Industry Focus

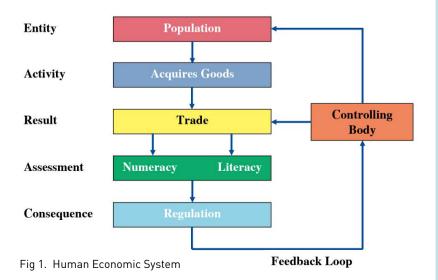
USA & EU Legislation on the Repairability of White Goods



Where We are Today

Since the days we lived in caves, there have always been those amongst us who were adventurous enough to travel beyond the valley and over the next hill carrying goods to trade.

Of course there was always the distinction made between hunter gatherers and farmers but the model which has survived the perturbations of history, is the commercial one shown in Fig 1 which we all share today. Irrespective of belief, social order, methods of governance etc., it is 'trade' by which we survive. Today, that 'trade', which inspired the invention of both numeracy and literature is truly global and it exists and thrives by the 'regulations' which govern it.



Now Here's a Thought

Long before the use of spreadsheets and the ability to produce 'what if' statements, philosophers used mind models to help explain the world. In ancient times 'thinkers' enjoyed creating paradoxes like Aristotle's idea of always moving half the distance towards a goal and never reaching it. Zeno considered a race between the Greek hero Achilles and a Tortoise which he could never overtake. More recently, Einstein used his famous 'mind experiment' of a traveller in a train and an outside observer to help elucidate the profundities of 'relativity'. Now, whilst reading this article, let me propose a 'thought experiment' which you might engage in wherever you happen to be.

Imagine that instantaneously all the fasteners in the world suddenly vanish. The consequence would naturally be unmitigated disaster. Those lucky enough to survive would be surrounded by a great many disparate objects which used to be furniture, a mode of transport, a home, place of work etc.. Whilst the shock is still registering, imagine now that all the individual items of life which surround you also disappear. This would occur because without any fasteners to hold the equipment together no components could exist.

So, look around you and imagine what you see. Without fasteners there could only be the natural world and the people in it would also be 'naturalists'. Not out of choice but by necessity since there could be no clothes to wear. But you needn't be embarrassed because everyone else would be the same and without human interference, the environment would be so overgrown that the chances of seeing anyone else would be quite remote. Of course, being suddenly thrust into the 'natural' world would place all human beings in a position where, relative to all other creatures, we would become part of their food chain and not as now, at its head.

A very scary thought certainly but more importantly, one which brings into the sharpest focus, the absolute reliance we all have on the fastener industry.

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Profitability, performance, efficiency are the currency by which global trade is measured. But, blowing across all borders and passing effortlessly through all customs checks are ideas. Ideas which like the wind can invigorate or devastate depending on the force of their flight and the impact they have. Merchant traders are credited with inventing the ability to count along with the number systems with which to record what they counted. And, because they were successful, such ideas naturally spread amongst other traders and were adopted by those who wished to 'regulate' such trade.

Inevitably, conflicts arose between traders and regulators basically because they both relied on the same source for their respective success. Namely, the people to whom they sold their goods or obtained taxes. Free trade is always the goal of the trader but for a regulator this would only be acceptable if it were reciprocated by all other regulated areas.

Whilst traders would love to have free access to their potential consumers, the regulators deny this to ensure they alone maintain control. Thus, the status quo is established and will remain so unless the 'ideas' of change blow into the regulators' domain with a force which overcomes all resistance.

Two ideas for change are currently blowing across the global trade networks and both originate from the consumers on whom all traders and regulators rely for their business. One is the now, ubiquitous recognition of 'Climate Change.' The other, which is gathering significant momentum in the USA and EU, is the current consumer driven trend for the 'Right to Repair.

US and EU Right to Repair Legislation

In the USA, 18 states have adopted Right to Repair legislation despite many major OEM's lobbying against it. In July 2017 in the EU, Parliament approved its recommendation that Member States should give rights to consumers to repair. Legislation was passed in October 2019 stating that from April 2021 manufacturers of white goods for sale within the EU must supply parts to 'professional' repairers for 10 years after manufacture.

This will not give the owners of such goods the right to repair the equipment they have purchased but will go some way to deflecting the general OEM criticism that unregulated repairs could lead to unsafe products etc..

A major element in the consumer argument for the Right to Repair legislation, is the reduction of waste and misuse of resources. Waste because of the inability of consumers to significantly extend the life of their purchase often due to the failure of a: sensor, bearing etc., and the intentional design of the product which denies its repairability. Classic amongst these are the bonding of components by: gluing, welding/brazing, cold forming to ensure that access without destruction is denied.

Clearly, for an OEM, the sale of two, three or more products over a period when one could be entirely satisfactory is for good business. Particularly, when the extended warranty, so impressively sold with the product, turns out to be virtually worthless. So, the question to note is whether the regulator can be persuaded to act in the interest of the consumer or be swayed by the power of the OEM in ensuring continued local employment to the regulator's purchasing constituents?

Drivers for Change

As communication, transportation, collaboration (and very recently, health and well being) is now global, so too is the awareness of the need to address the issue of Climate Change. This is a matter which has been forced on both regulators and traders by the consumers they seek to serve. Often, with considerable reluctance, manufacturers are being dragged kicking and screaming to develop new technologies which can help reduce the previous profligate misuse of primary resources. Likewise, regulators are having their feet held to the fire by the socially aware consumers who recognise their collective voices have a digital platform from which they can be heard.

