

The Power of Cause and Effect

What does 2009 hold for an electronic sub-systems manufacturer?

10 Jan 2009

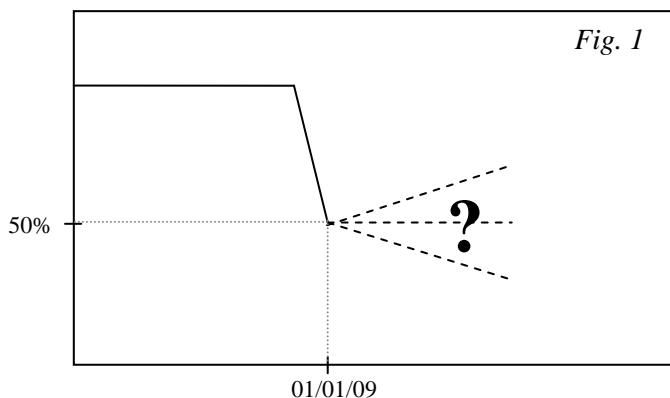
Eliyahu M. Goldratt

Last week, we spent time with a group of top managers of a Japanese company, a large electronic sub-systems manufacturer. It quickly became apparent to them that they have to answer the biggest business question they ever faced. Can it be that almost everyone is grossly misreading the current situation; the newspapers, the investors, and even the most practical and experienced people – the top managers of the large companies? Is it possible that they are all mistaken, even though the relevant facts are readily accessible and all the causalities are well known? One does not expect to analyze a situation that the prevailing consensus regards as a major crisis, actually as the biggest crisis of the last 50 years, only to realize that it is just a relatively small downturn and, provided that the proper actions are taken, can be the best opportunity for growth. After four days, they reached the conclusion that, as incredible as it is, and provided the proper actions are implemented, 2009 is likely to be the best year in their company's long history, and they are going to do their best to convince their company to act accordingly. Here is the analysis that was exposed to them. Would you reach a different conclusion than the one they arrived at?

Let's start by describing their situation. In November 2008, the media was filled with warnings that the huge financial crisis – the collapse of so many pillars of the financial world, which was triggered by the scandal of the subprime – was quickly developing into an economic crisis. In line with the media warnings, the company started to feel the impact at home. Their sales started to decline in November, and in December they registered the biggest meltdown in sales they had ever seen – incoming orders dropped by 50%. It's no secret that, not only them but all their competitors, are now contemplating (some started) a massive cut in capacity, including stopping the employment of many thousands of people. The question that every company in their situation is asking (and around the world there are many companies in their situation) is: what forecast should guide their actions in the coming year?

After experiencing such a drastic fall in sales, and when the consensus is that the world economy has started a major downturn, it is clear to the company's management that urgent steps must be taken to

adapt to the new reality. To make things worse, their pre-crisis forecast for 2009 predicted a continued increase in sales, and accordingly capacity was increased. As much as they wish to avoid it, they realize they too will have to cut capacity and let many workers go. But in order to make a responsible decision, they should figure out to what extent capacity reduction is needed: how low are their sales expected to be in the following year? Will sales continue falling, or stabilize around the new low figures? Or maybe, hopefully, begin to climb up soon? Figure 1 is a graphic representation of the uncertainty they are facing.



It is very difficult to operate under such huge uncertainty, but in order to reduce the uncertainty more relevant data is needed. Is there any additional data that can be used to provide a better forecast? Data that will reduce the uncertainty they are facing?

Of course there is. This company, like most companies, is a part of a supply chain. They sell their products (mainly) to consumer electronics manufacturers (Original Equipment Manufacturers - OEMs) that in turn sell their products to retailers that sell to the end consumer. Overall, what the retailers sell has to be manufactured by the component producers. So, to get a good view into the future, one has to examine what happened recently to the sales of retail to the consumer. To get some hard data, we called our friends at Nikkei magazine and asked, "What happened to retail sales of electronic consumer goods in December?"

Their surprising answer was, "Yamada Electronics - 114% relative to last year."

Probably, you are as surprised as they were. Why? Because we all read that consumers' sales went down. Dramatically. The first examples that jump to everybody's mind are cars and real estate.

Cars and real estate are unique in the sense that almost nobody buys them with cash; they are credit-dependent purchases. So, it's no wonder that when the financial system became paralyzed, when it became much more difficult to finance a new house or a new car, the sales of these credit-dependent products took a nose dive. Unfortunately, we extrapolated from those very visible products to the market in general, which is not credit-dependent; we erroneously took these two specific cases as representative examples.

Relying only on the information that we received from our friend at Nikkei magazine, weren't we facing the danger of making the same mistake, the mistake of extrapolating from too few data point; one major chain in Japan? After all, their company is selling over 80% of its products outside Japan.

