



by Dr. Wayne Sung

# High Flexibility Strategy for Market Development of Taiwan Fastener Industry Amid Covid-19

Since February COVID-19 has made an impact on the global economy. Despite the counteractions by WHO and global health institutes for the last 8 months, the pandemic seemingly showed no sign of ebbing and came back with a second wave by October. Up to October 22, the world had a total of 4,093 confirmed cases in 189 countries and a death toll of 1.12 million people. Although Trump initiated “Operation Warp Speed (OWS)” this May that funded multiple companies for the development of vaccines that the world longs for, only a few top pharmaceutical corporations made it into the third phase of human clinical test. This September, a test subject of the vaccine made by Oxford University was found to have caused transverse myelitis, resulting in the pause of the clinical test. The validity of other vaccines entering the 3rd phase of clinical test still requires observation. Most countries in the world opt for the approach of lockdown in fear of virus transmission. Those without lockdown measures would mandate a quarantine for at least 14 days that by itself isolates people from overseas travel. The aerial industry was the one that took the brunt. International airlines have closed, temporarily shut down business or

laid off employees as a result of a drastic loss of customers. In Asia, October 21, Cathay Pacific Airways announced layoffs of 8,500 positions. Hong Kong Dragon Airlines (also belonging to Cathay Pacific Airways) closed business. Singapore Airlines, Scoot and SilkAir altogether slashed about 4,300 positions. The massive layoffs cast a larger impact on the aerospace industry. The well-known Airbus and Boeing, two of the largest aircraft manufacturers, said goodbye to the bull market where they had operated for 20 years. From this year to date, Airbus’ and Boeing’s stock prices both have plummeted by around 50% and it goes without saying how much impact it has made on the demand for aerospace fasteners. For safety regulations, aerospace fasteners are usually of high unit prices and compliant with the highest standard of quality and specifications. Certainly they are usually priced high and with the best profitability, and their demand are most affected by the pandemic. In fact, besides aerospace fasteners, the export of all Taiwanese fasteners (HS 7318) in the first 3 quarters of 2020 were seriously affected. I compiled the export figures of Taiwanese fasteners from 2018 to 2020 into **Table 1** to compare with the 12% export drop in the first 3 quarters of 2019, I found that Taiwanese fastener export from April to June 2020 dropped by over 20% from the same period last year. April was the first peak of the COVID-19 pandemic in the U.S. and Europe. After the virus was slightly contained this May, the sales began to stabilize this July.

**Table 1. Taiwan Fastener Export Value, Jan.-Sep., 2018-2020 (in USD 1,000)**

Month \ Year	2018	2019	2018~2019 Change	2020	2019~2020 Change
January	383,412	424,879	11%	350,964	-17%
February	320,386	287,474	-10%	290,418	1%
March	397,254	395,410	0%	383,961	-3%
April	359,369	363,708	1%	282,354	-22%
May	429,118	381,186	-11%	291,064	-24%
June	386,613	367,888	-5%	295,966	-20%
July	392,296	385,245	-2%	336,599	-13%
August	406,827	357,639	-12%	341,690	-4%
September	382,905	336,234	-12%	320,510	-5%
Total (Jan.to Sep.)	3,458,180	3,299,663	-5%	2,893,526	-12%

Taiwan’s fastener export value in 2019 to the top 15 destinations were USD 36.7 billion, taking up 85% of the total (USD 43.2 billion). At the top of the chart was the U.S., to which the export reached USD 17.5 billion, taking up 40.6% of the total export value. According to Worldometer, the U.S. topped the world with 8.45 million confirmed cases as of October 20. The remaining 14 countries had 13.76 million confirmed cases, accounting for 33.81% of the world’s total confirmed cases. Hundreds and thousands of confirmed cases were recorded in Germany, the Netherlands, UK, Canada, Mexico, Sweden, Italy,



