

Retirement income

• Data quality

• Insolvency reforms



FOR STRATEGIC BUSINESS IDEAS

www.managementmag.com

Management

NOVEMBER 2009
\$5.50

**Performance
measurement for
not-for-profit
organizations**

**Saving with accounts
payable automation**

Yves Lavigne, CMA, MBA

Making the right call ... both in and out of the ring

Yves Lavigne, CMA, uses his management accounting background to make split-second decisions in front of thousands of mixed martial arts enthusiasts.

GROUP HOME AND AUTO INSURANCE

for members of CMA Canada



PROTECTION MADE EASY... GROUP RATES MADE EASIER!

As a member of **CMA Canada**, you can save on your home and auto insurance through **preferred group rates**, while enjoying **high-quality insurance products** and **outstanding service**.

As the leading provider of group home and auto insurance, we offer a wide range of innovative products, so you are sure to get the coverage that is right for your particular needs...and the peace of mind that goes with it!

Insurance program recommended by:



**Certified
Management
Accountants™**

Request a quote and you could



**ENJOY SAVINGS THROUGH
PREFERRED GROUP RATES**

www.melochemonnex.com/smac

1 866 269 1371

(Monday to Friday, 8 a.m. to 8 p.m.)



Insurance

Meloche Monnex

The TD Insurance Meloche Monnex home and auto insurance program is underwritten by SECURITY NATIONAL INSURANCE COMPANY and distributed by Meloche Monnex Insurance and Financial Services Inc. in Québec and by Meloche Monnex Financial Services Inc. in the rest of Canada.

Due to provincial legislation, our auto insurance program is not offered in British Columbia, Manitoba or Saskatchewan.

***No purchase required.** Contest ends on January 16, 2010. Skill-testing question required. Odds of winning depend on number of entries received. Complete contest rules available at www.melochemonnex.com.

Meloche Monnex is a trade-mark of Meloche Monnex Inc., used under license.


TD Insurance is a trade-mark of The Toronto-Dominion Bank, used under license.

Resources at your fingertips

During an economic downturn, the first impulse is to cut costs, decrease staff and redirect attention to the core business. Most organizations are following conventional wisdom that surviving the recession is a reasonable goal; however, is survival enough? What about developing strategies that will help your company thrive and emerge stronger after the downturn? As Susan Chesney, CMA explains in "Embracing change in a challenging economy," strategic organizations will use times of uncertainty to redesign their operations. This approach will help organizations prepare their workforce to respond swiftly to new priorities as the economy improves. As history has proven once before, companies that take a chance on reinventing themselves during a downturn can — and do — emerge stronger. Chesney offers several tips on how to transform your operation and illustrates how a few changes will help create long-term benefits.

CMA Canada's Management Accounting Guidelines (MAG®s) and Management Accounting Practices (MAP®s) are valuable resources that are available to all CMAs. These tools present the latest developments in strategic management accounting. Members can download MAGs and MAPs free of charge. Members will be required to enter their login name and password (CMA member ID). Periodically, you will come across an article in *CMA Management* that is a companion article to a MAG or MAP. In this issue, "Improving performance measurement of not-for-profit organizations," Marc J. Epstein and Adriana Rejč Buhovac look at the challenges of managing not-for-profit organizations and how they are different from those in the for-profit sector. The authors also explain why it's essential for CMAs and managers who actively manage not-for-profits or sit on their boards to insist on developing contemporary performance measurement models and tools that are common in the business world. The article illustrates a model that CMAs can use for comprehensive evaluation of their organizations' efforts, and how it can help managers justify their program decisions and provide tangible evidence of responsible, mission-related investments.

In other news, CMA Canada and the Chartered Institute of Public Finance and Accountancy recently issued an open call for nominations from federal public servants to nominate colleagues and/or to self nominate for the second annual *Award of Excellence for Comptrollership in the Public Sector*. The award will include two categories: (1) Innovation, and (2) Financial leadership (CFO). In addition, consideration forms may be submitted for a Lifetime Achievement Award recipient, which is awarded at the discretion of the selection committee. The deadline for nominations is Friday, January 22, 2010. The award ceremony will take place in Ottawa in spring 2010. For more information on the awards, revised criteria and eligibility requirements, visit: www.comptrollershipaward.com.



Andrea Civichino
Editor-in-Chief



Publisher Suzanne K. Godbehere
Vice-President, Public Affairs and
Communications
(905) 949-3106
sgodbehere@cma-canada.org

Editor-in-Chief Andrea Civichino
(905) 949-3109
acivichino@cma-canada.org

Art Director Sean O'Rourke
(905) 949-3132
sorourke@cma-canada.org

**Translation and
Co-ordination** Joanne Beauchamp
Hélène Arseneault
(514) 878-1105

Advertising

**National
Advertising Sales** **Dovetail Communications Inc.**

30 East Beaver Creek Road
Ste. 202
Richmond Hill, ON
L4B 1J2
Phone: (905) 886-6640
Fax: (905) 886-6615
www.dvetail.com

Sales Manager Beth Kukkonen
bkukkonen@dvetail.com

President Susan A. Browne
sbrowne@dvetail.com

Insertion orders and advertising materials are to be sent to: Crystal Himes
chimes@dvetail.com Dovetail Communications Inc., 30 East Beaver Creek
Road Ste. 202, Richmond Hill, ON L4B 1J2, Fax: (905) 886-6640

Circulation and Administration

For general inquiries, change of address notices, etc. please call:

Liliane Kenyon (877) 262-6622

lkenyon@cma-canada.org

Subscriptions Member: \$15.00 (plus GST)
Non-members: \$15.00 (plus GST)
U.S. and overseas: \$40.00 (U.S. funds only)

Undeliverable Mail

Canada Post: send undeliverable copies to:

CMA Management
1 Robert Speck Parkway, Suite 1400, Mississauga, ON L4Z 3M3
email: info@cma-canada.org
Telephone: (905) 949-4200
PM 40064728
PAP Registration No. 9858

CMA Management is a member of the Canadian Circulations Audit Board/Business Publications Audits International (CCAB/BPA)
Indexed in Canadian Periodical Index ISSN 1490-4225.
Issue Date: November 2009

CMA Management is published monthly, except December-January and June-July, August-September (combined issues), by CMA Canada. If you no longer wish to receive this publication, please contact CMA Canada.

Articles prepared by individuals associated with organizations advertising in CMA Management provide generic information on business topics, and do not promote specific products or services.

Products and services identified in CMA Management are neither sponsored nor endorsed by CMA Canada or its affiliates. For more information on these products and services, readers are encouraged to contact the advertisers directly.

Opinions expressed are not necessarily endorsed by CMA Canada. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, without the prior written consent of the publisher or a licence from The Canadian Copyright Licensing Agency (Access Copyright). For an Access Copyright Licence, visit www.accesscopyright.ca or call toll free to 1-800-893-5777.

We acknowledge the assistance of the Government of Canada through the Publications Assistance Program toward our mailing costs.

Printed in Canada by Web Offset Publications Ltd., Pickering, ON.

Canada



CMA Management

Features



16 Improving performance measurement: Not-for-profit organizations

The challenges of managing the not-for-profit organizations are often quite different from those in the for-profit sector. But business executives who actively manage not-for-profits or sit on their boards should insist on developing contemporary performance measurement models and tools that are becoming common in the business world.

By Marc J. Epstein and Adriana Rejc Buhovac

22 The Goldilocks approach to budgeting: Not too high, not too low, but just right

Setting budgetary goals that are too high may contribute to low morale because of repeated failure, while setting goals too low provides no motivation to exert effort.

By Mary Mindak, Jeri Ricketts, and Jens Stephan



30 PROFILE

Making the right call ... both in and out of the ring

Montreal CMA Yves Lavigne, the only Canadian referee in the Ultimate Fighting Championship (UFC), describes how he uses his management accounting background to make split-second decisions in front of thousands of mixed martial arts (MMA) enthusiasts every weekend.

By Arda Ocal

Cover Photo: Pierre Charbonneau

Columns

10 Human resources



Embracing change in a challenging economy. While it's natural to want to "play it safe" during the downturn, many companies believe now is the right time to redefine priorities and reinvent themselves.

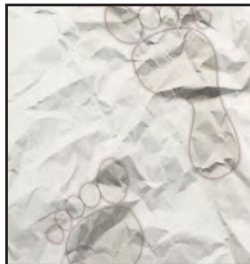
By Susan Chesney, CMA

12 Business strategies

Accounts payable automation leads to measurable savings

Companies can take advantage of Internet and web-based outsourcing to also reduce their carbon footprint.

By Catherine Dahl, CMA



34 Money management

Strategies for generating retirement income. When it comes to your retirement, it's important to have an investment portfolio that can provide you with an appropriate amount of income. This can come from guaranteed investment certificates (GICs) and individual bonds, which can help provide a predictable flow of income.

By Michael Low, CMA



37 Information technology



Data quality: Familiar problem, new challenges

"GIGO" (garbage in, garbage out), one of IT's oldest acronyms, is a reminder that defective input leads to defective output. Today, there's growing concern about

data quality as organizations increase their reliance on information for operational and strategic purposes.

By Jacob Stoller

40 Government issues

Borrowers and creditors will feel effects of new insolvency reforms. Companies will experience both benefits and drawbacks if they owe money to lenders or supply goods to other companies.

By Christopher Porter

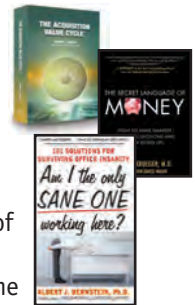


Departments

6 Media bites

Delivering results

- The Acquisition Value Cycle
- The Secret Language of Money
- Am I the Only Sane One Working Here?



8 News and views

New and noteworthy information you can use

- Misaligned and fragmented risk functions jeopardizing organizations' performance
- Saving lives in the workplace with new online gaming solutions

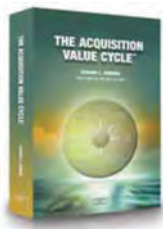
Next issue:

- Supply chain management



Making smarter decisions

The Acquisition Value Cycle



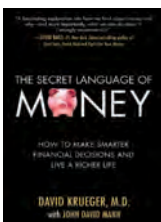
In his book *The Acquisition Value Cycle*, Howard E. Johnson shows how to create shareholder value at every stage of the acquisition process, from corporate strategy development, target company analysis, valuation and pricing, due diligence, and closing to integration. The book includes strategic planning tools, guidelines for

conducting a thorough analysis of the target company, comprehensive valuation and pricing models, practical negotiating strategies, common issues in due diligence, and the keys to successful integration. It also covers important concepts, such as value-based pricing, which will help readers match the risks and rewards of an acquisition opportunity. Readers will also learn how to:

- Identify the key value drivers within an acquisition target.
- Develop comprehensive valuation and pricing models to support corporate decision making.
- Get insight on structuring a deal to mitigate the risks of an acquisition.
- Learn effective negotiating strategies and guidelines for ensuring successful integration.
- Meet increasing corporate governance expectations.

Howard E. Johnson. Thomson Carswell.

The Secret Language of Money



Combining science and application, former psychiatrist and current financial coach David Krueger gives readers a guided tour to the subconscious meanings we give money, and the illogical ways we handle it. In his book *The Secret Language of Money*, he reveals the darkest, deepest unspoken financial secrets and offers suggestions towards better habits. In this

economy, there is no better time to have a deeper understanding of one's emotional connection to money — it can mean the difference between a comfortable retirement

and filing for bankruptcy. Readers may be shocked to recognize themselves in Krueger's deconstruction of destructive spending patterns. Debt cycles, competitive and compulsive spending, availability bias and spending justifications might be destroying your wallet. By attuning ourselves to the subconscious messages money is sending us, we will be more equipped to understand our motivations and spending habits and will gain the knowledge and power we need to rewrite our financial histories.

David Krueger with John David Mann. McGraw-Hill.

Am I the Only Sane One Working Here?



Have you ever worked alongside a nagging micromanager, a brown-noser, pathological liar, narcissist, basket case, or raging hallway maniac? Had to give a barely passing grade review? Handled, or been the subject of, gossip? Business is supposed to be rational and professional; however, the unfortunate truth is most

companies are dysfunctional. Albert J. Bernstein offers the secrets to staying sane in a crazy work environment by providing techniques that will help you rise above the most hair-raising behaviours and the most pessimistic of colleagues. If you're swimming against a strong current of crazy co-workers, you're likely the sole beacon of sanity. You can still manage it by changing your reactions, not their actions. Bernstein's guidance will help you go from puzzled to powerful just by changing your attitude and your understanding of office madness.

Albert J. Bernstein. McGraw-Hill.



Athabasca University 

CENTRE for INNOVATIVE MANAGEMENT

A new level of possibilities for CMAs. The AU Executive MBA builds on the CMA foundation of financial expertise and strategic leadership, and broadens your knowledge and understanding in critical management areas like strategy, human resources, marketing and operations. And with our online flexibility, you can advance your career without putting it on hold. Rise further faster with the Executive MBA that has been ranked one of the best in the world by the *Financial Times* of London.

AU Executive MBA. Today's way. 1-800-561-4650. www.mba.athabascau.ca

News and views

New and noteworthy information you can use

Misaligned and fragmented risk functions jeopardizing organizations' performance



Ninety-six per cent of global organizations today believe they have an opportunity to improve their risk management functions. Furthermore, nearly half say committing additional resources to risk management could create a competitive advantage, according to Ernst & Young's *Future of Risk* survey, which examines organizations' attitudes toward risk management. The survey of more than 500 senior executives, predominately those at the C-suite and board level, reveals the downturn is heightening awareness among companies of the need to manage risk more effectively.

Norman Lonergan, global advisory leader for Ernst & Young, says, "Although many organizations have boosted the size and reach of their risk management functions, this does not always equate to an increase in effectiveness. In fact, too few organizations can claim that shared reporting, data exchange and coordination consistently occurs among their various risk management functions. In the end, this only leaves the organization more vulnerable to the threat of risk."

Despite improvements in risk management over the past several years, organizations should continue to challenge their approach — especially now when most will be asked to do more with the same or limited additional resources. In fact, while only two per cent of survey respondents plan to decrease investments in risk management, almost two-thirds (61 per cent) say they do not plan to commit more resources to risk management over the next 12-24 months.

The survey also shows that the number of risk management functions featured in global organizations has increased to

keep up with compliance requirements. Despite this increase, the coverage and focus of these areas have become both increasingly difficult to manage and are compounded by a lack of alignment. For example, 73 per cent of respondents indicate they have seven or more risk functions. However, 67 per cent have overlapping coverage among two or more risk functions and half of those surveyed report experiencing gaps in terms of coverage.

The survey suggests that companies want improved risk coverage, while decreasing costs and improving value. Organizations aim to have their risk and control activities aligned and coordinated. Survey respondents also indicate that the key to making this possible lies in the coordination of the risk and control functions as well as the business units. This includes aligning the mandate and scope of each group, coordinating infrastructure and people, developing consistent methods and practices and sharing information and technology.

According to the results, survey respondents clearly recognize that risk management provides significant benefits to their organizations beyond better identification and understanding of key risks. Most respondents also report benefits from improved business performance (99 per cent), protection of business value (98 per cent), better decision making (98 per cent) and improved compliance with regulations (98 per cent). The full report is available at www.ey.com.

