FM
Financial Management
Driving innovation in management accounting | February 2023

UNLOCKING
DATA'S FUTURE VALUE

A new role for CFOs

8

AICPA® & CIMA®
Together as the Association of International Certified Professional Accountants

PODCAST

Do you wonder about the best way to build your personal brand? Are you hoping to assume a leadership role but unsure about how to become a better leader? Listen to insights from a global collection of finance leaders and other experts in the *FM* magazine podcast.

Stream episodes at fm-magazine.com/podcast or subscribe on Apple Podcasts or Google Podcasts.

CONTENTS

5 THE VIEW FROM THE PRESIDENT
Embracing different cultures and perspectives strengthens the profession, says Melanie Janine Kanaka, FCMA, CGMA, CIMA president and co-chair of AICPA & CIMA, together as the Association of International Certified Professional Accountants.

6 TRUSTED FOR A REASON
Members, businesses, and wider society benefit from the CGMA designation and brand, and it should be cherished, protected, and enhanced, says Andrew Harding, FCMA, CGMA, chief executive–Management Accounting at AICPA & CIMA, together as the Association of International Certified Professional Accountants.

8 UNLOCKING DATA'S FUTURE VALUE: A NEW ROLE FOR CFOs
An emerging financial model is allowing businesses to monetise the current and future value of data as an asset that can be securitised and traded.

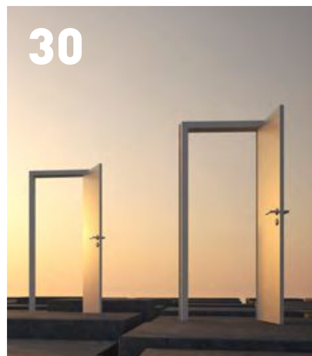
12 ARE YOU INCENTIVISING CLIMATE DESTRUCTION?
Finance professionals need to work with others in the business to ensure that KPIs, scorecards, and incentives are aligned with net-zero strategies.

18 ESSENTIAL TIPS FOR PRESENTATIONS THAT INSPIRE AND ENGAGE
Start with considering what your audience needs to know and get the structure right, but only present the most salient facts.

22 HOW TO IMPROVE YOUR STRATEGY IMPLEMENTATION SKILLS
Finance professionals can follow these nine steps to execute a corporate strategy, track performance, and propose revisions should the environment change.

ON THE COVER: IMAGE BY PASHAIGNATOV/GETTY IMAGES; ON THIS PAGE: TOP: IMAGE BY KERTLIS/GETTY IMAGES; BOTTOM LEFT: IMAGE BY EZRA BAILEY/GETTY IMAGES; BOTTOM CENTRE: IMAGE BY ROY SCOTT/IKON IMAGES; BOTTOM RIGHT: IMAGE BY GARY WATERS/IKON IMAGES

26 4 WAYS FOR CFOs TO NAVIGATE THE CHANGING TECH-FINANCE RELATIONSHIP
CFOs should take the lead in collaborating with IT teams and allow finance to take on more tech responsibilities.



30 SHOULD I QUIT MY JOB AND WORK ON MY SIDE HUSTLE?
Moving from side hustle to main hustle requires careful thought — these questions can help when making the decision.

32 EXCEL: HOW TO COUNT UNIQUE ITEMS IN A LIST
Dynamic arrays, PivotTables, and the SUMPRODUCT function are three approaches to this common task, says Excel MVP Liam Bastick.

40 INSTITUTE NEWS
Get updates on issues affecting the profession and your membership.

42 BLOSSOMING BUSINESS
With the market in cut flowers projected to grow at a healthy rate over the next several years, the industry is expected to attract many new entrants.

FROM LEFT: IMAGE BY PM IMAGES/GETTY IMAGES; IMAGE BY ROCCO-HERRMANN/GETTY IMAGES; PHOTO BY CLICKHERE/GETTY IMAGES; PHOTO BY BILLY MUTAI/SOPA IMAGES/SIPA USA/REUTERS

United Kingdom
The Helicon, One South Place. London EC2M 2RB
Tel.: +44 (0)20 8849 2251

United States
220 Leigh Farm Road, Durham, NC 27707-8110
Tel.: +1 919-402-4500

www.aicpa-cima.com

CIMA HONORARY OFFICERS

Melanie Janine Kanaka, FCMA, CGMA
President, CIMA
Co-chair, Association board

Paul Ash, FCMA, CGMA
Immediate Past President, CIMA

Sarah Ghosh, FCMA, CGMA
Deputy President, CIMA

Simon Bittlestone, FCMA, CGMA
Vice-President, CIMA

AMERICAN INSTITUTE OF CPAs (AICPA) VOLUNTEER LEADERSHIP

Anoop Natwar Mehta, CPA, CGMA
Chair, AICPA

Okorie Ramsey, CPA, CGMA
Vice chair, AICPA

Bill Pirolli, CPA/CFF/PFS, CGMA
Immediate past chair, AICPA

www.fm-magazine.com
CONTACT US

Editorial inquiries:
fm-magazine@aicpa-cima.com
+1 919-402-4449

Advertising inquiries:
Ad Production,
adprod@aicpa.org or adsales@aicpa-cima.com
+1 919-490-4324

Publisher: Alistair Nevius
(Alistair.Nevius@aicpa-cima.com)

Editor-in-Chief: Oliver Rowe

Managing Editor: Rocky S. Rosen

Assistant Managing Editor: Jeffrey Gilman

Creative Director: Michael Schad Johnstone

Senior Editors: Jeff Hagan, Alexis See Tho, Sabine Vollmer

Digital Publisher: Amelia Rasmus

Contributing Editor: Eleanor C. Hamlin

Copy Editors: Todd Conard, Pamela Nelson

©2023 Association of International Certified Professional Accountants. All rights reserved. The contents of this publication are subject to worldwide copyright protection, and reproduction in whole or in part, whether mechanical or electronic, is expressly forbidden without the prior written consent of the Association of International Certified Professional Accountants. For permission to republish *FM* magazine content, email copyright-permissions@aicpa-cima.com.

MELANIE JANINE KANAKA, FCMA, CGMA

Attracting the best talent

'We have to make sure the path to the designation is open to the very best people.'

If I asked you what single factor was most vital for securing the future of the profession, what would you say? There are those who believe that it is maintaining the high standard of CIMA's CGMA Professional Qualification. There is no doubt that is part of the answer. We must also protect and enhance the CGMA designation's highly respected status around the world. But, most importantly, we have to make sure the path to the designation is open to the very best people, regardless of their gender, ethnicity, geographical location, or socio-economic background. As a profession, we must do everything we can to attract the most talented people and continue to retain them.

This is why our efforts in the diversity, equity, and inclusion (DEI) space are essential for securing the future of our great profession. If we don't do this, we will miss out on the talent that will be vital for building the thriving businesses of tomorrow.

Opening doors

DEI is an area that I am passionate about and where our profession has a lot to celebrate. Attending new member celebrations recently in London, Dubai, and Sri Lanka, I have been privy first-hand to the diversity of talent we have welcomed into our profession. Professional accounting designations, such as the CGMA, are viewed in many global markets as an attractive pathway to building a lifelong, varied career in accounting, business, and finance. When someone earns this prestigious designation, it opens doors for them, no matter what their background is.

