



Responding to the COVID-19 Impact

Ways to Lay the Groundwork for Taiwanese Fastener Industry

by Wayne Sung



Covid-19, short for Coronavirus Disease 2019, is the second variant of SARS (SARS -CoV-2). First found in December 26, 2019 in Wuhan City of Hubei Province (China), the virus has a source that is unclear yet and has quickly found its way across the globe in 2020, almost without a single country escaping its reach. In as short as 4 months up to April 13, 2020, over 1.8 million people have been tested positive and over 110 thousand reported dead across more than 200 countries. The virus has become a global pandemic deemed as the world's most critical crisis since World War II. Besides America and Europe being the hard-hit areas of COVID-19, reported cases also emerged in developing nations. In a conservative estimate, the number of global patients tested positive is expected to exceed 3 million with a death toll of over 200 thousand. Table 1 lists the top 20 nations in the world with the highest number of cases for Covid-19 as of

April 13, 2020. 11 nations out of the top 20 are G20 industrial nations including the U.S., Italy, France, Germany and UK due to their high medical treatment quality and strong virus testing capabilities, as compared to developing nations with lower testing capabilities. A low number of infection as it is now doesn't mean the pandemic is easing up. In statistics, Taiwan exported USD 43.1 billion worth of fasteners (HS code 7318) in 2019, and 20 export destinations (countries) heavily stricken by COVID-19 took up as much as 77% (USD 33.1 billion) of the total amount. The impact which may have on the Taiwanese fastener industry is self-evident. The author added up the export proportions to the U.S. (40%) and Germany (9.08%), both of which are the biggest impact drivers to Taiwanese fastener industry, and found that their sum took up nearly 50% of Taiwan's fastener export. The update on the pandemic as of April is listed in Table 1.

Table 1. Top 20 Covid19-stricken Nations' Fastener Export in 2019

Ranking	Country	Cases Tested Positive	Deaths	Death Rate	Region	Taiwan's Fastener Export in 2019	
						Values (USD 1,000)	Proportion
1.	U.S.A.	557,449	21,914	3.93%	America	1,751,781	40.59%
2.	Spain	166,831	17,209	10.32%	Europe	64,531	1.50%
3.	Italy	156,363	19,899	12.73%	Europe	82,021	1.90%
4.	France	135,619	14,374	10.60%	Europe	80,660	1.87%
5.	Germany	128,166	3,033	2.37%	Europe	392,113	9.08%
6.	U. K.	84,279	10,621	12.60%	Europe	171,259	3.97%
7.	China	82,052	3,339	4.07%	Asia	114,126	2.64%
8.	Iran	71,686	4,474	6.24%	Middle East	13,131	0.30%
9.	Turkey	56,956	1,198	2.10%	Middle East	11,132	0.26%
10.	Belgium	29,647	3,600	12.14%	Europe	51,609	1.20%
11.	Netherlands	25,587	2,737	10.70%	Europe	227,789	5.28%
12.	Switzerland	25,398	1,103	4.34%	Europe	9,488	0.22%
13.	Canada	24,299	714	2.94%	America	145,024	3.36%
14.	Brazil	20,964	1,141	5.44%	Latin America	22,654	0.52%
15.	Portugal	16,585	504	3.04%	Europe	4,772	0.11%
16.	Russia	15,770	130	0.82%	Europe	36,170	0.84%
17.	Austria	13,945	350	2.51%	Europe	7,897	0.18%
18.	Israel	10,878	103	0.95%	Middle East	9,994	0.23%
19.	Korea	10,512	214	2.04%	Asia	23,422	0.54%
20.	Sweden	10,483	899	8.58%	Europe	94,555	2.19%
Total						3,314,128	77.00%



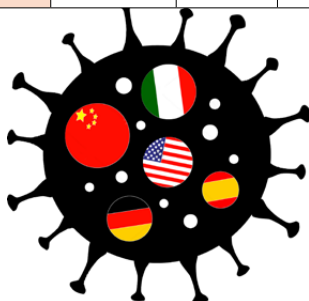
In 2019, the U.S. took up as much as 40% in Taiwan’s fastener export. Table 1 shows that the U.S. had 557,449 positive cases (highest in the world) with a death rate as high as 3.93% (translating to 21,914 thousand people) on April 13, the same day the country had unprecedented state alerts announced in 50 states including the capital Washington D.C. COVID-19 blasts the American economy, affecting travel, catering, aerial, airplane/automotive manufacturing, film and television industries and department stores. The scale of the impact far surpasses the financial crisis back in 2008. Some scholars pointed out the current crisis put a halt to the American economy and they estimated over 20 million people may file unemployment claims. Many economists think the American economy will take a dive in the next 3 months (starting from April) and severe unemployment which is likely to continue for 21 months through 2021 will emerge due to a large-scale commercial halt. High unemployment rate will dampen the hopes for a rapid rebound in post-pandemic economy. Low consumption as a result of the unemployment will take a further step hitting the world’s economy, and Taiwan’s fastener export to the U.S. is expected to drop significantly. On the other hand, with the impending pressure in presidential election, Trump would want to quickly put an end to the COVID impact on the economy and hope to resume business from May 1. However, starting from Andrew Cuomo in New York, objections from 10 state governors as well as the constitutional constraints have forced Trump to change his statement and hand over to the state governments the right to declare work resumption or not. Whether or not the U.S. can resume work across the nation by May 1 will be a crucial indicator. If it can, it means the nation has ridden over the darkest time, but if not, it means the epidemic is not fully tamable and that the dawn of hopes has yet to come.