Management

Editorial Think Tank

Anthony Atkinson, PhD, FCMA
Professor, University of
Waterloo, Waterloo, ON

Pierre-Jean Dion, FCMA, CHRP, M.Sc.
Vice-president, Optima
Management Inc., Trustee, CMA
Canada Research Foundation
Montreal, QC

Clare Isman, FCMA
Deputy minister, Ministry of
Advanced Education,
Employment & Labour, Regina,
SK

John Mould, FCMA
Ombudsman, HSBC Bank Canada,
Vancouver, BC

Todd Scaletta, FCMA
Director, Knowledge
Management, CMA Canada,
Mississauga, ON

Ramesh Swamy, CMA
Senior manager, Deloitte
Financial Advisory Services
Los Angeles, Calif.

Darcy Verhun, MBA, CMC, FCMA
Partner, Conroy Ross Partners
Calgary, Alta.

Saving lives in the workplace with new online gaming solutions

CSA Standards launched a suite of interactive solutions that harness the power of eLearning gaming technology to teach emergency preparedness, safety and a variety of essential skills that could mean the difference between life and death on the job for many Canadian employees.

Canada alone experiences as many as 315,000 reported time-loss injuries and 1,055 workplace fatalities in a year¹. CSA's new tools for companies are designed to enhance the abilities of employers, employees, students and consumers to prepare for threats and emergencies of all sizes, by giving them the ability to experience them in realistic virtual scenarios — before they happen in real life.

“To reduce injuries, workplace training must teach best safety practices and change behaviour,” Suzanne Kiraly, president, CSA Standards, says. “These new interactive modules go well beyond the simple transfer of knowledge and engage users in making decisions in the workplace that are linked to real-world standards and safety guidelines. From handling hazardous materials to assessing risks to prevent major disasters, preparing workforces with safety and emergency response skills in a virtual environment could mean the difference between life and death on the job.”

CSA Standards' new eLearning interactive modules provide dynamic, entertaining and educational learning experiences, which are designed to increase an employee's ability to understand, retain and apply standards, codes, guidelines and policies in the workplace. Several CSA Standards eLearning solutions focus on health and safety at work, testing a learner's ability to assess risks, take appropriate action, and improve



decision making and problem-solving skills in settings where the risk for safety hazards can be very high. The eLearning interactive modules can be self-directed or paired with a classroom experience allowing students to learn at an appropriate pace. They can include life-like scenarios to help trainees understand the impact decisions can have on the job, providing a more dynamic learning environment than traditional text-based training.

¹ National Work Injuries Statistics Program and the Association of Workers' Compensation Boards of Canada, 2007.

So many players. Only one dominates.

Your Winning Choice.

At PTC Accounting and Finance, we are experts in fulfilling your contract accounting and finance needs. Whether you're pursuing interim accounting and finance jobs and projects, or are looking to hire top-quality candidates, we have the resources you require to find that perfect fit. We know the right moves to put you in the winning position.

Opportunities include:

IFRS initiatives / Controllers / Assistant Controllers / CFOs / Cost Accountants / SOX Specialists / Taxation / Treasury / Auditors / Project Accountants / Junior to Senior Accountants and much more.

For more info visit us online or call us today!



PTC sources contract accounting and finance talent.

Toll Free 1 877 303 9550

ptcaccounting.com



Embracing change in a challenging economy

While it's natural to want to "play it safe" during the downturn, many companies believe now is the right time to redefine priorities and reinvent themselves.

By Susan Chesney, CMA

Strategic organizations use times of uncertainty to redesign their operations. This approach helps them prepare their workforce to respond swiftly to new priorities as the economy improves. And as history shows, many companies that take a chance on reinventing themselves during a downturn can — and do — emerge stronger.

However, many managers feel they should wait until the downturn subsides before making significant changes. They cling to old business models, even if these strategies are no longer relevant in this new environment. They may believe that to protect the organization and employees, they must be very cautious. But prolonged inaction is not a sustainable business strategy. It may actually make it more difficult for the organization to survive the recession.

The following are a few tips for transforming your operations in the midst of economic turbulence. You may find these changes will help create long-term benefits for your business and workforce. You also may discover that your employees have been eagerly awaiting your signal that now — not later — is the time for embracing positive change and making plans for the future.

Nourish grassroots ideas

No one knows your business better than your employees. Encourage them to regularly share their ideas and experiences from working every day on the front lines. Your staff members can be a pivotal source of information about shifting customer needs.



Now is a good time to question the status quo, and for you and your team to find ways to help everyone work better and smarter.

They also are likely to know of opportunities for cutting costs, which tasks should be top priorities, and what skill gaps need to be addressed.

To promote excitement and a shared vision around your "reinvention" initiative, hold group brainstorming sessions. This will encourage employees to share and build upon each other's ideas. You will likely find your team members are especially motivated right now to think more creatively and provide their input. They no doubt recognize that imagination and innovation are important to the company's success. Just don't fail to follow up with team members who offer suggestions; you may not be able to implement everything they recommend, but don't discourage them by not responding to their ideas.



Strengthen your talent bench

The economy may not be running on full cylinders now, but eventually, it will be. With that in mind, progressive companies are using this “down time” to search for new talent. They are selectively augmenting their teams with professionals who have hard-to-find skills. Budgets may be tight, but these organizations know it is prudent to make strategic hires to help them stay productive and competitive now — and when the recession abates.

Bringing in temporary staff will ensure top talent won't be distracted by lower-priority tasks or burned out by excessive workloads.

Seek out multi-talented professionals with expertise in more than one functional area. You can rely on them to handle a variety of projects and responsibilities and stay on top of fast-changing business needs. Keep in mind, though, that while the economy has put some very talented people out of work, it doesn't mean they are easy to find. Look to reputable recruiters to help you locate individuals who possess the skills, attributes and experience you require. This approach can reduce time spent on the candidate search and hiring process, as well as training costs.

Groom future leaders

Difficult times can bring out the best in the people — especially talented individuals. This is why you should view the recession as a “testing ground” for your rising stars. Consider redesigning certain positions to make them more interesting and enriching for your employees. Try to provide mentoring and cross-training opportunities so strong performers can gain a broader view of the business. Pay particular attention right now to developing staff members you know are likely to play a vital role for the organization once the economic recovery is underway.

By providing stimulating assignments and meaningful responsibilities, you will keep your team motivated to perform despite the uncertain environment. Bright, creative people need to know their employer views investing in their long-term

growth as an ongoing priority. Emphasize the invaluable knowledge and experience your staff members are gaining during this challenging economic cycle. Future leaders will realize now is their time to shine and will strive to set an example for their colleagues.

Assemble a smart talent mix

Another approach to reinvention — and keeping your team efficient and nimble going forward — is implementing a more flexible staffing model. Supplementing your core staff with temporary employees allows you to staff up or down quickly and cost-effectively, according to business demands. Bringing in temporary staff will ensure top talent won't be distracted by lower-priority tasks or burned out by excessive workloads. And by taking a more holistic view of your staffing needs, you can determine when your team members are typically under extra pressure during the course of the year. This will enable you to make plans to hire adequate reinforcements exactly when needed. Interim team members whom you find to be highly skilled and professional may also serve as ready-made candidates for full-time positions when the time is right to start hiring.

Increase efficiencies

Now is a good time to question the status quo, and for you and your team to find ways to help everyone work better and smarter. For instance, determine how many key processes are still handled manually by your staff members. By automating labour-intensive tasks, you can free your employees to focus on other activities and make better use of their talents. If you can eliminate these inefficiencies now, you also will prevent them from creating roadblocks to achieving other priorities once your organization begins growing again.

Re-evaluate how you communicate with your employees, as well. Research by Robert Half suggests that more than one-quarter of professionals feel that meetings are the biggest time waster at work. Unless something you need to discuss with your staff absolutely requires group input — or is a message that should be delivered in person — consider communicating by e-mail or memo instead.

Your business, like many others worldwide, may be facing unprecedented challenges due to the recession. But this doesn't mean there is no room for optimism. One hallmark of “recession-proof” companies is their ability to make decisions with an eye toward the future. No one knows how long the road is to recovery, but by making some strategic changes today to your operations and investing in the development of your workforce, you will improve your organization's ability to be a formidable competitor both now and in the future. ■

Susan Chesney, CMA, is the director of permanent placement, Robert Half Finance & Accounting (Calgary).



Accounts payable automation leads to measurable savings

Companies can take advantage of Internet and web-based outsourcing to also reduce their carbon footprint.

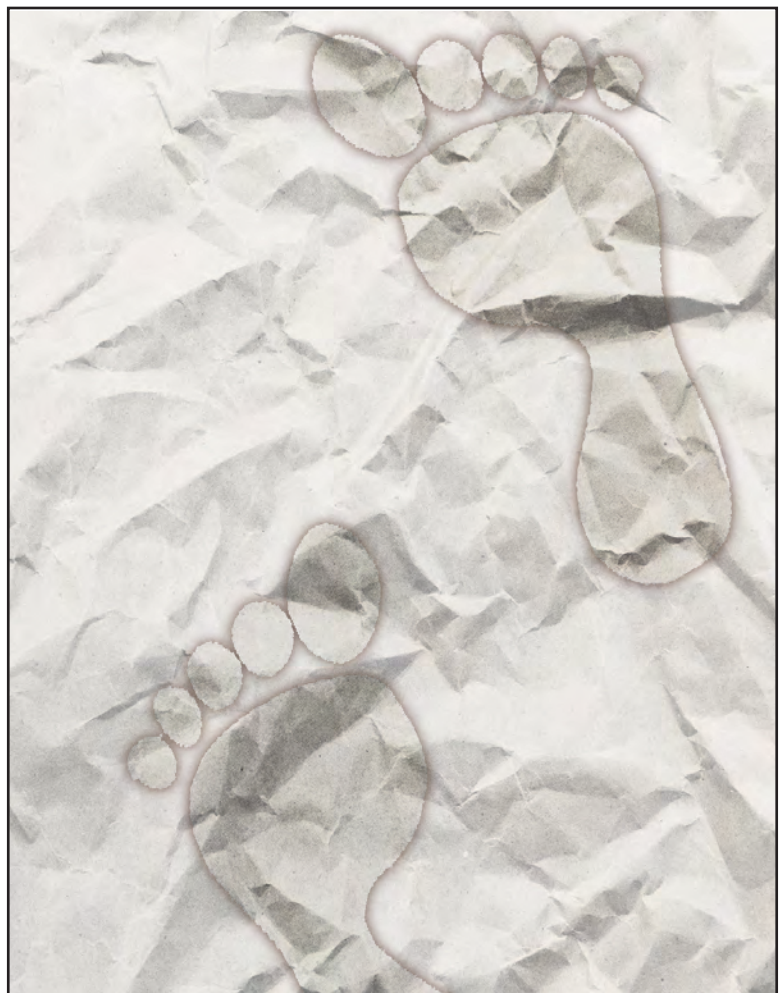
By Catherine Dahl, CMA

In your organization, has a vendor invoice ever sat under the paper pile on someone's desk? Has your company ever paid a bill twice because a duplicate invoice slipped through? Do you store your historical accounts payable files in boxes off-site or in some faraway room? Does your company make copies of invoices and send them to multiple locations for approvals at various levels of management?

With the onset of cloud computing and new technology, analyzing the cost and efficiency of the payable process can now get the attention it deserves in small to mid-size organizations.

If you answered yes to one or more of these questions, your organization suffers from "accounts payable pains," and you probably spend between \$12 and \$20 per vendor invoice to process that paper.

Not to worry, there is a solution. Automating your accounts payable process and workflow can eliminate these pains and save your organization significant resources at the same time. Recently, and especially in the U.S. and among Fortune 1000 companies worldwide, accounts payable departments are becoming an area of importance within an organization's strategic plan. With the onset of cloud computing and new technology, analyzing the cost and efficiency of the payable process can now get the attention it deserves in



small to mid-size organizations.

Rarely is there something truly evolutionary in the field of accounting that actually leads to measurable savings, is easy to do and relates to accounts payable. But the automation of accounts payable is precisely that: new, efficient, and capable of saving significant resources — financial and non-financial — and, as an added bonus, green.



Thanks to the Internet and web-based outsourcing, any company can take advantage of workflow process automation while reducing their carbon foot print.

What is accounts payable automation?

Accounts payable automation (APA) is the final frontier in process automation. Most companies still code, approve and file their vendor invoices by hand. APA changes the manual workflow into a paperless, digital process.

In other words, invoices are centrally scanned into a digital format via optical character recognition (OCR) software, routed for coding and approval via the Internet and e-mail and then imported into an accounting or ERP system. This process uses a web-based software application, “SaaS,” as well as an off-

Thanks to the Internet and web-based outsourcing, any company can take advantage of workflow process automation while reducing their carbon foot print.

site, secure document archival system. The OCR component combined with integration in the ERP eliminates the need for manual data entry.

According to a recent 2009 study conducted by Aberdeen Group (*E-Payables Benchmark Series: Imaging and Workflow 2009*), costs to process AP invoices range from the worst at \$55.00/invoice and 34.4 days to process, to average at \$12.20 cost/invoice and 14.4 days to process versus the best at \$4.60/invoice processed in 4.4 days. The companies who fell into the best-in-class framework had automated the process from receipt to payment to one degree or another. Forty-four of those companies were fully automated.

it takes one to know one



janet mceachern CMA

émilie dunnigan CMA

alicia scirriha CMA

arlene kobayashi CMA

candace markovich CMA



The Mason Group specializes in the recruitment and placement of finance and accounting professionals because that's the world we come from. For permanent or contract searches – for all levels from Financial Analyst to CFO – we know what it takes to help our clients and candidates find their perfect fit.

Discover yours at www.masongroup.ca

Mississauga 905-804-1100 Toronto 416-733-9393

t 5 f g h n a 7 i
q p r v 2 u % t l
n w t h e a s v h
l e f x m a s o n
c t b g r o u p m
+ o q z 1 f e 3 u
a 0 e 8 c n d o t

(strategic search partners)



Measurable benefits of automation

Automation provides numerous benefits and saves on resources that can either be redirected to the bottom line or redirected to revenue producing activities. A prime example is labour. Automation can reduce handling time by 50 to 70 per cent. At a construction company, for example, not only is the accounts payable clerks' time more available to handle greater volume, but the time saved by a project accountant on AP handling would allow him/her to handle additional projects thus reducing the overhead cost per project. Another good example is early payment discounts. Companies seeking to negotiate discounts with vendors will have greater negotiation leverage over terms if they can commit to payment timing. A detailed analysis of the costs to process manual AP in each of these areas can bring surprising results.

- **Labour cost-savings** — OCR capture and integration into enterprise resource planning (ERP) systems such as SAP or accounting software, such as QuickBooks, can significantly reduce the number of full-time equivalent accounts payable clerks needed. Alternatively, increase payables volume without adding more staff.
- **Increased utilization of cash discounts** — Most manual processes are too slow to maximize these opportunities or provide leverage to negotiate discounts. Terms are more often set by the buyer than the seller. (Source: The Accounts Payable Network)
- **Improved payment accuracy** — APA completely eliminates duplicate vendor payments. Ease and access of three-way matching of AP documents (packing slip to purchase order (PO) to invoice).
- **Improved document retrieval**

and storage — Seven per cent of all invoices go missing (Source: *The Accounts Payable Network*). The best APA systems are database archival systems. Finding documents is as easy as opening a web page and searching for the documents – extremely fast and simple.

A good exercise for an organization would be to measure the time spent on processing paper vendor invoices now.