I hold my CIMA CGMA Professional Qualification very dear, and I know how highly it is valued. The CGMA designation shows the world that I have business acumen, professional competence, and a strong understanding of ethics. It is what has enabled me to have a fascinating and fulfilling 30-year career, working in many different sectors, all around the globe. I firmly believe that by ensuring our profession recruits the best people from all backgrounds, we will not only strengthen it but also spread great opportunities at the same time.

Making change happen

We all have a role to play in helping younger people become successful. This could mean talking to them about advancing in their careers, and the opportunities for volunteering, mentoring students, or even coaching talent. All these things collectively add up to make a difference. To borrow the words of the American activist Marian Wright Edelman, "You can't be what you can't see." Young people need role models to inspire their success.

By embracing different cultures and perspectives, our profession is best positioned to solve even the most complex problems and enable us to meet the needs of the people and organisations we serve. To attract — and retain — the best and the brightest in our organisations, we need to address biases and showcase the diversity we want to see in our profession and our organisations.

What does this mean for AICPA & CIMA in practice? To increase the diversity of the profession we need to proactively support our candidates to earn their CGMA designation. That includes the work we do in promotion, education, assessment, and retention. We can be proud of what we have achieved while recognising that there is more to do.

When I talk about these issues, I am building on the work of past CIMA presidents and effectively laying the groundwork for others to follow in the future. I encourage you to be a part of this journey as well. It is our duty to leave the profession in a stronger position than when we first joined it. Promoting DEI within our profession is a key pathway to achieving this.

KEEP IN TOUCH
Follow me on Twitter: @CIMA_President

PHOTO BY FIONA HANSON/AP IMAGES

PHOTO BY STEVE FORREST/STEVE FORREST PHOTOGRAPHY

Trusted for a reason

By Andrew Harding, FCMA, CGMA

It won't have escaped your attention that recent economic conditions have been making our role as management accountants both more complicated and more vital than ever.

The war in Ukraine and the normalisation of higher interest rates are among the factors that have wreaked havoc on business models, supply chains, and balance sheets. Many of us had hoped that we would be planning for growth and expansion by now. Instead, we find ourselves dealing with complex situations and intractable issues, where the right path to take is not always clear.

Supply chain disruption

To take a single example of how management accountants are proving their worth, consider supply chains. These have remained in a disrupted state since the pandemic, and the effects are still rippling around the global economy. In this new environment, some supply chains that used to work are now too long or contain vulnerable links that need rethinking. It is our role to analyse and address the risk this poses to our organisations.

As always, AICPA & CIMA have resources to help navigate this:

- Our Supply Chain Overview course can help you recognise the value chain, think about supplier management, and learn about cost versus value drivers.
- You can use our scenario planning toolkit to evaluate the risks that need mitigating in your supply chain.

Using our expertise along with these resources, we have been able to guide organisations to adapt and survive in these difficult times. Management accountants are also demonstrating their value by assessing the viability of new and existing projects and analysing the performance of existing business models under new circumstances. The need for our analysis increases in difficult economic times.

Why our analysis is trusted

Advice is only valuable if you are trusted to deliver it. As management accountants, we must do everything we can to ensure that we are trusted by organisations and business leaders. Because of our strong track record, that is exactly what happens. For more than 100 years this organisation and our members have been serving the needs of business, and the public interest, to impeccably high standards.

To thrive for that length of time, during which the commercial world has been transformed many times over, we have had to constantly adapt and update ourselves.

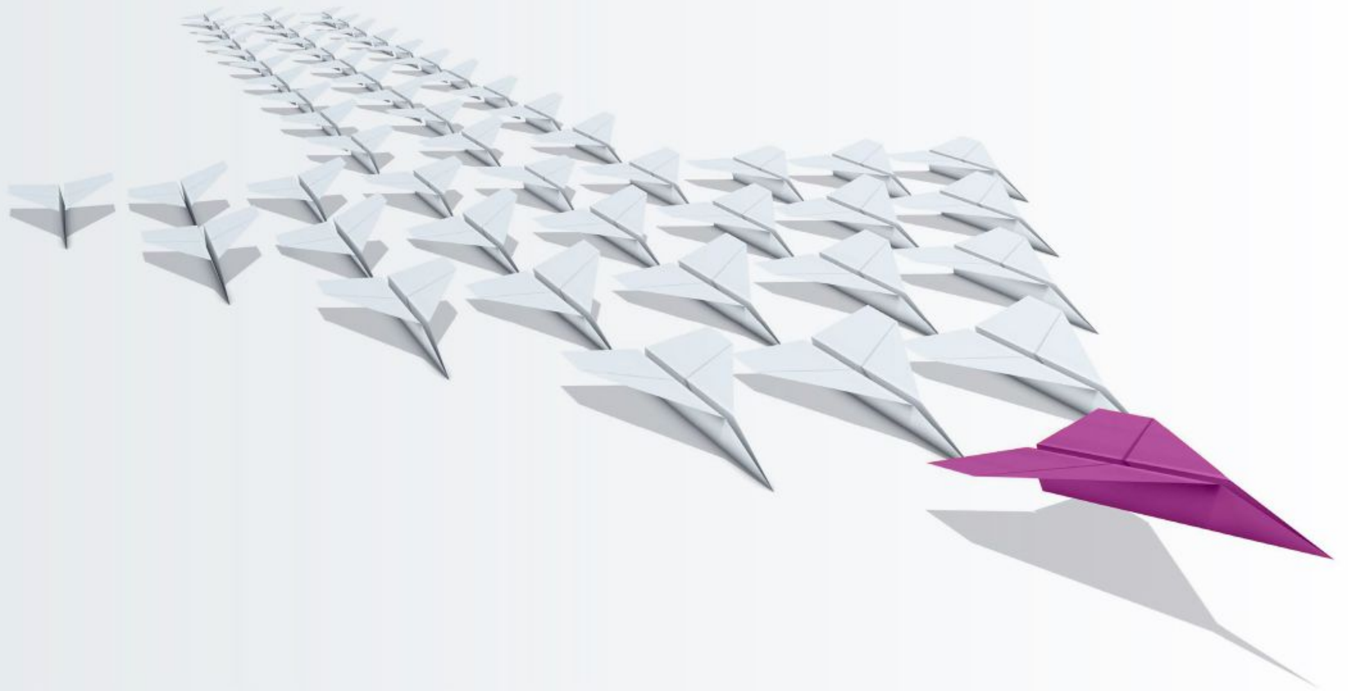
CIMA's CGMA Professional Qualification has been kept at the very leading edge of modern business knowledge and practice. The CGMA designation that the qualification entitles you to use showcases the knowledge and expertise of a management accountant. It is instantly recognised and respected by employers and business partners everywhere. The strength of the brand means they know that a CGMA designation-holder will bring high-quality skills to their organisation.

That recognition is AICPA & CIMA's greatest asset. The power of the CGMA brand is at the very heart of the value we provide to our members, to businesses, and to wider society. We should cherish it, protect it, and enhance it at every available opportunity. ■

Andrew Harding, FCMA, CGMA, is chief executive–Management Accounting at AICPA & CIMA, together as the Association of International Certified Professional Accountants.

AICPA & CIMA

Together as the Association of International Certified Professional Accountants



What does it take to be a strong risk leader?

Learn more in our new report.

