

SMALL Business Times

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What's your Z-score? *A formula to measure your company's health*

There are a myriad of financial tools available to businesses today and quality financial consulting resources in our own backyard.

They include Jim Lindell, TEC Chair and president of the Thorsten Consulting Group in Dousman and the Heath Corp. in Brookfield. His operational analytical methods rank high within the industry and among TEC members.

CEOs and senior executives in these trying and unpredictable economic times must stay atop external business volatility that spills over into their own business operations. This month, I'd like to share three specific financial tools that can get to the root of a company's problem. Use them individually, or together.

The Z-score

In 1968, Edward Altman figured out a way to combine five ratios in such a way that he was able to use them to predict the likelihood of bankruptcy – not when a company would go bankrupt.

The Z-score can't tell you precisely how to fix the problem. It just tells you whether a serious problem exists. You will need the following financial information from your P&L and balance statements to get started:

1. Earnings before interest and taxes (EBIT)
2. Total current assets (CA)
3. Total current liabilities (CL)
4. Total assets (TA)
5. Total liabilities (TL)
6. Total equity (TE)
7. Retained earnings (RE)
8. Sales for the period under review

Next, perform these calculations for non-public businesses:

1. $[(CA - CL)/TA] \times 6.56 \text{ Non-Mfg } (.717\text{Mfg}) = \underline{\hspace{2cm}}$

2. $(RE/TA) \times 3.26 \text{ Non-Mfg } (.847\text{Mfg}) = \underline{\hspace{2cm}}$
3. $(EBIT/TA) \times 6.72 \text{ Non-Mfg } (3.107\text{Mfg}) = \underline{\hspace{2cm}}$
4. $(\text{Market Value of equity}/TL) \times 1.05 \text{ Non-Mfg } (.42\text{MFG}) = \underline{\hspace{2cm}}$
5. $(\text{Sales}/TA) \times 1.00 \text{ Non-Mfg } (.998\text{Mfg}) = \underline{\hspace{2cm}}$



values such as real estate and historical costs.

The main issue with the Z-score is that once you adopt it, you use it with consistency over your business data sample. Otherwise, your trend information will be convoluted.

To arrive at your Z-score, add up your results from these calculations. Here is the interpretation:

Let me insert four important caveats to the Z-score.

- It was developed using bankruptcy data from 1968 or earlier from 60 public companies. It has since been adjusted for private businesses, which is reflected above.
- The score is only for a snapshot in time. The Z-score trend is far more meaningful. I

Risk Management Association

Shame on bankers who don't tell their clients how they compare on the Risk Management Association's annual statement studies. These inclusive studies are literally oceans of quartile performance data (income and balance statement) across a wide spectrum of SIC codes.

The data is easy to interpret and most of it is in ratio form. Most importantly, it's

SCORE FOR NON-MANUFACTURING	SCORE FOR MANUFACTURING	INTERPRETATION
0-1.23	0 - 1.10	Bankruptcy likely
1.24 - 2.89	1.11 - 2.59	Bankruptcy a question
2.90 and higher	2.60 and higher	Bankruptcy unlikely

recommend that you do a five-year snapshot, based on rolling 12-month data from your income and balance sheets. This is referred to by economists as "pressure charting."

- If your Z-score is low, you must determine why by examining each Z-score component and then taking the appropriate action to correct the problem.
- The fourth Z-score factor on the list of five above is a bit controversial. For non-public companies, the book value of equity can be used. However, Lindell prefers an estimated market value using industry valuation techniques. Another source he cites is www.BizBuySell.com. He believes book values misrepresent true

arranged with SICs by quartiles, from the first through the fourth. Being at the bottom tells your creditor that there are problems. But it can also show you how you match up against existing or potential competitors.

The association is a far-reaching organization with most of its membership comprised of organizations that lend capital at risk. Within Wisconsin, 16 banks are active members or contribute annually to the vast business database.

Key Performance Indicators

A growing practice among TEC group members is to share key performance indicators with each other, almost monthly. Once again, like the Z-score, a KPI is a photo snap-

shot in time of how the business is performing in select areas.

A KPI for one company may not be relevant to another company. But a KPI trend is relevant regardless of what kind of business you're in. Here is a small sample list of typical KPI reporting points that we see in TEC:

- Order backlog
- Inventory turn
- Receivables over 60
- Shrinkage
- Employee benefits as a percent of sales
- Gross margin percent by cost center
- ROI/ROA
- Cash flow as a percent of work in progress/vice versa
- Total debt to total equity

And there are, of course many more. But every business has a few KPIs which really make a difference to that specific business. Some of these may

need a daily or weekly response, others monthly or quarterly. The idea is to have the capability to determine that the ship is on course and not drifting.

A number of TEC companies actually post their KPIs, especially those that have operational implications, for all employees to see. Managers then ask employees for their input on how to improve the numbers.

As business people, we know that income statements and balance sheets present historical data, yesterday's news. Any data that's frozen in a moment in time is far less useful than data that's proactive in nature. Trending statistics give us an opportunity to form this picture. The shorter the trend timeframe, the more sensitive this information becomes.

Until next month, let's work toward "no surprises" on the financial side of our businesses.

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