- **Reduced operating costs** — APA can result in the elimination of physical paper storage, as Canada Revenue Agency accepts electronic copies for tax purposes. APA also reduces invoice routing (e.g. mail and courier) costs and time staff spend making multiple copies of vendor invoices.

Additional intangible benefits of APA include:

- Faster invoice dispute resolution — Seventy-five per cent of AP calls are status calls, and 80 per cent are from internal employees. (Source: *The Accounts Payable Network*)
- Easier rerouting or repackaging of accounts payable back-up documents to customers.
- Reduced business disruption after a disaster, as documents are off-site.
- Easier audits.
- Better regulatory compliance, such as SOX, as delivering vendor invoices to electronic repositories guarantees important data is recorded, properly validated and easily accessible to the audit

process and approval information is retained with the document.

Benefits of using SaaS applications over proprietary software

Why use a web-based option (SaaS) over purchasing or designing an in-house software system? Generally, cost is the reason; a typical client-server based system can run around \$500,000. But there are many other ways SaaS makes the APA process accessible to smaller companies.

- Lower cost of ownership.
- No installation or maintenance of hardware or software.
- Enhanced data security — most SaaS vendors have 24/7 physically secured and electronically secure data storage at a level most small to mid-size companies would find cost prohibitive.
- Affordable bandwidth.
- Disaster recovery/business continuity, as data is hosted and backed up off-site.
- Ease of upgrades, as this rests with the APA vendor.
- Continual access to new program features.
- Reliable service levels — SaaS providers typically monitor their systems 24/7 to proactively identify and fix potential problems.

Case study: How quickly it adds up

ABC Construction has \$12,000,000 in annual vendor payments, and four accounts payable clerks who process 1500 invoices a month. An average clerk can usually process as many as 750 invoices per month with manual data entry system (Source: *By the Numbers Accounting, OSBC research 2005*). The all-in salary of one FTE is \$36K annually or \$3K a month. Automation could replace three of these four clerks. ABC Construction could negotiate



Table 1

Company ABC	Per month	Annual
Labour costs FTE reduced by three	\$ 9,000	\$ 108,000
Missed discounts	2,997	35,964
Reduced duplicate payments loss	1,000	12,000
Document storage costs	500	6,000
TOTAL estimated savings	13,497	161,964
Sample costs of a web-based service APA offering		
User fees for 25 users	750	9,000
Invoice Capture fees 1500/inv/month	1,785	21,420
TOTAL	2,535	30,420
Net savings	\$10,962	\$ 131,544

early payment discounts from its vendor of 1.5 per cent on about 54 per cent of its invoices, but currently only able to capture 63 per cent of those available. (Source: IOMA’s benchmarking study 2005). That adds up to \$34,964 in total vendor payments that are available for early payment discounts that are missed annually.

Its estimated ABC construction does not employ a good PO system or centralized purchasing and therefore loses 0.01 per cent of total payables through unrecovered duplicate payments (Source: IOMA’s benchmarking study 2005). And that the company also pays \$500 per month for long-term, off-site storage.

Table 1 outlines how much an APA system could save ABC Company.

As illustrated by this example, a good APA system will pay for itself many times over. Keep in mind each company has its own unique set of processes and problems. When considering this type of automation, a detailed analysis is recommended and can be furnished by your APA provider. In addition to easily measured savings, a company should also consider the soft costs saved by a reduction in frustration and “pains” that exist outside the accounts payable department. A good exercise for an organization would be to measure the time spent on processing paper vendor invoices now. Who handles the invoices and POs? How much time is spent on handling payables inquiries, etc.? What else could they do if that time was freed up?

Table 2

Paper	522.5 pounds of paper saved.
Water	4983 gallons of wastewater prevented from discharging into lakes, streams and rivers.
Gasoline	347.6 gallons of gas saved by not mailing bills, statements, and payments.
Greenhouse Gases	13413 pounds of greenhouse gases avoided.

*The above equates to 13212 miles not driven in your car, 156 trees planted (and grown for 10 years) and 1849 sq. ft. of forest preserved from deforestation.

Three keys to successful adoption of APA

When considering automating the payables process, there are three critical keys to success and to ensure maximized benefits:

1. **Plan ahead.** Analyze your process, cost out the inefficiency of your current system, make an implementation plan and know your workflow.
2. **Assess your organization’s ability to adapt to change.** Going paperless is not as simple as it seems, as we are so used to paper.
3. **Have a centralized routing system for all vendor invoices.** To gain the efficiencies of an APA system, paper has to be discarded after it is scanned. Or mandate electric vendor invoices.

The green factor


In the preceding example, ABC construction would save 522.5 pounds of paper or 13,413 pounds of green house gases by automating their AP process right through to electronic fund transfers.

Any company can measure its carbon foot print of its paper AP system by visiting www.payitgreen.org/green-calculator and plug in two simple numbers — the total monthly vendor invoice volume and the number of paper checks. In the example, the industry average of three invoices to one check was used.

By switching to electronic bills, statements, and payments, ABC Sample Company can conserve the following resources in one year. (Table 2) ■

*Source: PayItgreen Alliance. The PayItGreen Alliance is a coalition of financial services companies, led by NACHA, that is committed to educating consumers and businesses about the positive environmental impact of choosing electronic payments, bills, and statements instead of paper.

Catherine Dahl, CMA (catherine@beanservices.com), is a client development manager with Bean Services Inc. — a developer of web-based invoice software and a APA SaaS provider based in Vancouver.



Improving performance measurement: Not-for-profit organizations

The challenges of managing the not-for-profit organizations are often quite different from those in the for-profit sector. But business executives who actively manage not-for-profits or sit on their boards should insist on developing contemporary performance measurement models and tools that are becoming common in the business world.

By Marc J. Epstein and Adriana Rejc Buhovac

In recent years, the urge to improve the performance measurement of not-for-profit organizations increased for several reasons, among which management decision-making and the organization's external credibility are the most important ones. Social impacts and constituent's benefits, namely, are much more difficult to measure than purely financial, because they are often intangible, hard to quantify, difficult to attribute to a specific organization, and best evaluated in the future. This often presents obstacles to making optimal managerial decisions, in particular, how much to invest in pursuing a particular means of creating social value, while also making it difficult to produce compelling evidence of impact and mission achievement.

The primary challenge of measuring the performance of not-for-profit organizations is to articulate their missions in a concise and measurable way. This will allow designing an appropriate strategy, ideally in the form of a causal linkage map, as well as social impact-focused measures, member-focused measures, and other non-financial performance measures (in addition to the relevant financial metrics) that measure success of that strategy.

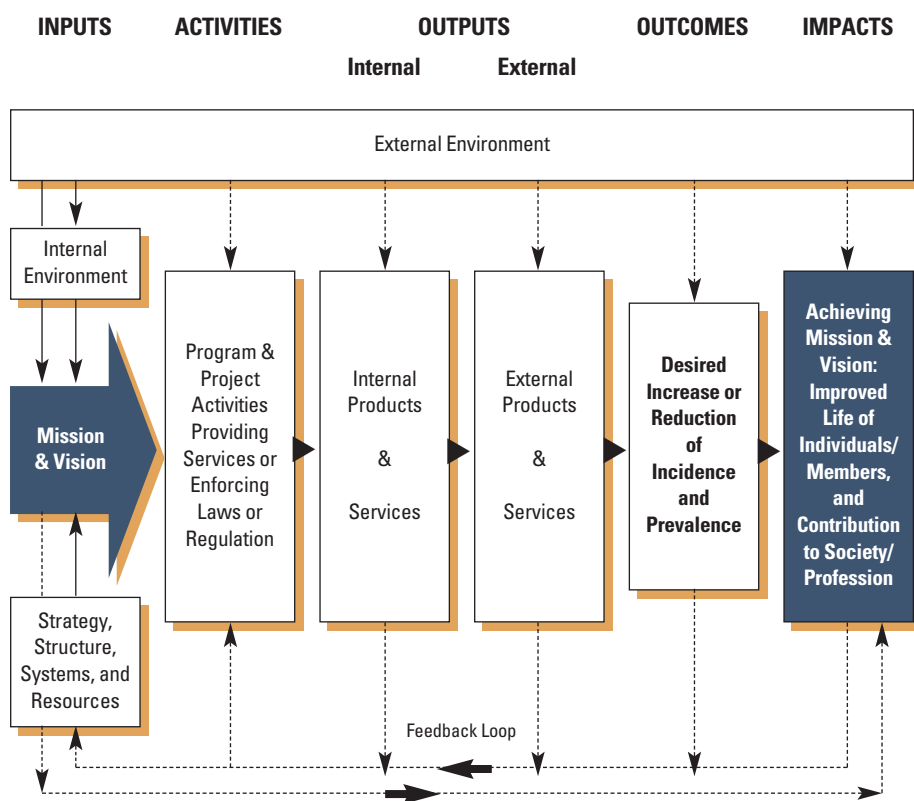
The input-impact model for measuring performance of not-for-profit organizations

Exhibit 1 shows a generic Input-Impact Model that puts the mission and vision statement at the core and also places strategy, organizational structure, systems, resources as well as internal environment among the inputs. The mission defines the core purpose of the organization — who are the organization's beneficiaries and what do they value? A vision statement should specify what result or changes the organization hopes to achieve and when is this supposed to happen. A

good strategy clearly describes the path towards reaching this overarching goal. The principal resources used by most not-for-profit programs include personnel, physical facilities, equipment, materials, and contract services. If the organization has access to them and uses them strategically and with support of the organizational structure, systems, and a healthy environment it can accomplish the planned activities. Program activities

outputs, because outputs often either represent the amount of work performed or the volume of activities completed (internal outputs), or the number of clients or cases that have been treated (external outputs). This division is useful, but not obligatory. As a consequence, the participants should benefit in certain ways (outcomes). If the benefits to participants are achieved, then certain changes in the communities or society

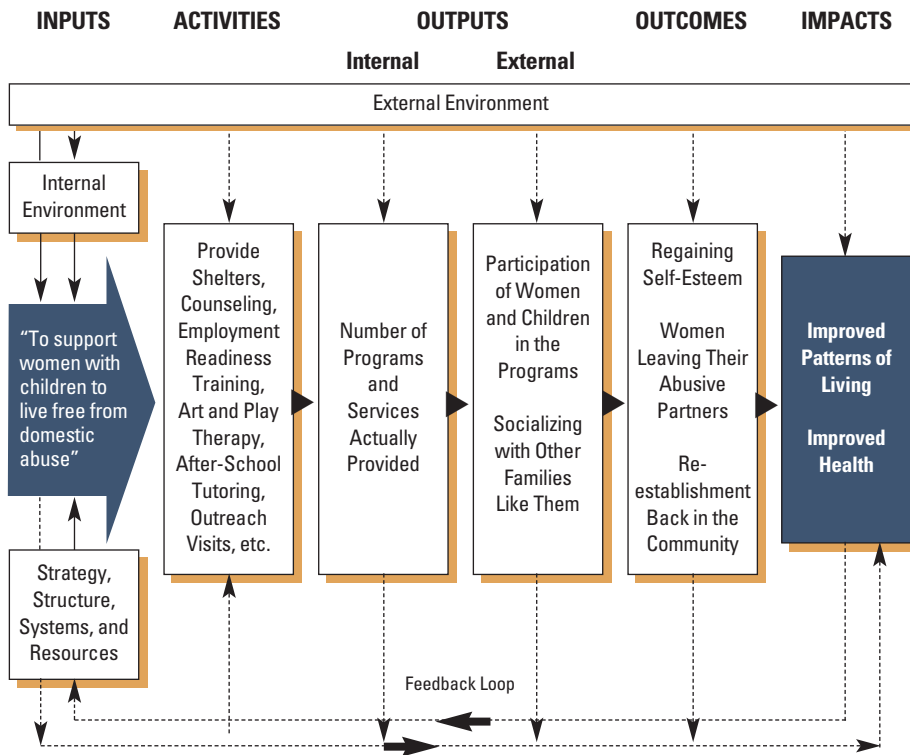
Exhibit 1: The Input-Impact Model for Measuring Performance of Not-For-Profit Organizations



involve the provision of services or the enforcement of laws or regulations, or both. These activities may range from analyzing clients' status, counseling and guidance, occupational and business training, etc. Outputs are the immediate products or services produced by a program. They may be divided into internal and external

as a whole might be expected to occur (impacts). All elements in the Input-Impact Model as well as their linkages are under the influence of external environment; therefore, it is important to identify relevant external influences which may act as facilitators or impediments to a not-for-profit organization's success.

Exhibit 2: The Input-Impact Model for not-for-profit organizations providing safe places and other services to abused women with children

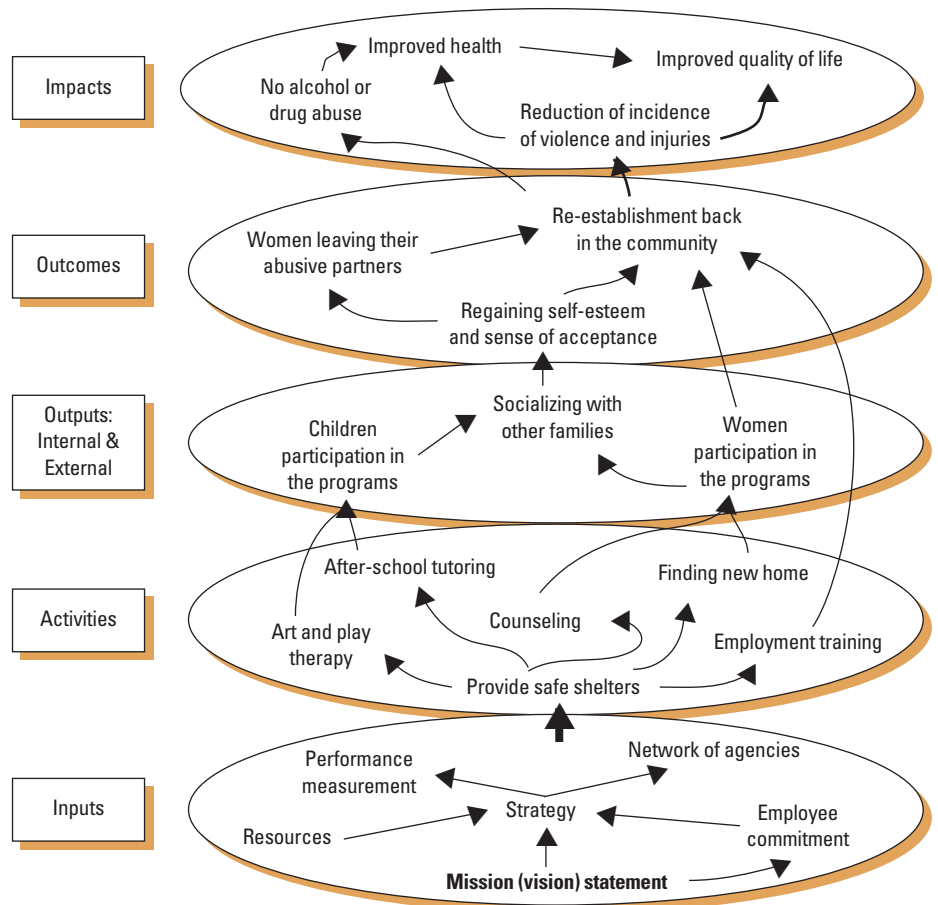


increasingly want to know that their money is being used effectively and might donate more generously if a not-for-profit organization is succeeding.