Unlocking data's future value: A new role for CFOs

IMAGES BY KERTLIS/GETTY IMAGES

An emerging financial model is allowing businesses to monetise the current and future value of data as an asset that can be securitised and traded.

By David A. J. Axson

According to market intelligence firm International Data Corporation, the amount of data created, captured, and consumed globally is increasing by a compound growth rate of 23%. By 2025, global data creation is projected to almost triple from 2020 to more than 175 zettabytes (one zettabyte is equal to a billion terabytes). Today, almost every event or interaction has a digital footprint. However, only a small percentage of the potential value of data is being realised.

Much of the data within an organisation is either discarded, trapped, or retained in an unusable format. Despite years of investment in data warehouses, data lakes, and other tools, rapid access to clean, accurate, and timely data for use internally remains a significant challenge, never mind creating data products that have value in the external marketplace.

Revealing the potential

Advances in data management, falling storage costs, and the emergence of artificial intelligence (including machine learning), data science, big data, and cognitive computing are opening new ways to extract value from data. This is done by unlocking trapped data, providing structure and organisation, and finding patterns within data that can produce insights and create value. It creates opportunities for CFOs to unlock the value of data for the enterprise — both for internal use and increasingly for sale externally.

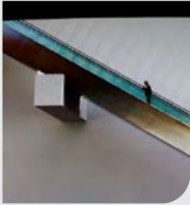
McKinsey & Co. estimates that the economic value from the broad adoption of financial open-data ecosystems could range from about 1%–1.5% of GDP by 2030 in the EU, the UK, and the US, and as much as 4%–5% in India.

Making the Case for Data Analytics

Learn the foundations of data analytics and how it can transform an organisation and close data analytics skills gaps for future success.

Find this course in the AICPA Store and in the CGMA Store.

COURSE BUNDLE



Getting Started with Data Analytics

Learn how you can conduct data analytics projects in your organisation. Learning outcomes include recognising how data analytics can be used to achieve a competitive advantage and create opportunities for innovation.

Find this course in the AICPA Store and in the CGMA Store.

COURSE BUNDLE

Cybersecurity and Digital Transformation

The course lays out market trends in digital transformation and their impact on cybersecurity.

Find this course in the AICPA Store and in the CGMA Store.

COURSE

CFOs have long understood the potential value of data and have always played a key role in data stewardship. Over time this role has expanded to embrace both market and operational data as well as financial data. Today, many companies share anonymised data for little or no value to other organisations that then profit from it. Retailers provide sales data to aggregators that then sell the data to consumer products companies and marketers. Physicians and hospitals give up medical data that is resold for research and development purposes, and airlines, insurance companies, banks, and others freely disclose pricing data on comparison sites in the hope of generating new business. But what if the value of that data could be realised by the organisation itself?

A new model

A new financial model is emerging that allows organisations to monetise the current and future value of data. A useful reference point is the deal musician David Bowie struck in 1997 to sell a bond backed by his future royalties. In effect, he received cash then in return for giving up his rights to future royalty streams from his music.

This model has exploded in recent years as artists from Bob Dylan to Bruce Springsteen cash in on the future value of their music rights. When this model is applied to data, an organisation can still own the data but sell the rights to future revenue streams derived from the data in return for payment today. Data becomes a more tangible asset with a fair market value that can be securitised, traded, or borrowed against. Valuing data is becoming increasingly practical as marketplaces emerge that establish a price for data that is categorised and packaged. Revenue streams from subscriptions, licensing, and royalties provide the inputs to a model for forecasting the future value of data.

The process of creating value from data is analogous to that of extracting value from natural resources. Raw data can be processed or refined to create products of differing value. This can involve subjecting data to aggregation, concatenation, categorisation, extrapolation, and analysis.

For example, sales data could be grouped by product or geography to create a product. This could be sold or subjected to further processing to create another product. The product and geographic sales data could, for example, be combined with weather data to show how sales vary under different weather conditions. Much like the refining of crude oil, where products can be created at each stage of the process, data is a resource that can be refined into multiple products, each of which has economic value to someone. And both oil and data are benefiting from technology advances that have dramatically improved the efficiency of exploration, extraction, refining, and use.

Types of data value

From a CFO's perspective there are three primary sources of value:

Transactional

Data can be used to initiate and process transactions. Examples include execution based upon a set of predefined criteria being met; inventory replenishment triggered by usage, events, or algorithms; or validating transactions based upon the existence of required metadata such as customer identifiers. Selling access to large streams of transaction data can allow others to derive intelligence and insight that can guide innovation, research, financing, and product development.

Informational

Data can be aggregated and concatenated to provide information about a series of events or transactions such as measuring activity levels, comparing to different bases (eg, prior periods, plans, targets, or statistical value and trends), or evaluating past actions or decisions.

Organisations that accumulate rich data that can be grouped around different attributes can create data products that have value to others. For example, information on traffic flows from municipal traffic management systems can guide the planning of infrastructure investments; hospital data on patient outcomes can help refine insurance coverage and pricing.

Analytic

By applying rules, statistical formulas, data science, and AI, including machine learning, or other analytical frameworks, data can be interrogated to explain current or past outcomes or predict future outcomes and events. Financial institutions can create analytics that track spending behaviour by income level and

Valuing data is becoming increasingly practical as marketplaces emerge that establish a price for data that is categorised and packaged.

geography, which can be used to hone marketing campaigns and product assortment strategies.

Each of these uses can deliver internal value in the form of better decision-making, but they also have value as commercial data products available for sale to others.

The journey to value

There is already an emerging group of technology service providers, financiers, insurers, advisers, and data asset company operators willing to partner with CFOs to convert enterprise data into assets that can be traded and securitised.

This ecosystem can ensure that an organisation's data is fit for reuse, can be replicated or combined with other data to create new data, and can be safely transferred and used by others. These service providers can also ensure provenance, veracity, and accuracy; validate aggregation and calculation routines; provide secure access and governance; and mitigate risk.

The biggest barrier to unlocking the value of data is not technical. High-profile data breaches, both accidental and through hacking, have created an atmosphere of fear about the financial, regulatory, and reputational risks of exposing sensitive data. For many boards and executive teams this has engendered a very cautious approach to leveraging the value of data.

Data protection legislation, such as the EU's GDPR, has further reduced the appetite to embark upon any data-related activity that exposes an organisation to risk. Many of these concerns can be addressed by effective anonymising of data, adopting advanced cybersecurity protocols, and the judicious use of insurance and other risk mitigation techniques.

For a CFO, job one remains ensuring the integrity of financial data, and job two focuses on ensuring that the organisation extracts maximum internal value from data. However, an attractive third job is emerging — developing a financial construct to unlock the future value of an organisation's data in the marketplace. Proceed with caution, but don't discount what could be a potent new source of tangible financial value. ■

David A. J. Axson is a former partner with Accenture, co-founder of The Hackett Group, and former head of corporate planning at Bank of America. He currently serves as part-time CFO of Shrap.co.uk. To comment on this article or to suggest an idea for another article, contact Oliver Rowe at Oliver.Rowe@aicpa-cima.com.

Are you incentivising climate destruction?

Finance professionals need to work with others in the business to ensure that KPIs, scorecards, and incentives are aligned with net-zero strategies.

