

Micro Risk Management

Identifying Small-Business Risk

By Jay Vadiveloo

IN THE WAKE OF THE 2008–2009 FINANCIAL CRISIS, enterprise risk management (ERM) has come of age. The science of identifying, measuring, and quantifying risks—both supremely difficult and of the utmost importance to companies—is now visible on multiple levels of the corporate structure. Major insurance companies have designated chief risk officers to implement ERM, and entire departments that focus solely on ERM have been created in major financial institutions. In addition, some large corporations deploy existing departments like corporate actuarial, internal audit, and investor relations to support the company's ERM function directly or indirectly. There is, however, a different segment of the economy—the largest and fastest growing in the United States—that desperately needs risk management. Failure rates in this sector are much higher than those of large corporations, yet ERM is not part of this group's vocabulary. Any risk management is done informally and without structure. Searching for ERM literature for this particular segment yields next to nothing. Survey ERM professionals in the marketplace and none seems to pay this segment any attention.

What is this important segment of the economy? It is small business.

The Importance of Small Business

The U.S. Small Business Administration (SBA) defines a small business as one that “is privately owned and operated, with a small number of employees and relatively low volume of sales.” The legal definition of what is small business varies according to industry, and can take into account sales, assets, or net profits, but for most businesses to qualify for federal SBA programs, they must have fewer than 500 employees.

While enterprise risk management has gained a strong following in corporate America, those enterprises most in need of risk management remain the ones least likely to use it.

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According to the SBA Office of Advocacy's Research and Statistics Division:

- Small businesses account for approximately half the gross domestic product and more than half the employment in the United States.
- They represent more than 99 percent of all employer firms.
- They pay 44 percent of total U.S. private payroll.
- They have generated 64 percent of net new jobs over the past 15 years.
- Small businesses create more than half the nonfarm private GDP.

But the statistics on failure rates in this segment are alarming.

The SBA Office of Advocacy determined that about one-third of new small businesses fail within the first two years and more than half of new businesses fail within four years of their formation.

What are some key risks that cause small businesses to fail? Jay Goltz, in a June 27, 2011, *New York Times* article, "Top 10 Reasons Small Businesses Fail," identifies the following:

- "Key man" risk, which is the risk of having one or few very knowledgeable employees performing critical functions vital to revenue generation;
- Concentration risk if most of the business revenue depends on a single product or service;
- Lack of competitiveness;
- Failure to adapt fast enough to meet new customer demands;
- Antiquated processes and operational inefficiencies, particularly in cash flow management;
- Lack of a cash cushion (reserves);
- Out-of-control growth.

The combination of these two sets of statistics—the importance of small businesses to the economy and their high failure rates—is a wake-up call for our profession and anyone performing ERM work that the segment deserves attention.

An Experimental Initiative

So why aren't small businesses seeking help from ERM professionals? And why aren't ERM professionals marketing their services to small businesses?

The obvious reason ERM professionals don't target small businesses is that, unlike large corporations, small businesses aren't willing to pay for this service. They may be financially unable to do so, or they don't recognize the potential benefit. They also could fear change or be reluctant to identify and accept strategic weaknesses in current business practices. Many small-business owners, in fact, would be more willing to pay for a revenue-generation or cost-reduction idea than a risk management analysis.

It is no surprise then that ERM principles and literature are tailored to large corporations.

To focus on exactly these types of non-traditional problems, the Janet and Mark L. Goldenson Center for Actuarial Research was established in 2009 at the University of Connecticut. The annual revenue from the Goldenson family's initial gift funds applied actuarial research projects undertaken by students and faculty. One such project that I had the opportunity to launch in my capacity as director of the center (a position funded by the global professional services company Towers Watson) was the ERM for Small Businesses initiative. To encourage small businesses to participate, the service is offered free of charge. The center pays students in the university's actuarial science program a stipend for their efforts. At the end of the project, the students provide a formal written ERM report to the participating small-business owners and share any software tools that may have been developed in the course of their work.

The outcome of this three-year experimental initiative has been remarkable. An idea that wasn't supported by any well-formulated theory has now grown into a highly defined and efficient process that continues to improve.

In the absence of formal literature, the center has generated ERM principles unique to small businesses. The sector's fundamental ERM principles are no different from those for large corporations: Identify/prioritize risks, model/quantify the risks, and create risk-mitigation strategies.

But based on our experience working with small businesses, we have identified several unique ERM principles.

