

insurance companies are looking to fund more like it, as is suggested in the report.

However, certain insurers and brokers are pulling back from recruiting this year, professors in the field tell *Risk Professional*. Profit pressures have them sending fewer employees to seminars or on-campus interviews. Tanguy Catlin, associate principal at McKinsey and one of the authors of the report, believes that rather than reduce these energies, P&C

companies should act now before the opportunity vanishes.

“When we compared what young talent was looking for with what we believed the insurance industry could offer, there were a number of very strong matches,” says Catlin. These attractions include “stability of the job offering, intellectual curiosity across multiple fields and the ability to make an impact on society.” Yet students “had no clue” that the insurance industry offers these

qualities and “didn’t even think about it,” adds Catlin. “I would not say it’s easier for insurance companies to capture it. They still need to put in the energy to convey the value proposition and be present on campus.”

Robert Hoyt, the Dudley L. Moore Jr. chair of risk management and insurance at the University of Georgia’s Terry College of Business, says that the vast majority of students do not enter intending to become ma-

jors in the field. “We convince them once they’re in the business school,” he says. “Other programs don’t have a vested interest in that major, broadly defined.”

Browne at Wisconsin sees a strong justification: “The failures that we read about in the newspapers suggest that if there were more risk management classes at business schools and at the undergraduate level, then perhaps there wouldn’t be as many problems as we have today.”

Technology: Going Neural

BY THOMAS FITCH

The mechanics of the internal auditing component of risk management haven’t changed much in recent decades. When line items are flagged for review, software-defined routines, or scripts, lead auditors through various tests.

The function is straightforward and effective, as far as it goes. What’s easy to miss are linkages among risk types – financial, operational, compliance and so forth – or risks embedded in various business lines that could sting when disaster strikes. Recent dictates from senior management to step up reporting on strategic, business and operational risks have only added to auditors’ workloads.

Some experts say the answer to the audit dilemma – doing more with the same or limited resources – lies in the application of better analytical tools. Among those attracting new interest are neural networks, a form of artificial intelligence that has proven

valuable in other fields as a way to pore over vast amounts of unstructured or unrelated data and discern potentially troublesome patterns and connections faster and more comprehensively than by traditional methods. Neural programs also can enhance their predictive capabilities by applying their accumulated knowledge

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vocate who is managing director of Brewster, New York, consultancy Granite Consulting Group. “They want something that is pragmatic, practical and can be used right away.”

As Bechara and others see it, neural computing can take internal auditing and risk management to another dimension,

“A neural network has the ability to evaluate organizational risk in ways that other models cannot. Specifically, neural network models not only evaluate the risk presented by one risk area, but also take into account how the risk areas interact with one another.”

— FROM A WHITE PAPER ON ENTERPRISE RISK MANAGEMENT BY MICHAEL BECHARA, GRANITE CONSULTING GROUP

to future data runs.

“Senior management is dissatisfied” with current risk assessment tools, says Michael Bechara, an experienced internal auditor and neural network ad-

delivering the ability to anticipate and deal with problems well before they erupt into full-blown crises. Granite Consulting is actively negotiating on its neural network implementation with

several clients, Bechara says. Major vendors of enterprise resource planning software are said to be investing in neural technologies.

Using a risk scoring model such as that of Granite Consulting, an auditor could slice and dice business risks by country, business line or other metrics. A large, multinational company, for example, could obtain a multi-dimensional picture that “gives the risks more ability to express themselves” in management reports, Bechara explains.

A Complex Challenge

Companies “are struggling to get the data intelligence right,” observes Joe Atkinson, who heads PricewaterhouseCoopers’ U.S. risk management practice. He believes neural computing can be a solution, but implementing it won’t be easy. “The complexities of creating a platform that continues to evolve and get smarter are a big challenge in most organizations,” says Atkinson.