France, Poland, and Spain, all of which are the main export destinations for Taiwanese fasteners. The spread of the virus in these countries is disproportional to their factory operating rate. As the pandemic turns serious and the factory operating rate drops, so does the demand for screws, nuts and other fasteners. Taiwan fastener industry has been also deeply influenced by the virus spread in these 15 countries. What everyone is concerned about is the ongoing second wave of the pandemic. On October 20, the daily confirmed cases in Germany reached 10,457, the Netherlands had 8,743, and UK had 26,688, all which reached the highest records in respective countries this year and even surpassed their own numbers of daily confirmed cases in the first wave of the pandemic. Judging from the impact on Taiwanese fastener export in April when the first wave took place, I'm afraid that Taiwan's fastener export in Q4 2020 may not look positive.

**Table 2. Respective Confirmed Cases in Top 15 Destinations of Taiwanese Fasteners Export in 2019**

Ranking	Country	Total Export Value (1,000 USD)	Percentage in Total Export	Number of Confirmed Cases as of October 20, 2020 (Unit: Person)	Percentage in Global Confirmed Cases
1	The U.S.	1,751,784	40.6%	8,459,967	20.76%
2	Germany	392,118	9.1%	375,256	0.92%
3	Japan	241,269	5.6%	93,127	0.23%
4	The Netherlands	227,789	5.3%	244,391	0.60%
5	UK	171,259	4.0%	741,212	1.82%
6	Canada	145,031	3.4%	201,437	0.49%
7	China	114,095	2.6%	85,704	0.21%
8	Mexico	97,385	2.3%	854,926	2.10%
9	Sweden	94,555	2.2%	106,380	0.26%
10	Italy	82,023	1.9%	423,578	1.04%
11	France	80,660	1.9%	910,277	2.23%
12	Thailand	69,484	1.6%	3,700	0.01%
13	Australia	69,232	1.6%	67,451	0.17%
14	Poland	67,831	1.6%	192,538	0.47%
15	Spain	64,631	1.5%	1,015,795	2.49%
<b>Total</b>		<b>3,669,146</b>	<b>85.0%</b>	<b>13,775,739</b>	<b>33.81%</b>
<b>Full Year</b>		<b>4,316,160</b>	<b>100%</b>	<b>40,748,004</b>	<b>100%</b>

2020 happens to be a year of U.S. presidential election in the midst of the global economy plagued by COVID-19, so Trump put unlimited QE in force to stabilize the election campaign and stimulate the stock market. Global interest rates plummeted as did the exchange rate of USD. The New Taiwanese Dollar exchange rate closed at NTD 28.96 on October 6, setting up a new high for the past 9 years, thus dealing another blow to Taiwanese fastener export. If Taiwanese fastener companies don't raise the prices, the losses from exchange rates will undermine corporate profits. Unfortunately, it is not the right time for the fastener industry to raise the prices as their overseas orders come or go with the development of the pandemic. How do Taiwanese fastener companies make corporate strategic decisions amid layers of impacts? I'd suggest a "highly flexible strategy" in response to the changes of external factors that are most uncertain ever since Industrial Revolution of the 18th century.

A highly flexible strategy is one that utilizes a certain level of management and conditions to give the subjects the option to adjust, choose, manage and adapt to environmental changes by themselves for the purpose of dynamic management. Therefore, re-adjusting corporate structures is relatively simple (hence one of the reasons that smaller companies have higher flexibility), and it is possible to expand or scale down some divisions in response to business needs. The principles for a highly flexible strategy is to focus more on textual principle of corporate policies, and less on policy concreteness for convenience in altering the content of policies according to what is needed for the policies. That is to say, flexible management is to choose from multiple potential managing solutions. By choosing, it also means giving up other chances.