By Ian Thomson, ACMA, CGMA

IMAGE BY EZRA BAILEY/GETTY IMAGES

Imagine the following scenario, based on my research: A supermarket publishes its net-zero strategy and incentives designed to reward store managers for reducing the business's carbon emissions. Carbon KPIs that measure the emissions of each store are introduced into department scorecards and performance rankings published monthly. Each month the top three emission-reducing stores, as measured by their monthly store carbon emissions measure (SCEM), are spotlighted in staff magazines and webpages and awarded net-zero medals.

In the first six months all stores report downward trends in their SCEM. But after nine months, the net-zero leader board was dominated by a small number of stores. Managers of the other stores expressed frustration that their SCEM performance remained stubbornly static despite initiatives such as encouraging staff to walk or cycle to work, stocking products with lower carbon footprints, and encouraging customers to reduce food waste and increase home composting.

The performance management team started to analyse the SCEM data to identify elements of good practice to share throughout the business. The team noticed that the top-performing managers dramatically reduced the amount of produce purchased from farms owned and managed by the grocery company itself and switched to sourcing from overseas suppliers. In contrast, the worst-performing stores had increased their procurement from company farms and almost eliminated the amount purchased from overseas suppliers.

This seems counterintuitive. Surely transporting produce from the other side of the world should increase carbon emissions, purchasing locally should reduce them, and this should be represented in the SCEMs.

The problem lies in how the supermarket calculated the SCEM and how that was connected to incentives. Because the SCEM was not capturing all

Typical carbon footprint components

Scope 3 upstream emission sources		Scope 2 emission source	Scope 1 direct emission source	Scope 3 downstream emission sources	
Resources	Travel and logistics	Purchase of energy	Emissions from the use of	After sale but before use	Use and disposal
■ Purchased goods and services ■ Capital goods, owned and leased ■ Fuel ■ Waste from operations	■ Delivery of goods and services to business ■ Employees' commuting ■ Business travel	■ Electricity, steam, heat, or cooling purchases	■ Company facilities, land, and buildings ■ Company vehicles	■ Delivery of goods and services to customer ■ Further processing of product by customer	■ Use of product ■ End-of-life disposal

Source: Greenhouse Gas Protocol.

Top 9 tips when interpreting carbon KPIs

Don't take carbon emissions disclosed in corporate reports or scorecards at face value. Finance professionals can mitigate many of the mistakes and misinterpretations of carbon emissions observed in practice if they follow these steps:

1. Always confirm how the carbon emissions have been calculated, looking for a breakdown by categories in the table "Typical Carbon Footprint Components" and whether the numbers have been assured or independently verified.
2. If you cannot identify which categories are included in carbon KPIs, do not use them because you cannot guarantee they will provide reliable evidence for decision-making or performance measurement.
3. Look for other carbon KPIs produced by the company in relation to departments or products, including annual reports, regulatory returns, integrated reports, or external sources such as the Carbon Disclosure Project. Always use the carbon KPI that includes the most categories.
4. Look for discrepancies between corporate climate change strategies, aspirations, and targets, and how carbon KPIs are calculated.
5. Check the timescale of the carbon KPIs. Are they quarterly, annual, rolling averages, or two-year targets? Remember this is a fast-evolving topic, and there is considerable variation in practice.
6. Take care when interpreting carbon KPIs based on ratios, eg, carbon/sales. Check that there is a meaningful relationship between the two numbers. For example, ask if sales really drive the carbon emissions and whether all the carbon emissions associated with sales are included in the carbon KPI.
7. Make sure you use the most relevant carbon data. If you are looking at pricing, use the carbon emissions associated with the product life cycle. If you are measuring the performance of a manager, use the carbon emissions they are responsible for.
8. If there is any doubt, contact those responsible for producing the carbon KPIs to get as much additional detail as possible on carbon emissions before starting your analysis.
9. Always qualify any analysis of carbon KPIs with an assessment of the quality of data available and clearly disclose what information is missing.

the carbon emissions of the managers' actions, the business was inadvertently incentivising behaviour that increased, rather than reduced, the business's carbon footprint. The supermarket had based its SCEM on carbon reporting standards that limit the required disclosures to indirect carbon emissions from purchased electricity or energy used in heating or cooling (Scope 2 emissions) and carbon emitted from its buildings, vehicles, operation of equipment, or any land use (Scope 1 emissions) rather than on its carbon footprint.

Scope 1 and Scope 2 emissions are only part of a business's carbon footprint. When calculating a business's carbon footprint, you also need to consider the carbon emitted in the business supply chain or that related to other assets owned by a business (often referred to as Scope 3 upstream emissions) and carbon emitted after the sale of a product or service, as a result of its consumption and any eventual disposal (often referred to as Scope 3 downstream emissions).

A carbon footprint aims to measure total global emissions across the life cycle of a product or service (see the table "Typical Carbon Footprint Components" arranged by the main stages of a product life cycle).

The shaded columns in the table represent the components that most

Carbon emissions beyond corporate disclosures

Percentage of UK businesses including carbon footprint components in their net-zero strategy.

Including carbon emissions from	% of respondents
Purchased goods and services	18%
Capital goods, owned or leased	15%
Delivery of goods and services to your business	8%
Business travel	16%
Employee commuting	14%
Delivery of goods to your customers	10%
Use and disposal of your products after they are sold	13%

Source: 2022 YouGov survey commissioned by Lloyds Banking Group Centre for Responsible Business.

businesses include in their carbon KPIs or corporate accounts. Most carbon disclosure regulations also focus on these two columns, which only represent a very small percentage of the carbon emissions associated with a product, service, or overall business activities.

Research suggests that, on average, the most common carbon KPIs capture only around 20% of total emissions, but this can vary considerably by sector. In some sectors, such as IT, only 1% of total climate-related emissions are captured in publicly disclosed carbon KPIs. A recent survey of UK businesses suggests that only a minority included carbon emissions beyond those required for corporate disclosure (see the table "Carbon Emissions Beyond Corporate Disclosures").

In the supermarket scenario, the SCEM is consistent with carbon disclosure requirements. But rewarding managers for reducing their monthly SCEM could actually increase the supermarket's total carbon emissions. This is because the SCEM allows store managers to leave out carbon emissions related to procurement and logistics.

The SCEM includes emissions related to in-house production and use of company vehicles but excludes carbon emissions related to purchased goods and services. This has the unintended consequence of internally sourced products' adding to the SCEM, whereas buying similar goods from external suppliers overseas could increase carbon emissions but not the SCEM. Because the SCEM does not adequately capture all the carbon emissions, it incentivises increasing carbon emissions.

Actions can affect the life-cycle carbon footprint in ways that are not adequately captured by conventional carbon KPIs, such as the SCEM (see the tables under the heading "Impact on Carbon Footprint of Different Actions"). The most commonly used carbon KPIs provide misleading accounts of the climate change consequences of different decisions. They do this by excluding increases in carbon emissions and not recognising reductions in carbon emissions from actions such as reducing consumer waste or encouraging lower carbon commuting.

The SCEM used by the supermarket is not without merit, but it does not apply to all business decisions. For example, it does capture the carbon consequences of

Impact on carbon footprint of different actions

The following tables explore the likely consequences of three activities adopted by the store managers in the scenario: (1) "Switching From Buying Internally to Overseas Suppliers"; (2) "Encouraging Staff to Commute/Travel for Business Purposes Using Public Transport, Cycling, or Walking"; and (3) "Providing In-Store Education to Reduce Food Waste by Customers". Each table identifies the impact of the actions on the different sources of carbon emissions. The shaded cells represent the emissions included in the SCEM.