Finally, critical performance measures are needed. Financial or efficiency measures would typically be viewed as important intermediate measures, but not measures of ultimate success of the not-for-profit organization. Still, whenever meaningful and possible, performance measures should be expressed in monetary terms. In many cases, social impacts or constituents' benefits can be expressed as monetary results, such as increased life-time earnings of students who have been able to afford the cost of college education based on successful micro-enterprise business. Another example is the decrease in public welfare assistance payments as result of successful placements of hard-core unemployed. With monetary performance measures, it is

Every program should be measured and evaluated along the five dimensions of the Input-Impact Model. For this reason, clearly laid-out cause-and-effect relationships between the inputs, activities, outputs, outcomes, and impacts are needed. As such, a Causal Linkage Map of Impact Drivers will be visually presented through two practical examples. Logically designed linkages among the various drivers of success of a not-for-profit organization help managers understand, monitor, manage, and communicate many other cause-and-effect relationships, such as those between the internal and external outputs, or between the outputs, outcomes, and impacts. They implicitly state that it is helpful to monitor more immediate measures relating to such issues as the amount of work conducted, the timeliness and quality of that work, the efficiency with which it is conducted, the degree to which it is seen as being responsive to clients, and the extent to which it is completed within budget. But it is also critical to measure actual results. Impacts — though difficult to measure — are particularly important because donors

Exhibit 3: The Causal Linkage Map of Impact Drivers for not-for-profit organizations providing safe places and services to abused women with children



also easier to align and integrate performance management systems with the accounting systems. It also aids communicating with stakeholders, especially those responsible for finances and resource allocation, and with those who donate funds.

Practical applications of the Input-Impact Model and its supporting tools in the not-for-profit sector

Not-for-profit organizations may be considered as primarily social impact-focused not-for-profit organizations such as charities, or as member-focused not-for-profit organizations such as professional organizations. However, classifying not-for-profit organizations is not easy as some have elements of both types of not-for-profit organizations. For this reason, one should rather think of a continuum of not-for-profit organizations spanning from purely socially-focused to purely member-focused organizations with numerous not-for-profit organizations having dual roles of serving both the members and the society.

The two following examples have been designed as guidance in how to develop comprehensive performance measurement systems in both types of not-for-profit organizational settings. Along with the specification of the critical elements in the model, a Causal-Linkage Map of Impact Drivers is provided for each of these examples outlining the cause-and-effect relationships between the drivers, as well as a selection of appropriate performance measures for monitoring and reporting on their performance.

Example 1: Practical application of the Input-Impact Model to social impact-focused not-for-profit organizations

An example of a social impact-focused not-for-profit organization is an organization providing safe places and accessible services to women and their children that want to be safe from domestic abuse. For such an organization, the Input-Impact Model provided in Exhibit 2, can be used. In addition, the Causal Linkage Map of Impact Drivers is provided (Exhibit 3) along with performance measures (Exhibit 4). This specific model and accompanying tools can easily be adapted to not-for-profits providing homeless shelters and many other organizations.

Activities and programs typically provided by these not-for-profit organizations include offering shelters (a safe place to stay, nutritious meals, and the basics they might need),

one-on-one counseling, therapeutic and educational support (e.g., art and play therapy and after-school tutoring for children and workshops and groups for women), recreational activities, employment training and job support for women, helping find affordable housing, setting up a new home, etc. If these activities are actually provided (internal outputs) in

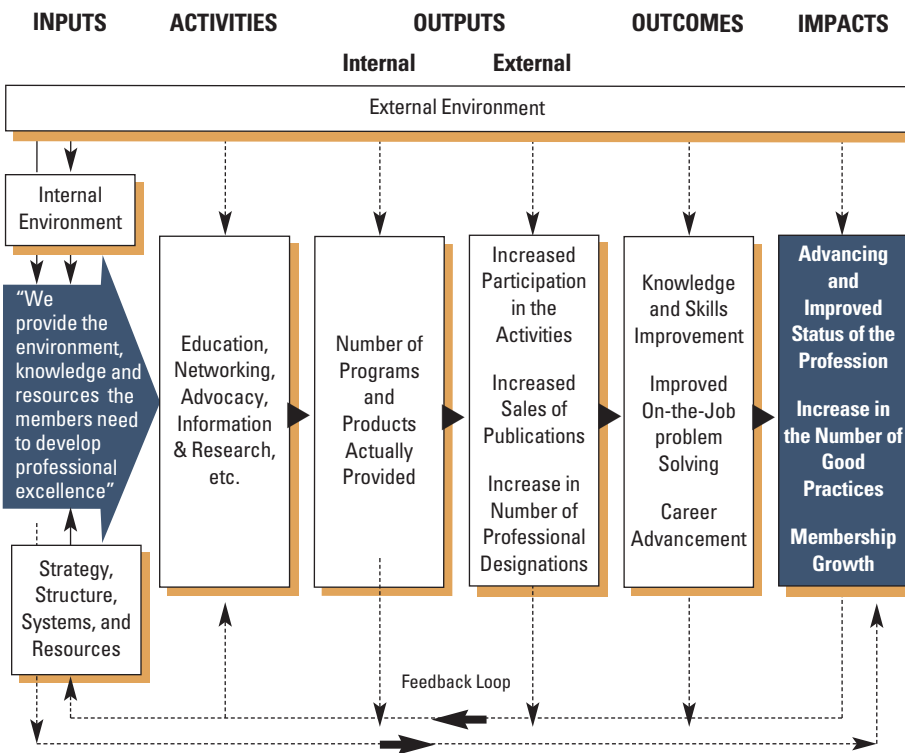
Exhibit 4: Examples of performance measures for not-for-profits providing safe places and other services to abused women with children

CATEGORIES	PERFORMANCE MEASURES
Inputs	<ul style="list-style-type: none"> • % alignment of strategic priorities with the mission statement • % of employees committed to achieving the mission • % increase in staff employed organization-wide • Operational sustainability (operating revenue as a % of costs) • % increase in financial sustainability
Activities	<ul style="list-style-type: none"> • Dollars spent providing safe places to stay • Dollars spent on women-related activities • Dollars spent on children-related activities • Dollars spent on family-related activities • Employee productivity
Outputs	<ul style="list-style-type: none"> • Number (%) of women participating in the offered programs • Number (%) of children participating in the offered programs • % of families socializing with similar families
Outcomes	<ul style="list-style-type: none"> • % of women leaving their abusive partners • % of women successfully entering new jobs • % of abused families setting up a new home • % of children re-establishing themselves in their communities
Impacts	<ul style="list-style-type: none"> • % of beneficiaries reporting the reduction in the incidence of violence • % of beneficiaries reporting the reduction in the impact of injuries and violence • % of beneficiaries safe from alcohol abuse • % of beneficiaries safe from underage drinking • % of beneficiaries safe from abuse and illicit use of drugs • % of beneficiaries reporting major improvement in quality of life

an effective manner, it is expected that women and children would actually participate in the programs offered and also start socializing with other families like them. As the result of these outputs, a number of outcomes should occur, such as regaining their self-esteem, women leaving their abusive partners, and the re-establishment of their families back in the community. Lastly, the following social impacts are expected to happen: improved patterns of living and improved health of these families. Exhibit 3 further specifies suggested relevant drivers of social impacts of these types of not-for-profit organizations and visualizes their relationships.

The most difficult to measure elements in the Causal Linkage Map of Impact Drivers are those reflecting social impacts. For not-for-profit organizations providing safe places and accessible services to abused women and their children, a number of performance measures are provided to

Exhibit 5: The Input-Impact Model for professional associations



not-for-profit organizations may include the following: business and professional organizations (such as labor unions, professional associations, and trade associations), arts and cultural organizations, educational organizations (such as colleges, private schools, and universities), funding foundations, political parties, research and scientific organizations, sports and recreation organizations, etc. Again, they could have been classified differently as some of these have dual roles of serving both the members and the society. They would, therefore, be looking for performance measures that relate to both, the social impact-focused performance measures that were just discussed and the member-focused performance measures. Exhibit 5 provides an illustrative example of an Input-Impact Model applicable to professional associations but it can also be applied to other

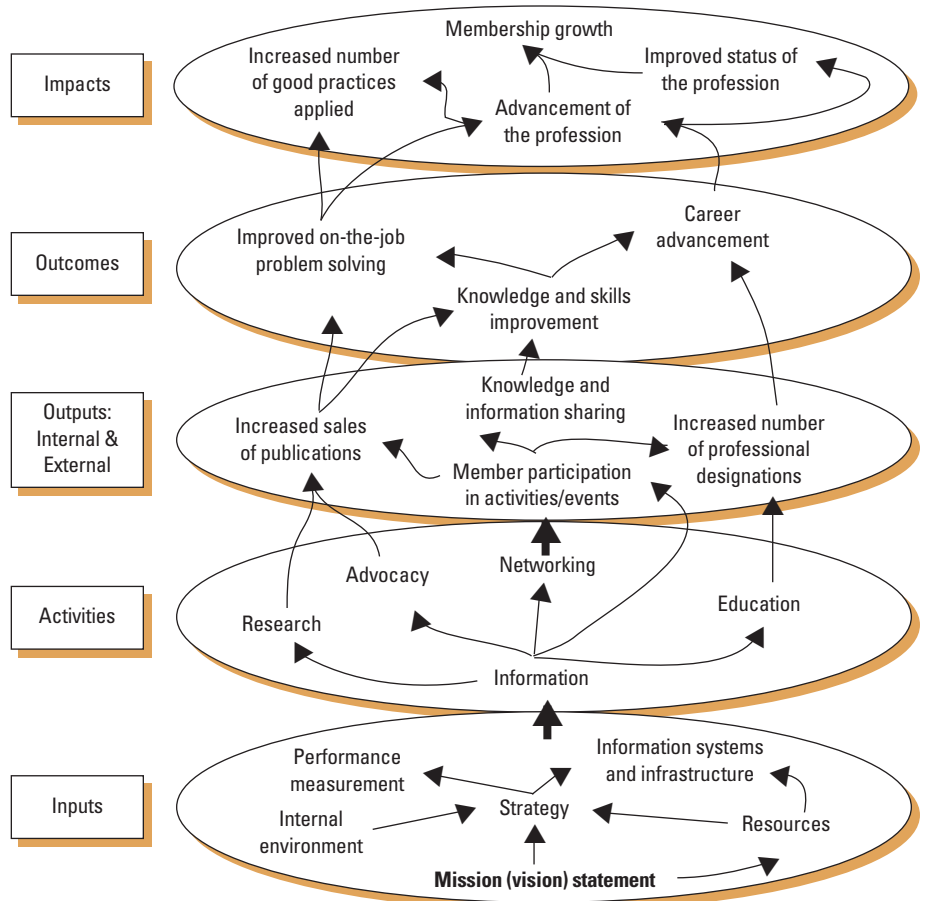
measure social impacts. Exhibit 4 includes, for example, percentage of beneficiaries reporting the reduction of incidence of violence and percentage of beneficiaries reporting the reduction of impact of injuries and violence. Both reflect short-term social impacts of not-for-profit organization's programs. Long-term impacts, on the other hand, may be measured by percentage of beneficiaries safe from underage drinking (this indicator relates to children involved in abuse), percentage of beneficiaries safe from alcohol abuse, percentage of beneficiaries safe from abuse and illicit use of drugs, as well as percentage of beneficiaries reporting major improvement in their quality of life. Alcohol abuse and abuse and illicit use of drugs, again, may relate to children involved in abuse in their later stages of life.

Exhibit 4 provides sample performance measures supporting the elements in the causal linkage map or the program logic model.

Example 2: Practical application of the Input-Impact Model to member-focused not-for-profit organizations

An illustrative list of member-focused

Exhibit 6: The Causal Linkage Map of Impact Drivers for professional associations



business or professional organizations, such as labor unions or trade associations. Exhibit 6 further provides the causal linkage map of impact drivers and Exhibit 7 lists potential performance measures. Activities provided by professional associations and other business and professional not-for-profit organizations typically include educational services, networking, advocacy, information and research. Internal outputs relate to the number of programs, services, and products actually provided, such as newsletters and magazines published, continuous access to online resource libraries and member directories, seminars, courses, and other events organized, etc. External outputs, on the other hand, include the increased participation of members in these activities, increased sales of publications, increased number of professional designations, etc. Expected outcomes as consequences of these outputs would typically include the following individual benefits: knowledge and skills improvements, improved on-the-job problem solving, career advancement, etc. In some cases, such as when members receive professional designations, even higher salaries may be considered the outcome. Lastly, the impacts relating to the profession as a whole may include the advancement of the profession, improved status of the profession, and an overall increase in the number of good (professional) practices applied in the organizations, and membership growth.

Exhibit 6 provides a visual representation and further specification of the cause-and-effect relationships between these elements.

The Causal Linkage Map of Impact Drivers provided in Exhibit 6 reveals a number of potential outputs resulting from appropriately organized and executed activities and programs, such as increased knowledge and information sharing that, in turn, lead to improvements in knowledge and skills of organizational members. Similarly, member participation in educational programs and courses are expected to lead to an increase in the number of professional designations that should, in turn, lead to an individual's career advancement. The final impacts, however, reflect an increase in the number of good practices applied in the member organizations, an advancement in the profession as a whole, a growth in the respect and status of the profession,

Exhibit 7: Examples of performance measures for professional associations

CATEGORIES	PERFORMANCE MEASURES
Inputs	<ul style="list-style-type: none"> • % alignment of strategic priorities with the mission (vision) • % growth in the number of full-time employees • Employee commitment to achieving the mission (vision) • Operational sustainability (operating revenue as a % of costs) • Dollars available for IT infrastructure investments • % of activities documented and measured
Activities	<ul style="list-style-type: none"> • % realization of the planned activities • % increase in dollars spent on various activities • % employees actively involved in activities
Outputs	<ul style="list-style-type: none"> • % increase in member participation in various activities/events • % of participants satisfied with the overall quality of provided activities • Site traffic (number of visits) and functionality of website (click-through rate or stickiness) for resource library, member directories, etc. • % increase in sales of publications • % increase in staff consultations and advocacy • % of members using networks for their career advancement • % increase in the number of professional designations
Outcomes	<ul style="list-style-type: none"> • % of members who advanced their careers based on professional designations acquired • % of members who claim to have improved their on-the-job problem-solving • % of members who claim to have acquired significantly new professional knowledge • % of members who claim to have acquired useful new skills for their profession
Impacts	<ul style="list-style-type: none"> • % members who applied new practices in their organizations • % of members who claim to have improved their organization's performance based on implemented good practices • Number of successful interventions by the professional association's members in determining relevant new legislation • % change in the association's status rating • % increase in the number of members of the association

and as a consequence, a growth in the number of professional members.

Exhibit 7 provides examples of performance measures supporting these cause-and-effect relationships.

With continuous and committed efforts toward developing and implementing contemporary performance measurement systems, managers of not-for-profit organizations will be able to improve performance of their organizations. The model presented in this article may also help similar not-for-profit organizations successfully partner on developing accurate or informative benchmark measures for themselves to compare to their own peers. And finally, this kind of measurement can help solidify and document the importance of not-for-profit organizations to lawmakers. ■

Marc J. Epstein (epstein@rice.edu) is a research professor of management at Jones Graduate School of Management at Rice University in Houston, Texas. Adriana Rejc Buhovac (adriana.rejcbuhovac@ef.uni-lj.si) is an assistant professor at the faculty of economics at the University of Ljubljana.

