



MULTI DIMENSION IMPACT ACCOUNTING (MDIA)

Value Dynamic of Automobile Recalls

The Case of GMC in 2014

April 2014

It appears that about 10 years ago General Motors Corporation (GMC) made the decision not to correct an engineering flaw in the ignition switch used in its Chevrolet Cobalt model. Apparently about 500,000 of the flawed switches were installed in the cars after Chevrolet became aware of the problem. Maybe it would have cost GMC about \$400,000 to make the tooling change to fix the problem, but they chose not to. This would have cost GMC about 80 cents per car.

Most companies have a strong culture of cost control. Without effective cost control, a company and its products rapidly become uncompetitive in cost, and a company will fail.

At the same time companies need a sound basis for getting the right balance between cost and risk. Risk has many faces including the risk of unsafe performance and risk to product brand and company reputation.

The safety risk is difficult to quantify. Injury or death are difficult to quantify.

When people have been asked 'What is the value of a newborn baby?', the most common response has been 'priceless' or 'infinite' or 'huge'. There is really no money amount that is enough to balance the value of a human life.

With respect to the money amount that will balance the detriment to quality of life caused by injury, any money amount is a wrong amount.

What this means is that when it comes to safety, a company should be prepared to invest any amount to ensure that its products are safe and will not be the cause of injury or death.

In the history of the automobile industry, there have been many cases where the cost of safety has been too much, and in due time the companies have been held accountable. Examples are:

- The Chevrolet Corvair ... written about by Ralph Nader in a book titled 'Unsafe at Any Speed'
- The Ford Pinto ... a car where the fuel tank would easily ignite in a rear end collision.

In both of these cases, the automobile companies were eventually forced to payout very much more in compensation than they would have had to pay to make the product safe in the first case.

The reason why companies choose cost savings over safety is most likely that cost savings and profit are measured very rigorously by the accounting department and reported to the Board of Directors and the Stockholders. On the other hand the analysis of risk is not rigorous at all, and

the results are not included in the accounting and nothing is reported to the Board of Directors and the Stockholders.

While this did not relate directly to safety, it certainly had impact on the quality of the product and the value being delivered to the customer.

This company ... Southern States Inc ... made air-break switches for the electric utility industry, a product that used bronze castings that were made in its own in-house foundry. Because the costing system used 'cost per pound' as the metric for costing castings, the engineers kept reducing the weight of the castings in the final product, thinking that they were improving the profit performance of the company. In fact it was the opposite. Very light complex castings are very difficult to make, and scrap castings becomes a significant issue while for the customer the final product gets to be lighter, weaker and less durable. An optimized design should be a casting that is easy to make, and fully capable of the service needs of the customer. In this case increasing the weight of the casting reduced costs and improved profit.

In the case of automobiles and GMC in 2014, they saved a relatively small amount by not improving the ignition switch ... most likely less than \$1 million. By the time everything has played out, the cost of this saving is likely to be as much as \$200 million. GMC got to book the savings a decade or so ago. Now GMC is going to have to book the cost of these savings in the much bigger amount of (say) \$200 million now.

In the principles of conventional accounting, there is a requirement that future costs associated with present decisions are brought into account in the current period. In the FASB rules which have more weight in current accounting than principles, it is easier to avoid such reporting. This encourages cost savings even at the expense of more risk.

With TrueValueMetrics and MDIA, impact on people and planet is taken into account in a more rigorous way than with conventional accounting. If there is even a low possibility that there will be injury or loss of life, the product should be made safe. Zero probability of injury or loss of life is not possible ... but a low probability rapidly becomes very expensive and no company should ever allow itself to be in a position where it has to face these costs. In MDIA, risk is quantified using the standard values associated with death and injury ... values that are enormous relative to money.

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