1. Switching from buying internally to overseas suppliers

	Resources	Travel and logistics	Purchase of energy	Emissions from the use of	After sale but before use	Use and disposal
Increase carbon footprint	Purchased goods and services	Delivery of goods and services to business				
Reduce carbon footprint				Company facilities, land, and buildings Company vehicles		

2. Encouraging staff to commute/travel for business purposes using public transport, cycling, or walking

	Resources	Travel and logistics	Purchase of energy	Emissions from the use of	After sale but before use	Use and disposal
Increase carbon footprint						
Reduce carbon footprint		Employees' commuting Business travel				

3. Providing in-store education to reduce food waste by customers

	Resources	Travel and logistics	Purchase of energy	Emissions from the use of	After sale but before use	Use and disposal
Increase carbon footprint						
Reduce carbon footprint						Use of product End-of-life disposal

Source: Author.

Fundamentals of ESG Certificate

Kick-start your understanding of ESG (environmental protection, social inclusion, and governance) issues with this course, designed to help you learn how the landscape has developed and the key role CPAs and finance professionals have to play.

Find this course in the AICPA Store and in the CGMA Store.

COURSE

decisions such as purchasing renewable energy (eg, generated from solar, hydro, or wind), introducing energy-saving measures, or implementing more carbon-efficient logistics. Even a carbon KPI that only measures Scope 1 and 2 emissions is considerably better than not including carbon consequences in business strategy or KPIs.

Excluding measures of carbon emissions means that any decision will ignore its impact on the climate and, by its omission, further incentivise global warming. Only 6% of UK businesses reward employees for reducing carbon emissions, which suggests that 94% may be inadvertently rewarding global warming. Two of the most common metrics used for incentives — making profits (used by 30% of UK businesses) and increased sales (used by 24%) — do not explicitly consider their climate impact and are unlikely to be aligned with net-zero strategies.

It is possible to align KPIs, employee rewards, and net-zero strategies through the use of a carbon footprint KPI that includes all the columns in the "Typical Carbon Footprint Components" table. Generally speaking, the narrower the scope of a carbon KPI, the more likely employees will game the system. The wider the scope of a carbon KPI, the stronger the alignment of the incentive with net-zero outcomes. (See the table "Using a Comprehensive Carbon Footprint KPI".)

Using a comprehensive carbon footprint KPI

The evaluation of carbon-reducing actions is sensitive to how a business measures its carbon emissions. In the case of the supermarket, if it changed the SCEM to a more comprehensive carbon footprint KPI, then its performance measurement system would be aligned with the impact of the global climate system.

Action	Evaluation using conventional carbon KPI	Evaluation using carbon footprint KPI	Likely impact on global climate system
Importing goods and services from overseas rather than from internal producers	Positive	Negative	Negative
Encouraging staff commuting and business travel to use public transport, walking, or cycling	Neutral	Positive	Positive
Educating customers to reduce waste	Neutral	Positive	Positive

Source: Author.

How the finance team can align KPIs with net-zero strategies

Businesses are under increasing pressure to reduce their impact on climate change by reducing their carbon emissions. Imagine the reputational damage if a business is found to be, even inadvertently, incentivising increases in emissions.

KPIs, scorecards, and incentives are not set in stone. They represent past choices as to what and how to measure and reward — past choices that may not be valid now or are steering us in the wrong direction. Finance professionals need to work with others in the business to ensure that all aspects of its accounting systems are aligned with net-zero strategies.

To achieve this, finance teams should:

- Audit existing KPIs and employee remuneration schemes to ensure they are not inadvertently incentivising climate change.
- Use "ethical hacking" methods to expose loopholes that reward problematic behaviour.
- Reflect on behavioural assumptions of existing KPIs, and assume that employees will always look for winning strategies within the rules.
- Given the urgent need for action to reduce the costs of climate change, businesses should actively consider introducing carbon KPIs into their scorecards and incentivise carbon footprint-reducing activities, using a combination of financial and nonfinancial rewards.
- Ensure the scope of any carbon KPI captures all material carbon emissions.
- When interpreting any carbon KPIs or designing any incentive scheme, bear in mind the top nine tips for interpreting carbon KPIs (see the sidebar, "Top 9 Tips When Interpreting Carbon KPIs"). ■

Ian Thomson, ACMA, CGMA, is professor of accounting and sustainability and director of the Lloyds Banking Group Centre for Responsible Business at the University of Birmingham in the UK. To comment on this article or to suggest an idea for another article, contact Oliver Rowe at Oliver.Rowe@aicpa-cima.com.

AICPA® & CIMA®

Together as the Association of International Certified Professional Accountants

What are some insights that **finance risk leaders must know**?

Read our latest tool to find out more.

Essential tips for presentations that inspire and engage

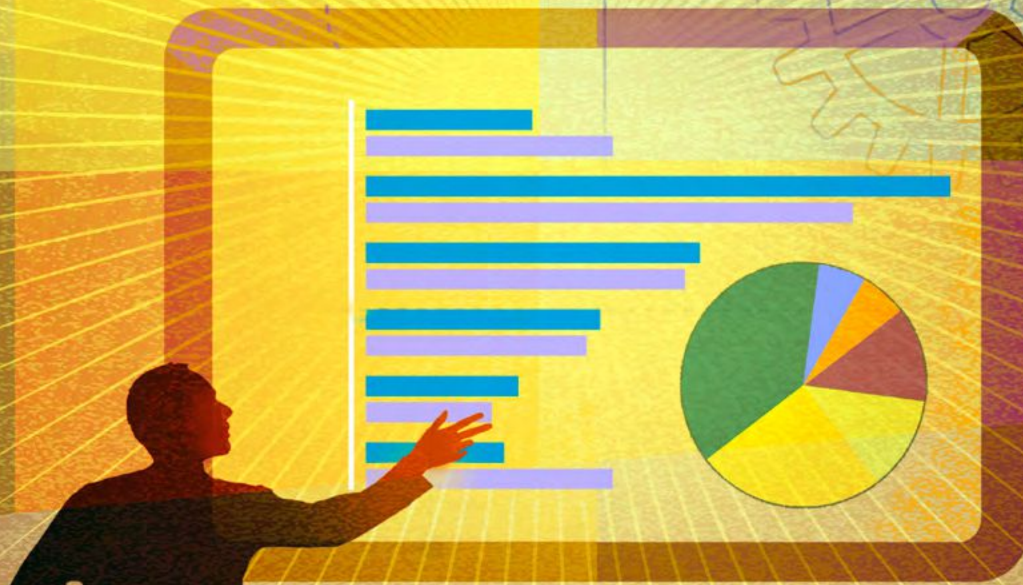


IMAGE BY ROY SCOTT/IKON IMAGES

Start with considering what your audience needs to know and get the structure right, but only present the most salient facts.

By Jessica Hubbard

Whether it is pitching a business plan to potential investors or delivering a bold cost-cutting strategy to the leadership team, most finance professionals are inevitably called upon to present and communicate key information.