Risk management would be a new frontier for neural networks. But they have been applied in financial services for at least a quarter century, most commonly

in consumer credit scoring and in combating credit card fraud and money laundering. The start-up costs of off-the-shelf programs for those high-volume, low-value transactions typically range from \$80,000 to hundreds of thousands of dollars, depending on the complexity and volume of examined data streams. The economics in risk management would take time to match those in the more mature market segments, where delivery times range from two to 18 weeks and the payback in cost savings can come within six months.

Positive Reactions

“Evolution is bound to happen,” states Sargon Youmara, a partner with Chicago-based audit consultancy Vonya Global.

“Using neural networks as part of a risk assessment process is a potential next step. These tools are just going to make for more effective auditors.”

Luis Fernandes, director of the Americas group of Australian investment firm Babcock & Brown, which was forced into liquidation last year as a victim of the credit crunch, says, “Had we been in a growth mode, I’d certainly see a lot of value in neural networks.” The technology “would have helped us identify some key risks in some of the asset classes we were involved in, such as real estate, aircraft and railcar finance. It would help us identify risks we may have overlooked.”

Hurdles beyond the purely technical must be overcome. Some are cultural – changing

the habits of individuals who are accustomed to conventional and ingrained techniques. Training costs could become an issue, and models may or may not be able to address less tangible factors such as reputational risk.

Get a Handle on the Data

Data integrity is another concern. In the credit card world, the MasterCard and Visa organizations enforce a certain amount of discipline, notes Andrew Morse, senior neural network modeler at payments software company ACI Worldwide, which supplies anti-fraud and anti-money-laundering systems. “When you move out to some of these other areas without that sort of overarching organization, the quality of the data doesn’t

always receive the attention that it should. That makes it difficult to construct good, generalizable models.”

In an audit and risk context, therefore, top executives and boards will have to insist on sufficient, timely and accurate data. All too often, boards devote more attention to key performance statistics than to forward-looking indicators of risk exposures, says Mark Beasley, Deloitte professor of enterprise risk management at North Carolina State University. “Boards don’t see the need for developing key risk indicators on the assumption that they are included in reports from senior management,” but, adds Beasley, these assessments are often absent from their information packets.

A Route to Growth Through Dubai

BY SAVITA IYER

The alarms set off in late 2009 by Dubai World’s credit crisis (see *Risk Professional*, February) only underscored how a fast-developing emerging market, despite its supposed insulation from Western economies, was in no way immune from international market difficulties. Months before that bad news hit, banks and businesses in the Middle East and particularly in the United Arab Emirates, of which Dubai is a part, were hardly unaware of their vulnerability and were seeking out more sophisticated risk management approaches, as a deal struck by

professional services firm Jefferson Wells makes clear.

Milwaukee, Wisconsin-based Jefferson Wells, a risk advisory and accounting services subsidiary of Manpower, completed an alliance agreement in September with Great Sands Consulting, a Dubai-headquartered management and technology consultancy with more than 100 clients. The agreement marked Jefferson Wells’ entry into the Middle East, where it will work

with organizations in both the private and public sectors to strengthen risk management and control functions, says Gary Sturisky, global practice leader of Jefferson Wells’ risk advisory services.

infrastructure, risk systems and tools provided some protection from the economic collapse, and firms there can learn from what others went through as they implement safeguards against future crises.



Gary Sturisky

“We are geared toward helping firms and governmental entities establish the right controls by giving them thought leadership to help align their compliance needs with the growth in their market,”

Sturisky explains.

The financial crisis exposed a critical need for improved data and analytics, stress tests, liquidity management, risk governance and oversight. Sturisky says that the UAE’s financial

Sturisky says Jefferson Wells is active in Saudi Arabia and will grow in the region in part by supporting its Fortune 500 and Global 1000 clients that have operations there. Sturisky has been leading expansion elsewhere: Around the time when Jefferson Wells publicly announced its Great Sands tie-in in mid-December, it also said it was adding to its Asia-Pacific presence through an alliance with Tokyo-based risk and compliance consulting firm Larkin & Associates and was entering South America through a similar arrangement with Baker Tilly Brasil of Sao Paulo.