The preceding article is based on a Management Accounting Guideline (MAG®), published by The Society of Management Accountants of Canada, the American Institute of Certified Public Accountants and The Chartered Institute of Management Accountants.





The Goldilocks approach to budgeting: Not too high, not too low, **but just right**

Setting budgetary goals that are too high may contribute to low morale because of repeated failure, while setting goals too low provides no motivation to exert effort.

By Mary Mindak, Jeri Ricketts, and Jens Stephan

Every managerial accounting textbook has a chapter on budgeting which asserts that budgets are useful because they: formalize an organization's plans; promote coordination and communication of the plan among subunits; and provide a tool to motivate, evaluate, and reward managerial performance.

While much is made of the linkage between the budget and the organization's strategy, more space is often given to the dysfunctional behavior caused by budgets. For example, the deliberate creation of budgetary slack is cited as a prime example of behavior that causes sub-optimal performance. Similarly, there is an inherent tension in setting goals at the right level. Descriptions often include terms like realistic and reasonable or challenging, yet attainable. Or, they may be articulated as "stretch" goals that can sometimes be met by capable managers exerting a high degree of effort, e.g., less than a 50 per cent chance of success. Jack Welch, former CEO of General Electric, described challenging budgets as energizing, motivating, and satisfying for managers capable of thinking outside the box. Setting budgetary goals too high often results in low morale because of repeated failure, while setting goals too low provides no motivation to exert effort. In both cases, performance suffers.

The example used throughout this article will help organizations quantify the "chance of success" so that their operating budget will be challenging, yet attainable. The inputs will be forecasts of key performance variables such as volume, prices and costs. Management accountants will be able to use their knowledge of the business to model interactions among key variables, e.g., higher prices result in lower sales or higher production volume creates economies of scale. Finally, the technology is simple enough to use so that everyone can see how

forecasts of variables affect the distribution of operating income. This transparency is invaluable in getting “buy-in” from all participants. The Monte Carlo simulation is used as it is easily adapted to this problem.

Limitations of scenario analysis

A look at almost any finance textbook reveals scenario analysis (also sensitivity analysis and what-if analysis) as the traditional method to deal with uncertainty. The number of scenarios is usually limited to three and they are typically labeled worst case (WC), most likely case (MLC), and best case (BC). While academics and managers have been able to squeeze useful information from this approach, it has some serious limitations.

First, there are usually several forecasted variables, e.g., sales volume, prices and costs, imbedded in an operating budget. Literal application of scenario analysis assumes that the WC (MLC, BC) value occurs for all variables simultaneously, e.g., sales and prices are the lowest number possible and costs are the highest number possible. While this will produce three estimates of operating income, the probability of extreme outcomes (WC, BC) is so low that it’s almost meaningless.

Jack Welch, former CEO of General Electric, described challenging budgets as energizing, motivating, and satisfying for managers capable of thinking outside the box.

Second, it is possible to assign probabilities to each scenario, e.g. probability of WC = 20 per cent, probability of MLC = 50 per cent, and probability of BC = 30 per cent. Standard finance theory suggests that weighting the outcomes by their probability to produce the “expected” (average) value is appropriate. However, this produces a point estimate of operating income which is not useful in estimating the chance of success, e.g., the probability of achieving a particular operating income.

Third, it is feasible to employ all possible combinations of WC, MLC and BC scenarios for each variable. However, as the number of variables forecasted increases, the number of scenarios increases exponentially. For example, WC, MLC and BC scenarios for volume, prices, and variable costs results in 27 separate possible scenarios (3 sales volumes X 3 prices X 3 variable costs). Add in uncertainty about product mix and customer mix along with multiple variable and fixed costs, and the number of scenarios can easily reach thousands. While this represents an improvement over the first two alternatives, it still suffers from the limited number of outcomes, e.g., forecasted variables can take on only the WC, MLC, and BC values, intermediate values are not permissible.

Monte Carlo simulation

The Monte Carlo simulation overcomes the three limitations described above. Forecasting WC, MLC, and BC values effectively assigns a triangular distribution to the possible outcomes of each variable. The program samples randomly from these distributions (including intermediate values) and calculates operating income. For example, after 1,000 (or more) iterations, an organization has a distribution of operating income and can state that the probability of operating income being greater than or equal to \$X is Y%. This captures the essence of the statement about the “chance of success.” The two most popular simulation tools are Crystal Ball and @Risk, both Excel add-ins that are easy to use and interpret.

Example:

To see the benefits of simulation, here’s a simple problem that uses typical scenario analysis, yet makes the mathematics tractable and transparent. Uncertainty is limited to: (1) the number of units sold; (2) the selling



Strategic Project Solutions
Bridging IT & Business

Limited resources forces intelligent thinking. Yet technology investments must continue because of competitive or regulatory reasons. Experienced project management expertise becomes a critical piece of the puzzle. Ensuring your projects’ success means knowing when to seek help. *Now that’s intelligent thinking!*

Cost-effective Solutions.

- Project and Program Management
- Virtual Project Management Office
- IT Strategy Alignment

www.strategicprojects.ca

Figure 1: XYZ Company

	WC Scenario	MLC Scenario	BC Scenario
Sales (units)	6,400	7,100	9,000
Sales price per unit	\$16.00	\$18.00	\$9.00
Variable cost per unit	\$13.00	\$9.50	\$9.00
Contribution margin per unit	\$3.00	\$8.50	\$10.00
Total fixed costs	\$38,000	\$38,000	\$38,000
Total operating Income	(\$18,800)	\$22,350	\$52,000
Probability	30%	50%	20%
Expected profit		\$15,935	

price per unit and (3) the variable costs per unit. A hypothetical operating budget is presented in Figure 1. Probabilities for each scenario are included deliberately, not symmetrical, around the MLC.

As shown in Figure 1, there are three possible outcomes for operating income [\$52,000, \$22,350, (\$18,800)]. The average (expected) outcome is \$15,935 [\$52,000 X 20 per cent + \$22,350 X 50 per cent + \$18,800 X 30 per cent] and the most likely outcome (occurs most frequently, e.g., half the time in this example) of \$22,350. Note that the average operating income is not equal to any of the possible outcomes and is, therefore, a mathematical construct. However, FASB Concepts Statement #7 recommends this approach when using estimated cash flows for financial decision making. The imbedded assumption in this description is, of course, that the only alternatives are all three variables simultaneously taking on the worst/best/most likely case values.

How would a manager interpret this budget? The probability of meeting or beating the MLC scenario for operating income is 70 per cent. That might sound pretty good, but with plausible assumptions, the probability of meeting or beating the MLC scenario is only 18 per cent. This statement should raise some

serious concerns if a company is trying to set a goal for operating income that is challenging, yet attainable.

The reader familiar with statistics will quickly recognize that there are more than three scenarios imbedded in this example. In fact, there are 27 scenarios (3 sales forecasts X 3 contribution margin forecasts X 3 fixed cost forecasts). The operating income for all 27 scenarios has been calculated, sorted from minimum to maximum and is presented in Exhibit 1.

But, how should this be interpreted? One approach might be

Exhibit 1: Scenario Analysis

Scenario	Sales in units	Sales price	Variable cost	Fixed cost	Contribution margin
1	6,400	\$16.00	\$13.00	\$38,000	(\$18,800)
2	7,100	\$16.00	\$13.00	\$38,000	(\$16,700)
3	9,000	\$16.00	\$13.00	\$38,000	(\$11,000)
4	6,400	\$18.00	\$13.00	\$38,000	(\$6,000)
5	7,100	\$18.00	\$13.00	\$38,000	(\$2,500)
6	6,400	\$19.00	\$13.00	\$38,000	\$400
7	6,400	\$16.00	\$9.50	\$38,000	\$3,600
8	7,100	\$19.00	\$13.00	\$38,000	\$4,600
9	6,400	\$16.00	\$9.00	\$38,000	\$6,800
10	9,000	\$18.00	\$13.00	\$38,000	\$7,000
11	7,100	\$16.00	\$9.50	\$38,000	\$8,150
12	7,100	\$16.00	\$9.00	\$38,000	\$11,700
13	9,000	\$19.00	\$13.00	\$38,000	\$16,000
14	6,400	\$18.00	\$9.50	\$38,000	\$16,400
15	6,400	\$18.00	\$9.00	\$38,000	\$19,600
16	9,000	\$16.00	\$9.50	\$38,000	\$20,500
17	7,100	\$18.00	\$9.50	\$38,000	\$22,350
18	6,400	\$19.00	\$9.50	\$38,000	\$22,800
19	9,000	\$16.00	\$9.00	\$38,000	\$25,000
20	7,100	\$18.00	\$9.00	\$38,000	\$25,900
21	6,400	\$19.00	\$9.00	\$38,000	\$26,000
22	7,100	\$19.00	\$9.50	\$38,000	\$29,450
23	7,100	\$19.00	\$9.00	\$38,000	\$33,000
24	9,000	\$18.00	\$9.50	\$38,000	\$38,500
25	9,000	\$18.00	\$9.00	\$38,000	\$43,000
26	9,000	\$19.00	\$9.50	\$38,000	\$47,500
27	9,000	\$19.00	\$9.00	\$38,000	\$52,000

to assume that all 27 scenarios are equally likely and that the probability of meeting or beating an operating income of \$22,350 is $11/27 = 41$ per cent. This is a significant reduction from the previous analysis where there's a 70 per cent chance of meeting or beating \$22,350.

Every managerial accounting textbook has a chapter on budgeting which asserts that budgets are useful because they: formalize an organization's plans; promote coordination and communication of the plan among subunits; and provide a tool to motivate, evaluate, and reward managerial performance.

Even when all possible scenarios are considered, the sales, prices, and variable costs could be any number between the minimum and maximum values (e.g., there is no reason that the only possible outcomes for sales are 6,400 units, 7,100 units, or 9,000 units). This is where simulation becomes useful. The WC, MLC and BC forecasts, in effect, define a triangular distribution with the minimum and maximum values having an extremely low probability of occurring (consistent with intuition). Figure 2 illustrates what the distribution for sales would look like using the Crystal Ball.

The minimum value is 6,400 units, the most likely value is 7,100 units, and the maximum value is 9,000 units. Similarly, triangular distributions for prices and variable costs are illustrated in Figure 3.

Figure 2

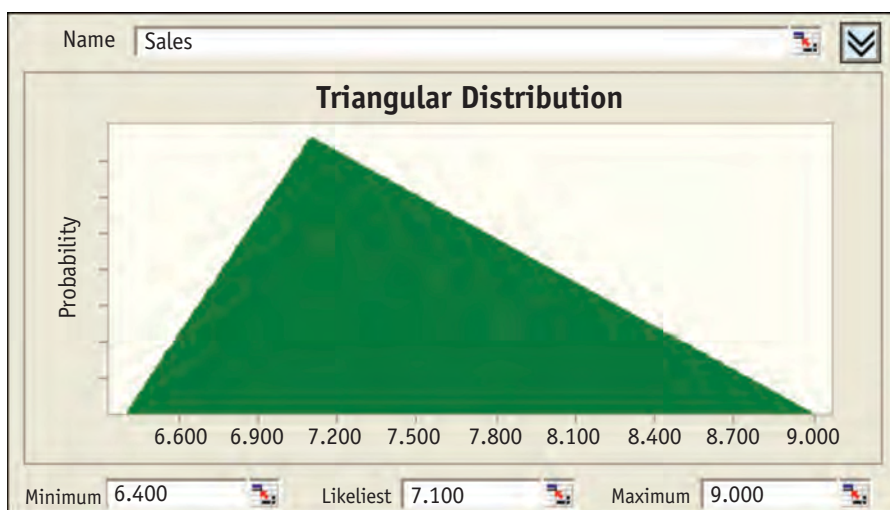
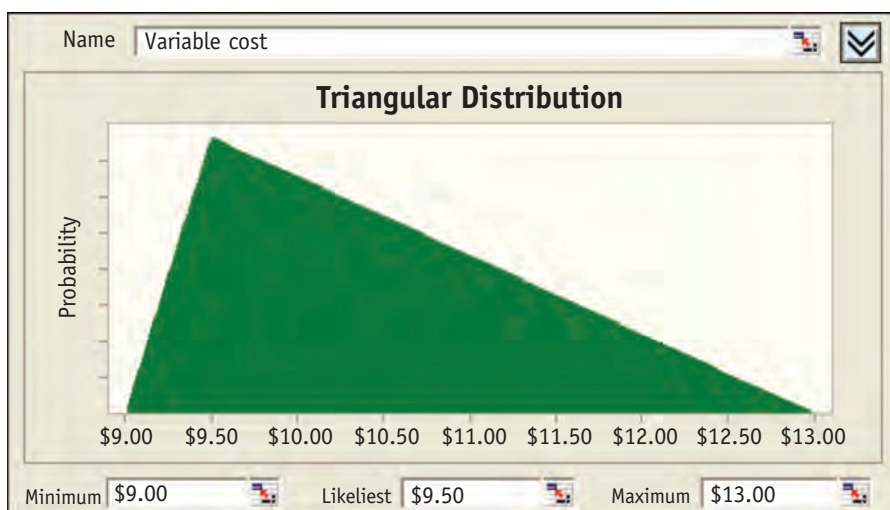
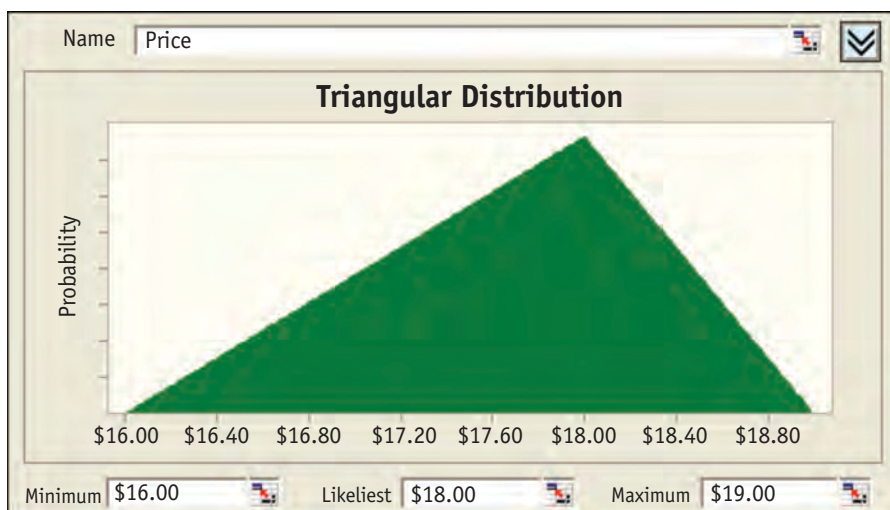


Figure 3



"These days, the whole production process, from input to output, is all recorded and reported by SYSPRO. Not only does that eliminate a ton of paperwork, it provides us with the ability to get information more efficiently, so we can analyze the data on a timely basis."

Marvin Bavcevic, CA
Controller, Atlantic Tube & Steel Inc.

Atlantic Tube & Steel

Frank Cancelli is the founder and president of Atlantic Tube & Steel (AT&S), a manufacturer of automotive and structural steel tubing headquartered in Mississauga, Ontario. "We're a family-run business with approximately 35 employees," says Cancelli. "We operate out of a 150,000-square foot manufacturing and warehouse facility, which, since the implementation of SYSPRO, has become highly automated."