Yet, all too often, finance and accounting professionals are perceived as speaking an "exclusive" language that can confuse or isolate their audience, said Bradley Channer, FCMA, CGMA, the CFO at UBIO, an automation technology company based in the UK. By using technical jargon and failing to put numbers into perspective, for instance, finance professionals can quickly lose the attention and interest of their audience — and the buy-in required to inspire action.

"In any presentation, the most important aspect is to be able to communicate the financial message to the founder, CEO, investors, etc., in a human way that they can easily understand and care about," Channer explained. "The first step is to put yourself in their shoes, forget that you are an accountant, and really consider what your audience needs to know."

Such careful and methodical consideration tends to be a rarity in most presentations, noted Richard Mulholland, founder and chief presentation officer at Missing Link, a company based in South Africa that specialises in helping presenters engage and activate audiences.

"When you consider just how high the stakes are when delivering business presentations, it's surprising that the bar in this skill is as low as it is," he added.

FM magazine spoke to Channer and Mulholland to find out how finance professionals can immediately raise the bar and deliver more engaging presentations. Their advice includes the following steps:

Focus on structure

According to Mulholland, a well-structured, poorly skilled presenter will always outperform a poorly structured, highly skilled presenter. "Structure is critical. So when improving on presentation skills, we need to solve for *what* you say before we solve for *how* you say it."

He outlined four key elements around which to build an impactful presentation:

Give your audience a reason to care. Open with clarity and curiosity: This is what we're talking about, and this is the question we're trying to answer. "With every bit of information you present, the audience should be trying to solve for your hypothesis themselves," Mulholland said.

Give your audience a reason to believe. Why should they trust you? What evidence do you have? For example, emphasise the rigour and depth of the research and data you're presenting.

Tell them what they need to know. When compiling the information you will present, ask yourself: When I have finished this presentation, what emotion do I want my audience to feel? For example, if you are a CFO delivering a presentation on cost-cutting, the audience needs to feel a degree of fear or anxiety, which in turn will inspire certain actions. Alternatively, if you want to deliver a presentation that builds momentum and motivation, you've got to create a sense of pride and excitement. In each scenario, one must ask: What information do I have to show that will evoke these emotions?

Tell them what they need to do. Every presentation should end with an explicit call to action, Mulholland noted. "If there is no call to action at the end of a presentation, then it is a report and should rather be sent via email," he said. For instance, if the presentation was centred on cost-cutting, then what are the small steps that the audience can immediately begin taking to achieve the desired result?

Make it visual

When structuring your presentation, Channer noted that finance professionals tend to use too much text and present with overcrowded PowerPoint slides that distract the audience.

"Wherever possible, turn your information into colourful graphs and pictures, making it as visual as you can,"

Power-Up Your Presentations With Generally Accepted Awesome Accounting Presentations (GAAAP)

Learn essential PowerPoint dos and don'ts and before-during-after presentation skills with our training course to develop compelling and useful presentations.

VIDEO

MBAexpress: Presenting Numbers for Impact

This course discusses how to effectively deliver numbers-oriented information to nonfinancial audiences. It identifies ways to create financial presentations with impact, comprehension, and retention and defines the 6-6-6 presentation rule.

COURSE

MBAexpress: Presenting Financial Information — V 2.0

This course discusses the basic steps to developing a process that effectively delivers numbers-oriented information to nonfinancial audiences.

COURSE

Financial Storytelling: The Key in Growing Your Organization to the Next Level

Bring financial information to life and use it to communicate a story to an audience, through a mix of financial data, visualisation, storytelling theory, best practice, and practical application.

COURSE

he said. "Be prepared with the detail, but present the minimum facts required to deliver your message. Brevity is always key."

If you are presenting online, Mulholland recommended using interactive content to hold attention — bearing in mind that online audiences are likely being distracted by a steady stream of notifications via email, messaging apps, social media sites, etc.

"You need to go into online presentations with the assumption that you are losing your audience to these distractions every two to three minutes, so make sure to give them a reason to return every several minutes," he explained. "For example, insert a quick poll into the presentation which evokes curiosity and gets your audience to participate."

To build highly visual, interactive, and compelling presentations for an online audience, Mulholland recommends Prezi Video — a video creation tool that puts you right alongside your content as you livestream or record. He also highlighted PowerPoint's new feature called cameo, which allows you to embed your live video camera feed directly into PowerPoint slides to create a more immersive experience. You can then apply the same effects to your camera feed as you can to a picture or other object, including formatting, transitions, and styles.

Put the numbers into perspective

When presenting data, Mulholland said that the key to having greater impact is narrowing your datasets and only using the numbers you need to deliver the message you want to deliver. When presenting these numbers, always put them into perspective for your audience.

"This is a critical step which we call 'making your numbers human scale', and which allows your numbers to exist in a form that the audience can understand and actually care about."

Tame your inner critic

Public speaking and presenting are often daunting prospects for finance professionals, and are things not usually practised. Having trained as a professional actor, Channer said that professionals can gain confidence by learning to consciously tame the inner critic — that small but persistent voice that says you can't do it.

"You never beat the critic, but you can learn how to control it and vanquish the all-too-common impostor syndrome," he said. "This takes moment-to-moment awareness and consciously affirming to yourself that you are more than equipped for the task."

Channer noted that confidence is also gained by practising your presentation several times beforehand, usually away from your normal workplace. While practising, envision different scenarios and try to think of any difficult or confrontational questions that your audience might pose. By practising while out on a walk or in the gym, your brain will be inspired to problem-solve in a different way.

Importantly, gaining more confidence in presentation skills can empower finance professionals to be more assertive and direct in other aspects of their work, Channer noted.

"Mastering this skill can give you the ability to say what you really feel in the boardroom and to stand your ground when it matters the most," he said. ■

Resource

Podcast episode

"Serious Presentation Tips From a Stand-up Comic", *Journal of Accountancy*, 7 October 2019

Jessica Hubbard is a freelance writer based in France. To comment on this article or to suggest an idea for another article, contact Oliver Rowe at Oliver.Rowe@aicpa-cima.com.

Supporting your career progress

Global Career Hub | **mycareer.aicpa-cima.com**

Top jobs | Career advice | Future readiness

The Association of International Certified Professional Accountants, powering leaders in accounting and finance around the globe

© 2020 Association of International Certified Professional Accountants. All rights reserved. AICPA and CIMA are trademarks of the American Institute of CPAs and The Chartered Institute of Management Accountants, respectively, and are registered in the US, the EU, the UK and other countries. The Globe Design is a trademark of the Association of International Certified Professional Accountants. 2012-10403

IMAGE BY GARY WATERS/IKON IMAGES

How to improve your strategy implementation skills

Finance professionals can follow these nine steps to execute a corporate strategy, track performance, and propose revisions should the environment change.

By Raju Venkataraman, FCMA, CGMA

Strategy implementation is the process that turns strategies and plans into actions to achieve set objectives and goals. Research shows that the real value of strategic thinking lies not only in formulating sound strategic plans, but also in the ability to:

- Implement the plan successfully to achieve the desired end results, and
- Adapt in an agile manner to changing circumstances.

Nearly 40% of companies are "adrift" without a strategic direction, according to a report by Strategy&, PwC's strategy consulting unit. Moreover, research and consulting firm Gartner found that 67% of key functions are not aligned with business unit and corporate strategies.