We were looking for data about the situation in the US, the country of origin of the financial crisis, and therefore the country one expects that the initial impact is the biggest. And, just to be on the safe side, we were looking for the global retail picture and not just consumer electronics sales. Not before long, the answer was provided by their head office, the encompassing reliable data we were looking for (in retrospect, a search of the internet provides a good enough answer).

In short, no evidence of "a huge economic crisis" is showing. If one insists on being pessimistic, and use just the most distressing sources, the decrease in the last few months (excluding cars), constitutes a drop of less than 10%. Needless to mention, this is a far cry from the 50% scare. The data from all sources provides a solid proof that the market consumption is not experiencing (yet?) any meltdown.

This is far from anything the company's management team had expected. If no crisis occurred in retail, they are facing a big mystery: how come they and their competitors, actually all electronic sub-systems manufacturers, are experiencing a huge drop in sales? What can explain the sharp drop in sales they are experiencing, while the demand, as reflected by retail sales, is relatively stable?

The answer is that retailers also read newspapers. The alarming headlines created the impression of an economic crisis, and retailers are especially sensitive to such developments. Typically, a significant part of the inventory they hold has a finite market life and the nightmare of a retailer is to get stuck with

yesterday's merchandise. For this reason, the recession warnings brought retailers to almost instinctively take immediate precautions to reduce their inventories. To lower inventories, many retailers gave substantial price reductions in December¹ to encourage sales, while cutting down on incoming inventories; ordering less from their suppliers.

This started a snowball effect. Due to the retailers' decision to reduce inventories, the OEMs now experienced a substantial decrease in orders. For the OEMs, this significant sales reduction was interpreted as a clear indication that the warnings about an economic crisis were materializing. Like the retailers, they too reacted by lowering their inventory levels. Lowering inventory meant that they lowered their purchases from their suppliers even more than the level their sales had dropped. No wonder that the electronic sub-systems manufacturers suffered a dramatic 50% decrease in sales even though consumer demand stayed about the same. The same amplifying effect took place when the sub-systems manufacturers, in turn, dried up their orders to their material suppliers – which experienced an alarming sales drop. The media don't have any lack of stories to now further fuel the impression of an economic crisis.

So, when will the internal orders of the supply chains be again aligned with the real market demand? This is not a big mystery: when the surplus inventories will be flushed out. Since retail typically holds 3-4 months of inventory, probably as this article is written, retail is starting to increase its orders to the OEMs. It stands to reason that retailers are still cautious, and therefore will order in smaller quantities than they used to, albeit more frequently. The OEM's, once they experience this increase in demand, will follow in their footsteps and increase their purchasing levels. Yet, they will not act immediately, but rather wait to make sure it is not a fluke. Since OEMs hold about 1.5-2 months inventory, the component manufacturers should start to see a pickup of their sales already in February, and at around April the drop in orders crisis that they experienced will come to an end. But on what level will orders stabilize? In other words, since order levels will be again in-line with consumer demand, what is the market demand expected to be?

Every day the news is filled with reports of more people being laid-off by many sectors of business. This must have a negative impact on retail sales. How much? If a company's business is rice, it should not expect that even a big economic change will have a big impact on the market demand for its product. The opposite is true for a company that deals with relatively expensive jewelry. But for most products, the Gross Domestic Product (GDP) is an excellent representation of the market demand (unless your industry has a specific characteristic that was impacted, like the real estate industry is strongly impacted by the credit crisis). So to get a reasonable forecast, a forecast that considers the negative effect of increasing unemployment and the difficulty for the company to get credit lines, but also the boost the economy must get from much lower oil and metal prices, we were looking for what the economists are now predicting for next year².

Economists also read newspapers, and being human they are also impacted, but their statistical tools force them to evaluate all data sources. So even though the title attached to most such graphs is rightfully alarming, the forecast of GDP is actually quite comforting for the top managers of the electronic sub-systems manufacturer. Yes, every single country will be affected for the worse. In the

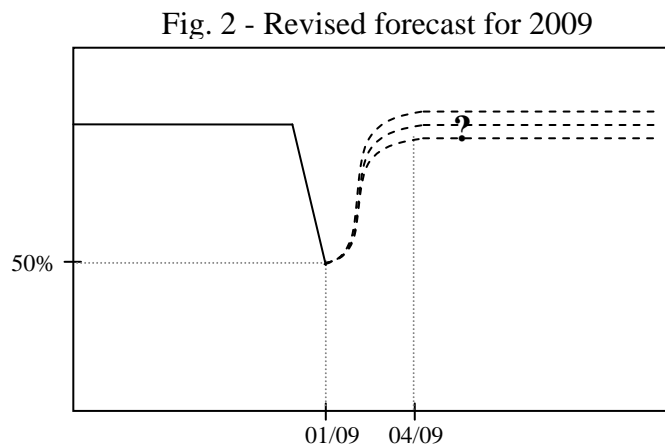
¹ Note that substantial price reduction means that a report of a few percentage points drop in sales dollar of retail, actually means that the number of units sold went up.