- Any risk management analysis for a small business has to incorporate business growth strategies as well.
- Risks that receive focus are reasonably likely events with extreme consequences (versus low-likelihood events with extreme consequences).
- Small-business owners are knowledgeable about the risks facing their businesses as well as business growth strategies. Much of the primary input for analysis is drawn directly from the business owners.
- The consequences of a risk shock are far greater for a small business than for a large corporation, as small businesses generally lack any surplus cushion or political clout or diversification. As a result, a small business may not have a second chance when something goes wrong.
- While every small business is unique, it is generally easier to assess the risks facing a small business and find



ERM for Small Businesses—Case Study

THIS CASE STUDY INVOLVES A THREE-STORE BAGEL CHAIN in the Connecticut region. The operation is owned by three people and has been in business for 20 years. While the business carries on in the face of competition from larger regional bagel chains, sales have been relatively flat over the past five years. Some of the risks and opportunities identified by the Goldenson Center include:

- The inability to identify the most profitable items easily;
- Insufficient tracking of store growth or unit profits by store;
- A store image that fails to engage younger clientele;
- An outdated business website and Web identification, and the lack of other forms of Internet advertising;
- A full menu at the drive-through, which slows customer traffic.

The project deliverables included a written report and a formal presentation to the owners, as well as the creation of a simplified drive-through menu of the store's most profitable items, an Excel model that tracks real-time profitability of individual items and individual store performance, and various other recommendations on how to promote the business and boost sales.

The findings enabled the owners to better understand their business performance and when and where to implement a few practical changes that could help the business grow and prosper.

practical ways to mitigate these risks, compared with a large corporation.

- Qualitative risks may be just as important as risks that can be quantified; these qualitative risks should be mitigated to the extent required by their priority/likelihood.
- The analysis must be understood fully by the small-business owner and must provide practical and actionable steps to undertake over a short time horizon of one to three years.
- Beyond this time horizon, the ERM analysis will have to be revisited to remain relevant.

Henry Ford once said that failure “is only the opportunity to begin again, only this time more wisely.”

- A well-developed ERM analysis that incorporates business growth strategies can improve materially the sustainability and profitability of a small business.

The use of top actuarial science students to do this analysis has created some unexpected positive outcomes as well:

- Strong analytical skills and risk-modeling capabilities make actuarial students ideal candidates.
- They provide a cost-effective way to undertake an ERM analysis for a small business.
- Students perform best when working in small groups with minimal guidelines and oversight.
- Students are encouraged to generate their own ideas, which can produce many nonstandardized and creative solutions for each project.
- Students are encouraged to think about business growth and risk-mitigation strategies, which appeals to the younger generation.

Students benefit on many levels, in addition to providing an invaluable service to small businesses. For actuarial science students who have studied complex techniques on how to model insurance and financial risks, these ERM projects force them to think outside of the box, work in a team environment, and adapt each analysis to the special needs of the small-business. Since the students work on the entire project from start to finish, communicate directly with the small-business owners, and put together the final report and models, the experience they gain is precisely the kind that companies are looking for when they hire new graduates.

Micro Risk Management

The ERM for Small Businesses initiative at the University of Connecticut is similar to microfinancing and microinsurance, both of which are globally expanding concepts. In fact, the initiative can be considered a form of micro risk management.

While the annual budget from the center could sustain funding for approximately a dozen projects in the Connecticut region per year, this is only a tiny fraction of nationwide opportunities to provide ERM for small businesses. To undertake these projects on a large scale, two important issues need to be resolved: ongoing funding and a cost-effective delivery system.

Large corporations, private foundations, and government agencies have a stake in ensuring that small businesses stay viable and continue to grow. A thriving and sustainable small-business environment is good for the overall economy, and small businesses make up a market for goods and services developed by large corporations. Further, a reduction in the failure rate of small businesses has a positive financial impact for banks and other lending institutions that provide loans to small businesses.

If large corporations selected small businesses to support (engaging a nonprofit institution like the Goldenson Center to

do the work with students, with professional oversight by a large actuarial firm like Towers Watson), imagine the possibilities. To the extent that these efforts reduce failure rates, banks could offer preferred lending rates for small businesses that undergo an ERM analysis and establish risk management action plans.

At the same time, students in actuarial, finance, economics, and related disciplines at universities all over the country would receive valuable experiential learning, and businesses would benefit from the creative solutions they come up with.

Based on past experience, the Goldenson Center could play a key role in facilitating and coordinating broader-scale partnerships between large corporations and other funding entities and academic institutions. Tools and insights based on the center's experience include:

- A template on how an ERM analysis should be conducted;
- Estimated costs and how to keep costs manageable;
- The kind of oversight that students should have and how to balance the need for consistency of quality for each project without stifling student creativity;
- Minimum standards for every ERM report;
- Ongoing tracking of effectiveness of these ERM projects.

Moving Forward Wisely

I believe we have just scratched the surface in demonstrating how an effective ERM culture can be created in the small-business segment. This work will continue, but it will require an ongoing partnership with large corporations, foundations, government agencies, and academic institutions to fund and implement the initiative for it to make an impact on a larger scale.

The payoff would be huge; any reduction in the failure rate for small businesses could have a positive cascading effect on the entire economy. Similar to microfinancing and microinsurance, micro risk management has global implications. Since academic institutions exist all over the world, the delivery of micro risk management services to small businesses using college students can be replicated globally as well.

Henry Ford once said that failure “is only the opportunity to begin again, only this time more wisely.” I believe we have laid the groundwork for how to instill an ERM culture in small businesses that can help this troubled segment move forward more wisely. □

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