Germany takes up 9.08% of Taiwan’s fastener export. The nation had 557,449 thousand positive cases (the 5th highest in the world) and a death rate of 2.37% (21,914 people deceased) reported on April 13. The EU has declared a travel ban restricting non-EU citizens from entering the EU since March 17, 2020. Germany has enforced this ban that extends for 30 days, and given the epidemic situation in the nation, a further extension will be inevitable. 90% of hotels, bars, restaurants, literally most shops and stores in Germany are temporarily out of business. Commercial activities have virtually come to a standstill due to border lockdowns and flight suspensions in various countries. Angela Merkel, Chancellor of Germany, delivered a national speech on March 19 saying this is the biggest challenge since World War II. Cities in Germany have begun to carry out preventive measures. For example, all large exhibitions and competitions are cancelled to keep people at home. Social activities are minimized by propagating management of personal hygiene and social distancing. Many supermarkets have cooperated by sticking labels on the floor and asking people to line up on labels and keep their distance. Plastic isolation boards are set on checkout counters and people are asked to pay with credit cards rather than cash. Schools are closed until mid-April and are expected to continue so with summer vacation to begin ahead of schedule if the epidemic is not under full control.

How much is Taiwanese fastener industry affected by COVID-19? Table 2 shows the statistics on steel fastener export from 2010 to March 2020. In the second decade of the 21st century, the average sales value of the first quarters was USD 926,130,000. In 2020 it is USD 1,026,497,000 which is 10% higher than the 11-year average, and the export weight increases by 3.3%, indicating and proving fastener companies in Taiwan have been dedicated to improving quality and developing products of high unit prices for 11 years. However, the export weight and value dropped in 2020 as compared to the result in 2018 and 2019. Particularly the weight dropped by 8.18% and the value dropped 7.47% from the result of 2019. It is definite that the pandemic is going to affect the second quarter and not even anyone knows if we will see recovery in the third and fourth quarters. Accordingly, the 2020 great recession in the fastener industry will be inevitable. How large is the impact? In a conservative estimate, a regression by over 10% over last year will be inevitable!

Table 2. Statistics On Steel Fastener Export from 2010 to Q1 2020

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Jan.	Value (USD 1,000)	218,328	302,981	309,637	305,209	348,230	357,856	300,086	332,724	384,242	425,585	351,353	330,566
	Weight (KG)	91,975,231	112,521,944	108,415,167	112,061,234	129,960,763	134,681,003	118,190,479	129,970,354	134,799,686	147,455,479	119,060,017	121,735,578
Feb.	Value (USD 1,000)	178,526	225,056	281,696	224,044	261,722	287,237	241,901	266,976	321,025	287,910	290,730	260,620
	Weight (KG)	74,870,609	84,019,461	99,950,147	83,740,162	100,420,556	106,847,726	96,547,961	104,346,177	110,951,542	100,230,795	100,769,044	96,608,562
Mar.	Value (USD 1,000)	243,067	329,213	296,191	319,698	337,104	345,932	317,100	317,604	398,239	395,814	384,414	334,943
	Weight (KG)	102,456,746	122,101,125	105,134,715	120,215,559	125,885,238	132,354,968	126,147,424	126,378,858	137,056,621	138,128,010	134,417,418	124,570,607
Q1	Value (USD 1,000)	639,921	857,250	887,524	848,951	947,056	991,025	859,087	917,304	1,103,506	1,109,309	1,026,497	926,130
	Weight (KG)	269,302,586	318,642,530	313,500,029	316,016,955	356,266,557	373,883,697	340,885,864	360,695,389	382,807,849	385,814,284	354,246,479	342,914,747



With global airlines almost in a standstill, cross-nation travels are extremely difficult. Many nations have closed their borders leaving foreigners virtually no access in, and put a halt to business visits and exhibitions. It is already impossible for Taiwanese business owners to go abroad developing markets and visiting clients. The owners are seeking ways to save costs to cope with reduced demand and orders. Taiwanese ancient philosophy has a term similar to “laying the groundwork” which figuratively implies strengthening your physical essentials and mental cores. As a result, in this article I propose “Ways to Lay the Groundwork for Taiwanese Fastener Industry” and call for business to focus on improving the internal corporate management system and adjusting the management structure to make preparations for



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the third decade in the 21st century. There are very limited things Taiwanese fastener owners can do as the pandemic has pressed the pause button on industrial nations and fastener business. I suggest managing companies and factories with more focus on “3 ISOs”, namely ISO9001, ISO14001, and ISO45001, which respectively enhance quality control, environment control as well as occupational safety and health control.