AT&S runs two mills: one makes mechanical tubing, predominantly for the automotive aftermarket; the other manufactures larger-sized structural tubing, used in a host of applications such as conveyor belt rolls, jack-posts and trailer hitch tubing. AT&S also operates as a recutting service, to provide some of its customers with an additional value-added component. An ISO 9001 certified manufacturer, Atlantic Tube & Steel guarantees that its products meet rigorous standards, and every bundle of product is subjected to a series of quality tests to verify integrity and quality.

"Over the last 30 years," says Cancelli, "the business has grown increasingly complex on all fronts. To compete effectively we needed to implement an enterprise resource planning (ERP) solution. After researching the alternatives, we chose SYSPRO ERP, because we believed it would create business efficiencies, help us maintain our inventory and volume advantage, and ensure that we conform to our industry's strict quality requirements. Looking back, it's clear that our decision to go with SYSPRO was sound."

AT&S's controller, Marvin Bavcevic, was in charge of the implementation. "Before the transition," says Bavcevic, "we were using a DOS-based program with very limited ability to analyze results. It was a dinosaur, and our management decisions were being made in the absence of sufficient data. We made the decision to go with SYSPRO in August, 2007. In December of the same year we ran SYSPRO in parallel with our old program. On the first of January, 2008, we went live with SYSPRO."

Although Bavcevic is enthusiastic in his praise of SYSPRO ERP, he admits to certain challenges during the implementation. "There were some growing pains in terms of the customizations we asked for," says Bavcevic. "SYSPRO, however, was very accommodating, addressing our concerns and needs on a very timely basis. Even though some of our original intentions may not have been well-communicated, SYSPRO was more than willing to work with us until we arrived at the point where we needed to be."

One of the ERP capabilities that AT&S needed most was product traceability. "Quality, and the perception of quality, are of paramount importance in our industry," says Larry Brandon, AT&S's sales manager. "That's why SYSPRO's Lot Traceability component is a key benefit." Steel, explains Brandon, can be manufactured in many forms using myriad components. "Too much or too little of certain components (carbon, for example) will affect the product's malleability. And since many of our customers need to bend and shape the steel they buy, it must conform precisely to exacting specifications."

If an order of steel does not conform to specification, and if AT&S receives a customer complaint, the company can now use SYSPRO to quickly identify the relevant production run. "With that information, we can take all the rest of that steel out of stock," says Brandon. "That way we avoid sending the wrong product to other customers, which helps us eliminate, or at least minimize, any negative quality perceptions that might arise in the market." Lot traceability also allows AT&S to drill down to the source components of any production run. "That saves us a lot of time. It also lets us go back to our suppliers in a timely fashion if their product doesn't meet our specifications."

Implementing SYSPRO has enabled AT&S to fully automate its production floors. "That allows us to look at the shop floor in terms of reducing man-hours," says Bavcevic. "In addition, with SYSPRO we no longer need our manual production reporting process. In the past, while a mill operator was supposed to be watching the seam, or adjusting the heat source, he would sometimes have his back to the mill while he prepared his reports. These days, the whole production process, from input to output, is all recorded and reported by SYSPRO. Not only does that eliminate a ton of paperwork, it provides us with the ability to get information more efficiently, so we can analyze the data on a timely basis."

For Atlantic Tube & Steel, the transition to SYSPRO has been rewarding. "We've joined the 21st century," says Bavcevic. "In terms of IT, we were barely limping along. Now, with SYSPRO, we're up and sprinting."

For more information on Atlantic Tube & Steel Inc., please visit: www.atlanttube.com.

**Delivering
high-end
solutions
mid-size
companies
can afford.**



SYSPRO™
Simplifying
your Success

Contact SYSPRO today for
your free copy of

**"When, How and Why
of ERP support for LEAN"**

Toll-Free in Canada
1-888-259-6666 x228
info@ca.syspro.com

www.syspro.com

Crystal Ball will now sample randomly (100,000 times) from the distributions of the three variables and calculate operating income for each case. This defines a distribution for operating income, as illustrated in Figure 4.

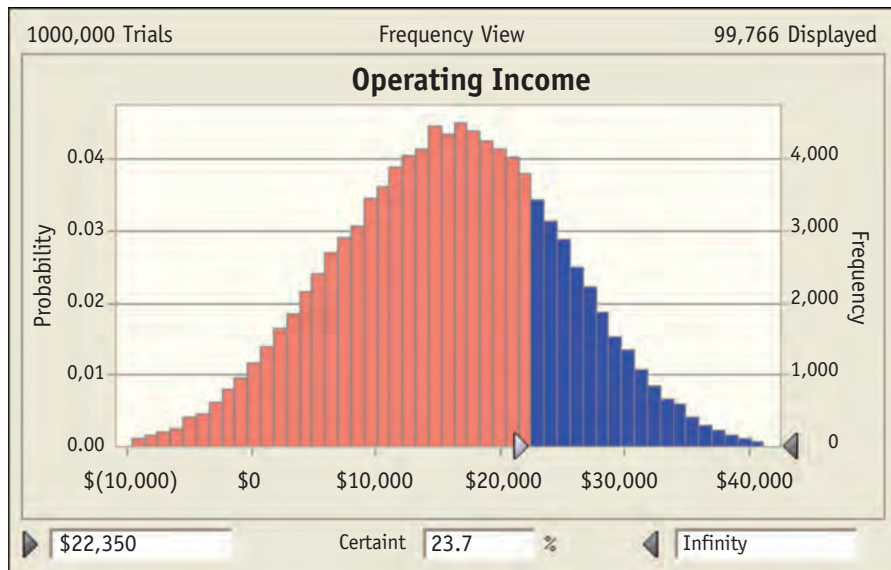
The graph in Figure 4 suggests that the probability of achieving an operating income \geq \$22,350 is 23.7 per cent. Specifically, of the 100,000 random samples, 23,700 resulted in operating income \geq \$22,350. With this approach, all values between the minimum and the maximum have entered the analysis. It represents, therefore, a much richer description of the uncertainty of estimates of future sales, prices, variable costs and, by implication, operating income.

Monte Carlo simulation is an effective tool to manage the uncertainty of an organization's budgeting process.

This method may also provide a quantitative answer to the fundamental question in management's mind, "What target operating income would be challenging, yet attainable?" If the probability of success is defined as 40 per cent, then the target operating income should be set at \$18,170 (see Figure 5).

But, sales volume, prices and variable costs are not necessarily independent. It is plausible, for example, that higher sales are a result of lower prices and, therefore, lower profits. Similarly, higher sales may cause higher variable costs through, for example, overtime, second shift operation, etc. Crystal Ball allows the financial modeler to impose these kinds of conditions. In this example, imagine a correlation coefficient of -0.50 between sales

Figure 4



and prices and +0.50 between sales and variable costs. This means that, on average, when Crystal Ball selects a high (low) sales number it will select a low (high) price number. These correlations result in the following distribution of operating income — the probability of exceeding \$22,350 has now dropped to 18.3 per cent (see Figure 6). Specifying the correlations between variables is often one of most

important elements of good financial modeling and can have significant effects on inferences about outcomes.

It is not difficult to imagine a more complex/realistic version of this problem where there are multiple products and uncertainty exists about market size, market share, product mix, prices, and variable costs. A simple application of WC, MLC, and BC estimates for

Figure 5

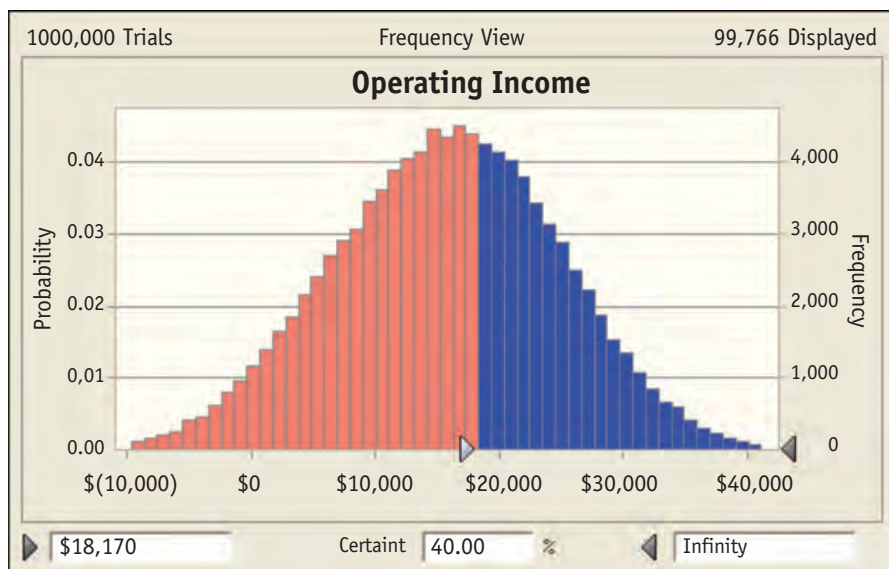
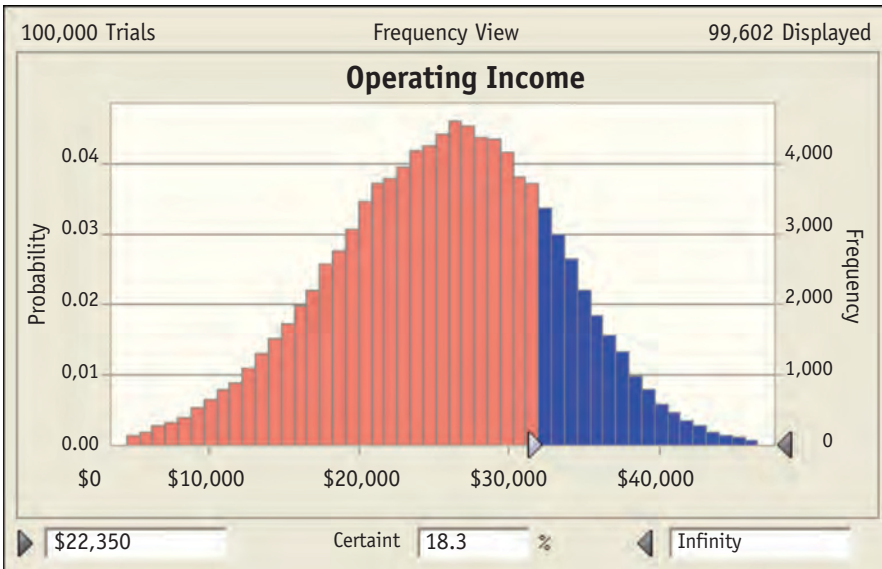


Figure 6



an operating budget with seven variables would result in over 2,000 scenarios. And they would only

capture the effects of combinations of the three point estimates, not the infinite number of possible

combinations of intervening values. Monte Carlo simulation is an effective tool to manage the uncertainty of an organization's budgeting process. In the preceding example, the probability of success went from an initial estimate of 70 per cent to a much more realistic estimate of about 18 per cent with very plausible assumptions. Furthermore, if the objective is to set a target that is challenging, yet attainable, e.g., a 40 per cent probability of success, Monte Carlo simulation allows us to determine that target operating income should be ~\$18,170. ■

Professor Mary Mindak, PhD, teaches auditing and intermediate accounting at DePaul University. Professor Jeri Ricketts, PhD, has taught financial accounting and auditing at the University of Cincinnati for over 25 years. Jens Stephan, PhD, is a professor of accounting and department head of accounting and finance at Eastern Michigan University.



Certified Management Accountants™



THE DIRECTORS COLLEGE

The Conference Board of Canada
Insights You Can Count On



As one of the sponsors of The Directors College, the Certified Management Accountants support this university accredited corporate director development program that leads to the professional designation Chartered Director.

The biggest asset of this program is its intensity and comprehensive nature, with experienced faculty members delivering broad and deep insights in interactive sessions.

What sets this program apart from other corporate director development programs?

- ◆ **Flexibility**—You select the schedule, setting your own timetable
- ◆ **Off-site location**—A residential learning experience away from the office encourages enhanced learning and gives you more time to work, study, and network with other participants.

CMA members can receive a free Conference Board report, showcased at The Directors College sessions.



Go to www.conferenceboard.ca/globe and access a copy of *The Role of the Board of Directors in Corporate Social Responsibility*.

Special offer for CMA Professionals
Save 10 per cent off the registration fee for Directors College programs.

For more information or to enrol go to www.thedirectorscollege.com or call 1-866-372-1778.

MAKING THE RIGHT CALL ... BOTH IN AND OUT OF THE RING

Montreal CMA Yves Lavigne, the only Canadian referee in the Ultimate Fighting Championship (UFC), describes how he uses his management accounting background to make split-second decisions in front of thousands of mixed martial arts (MMA) enthusiasts.

By Arda Ocal

Call him a referee, or call him a certified management accountant. No matter what you call him, you can bet that Yves Lavigne, CMA, MBA, will call it right down the middle. During the Monday to Friday grind he's a freelance CMA for various companies, but on the weekends many may be surprised to discover that he is the third man in the "Octagon" as a referee for the UFC, a mixed martial arts (MMA) fighting league, as well as other combat sporting events around the world. Of course, few would likely suspect that this CMA, who works over numbers all day, could probably work you over as well — Lavigne himself is a long-time student of martial arts.

Lavigne developed an interest in combat sports and accounting at a very early age. His father, also an accountant, would often bring work home and take the time to show his son some of the basics. "He was a good father figure," Lavigne warmly recalls, and credits his father's influence as the reason he pursued accounting.

He did not pursue the CMA designation right away; instead he worked as an accountant for several years to simply pay the bills while he competed in karate. Shortly after retiring from competing in tournaments in the mid 90s, Lavigne spotted an advertisement in the newspaper for the University of Quebec's CMA-MBA Executive Program. He enrolled in the program in 1999 and received his designation in 2004.

Retiring from competition and earning his CMA designation didn't keep him from the world of combat sports. Lavigne was informed by a friend that the Quebec Athletic Commission was looking for knowledgeable people to train as referees. After surviving the selection process, he began his journey towards becoming one of the top referees in the world of MMA. Lavigne's role as a referee has not been his sole contribution to the sport of MMAs, or its growing

presence in Canada. He helped Quebec become an early leader in MMA — he was involved in both drafting the rules that were later adopted in other jurisdictions and the public hearings that surrounded its legalization. He was one of two referees at the first legal show in Canada. Although he's only been working for the UFC since 2006, he's officiated combat sports since the early 90s, and he's still eager to play a role in the continued growth of the sport in Canada, and is always willing to offer any aid he can to speed the sport's spread into Ontario.

Refereeing and accounting may seem worlds apart, but Lavigne notes that there are some skills shared between the two fields — even commenting that refereeing has helped him in some ways as a management accountant. When asked which is easier, he briefly pauses and says, "I think both of them have a certain degree of toughness." And how has being a referee helped him as a CMA? "How many times in your life have you worked in front of 10,000 people and had 10 or more cameras on you, watching and scrutinizing every move that you make? It's kind of stressful," he laughs, but further explains "as an accountant, if I make a mistake using Excel or preparing financial statements, for example, I can go back and correct it. When I'm refing a fight, I don't have that luxury." When in the ring, "I have to be really focused and analyze a lot of data and make a decision in a split second." Dealing with these situations, the pressure and stress, have helped him concentrate on his job.

An attitude that demonstrates how seriously he takes his work, both in and out of the ring, Lavigne is also well-known for meticulously researching all the fighters he may be refereeing on a given night. "To me it's inconceivable that you could go and do a job without knowing who you have to deal with," he says. He believes that getting to know the fighters prior to their match makes him a better referee. Such efforts, he explains, would benefit all referees. "It's like



presenting a budget, and not knowing the numbers and the company you are talking about. You don't do that." Such diligence and thoroughness can prove invaluable to a CMA, but seem to also translate well to the realm of refereeing.