One such feeling of intense consumer frustration has been the realisation of being held hostage as a 'cash cow' for some of the world's most profitable manufacturers. The 'one off' purchase of goods of previous generations of consumers has today spawned into: maintenance service deals, extended warranties, leasing agreements, all designed to lock the consumer into further, often unnecessary payments.

The US Copyright Act of 1998, covered the protection of digital information: music, video/DVD, data etc.. This has been used by 'tech' OEM's to prevent consumers/users from accessing and reconfiguring the software/hardware. Warranty warnings denying access to the equipment or its operating system were invoked to ensure OEM's maintained exclusive control over their customer base.

As viewed in Fig 2 placed between an OEM 'rock' and a regulator 'hard place', the consumer, with some justification, see themselves as a ping-pong ball batted between two cooperating bodies. Trade bodies act on behalf of the OEM and the regulators on behalf of the 'people's' government. Both seek to serve the customer whilst simultaneously exploiting them. Given such a ping-pong game it's not easy to see how the ball can win!

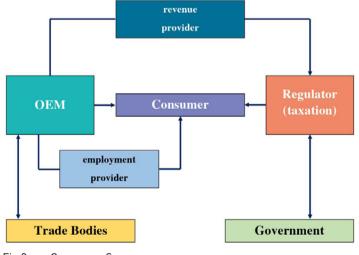


Fig 2. Consumer Squeeze

The US automotive industry generated significant resentment in its customer base by its dictate that those who purchased its goods had the warranty annulled if they had their vehicle serviced, repaired etc., by any source other than the manufacturers' own authorised agency. Moreover, the OEM refused to provide technical/service information to any agency outside their own network regarding the product which a customer had purchased.

In 2014, a Bill was passed in The State of Massachusetts following a US based consumer protest movement. This ensured that auto manufacturers must allow consumers the Right to Repair anywhere and that OEM's must provide all the information required to make it possible. Although not passed as a Federal Law, this Bill has been adopted through the whole of the USA and all vehicle manufacturers conform to its actions.

Implications for the Fastener Industry

The potential ramifications of the upsurge in consumer demand for the Right to Repair could be very significant. For example, from a fastener manufacturer's perspective, white goods and electronics are very much like flat packed furniture. Special purpose fasteners are designed to hold the product together. If damaged, the product is normally disposed of and another purchased. Few people would consider removing the fasteners for disposal of flat packed furniture when brute force could suffice.

However, if OEMs are obliged by law to facilitate the repair of the goods they make, the issue becomes far more philosophical. For example, does the OEM abandon the design principle of, 'built in obsolescence' which has been practiced for years? If they do, this will require a 'sea change' in their product design.

They would then have to consider not only new methods of 'design for disassembly' to make repair a practical possibility but also consider the inventory for replacement items. Would these be ordered and stored, ordered when required (where and by whom?) or simply outsourced to an agent?

What would be of great potential importance to those in the fastener industry is how much additional business could the Right to Repair legislation create? In an ever increasingly globalised world, the USA and EU markets only represent a fraction of the whole so, it is a legitimate question to ask, "what might happen assuming the consumer rebellion extends to more populous parts of the globe?"

Today, the term 'fast clothes' refers to the modern trend of young people to buy relatively low cost items online. This is clearly not in line with resource or energy saving. The opposing trend is for young people to buy clothes which are two or three generations older than they are and to wear them as fashion/climate statements of conscience.

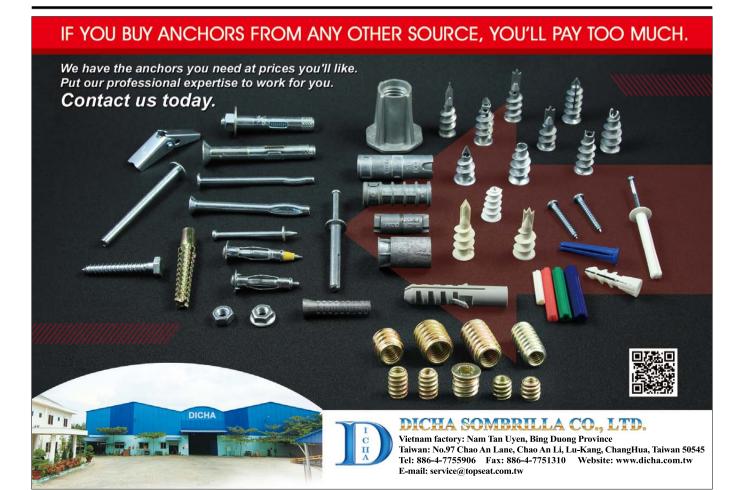
In a world where mass produced, relatively low cost goods are inevitably increasing, perhaps a new industry sector will emerge as a throwback to the past when folks actually repaired things. Although rooted in an idea for change, this could be the other end of the manufacturing spectrum where the very small and local can coexist successfully with the big and global?

In either case, as pointed out at the start, both ends of the spectrum will require fasteners to hold all the parts together. To imagine otherwise would be ------ simply unimaginable?

Postscript

On 11th March 2020, Virginijus Sinkevicius EU Commissioner for the Environment stated that the 'circular economy' would be a new economic model for the continent replacing the previous linear growth model of: take, make, use and discard. To this end the EU would be extending the current Right to Repair legislation to include Smart Phones and

Tablets.



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