***Editor's note**: This is the second article in a two-part* FM *series about strategic thinking and implementation. Part one looked at how to become a better strategic thinker and planner. Part two addresses the steps needed to execute well on strategic plans.*

To motivate individuals and teams, it is important to create an incentive compensation structure that aligns with execution of the company's strategy.

To determine how finance executives can help bridge the execution gap, it is important to appreciate the common challenges faced in the execution process. These include a breakdown in communicating the strategy to middle managers and frontline staff; lack of a common definition of success; issues in resource allocation, performance tracking, and incentive alignment; failure to hold people accountable; and the inability to adapt the chosen strategy in an agile manner when circumstances change.

Implementing strategy effectively requires team members to buy into it and the entire leadership team to be actively involved together with the team members. For effective implementation:

- Senior leaders must initiate and orchestrate the big initiatives and must communicate the strategy in a way that team members can comprehend it and understand how their work will contribute to the strategy's success.
- Middle- and lower-level managers must ensure all goes well in their respective areas of responsibility by allocating responsibilities, training their people, tracking performance, holding people accountable, and taking corrective measures as needed.
- Operating-level employees must upskill as needed and perform their individual roles competently as well as proactively help others to do well, too.

9 steps to effectively implement strategy

To become better at implementing strategy, finance executives can follow these steps:

1. Dig into the details

If your role and situation permit, seek a chance to participate in the strategy formulation process. If this is not possible, you can study the approved strategy, brainstorm with functional and business managers to identify the specific achievements to execute against the strategy, and develop these into action plans with milestones.

Each strategic initiative should have a timeline, a predetermined target value of success, and a causal relationship to the overall company strategy.

For example, if one of the strategic priorities of a Singapore-HQ company is to drive international expansion, a finance executive can team up with business partners to further define the priority as:

- Enter ABC markets in fiscal 2023 and DEF markets by fiscal 2024.
- Achieve a minimum 25% market share by the end of year two after market entry in each market.
- Ensure revenue from international markets reaches x% of total revenue by fiscal 2024.

2. Address capability and clarify responsibilities and accountabilities

Finance should partner with the business leadership to understand the critical capabilities that people need to possess or develop, and the key activities that need to be performed well in order to execute effectively against the strategy. These are the capabilities and activities that need to be monitored and reported on.

The finance department can further help business leadership ensure that responsibilities and accountabilities for decisions and actions are clear and agreed upon and help leadership resolve areas of overlapping responsibility by highlighting them.

The finance department can also add value by evaluating outsourcing opportunities for noncritical activities. This will allow a company to concentrate its energies and resources on value-chain activities where it has a competitive advantage or needs direct control. Thus, a company improves its chances of outclassing competitors in performing strategy-critical activities.

3. Identify key decisions

Based on the critical capabilities and activities identified, list the significant questions that need to be addressed and the key decisions that need to be made. This will help you understand how leaders and business users will actually use the information. Adopt the Pareto principle to identify, set, and measure the few key metrics that matter (KPIs) and provide the information needed for each question/decision. The Pareto principle, or 80/20 rule, suggests that most consequences can be traced to a few causes.

It is also important to identify the key assumptions (which need to remain true for the strategy to succeed) and potential risks that need to be regularly monitored.

4. Establish data sources for a balanced scorecard

Determine the relevant primary data sources for the information and work with the business partners to finalise the format required for the reports. Make sure the scorecard is balanced, with financial and nonfinancial measures, and both leading and lagging indicators.

5. Match incentives to strategic targets

To motivate individuals and teams, it is important to create an incentive compensation structure that aligns with execution of the company's strategy. Here again, the finance department can

play a key role by teaming up with business partners to create balanced personal scorecards for individual employees and teams that are focused on the critical performance measures they can affect.

Achievement of these targets should then serve as the basis for incentive compensation.

6. Track performance

Design dashboards to track and monitor actual performance vis-à-vis plans. From time to time, iterate those dashboards and improve them in consultation with users and key stakeholders, based on evolving requirements.

These dashboards must also cover reporting whether all the key strategic activities are adequately resourced.

7. Share key performance insights

Regularly report insights to the implementing managers, to their teams, and to the executive leadership, based on financial performance and operating performance — ideally one set of numbers throughout the organisation to avoid varying assumptions by the teams. By understanding how well individual business units perform, managers can identify areas for improvement.

For example, let's say that your organisation's strategic goal is to improve its customer retention by 33% by the end of 2023. You can set up dashboards to monitor any change in the customer retention rate weekly or monthly. If your reports show that your customer retention rate is decreasing month-on-month, it could signal that your strategic plan requires pivoting because it's not driving the change you desire. If, however, your data shows steady growth, you can use that trend to reasonably predict whether you'll reach your goal of a 33% increase by the end of 2023.

8. Continue to track performance and share projections

Set up periodic strategy implementation review meetings and prepare for these with financial simulation modelling, forecast updates, and what-if analyses.

Unlike financial reporting and controlling, which go by exact numbers, strategy implementation only requires numbers to be in the right ballpark to indicate whether the business is moving in the right direction and to spot trends and risks. There's no need to know a project initiative will cost $79,225. An estimated cost of $75,000 to $85,000 is sufficient. So don't spend time boiling the ocean.

9. Watch out for reasons to revise the strategy

Effective implementation requires regular evaluation of the strategy, by (1) reviewing the internal and external factors affecting the implementation of the strategy; (2) measuring performance; and (3) taking corrective steps to make the strategy more effective.

High-performing organisations are agile both in course-correcting on the strategy itself as well as in shifting resource allocation as the business needs evolve, in order to ensure successful execution of the strategy.

An important capability that finance teams must develop is rolling forecasting/budgeting, such that changes in resource allocation and investments can be made in a timely manner instead of waiting for the next annual planning cycle.

For example, if actual results continue to deviate significantly from goals and relevant KPIs and/or if there is a major shake-up in the business environment, the finance team should initiate an in-depth review and explore together with their business colleagues whether (1) it is time for a course correction in strategy; (2) it is purely an execution issue fixable by changes in personnel or resources, etc.; or (3) the aspirations were set at the wrong level and they need to be made more realistic.

Examples of environment shake-ups include acts by competitors or new, emerging competition, evolving customer expectations, or new regulations coming into force. In short, periodic reviews of the strategy can help determine if underperformance was the result of a bad market assessment, a wrong strategy, or poor execution.

A continuous process

As you consider the nine steps, remember that strategic thinking and execution don't happen on a linear timescale. Good strategic thinkers think about how the execution would play out even as they are formulating strategy. They then plan for execution iteratively as they draw up the strategic plans and translate those into actionable goals.

Finance professionals can and must play a crucial role in supporting strategy execution. Devoting time and effort to hone their strategic thinking and implementation skills will allow them to build a more fulfilling career in finance, help their organisations make well-informed strategic plans, and implement the plans successfully to achieve organisational goals. ■

Raju Venkataraman, FCMA, CGMA, is a corporate trainer and credentialed leadership and career coach (PCC) based in Singapore, serving clients worldwide. He is a former CFO and head of strategy of The Walt Disney Company South East Asia. To comment on this article or to suggest an idea for another article, contact Oliver Rowe at Oliver.Rowe@aicpa-cima.com.

LEARNING RESOURCE

MBAexpress: Key Concepts of Business Strategy

Whether you are an entrepreneur or want competitive insight into your market, this course prepares you to successfully launch a global business with innovation, risk management, masterful marketing, and sustainable practices.