Another similarity Lavigne notes between referees and CMAs is that they often have to make decisions based on limited information. As a referee, you have to make decisions in a split second and as a management accountant sometimes you simply don't have access to all the information you need. In both cases, you try to make the best judgment call with what you have, relying on what you've seen and your experience. The CMA program, Lavigne says, has helped him in the ring — having been taught how to cope with making decisions with partial information. Despite this, Lavigne jokes that people shouldn't assume that all accountants make good referees ("nor would all referees make good accountants!") — he feels it's simply something you have or you don't. "Not everyone can make those split-second calls, and there's only so much you can teach."

Lavigne keeps himself on a busy schedule and requires near superhuman skills to juggle his two lives. "I try to sleep on the plane, basically," he jokes. Having now worked for the UFC for a number of years, he seems to have worked out a routine around flying out to shows on weekends, while continuing his professional accounting career during the week. Shows in Europe are becoming more frequent, and he also flies out to the West Coast on a regular basis. "Normally, I fly on Friday," he says, "try to rest a bit Friday night, go for a jog Saturday morning, review the rules in the afternoon, go to the event." If it starts at 7 p.m. he has to be there by 4 p.m. He admits it's a long day, but getting there early is necessary. There is still preparation to do; in particular he has to talk with the fighters. Before the event, Lavigne will meet with the fighters and brief them on what they can expect from him as a referee and what he expects of them as fighters. After the event, "if I can ... I will try and catch the red-eye flight on Saturday night," so he can arrive home in Montreal early the next morning, and have breakfast with his wife. If he needs to work later, then he'll "be back on Sunday night, have supper, go to sleep." Then it's right back to work — bright and early Monday morning. Occasionally, Lavigne is invited to appear on the all-sports television station RDS (TSN) as a MMA analyst and also works in radio where he provides commentary on the results of UFC matches.

A modest man, many of Lavigne's colleagues are unaware of his life outside of management accounting. A fan of MMA himself, he prefers when others talk about the sport rather than discussing his refereeing career. Many on the street fail to recognize Lavigne as well. "I do talk with people about MMA, and they often do not recognize me," he says. "Probably because they are talking to me out of context, I'm not dressed in black like referees usually are. Second, I do wear glasses during the day and not in the Octagon. Who would have thought the Clark Kent/Superman effect actually works!"

Somehow Lavigne seems to happily manage an extremely

hectic schedule; however he admits there are some pitfalls. He's currently not in the position to take a job that would truly "use all the tools that I received from the CMA-MBA Executive Program. That's kind of the downside because I'm busy with the fighting world, and doing some other things than really concentrating on my career." But on the other hand, he admits that "it gives me time to travel the world. I meet a lot of people, [have] new experience[s]" — things he truly enjoys. He values that where he is now allows him to continue his other life passion, "I could do a lot better with the tools that I have in a big company. But, you have to choose. If I was working in a big cooperation, I wouldn't probably be able to referee on the weekend, because the day job would be too demanding." Before pursuing a career as a freelance CMA, Lavigne was as a controller for a manufacturing company in the south shore of Montreal.

Another similarity Lavigne notes between referees and CMAs is that they often have to make decisions based on limited information.

Despite all of this, he has no plans to give up management accounting any time soon. Refereeing, he explains, "Is not a full-time job for me ... it's a hobby, and I want to keep it that way because I don't know how long it's going to last." When "you are working for an athletic commission ... they decide when I'll be working. As a management accountant, I can choose where I work and who I work for. So I'm more in control of that job."

Lavigne takes some pride in the fact that he is the only Canadian referee currently working on an international level and in the UFC. He has been called one of the five "go-to" officials, and was recently voted Top Referee of 2008. Despite his impressive resume, he's modest of his achievements. Highly self-critical, he also plans to retire when he feels he is no longer up to the job, but that doesn't mean he won't still be active in the MMA world. He muses that perhaps he'll become a judge, or play a bigger role in bringing MMA to Ontario. He says his day job and professional status as a CMA have also allowed him to help open doors for various athletic commissions he has worked with. In the meantime, Lavigne has been asked to put some courses together for refereeing — his first seminar occurred in May. Whatever the future may bring, don't expect him to tap out anytime soon. "Every time I was about to walk away from MMA something was dragging me in again."

So whether it's crunching numbers or calling the shots in and out of the ring, Lavigne is ready to get down to business. ■

Arda Ocal is a Mississauga, Ont.-based writer and on-air personality with Rogers TV.

The CMA Canada Research Foundation:

Making sense of complicated issues and reaching new conclusions is what we do best.

The CMA Canada Research Foundation expands the conceptual boundaries of management accounting by developing products and services that will create and/or add value for CMAs and other business professionals. For more information on how you can enhance your success and the success of your organization, visit: www.cma-canada.org/foundation



**Certified
Management
Accountants**



Strategies for generating retirement income

When it comes to your retirement, it's important to have an investment portfolio that can provide you with an appropriate amount of income. This can come from guaranteed investment certificates (GICs) and individual bonds, which can help provide a predictable flow of income.

By Michael Low, CMA

A key element of planning for your retirement is making sure that you'll have sufficient income after you retire. A portion of that may come from reliable sources like a pension plan, government benefits, annuities and perhaps part-time employment. But after that, you may be counting on your personal retirement savings.

Most people need to withdraw some money from their portfolio, so having the right mix of investments to generate sufficient income and growth is important. You also might want to consider consolidating your accounts. It can help you gain a clearer picture of your retirement savings and the withdrawal amounts that may be needed from both your registered and non-registered accounts.

The amount you withdraw from your portfolio can depend on factors such as your age, risk tolerance, how your money is invested and the desire to leave a legacy. Everyone's situation is different, but retirement can last 20 years or more, so an initial withdrawal rate of four per cent can be a good place to start. A moderate withdrawal rate allows you to be more flexible because your income needs may rise and fall. Regarding the make-up of your portfolio, it should provide you with an appropriate amount of income. This can come from guaranteed GICs and individual bonds, which can help provide a predictable flow of income. Some people decide to invest only in GICs because they provide income with less risk. Remember that GICs alone likely won't provide a return that can keep pace with inflation.

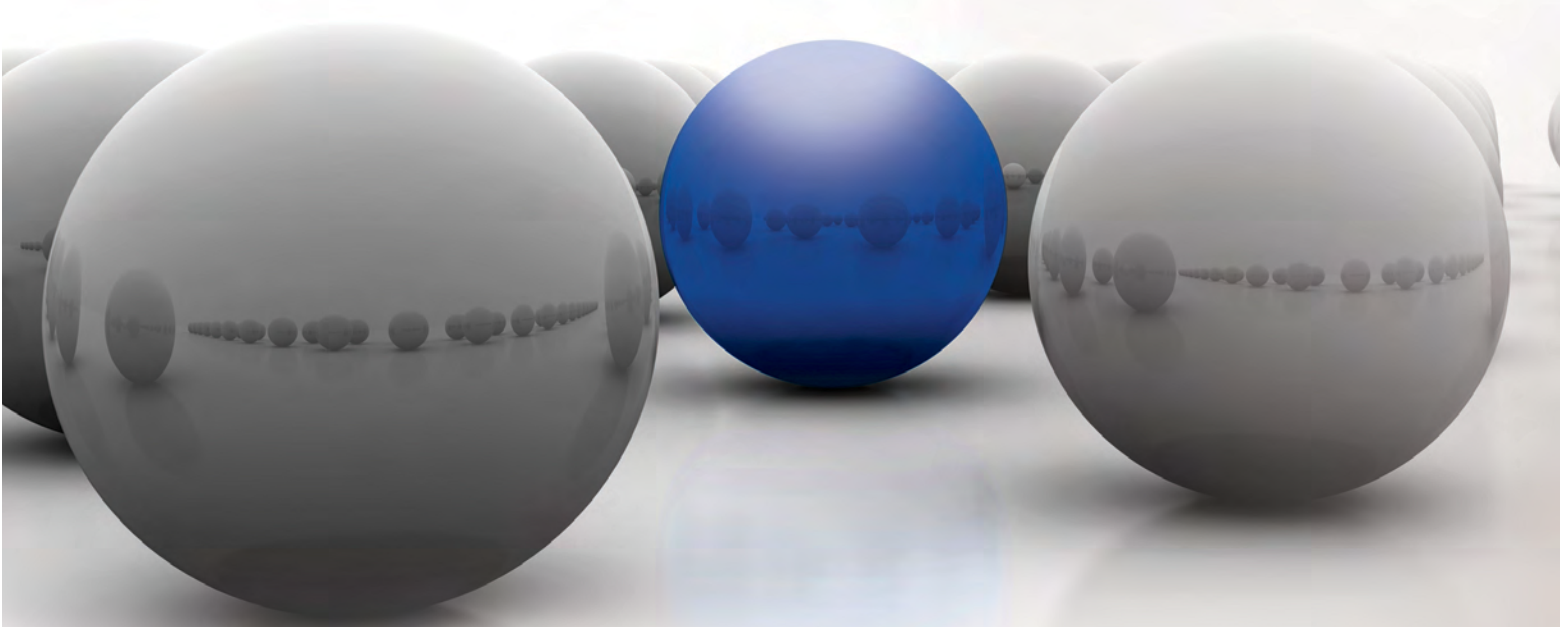
As for stocks and mutual funds, you should look for those with a history of paying dividends and



increasing them over time — though keep in mind that dividends can be increased, decreased or totally eliminated at any point without notice. Although equities possess more risk relative to bonds, their growth potential can help protect against inflation. To help reduce risk, consider buying quality that you can hold for the long term — and don't overlook the importance of diversifying your investments. While diversification does not guarantee a profit or protect against loss, it has proven over time to be an effective investment strategy.

Life annuities and guaranteed minimum withdrawal benefit plans may be another option for some of your retirement income. With these options, which can be customized to meet your retirement needs, you would essentially entrust money to an insurance company in exchange for a guaranteed income stream that will last your lifetime and pay for your necessary living expenses. Speak with your financial advisor to create a long-term strategy that can help meet your needs today and into the future. ■

Michael Low, CMA, CFP, (michael.low@edwardjones.com), is a financial advisor with Edward Jones in Toronto.



Submit your nomination today and help celebrate excellence in public sector financial management.

Take this opportunity to recognize the success of federal public servants who have made significant contributions to financial management and/or comptrollership within the Government of Canada.

In its second year, the *Award of Excellence for Comptrollership in the Public Sector* includes two award categories involving: (1) Innovation and (2) Financial Leadership (CFO).

The recipients will receive a plaque as well as a \$1,000 contribution to a registered charity or scholarship fund of their choice.

Consideration forms are also being accepted for the *CMA-CIPFA Lifetime Achievement Award*.

Deadline for all nominations: Friday, January 22, 2010

For more information on the awards, revised criteria and eligibility requirements, visit:
www.comptrollershipaward.com



New Financial Leadership (CFO) award category



CMAAs: CPLD credits are a click away!

With online courses, it's easy to integrate accounting expertise with advanced management skills to achieve success.

Take Advantage ...

FREE courses for CMA members include:

- ▶ Strategic Management Certificate
- ▶ E-Biz is Good Biz, Level 1
- ▶ Privacy Preview
- ▶ A Primer on International Trade

Stay Competitive ...

Access a full range of courses in key topic areas such as:

- ▶ Management
- ▶ Leadership
- ▶ Business functions
- ▶ Communications
- ▶ Career advancement

Enhance professional knowledge ...

Courses developed by CMA Canada include:

- ▶ Balanced Scorecard
- ▶ Redesigning the Finance Function
- ▶ Strategic Cost Management
- ▶ Customer Profitability Analysis

Each of these CMA Canada courses qualifies for 9 CPLD credits.



**Certified
Management
Accountants™**

Start e-learning today!
www.cma-canada.org/elearning

Access is available 24/7 from any Internet connection.
You will need to sign-in with your member ID.



Data quality: Familiar problem, new challenges

“GIGO” (garbage in, garbage out), one of IT’s oldest acronyms, is a reminder that defective input leads to defective output. Today, there’s growing concern about data quality as organizations increase their reliance on information for operational and strategic purposes.

By Jacob Stoller

In a 2008 survey published by Financial Executives International in the U.S., improving data quality/information integrity took the top spot as the most pervasive IT challenge. The identification of this subtle problem by so many non-IT executives shows how pressing the issue has become.

Data quality is multi-faceted and difficult to pin down. The symptoms of poor data quality vary: wrong addresses that routinely find their way into databases, often reoccurring after being corrected; missing records; incorrect or non-compliant financial information; or inability to assemble timely data for strategic decisions.

Data quality is tough to control for two reasons. First, there’s a lot more data – many corporate databases are estimated to be growing at more than 40 per cent or more per year. Second, the linking of IT systems through corporate networks, integrated supply chains, and business intelligence systems means a lot of data gets shared and combined. Stored data, therefore, has to meet the specifications of not just one application, but many.

Organizations of all sizes are seeing a growing need to combine information from different segments of the business, such as finance, HR, and marketing — groups which may have different IT systems and different methods for gathering and storing their data. This means that the “checks and balances” that would ensure accuracy within a discrete system can’t always be counted on.

“We’re looking to combine these data sources,” George Goodall, senior analyst for London, Ont.-based Info-Tech Research Group says. “These things that used to be siloed are increasingly coming together. This introduces some of the main



concerns around data integrity and data quality. For example ‘are business units collecting the same information, or are they collecting discrete information? If they’re collecting the same information, are they collecting that information in different ways?’ ”

Customer data is a key area. “In many cases, clients are tracked differently depending on whether it’s a marketing function or a finance function or an operations function,” Goodall says. “There might be different client codes — you might have a customer service code or an account code that needs to be reconciled against, for example, the name of a company, or the name of an individual. All of those silos may do things in discrete and different ways. When you start to integrate those different silos that’s when it becomes a real issue.”



Unstructured processes are one of the key culprits. “When we use manual systems such as spreadsheets and e-mail there’s no way of knowing where the data is coming from, and people make mistakes,” he adds. “People are perhaps using outdated data, or just different data from others, and that introduces a lot of problems.”

Organizations of all sizes are seeing a growing need to combine information from different segments of the business, such as finance, HR, and marketing — groups which may have different IT systems and different methods for gathering and storing their data.

The potential exposure of data to the rest of the organization, and also to auditors, customers, and business partners, means database owners have to get a lot of things right. Data quality isn’t just about correcting misspellings and wrong addresses — when multiple systems are involved, a number of conditions can stymie an application or misinform a user. Montreal-based system integrator CGI uses the following seven attributes to track data quality:

- Accuracy. Does the data represent correct information?
- Integrity. Is data formatted correctly so that it doesn’t cause errors when applications access it?
- Consistency. Is there a clear and common understanding of what the data signifies?
- Completeness. Are all records complete or are there gaps?
- Validity. Is data within acceptable values or are there “forbidden” entries, such as a negative number in a price field?
- Timeliness. Is data up-to-date?
- Accessibility. Is data readily available to all

applications that require it?

According to Jean-Claude Chami, senior business intelligence consultant for CGI, data quality problems are widespread, and often go undetected. “Companies tend to learn to live with the data flaws that they have,” Chami says.

