [here](#).

MYTH NO. 7:
LEAN MANUFACTURING IS NOT
APPLICABLE IN CHINA

Hundreds of lean manufacturers are already operating in China. Some are in the auto industry, but many others are involved in electronics, industrial equipment, furniture, leather, medical devices, etc.

Lean Manufacturing is a set of principles and tools that were successfully applied to the vast majority of industries. It is not a Japanese approach. Its “model” is Toyota, but Toyota managers were heavily inspired by Ford’s founder’s experiments in the 1910s and by Training Within Industry (a program implemented in the US during World War II). They used concepts from different countries (for example, the “takt time” comes from German plane manufacturers).

Based on our experience in China, a factory that switches from traditional management to Lean Manufacturing can expect to realize impressive savings within 6 months:

- Doubling of labor productivity
- Reduction of inventory by 50+%
- Reduction of quality issues by 40+%
- Reduction of factory floor space by about 50%

For more information please visit our services page [here](#).

ASIDE

WHAT IS LEAN MANUFACTURING?

Lean is a set of principles and tools that have been systematized by Toyota, and that have been applied to many different types of products and production processes over the last 30 years.

Lean can not only be found in Japan but it is now widely used throughout the US, India, Europe, and China.

Less than 1% of companies are truly “lean”, but many others are applying some lean principles and tools.

Americans call it “lean” because it uses less labor, less material, less time, and less space to produce a given batch with fewer defects, when compared to traditional manufacturing methodologies.

It is a proven way to achieve extremely high levels of quality while simultaneously being the cost leader in an industry.

Fix Your China Factory
Improve Quality, Increase Capacity
Reduce Costs

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