A highly flexible strategy presents flexibility according to a company's changes in internal and external factors to achieve expected management targets. The strategy can be utilized in flexible target management and flexible system management such as highly flexible production management, employee management, and wage management. They are explained as follows:

## Highly Flexible Production Management

Highly flexible production management is realized in making production plans. Adjustability must be kept in clients' orders as well as manufacturing solutions and the job for every unit to adjust, amend, collaborate and execute. For example, when enforcing production schedules, one must be able to adjust the schedule according to internal and external environmental changes (such as the second and third wave of COVID) as well as changes in clients' orders as a result of surging purchase demand. Does the production department operate on a made-to-order or made-to-plans basis? Does it require raising the level of safety stock to cope with rush orders? The production department must be able to take prompt measures whenever it is asked to alter orders in order to ensure smooth progression of the production plan which works in conjunction with rush orders.

## Highly Flexible Employee Management

In highly flexible employee management, it is necessary to take into account employees' autonomy for themselves and for work, and contemplate whether a flexible work system is applicable. Flexible work system means within a fixed length of work hours the employees can flexibly choose their work time and the way they work, and it breaks restrictions from time and space, serving as an option for a time when there is high uncertainty with purchase orders. Furlough adopted by some Taiwanese companies in this difficult time is one of the last options in flexible employee management. On the other hand, companies



can utilize labor training resources provided by the Taiwanese government. With training subsidies from the government, they can improve employees' on-the-job training which is an option provided by companies for employees. Besides occupational and technical training, corporate culture training is not negligible. Corporate culture training serves to internalize corporate values, visions and other cultural aspects into employee's knowledge. The management should keep rotation of employees around different tasks within the company to foster multi-capabilities. The management has to encourage employees to take on new tasks or positions to increase the company's future competitiveness.

### Highly Flexible Payroll Management

In designing a flexible payroll system, the company should make balance between the wage to the company's employees and the wage on the labors' market, and adjust the wage according to employees' performance to show fairness in the form of income differentiation. The company can effectively combine short-term, mid-term and long-term incentive wage packages. In a special time like now, it can put away short-term and resort to mid-term and long-term wage packages including employee stock ownership plans and house purchase loan benefits, or performance-based wages, bonuses, benefits and profit sharing system to reconstruct the payroll system and increase employees' cohesion in the company and employees' willingness to sacrifice short-term wages and endeavor with the company.

I once predicted in "Responding to the COVID-19 Impact: Ways to Lay the Groundwork for Taiwanese Fastener Industry" (Fastener World Magazine, Issue#182) that a massive decline in the fastener industry would be inevitable this year, and that the decline would be more than 10% over 2019 by conservative estimation. By virtue of the statistics of this article which reveals an export decline in the first three quarters of 2020, that prediction could actually come true and even go beyond the original estimation. Currently, global airlines are almost stagnant and cross-country travel is very difficult, making it very impossible for business visits and exhibitions. At the TPCA Show in Taiwan, there was almost no visitors coming from abroad. It is impossible for Taiwanese fastener companies to go abroad and meet clients or for overseas buyers to visit Taiwan for purchase before the effective vaccine is rolled out to the market.

Taiwan fastener industry has safely weathered the global financial crisis and the electroplating pollution crisis thanks to its closely interconnected supply chain. The hardship made it grow stronger. The 21st century presents an unprecedented and fast change in the global finance and economy. Taiwanese fastener companies are faced with more difficult challenges. Although partial orders originally placed to China were switched to Taiwan due to the U.S./China trade war in 2019, Taiwan's fastener export in 2019 still slipped by 5%, and an export decline of Taiwanese fasteners in 2020 is already destined. Two consecutive years of decline in performance has posed an unprecedented level of stress to the industry. Therefore, a change of business strategies is necessary. The former business target was to maximize profits. A highly flexible strategy would be to convert that profit maximization strategy into satisfying customers' needs and preferences. Only by satisfying customers' needs can we convert to profits for the company. The key in a highly flexible strategy is to identify how to increase customer value, solve customers' problems and guide their needs to create profits from their demand and increase the company's adaptability and competitiveness. ■

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