Organizations are often introduced to the issue when a new application is in the process of implementation. The biggest push, however, appears to be coming from the executive suite. “We’re starting to see a demand for responsiveness and insight into operations that we haven’t necessarily seen in the past,” Goodall says. “I think the number one place where senior executives see it is when they embrace certain aspects of strategic change. They might be moving towards something like a balanced scorecard approach, where people are focusing on very specific metrics. They’ll ask, ‘how do we generate these metrics?’ and will be told ‘we can’t do that right now.’”

Fixing these problems, perhaps to create a new report or track a new metric, often involves adapting data after the fact — a process known as data cleansing. Essentially, programmers have to write routines to read the data in question and re-store it according to required specifications without inadvertently changing the content. This can take many stages, and involves a lot of testing, verifying, and often, researching past conditions and practices. “This is a surprisingly complicated process,” Goodall says. “It’s as much an art as it is a science.”

The process is also very costly. “You have to prepare a business case, basically, for remediation,” Chami says. “To clean 100 per cent of the data might not be really useful — a company with bad data quality must select the area where the impact is greatest.”

Measures to prevent reoccurrence of data quality problems are also essential, Chami adds. When multiple systems are involved, changes made to system “A” can be over-ridden by system “B,” therefore, a comprehensive evaluation of the root cause, and subsequent corrective action, may be in order. This could involve reconfiguring or re-programming systems, or adapting employee processes for collecting and storing data.

Faced with the growing need to combine data and the high cost of remediation, many organizations are developing enterprise-wide data standards in order to prevent data quality issues from arising. The practice, known as data governance, involves close cooperation between business stakeholders and IT. “Every business has new challenges on an ongoing basis,” Goodall says. “Whether it comes from compliance, litigation, business challenges, or the whim of the board or the CEO, it introduces the need for essentially more data. In certain cases it can be data that doesn’t exist or is currently fragmentary. So how do we identify the problems and put the processes in place so that we can deal with data quality issues before they emerge?” ■

Jacob Stoller, (jacob@stollerstrategies.com), is a Toronto-based independent writer and researcher.

Marketplace



No. 1 Accounting, Tax & Payroll Franchise
The Small Business Specialists since 1966
400 offices strong

DO YOU WANT TO BRANCH OUT ON YOUR OWN?

Padgett offers a fresh yet proven alternative to the challenges of going it alone

As a Padgett franchise owner, you will have access to time-tested systems and marketing techniques as soon as you open your doors for business. You can count on superior one-on-one training, ongoing courses and seminars, a dedicated franchise support team and state-of-the-art systems.

We're helping to grow success stories, one entrepreneur at a time.
 For more info call 1-888-723-4388 ext. 222, or visit www.smallbizpros.com



**Strategic
 Project
 Solutions**
 Bridging IT & Business

Cost effective solutions:

- Project and Program Management
- Virtual Project Management Office
- IT Strategy Alignment

Rob Ratcliffe, MBA, CMA, PMP®
Managing Director

416.809.6070

www.strategicprojects.ca

Master of Financial Accountability

Get ready for a tough new world of leadership and governance. Manage risk and transform business practices with new knowledge that complements your existing skills.

Executive-style, part-time format focuses on:

- Corporate ethics
- Regulatory requirements & legislative standards
- Effective information systems
- Transparency in reporting

Get more information at 416 736 5744 or email mfac@yorku.ca

Apply now. Start in January.

www.yorku.ca/mfac



CERTIFIED BOOKKEEPERS

STAND OUT FROM THE CROWD

Professionalize your office! Hire a

CERTIFIED BOOKKEEPER



E-mail: info@cibcb.com

www.cibcb.com

ADVERTISER INDEX

Athabasca University www.mba.athabascau.ca	7 800-561-4650
CMA Ontario www.cma-ontario.org/PDI	INSERT 416-977-7741
Conference Board of Canada www.conferenceboard.ca	OUTSERT 866-711-2262
Lannick Associates www.lannick.com	IBC 416-340-1500
Mason Group www.masongroup.ca	13 905-804-1100
Meloche Monnex www.MelocheMonnex.com/smac	IFC 866-269-1371
PTC Accounting www.ptcaccounting.com	9 877-303-9550
Purolator Courier www.purolator.com	OBC 888-SHIP-123
Robert Half Management Resources www.rhmr.com	41 888-400-7474
Strategic Project Solutions www.strategicprojects.ca	24 416-809-6070
Syspro Software www.syspro.com	27 888-259-6666
The Directors College www.thedirectorscollege.com	29 866-372-1778

Intermediate to senior level positions
 directly from employers

www.jobwings.com

FINANCE . ACCOUNTING . MANAGEMENT
 1-888-JOBWINGS



Borrowers and creditors will feel effects of new insolvency reforms

Companies will experience both benefits and drawbacks if they owe money to lenders or supply goods to other companies.

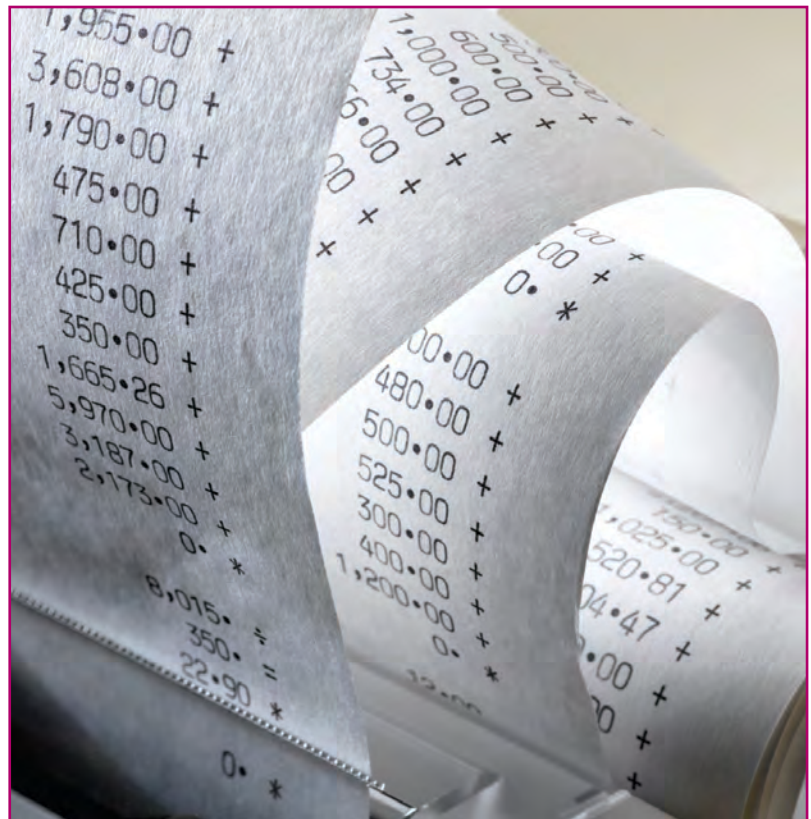
By Christopher Porter

Now that the final pieces of the federal government's long-anticipated insolvency reform package were delivered on Sept. 18, 2009, virtually every business in Canada is likely to feel the effects. If your company owes money to a lender or supplies goods to other companies, from now on there will be both benefits and drawbacks for your business.

The federal government has amended the Bankruptcy and Insolvency Act (BIA) and the Companies' Creditors Arrangement Act (CCAA) to encourage company restructurings over liquidations and, hopefully, return more companies to profitability. The amendments harmonize procedures under the CCAA and BIA, making them more flexible and accessible and providing more businesses with access to cost-effective restructuring opportunities.

Other aspects of the legislation will also spur lenders to adjust the terms of financing agreements in order to limit their exposure.

The CCAA is typically used for reorganizations of large companies since it requires minimum debt of \$5,000,000. A proposal under the BIA is generally used for reorganizations of smaller enterprises. This is an offer to creditors to repay a



portion of debts owed and is often combined with a turnaround plan. Proposals, however, have not been as flexible as CCAA arrangements. Plans of arrangement under the CCAA, for example, can provide debtors with access to interim financing, also known as debtor-in-possession (DIP) financing. DIP lenders receive priority rights over secured creditors in order to encourage them to provide the financing necessary for insolvent companies to reorganize. The legislative amendments now allow the court to authorize DIP financing for BIA proposals, which will enable more companies to complete restructurings.



The legislation also provides directors and officers of insolvent companies with more protection from personal liability. This is intended to encourage them to stay on board while a company undergoes restructuring. The court may now issue a priority charge to protect directors from liability that may arise. Alternatively, if the court believes that certain directors may impede a successful restructuring, it can also replace them.

While these insolvency reforms extend a helping hand to many more businesses struggling with serious financial challenges, they also present a mixed assortment of benefits and challenges for borrowers and suppliers.

Borrowers

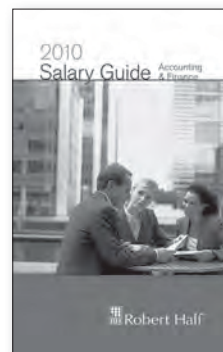
Part of the government’s insolvency reform package came into force back in July 2008 when the Wage Earner

Protection Program became law. The WEPP protects up to \$3,253 (for 2009) of unpaid wages, commissions, vacation and termination pay earned by every employee in a company in the six months prior to its bankruptcy or receivership. These guaranteed payments — as well as potential claims for any unremitted employer pension contributions — are secured against the employer’s current assets and have super-priority rights over the claims of secured creditors in the event of an employer’s bankruptcy or receivership.

Since these potential payments may impact the value of lenders’ security, they will seek new ways to protect their investments. Thus lenders are likely to require shareholders to invest more funds or provide additional security. They may also reduce the amounts that may be borrowed, increase the margin on loans or lines of credit, or intensify monitoring for borrowers that are higher risk.



Top financial talent is always your best investment.



Call today for your **FREE 2010 Salary Guide.**

Accountemps, Robert Half Finance & Accounting and Robert Half Management Resources are the leaders in specialized financial and accounting staffing for temporary, full-time and project placement, respectively.

1.800.803.8367
accountemps.com

1.800.474.4253
roberthalffinance.com

1.888.400.7474
roberthalfmr.com





Other aspects of the legislation will also spur lenders to adjust the terms of financing agreements in order to limit their exposure. For example, the reforms include a significant change to “30-day goods” rights in a bankruptcy or receivership. Until the new legislation came into force, a company could only attempt to reclaim unpaid goods that had been delivered to a customer within 30 days of the date of the claim. Since it could be weeks before suppliers learned of a customer’s bankruptcy or receivership, this meant that suppliers often had only a few days, sometimes only hours, to present their claims.

Now, unpaid suppliers have 15 days after insolvency proceedings commence to present their claims for unpaid goods delivered in the 30 days prior to insolvency, subject to certain conditions, thereby providing a greater likelihood of recovering goods. When it comes to providing loans secured with inventory, lenders may reduce loan amounts in situations where they are concerned that a portion of this inventory has a greater probability of being claimed by suppliers.

Creditors

On the positive side, companies whose customers go into receivership or bankruptcy now have more protection for unpaid supplies. The revised 30-day goods rule gives suppliers more time — 15 days after the commencement of insolvency proceedings — to register a claim for goods delivered in the previous 30 days that have not been fully paid. These goods, however, must meet the same criteria as before — they must be identifiable, in the same state as when delivered, and not resold at arm’s length or subject to a sale agreement.

There are also some downsides for suppliers. If the successful restructuring for a company depends on the termination of certain contracts such as leases, sales or supply contracts, this can now be done under both the CCAA and BIA. In return, contract suppliers will have an unsecured claim for losses. At the same time, if a successful restructuring depends on the continuation of certain contracts, a supplier cannot terminate or amend an agreement when a purchaser is undergoing restructuring. This would apply even if a contract includes a clause indicating the agreement becomes null and void in the event of insolvency.

In fact, the new legislation goes even farther to facilitate successful restructurings by introducing the concept of “critical supplier.” If a supplier is considered

essential to the continuing operation of a company undergoing restructuring, the court may declare this supplier “critical.” This would require the seller to continue providing goods or services — in exchange for a priority charge for go-forward payments over the debtor’s assets.

How your company can optimize these reforms

While these insolvency reforms are intended to more fairly balance the interests of debtor and creditor, every business will need to become more proactive in order to benefit from them.

While creditors, for example, should continue to keep receivables current, you should also strive to take advantage of the updated “30-day goods” rules. This means considering whether any goods that you supply would be identifiable in the eyes of a third party. Can you ship on consignment so that the goods remain yours until paid for? Or, if you are financing the creditor’s purchase, can you register a purchase money security interest (PMSI)?

If your organization is close to the margin limit on its operating line of credit, secure professional financial advice to identify options and develop strategies to strengthen your company’s financial situation.

As for borrowers, with lenders tightening access to credit and lending agreements, you should review the company’s margin room along with lenders’ requirements. If your organization is close to the margin limit on its operating line of credit, secure professional financial advice to identify options and develop strategies to strengthen your company’s financial situation.

It’s also important to ensure that employee wages and pension contributions are paid on a timely basis and to regularly update vacation accruals in order to protect company officers and directors from potential liability. And, be sure to keep source deduction remittances current.

By reviewing and fine tuning your financing arrangements and credit policies now, your company can achieve the right balance to protect your interests — both as a borrower and as a creditor. ■

Christopher Porter, MBA, CA•CAIRP, is a vice-president of BDO Dunwoody Limited who works with financially stressed clients and their creditors to implement creative restructuring and insolvency strategies. You can reach Christopher at 416-369-3062 or cporter@bdo.ca.



“How do I know that a potential hire is going to fit our culture?”

Unfortunately, you can't know for sure. But there are ways to greatly increase your chances of finding the right fit. One is to work with a recruiter who truly understands the importance of corporate culture.

So how do you find that mythical recruiter? Those people who have actually demonstrated that they get it? Not just for their clients, but for themselves?

Well, you can start with Lannick.

Our commitment to developing the right corporate culture is more than just talk. We've recently been recognized as one of the Best Workplaces in Canada. For the second time.



“Our core purpose is to help quality people and quality companies find the right fit,” says Lannick CEO Peter Jeewan, “and that applies to our internal team, too. We hire great people and we work hard to provide them with a great environment.”

Very simply, we know how important it is to get the right fit. How important it is to find, not just the candidate who delivers all the appropriate skill sets and experience, but one who will fit in with and make a real contribution to your business.

We've done it for ourselves, and we do it for our clients every day. If you'd like to find out how we can do it for you, just give us a call at (416) 340-1500.

With deep expertise in accounting and finance recruitment, Lannick Group of Companies specializes in placing qualified professionals in contract, permanent and temporary roles. Our singular focus on getting the right fit quickly and professionally has helped our clients and candidates succeed for close to 25 years.



LANNICK
GROUP of COMPANIES

The Right Fit. The First Time.™

From Montréal to Miami



***The Purolator Network you trust –
now with guaranteed,* time-definite U.S. shipping. Check.***

The network that gives you all the flexibility, reliability and choice you depend on, now introduces new time-definite options for your U.S. and international shipping needs. That means when you ship with Purolator, you'll be able to choose from guaranteed* delivery times of 9 a.m., 10:30 a.m. and end of day to the U.S. and to more than 215 countries worldwide. So now more than ever you can count on Purolator to help take your business wherever it needs to go. For more details, visit purolator.com/usinternational today.



*Certain terms, conditions and geographic restrictions apply. See Purolator's Terms and Conditions for full details, available at purolator.com or call 1 888 SHIP-123.