1. ISO 9001-2015 Standard : Short for International Organization for Standardization, ISO is a global alliance formed by national standard groups from various countries. The ISO-9001 quality management system (“QMS” in short) is the most adopted standard among global corporations, mainly because it can change in accordance to the external environment. With its flaws in operation already recognized, this system is revised every 7 to 8 years to reflect changes in the environment and self-correct its flaws. This is the essence (Plan-Do-Check-Act) stressed by ISO-9001. The purpose of ISO 9001:2015 is to establish agility in organizational operation through quality systems, and therefore ISO-9001:2015 is also called a standard for sustainable qualitative operation. It incorporates organizational background, leadership, risk-based thinking and performance improvement. ISO-9001:2015 stresses on the Plan-Do-Check-Act cycle for quality management and improvement to ensure companies can reach performance targets and facilitate continual quality improvement. This 4-step cycle is a very effective pattern for improving product quality and manufacturing procedure, thereby improving overall corporate operating performance.

2. ISO 14001-2015 Standard : Short for Environmental Management Systems (“EMS” in short), ISO 14001 is also one of the most adopted standards among international standard organizations. Its use is only second to ISO 9001 in Taiwanese fastener industry. ISO 14001 provides information on environment management to top managers for them to create effective long-term information on environment management and contribute to sustainable development. It also prevents and alleviates negative environmental impact to reduce negative impact on companies in response to the environment. ISO 14001-2015 helps companies fulfill the obligation to protect the environment and improve the performance of their contribution to the environment. Meanwhile, it utilizes a life-cycle perspective to control or influence organizations’ products, service, design, manufacture, assembly, consumption and disposal to prevent products from unexpected transfer to other places within their life cycle. Life cycle is the continual and inter-connected procedures including acquiring natural resources, product design, production, shipment, use, end-of-life treatment and final disposal. The additional risk assessment in ISO 14001-2015 is the result after considering all existing control measures. It is the process to assess jeopardy-induced risks and determine whether they are acceptable. It not only asks to assess critical environmental aspects but must evaluate the validity of existing environment control measures. It incorporates risk-based thinking into



the environment management system, and lists risk management as a part of daily environment management to forecast, detect, prevent, face, and deal with management risks, minimizing their impact on corporations.

3. ISO 45001-2018 Standard : Short for Occupational Health and Safety Management System “OHSMS” was made public in March 2018 in replacement of OHSAS 18001 to become an assisting and practical tool for organizations to protect the life, health and safety of employees. ISO 45001:2018 adopts high-end managerial structures ubiquitous in ISO standards. Every process from the top down including the management level, supply chain and self-requirement of customers are closely connected. Each unit has the responsibility to provide the working class with a safe working environment. Establishing and enforcing this system can not only help corporations reduce accidents, occupational injuries, and occupational diseases, ensuring work safety of the working class and even possibly reduce insurance costs. According to the resolutions of IAF, there is a time frame for shifting from OHSAS 18001 to ISO 45001, which is within 3 years after the public announcement of ISO 45001. Organizations certified to OHSAS 18001:2007 should make themselves compliant with ISO 45001:2018 within 3 years after the public announcement of ISO 45001. Health and safety should be the top priority of the manufacturing industry. The new ISO 45001:2018 Occupational Health and Safety Management System puts health and safety of the working class in the global framework and places it on the center of commercial strategies. The COVID impact on employees’ health is exactly the critical target of control and protection for ISO 45001:2018. I expect the ISO 45001:2018 certificate will be a requisite in the requirements of orders from international corporations.

The entrepreneurs of Taiwanese fastener industry must know their advantages, foresee the future, avoid risks and improve corporate managing capabilities in this ever-changing business environment. The “3 ISOs” respectively enhance quality control, environment control and occupational safety and health control. The ISO 9001 quality control system ensures provision of high quality products to clients; The ISO 14001 environment control system ensures environmental protection in product manufacture to express corporate contribution in social responsibility. The ISO 45001 occupational safety and health control system expresses corporate efforts in protecting the safety of employees and stakeholders. The “3 ISOs” will be a very effective tool for corporate managers. However, it is up to the corporate managers and all employees working together to effectively use the “3 ISOs” and make it genuinely beneficial. The COVID-19 pandemic will eventually come to an end. However, its gigantic impact on the world's economy only signifies its beginning. The overturned notion of globalization and the intention to reduce the dominance of China’s power (de-sinicization) will change global financial trade, and the only thing that Taiwanese fastener owners can do is to “lay the groundwork” and wait for the advent of change. ■

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