² See, for example, the forecast provided by the International Monetary Fund (IMF).

developing countries the growth will continue but at a slower pace. In the developed countries the trend of economy is reversed from growth to shrinking. But everywhere the impact is just few percent; very modest relative to the scare of 50%.

Now we have a pretty good idea of how the company sales will be next year; the sales level is expected to stabilize around last year's figure, give or take a few percentage points. To capitalize on the recovery in sales, the company has to take two types of actions. Actually, the first is a non-action, do not cut the capacity. Cutting manpower is painful and hiring, many times, involves the long process of training. Companies that lay people off now will most likely be slow to respond to the sales picking up shortly thereafter.

The other action that is required is to help the material suppliers. As we already noted, those companies were hit the hardest, and they will be the last to feel the recovery. If the material supplier is a small company, it might not last through the transition period. The component manufacturer might not be able to fully capitalize on the increase in sales due to material shortages. Provided that these two types of actions are taken, Figure 2 is a schematic presentation of the expectations for 2009. Compare it to Figure 1 to get a better grasp of the title of this article.



Unfortunately, most companies will not follow the above clear path; rather they will act in panic and trim their work force. Many have already done so. That implies, that for a while, until the capacity will be restored, the OEM will be struggling to get sub-systems and retail will be struggling to get merchandise. For companies that will act sensibly, a window of opportunity to increase market share is opening.

Dr. Eliyahu Goldratt

Internationally recognized leader in the development of new business management philosophies and systems, Dr. Goldratt's work is carried out by consultants and educators around the world, and utilized by many of the world's largest corporations, including IBM, Procter & Gamble, AT&T, NV Philips, ABB and Boeing. Unconventional, stimulating, and "a slayer of sacred cows," Dr. Goldratt exhorts his audience to examine and reassess their business practices with a fresh, new vision.

THE GOAL, his best-selling business textbook written in novel form, illustrates Dr. Goldratt's Theory of Constraints (TOC), an overall framework for helping businesses determine: what to change —not everything is broken, what to change to —what are the simple, practical solutions, and how to cause the change — overcoming the inherent resistance to change. Dr. Goldratt has written numerous books on related topics, including IT'S NOT LUCK and CRITICAL CHAIN. His latest book, THE CHOICE, rapidly became the #1 bestseller in Japan. Dr. Goldratt is a frequent contributor to scientific journals, magazines and business publications.

Dr. Goldratt is Founder and Chairman of the Goldratt Group (Goldratt Schools, Goldratt Marketing and Goldratt Consulting), which has taken the Theory of Constraints practices to new heights with VIABLE VISION, a platform to improve business productivity and profitability. By enhancing the quality of decision-making, and improving communication and synchronization throughout the organization, Viable Vision is the strategy and specific tactics that deliver unprecedented performance and bottom-line results in all aspects of a company's operation.

Goldratt Consulting

Goldratt Consulting helps companies to immediately accelerate cash flow and profits, and with the same actions begin to strengthen the company for exponential growth.

Our clients enjoy substantial increased liquidity within weeks and ongoing growth in profitability.

Our approach is based on Theory of Constraints (TOC) - the time tested, logical, common sense solutions introduced by Dr. Eli Goldratt 25 years ago in his book, *The Goal*, which is still a best-seller today.

TOC has been implemented in nearly every function in companies from \$25 million family operations to top Fortune 500, in product and project manufacturers, and companies with simple and complex distribution networks. TOC is taught in hundreds of colleges and universities, and much has been published on the subject.

Dr. Eli Goldratt founded Goldratt Consulting as part of The Goldratt Group in 2003. The company is headquartered in Israel and represented in every continent. Our leadership roster contains the most highly renowned TOC experts in the world.

Goldratt Consulting is not a typical consultancy.

- We only work with companies that commit to reaching a level of performance they had previously considered unattainable.
- We only implement solutions that bring such performance without compromising long term for short term or one stakeholder group for another (shareholders, management, employees, customers).
- Instead of hourly or daily rates, our fees are based on the mutually agreed financial value that is generated through our efforts.
- The vast majority of payments are set to the client reaching specific financial performance milestones, which begin when the "previously considered unattainable" performance is surpassed.

If you would like to learn how Goldratt Consulting can help your business reach new heights of performance, contact us to schedule a free initial evaluation with a Goldratt Executive. www.goldrattconsulting.com/contact