COURSE

4 ways for CFOs to navigate the changing tech-finance relationship

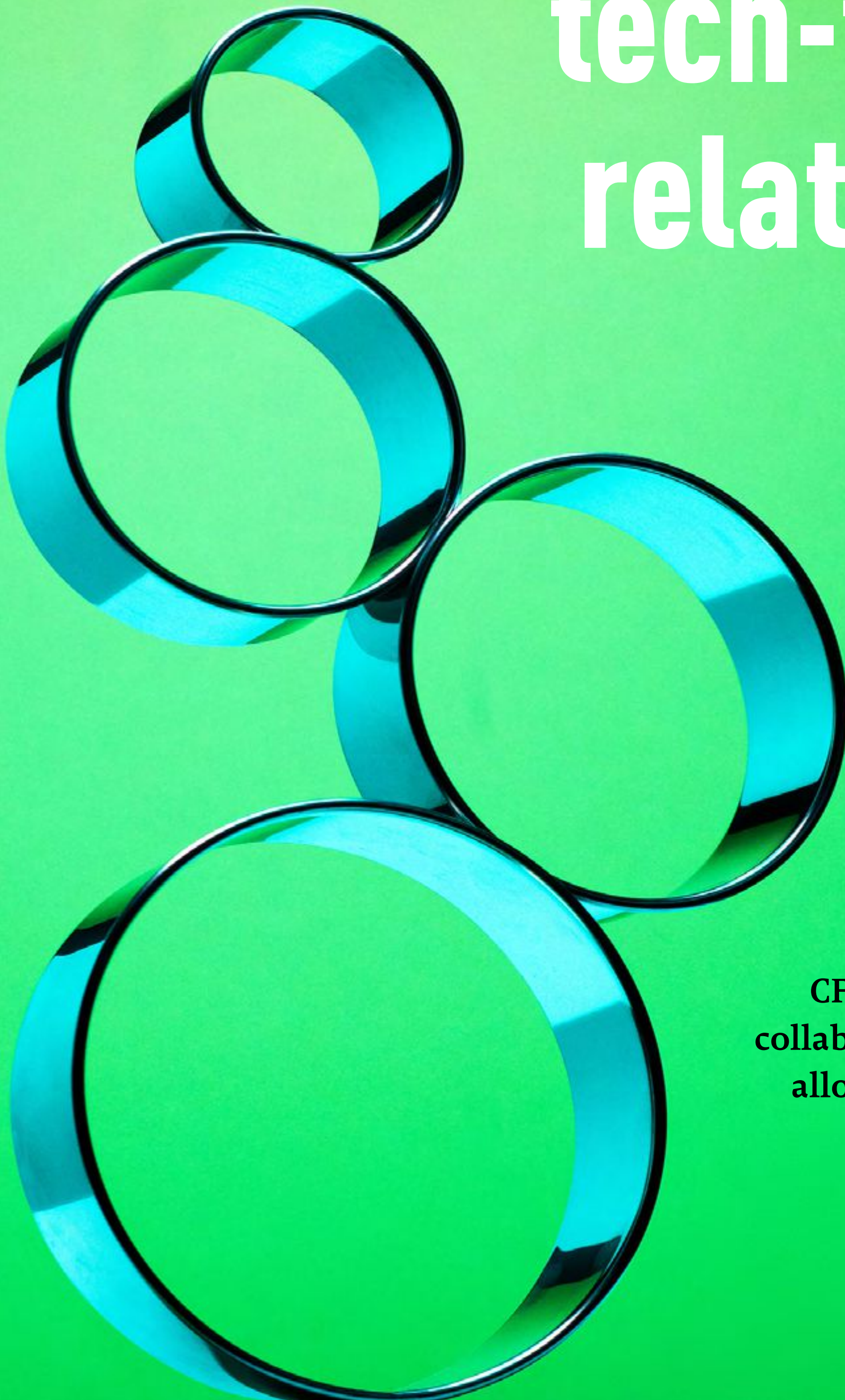


IMAGE BY PM IMAGES/GETTY IMAGES

CFOs should take the lead in collaborating with IT teams and allow finance to take on more tech responsibilities.

By Andrew Kenney

Finance teams are embracing new technology, from automation to analytics, but they can't do it without help. As they undertake broad digital transformations, they're working closely with their companies' IT teams to connect data sources, streamline processes, secure digital information, and more.

This collaboration has spurred a change in the relationship between finance and technology teams — one that could determine both groups' success or failure in the age of innovation.

"I think the relationship between finance and IT has always been a very productive relationship. However, [the two functions have] always been very separate," said Todd Bialick, CPA, a partner with PwC overseeing digital assurance and transparency in the US.

In the past, Bialick said, technology departments were often viewed as service organisations that would respond to finance's problems in a "transactional" fashion. "Today, it's much different," he said.

Finance and their tech colleagues are now working together far more frequently to plan and execute significant new projects, especially those based on data extraction and analysis. In some cases, finance is taking on new responsibilities for managing cloud-based tech tools. And some organisations have even unified their technology and finance teams under a single leader, Bialick said.

To make the most of this changing relationship, finance leaders provided these four tips:

Develop a relationship with tech leaders

The capacity of finance to implement new technologies begins with the CFO's relationship with the company's technology leader.

This has been true in some form since the days of mainframes and punch cards. But the scope and frequency of today's projects — such as implementing cloud services or pulling in new data sources — requires closer collaboration.

"Today, if you look at any major transformation project, it does involve technology," said Keren Stephen, FCMA, CGMA, CPA (Canada), the vice-president of finance and decision support for the Human Resources Professionals Association (HRPA) in Canada and a board member for the Association of International Certified Professional Accountants. "The head of technology is often tasked with the technology strategy for the organisation. So, if finance plays a big part of that overall transformation strategy, it's just so logical that you need to work very closely with the head of technology."

It's incumbent on the CFO to take the initiative in developing these relationships, Stephen said.

When she began her current job at HRPA, Stephen knew she wanted to work with the chief information officer on the organisation's transformation effort. But she also knew that the CIO was "exceptionally busy" with the HRPA's core infrastructure and security needs.

She made a point of meeting with him and understanding his world. She also did her own research on potential approaches to the challenges ahead, bringing ideas and suggestions about vendors to the CIO. That helped cement the relationship because it showed finance's initiative and interest while still respecting the CIO's authority, she said.

"Evaluate the situation, understand the challenges of the CIO, and then come up with the best way you can build a win-win partnership," Stephen said. "Get to know IT, get to know how they work, get to know how their processes work."

For example, she said, if a company's IT department has a very structured planning process, the CFO must learn what's expected at each stage, especially when making the business case for a project.

Keep an open mind and win IT's trust

Another important factor in making IT a business partner is to bring the department in early when working on a major project, according to Helen MacPhee, a UK-based chartered accountant and vice-president for global financial services for pharmaceutical company AstraZeneca.

For any tech-heavy project, she suggested bringing "a sense of direction but not a defined path" to the technology department and asking for their advice on how to complete those goals.

"It's always an insult to the intelligence of whoever you're talking to to assume you know better," MacPhee said. "Keep an open-minded outlook on how the project gets done. Start with a big hopper [of ideas] and narrow it down."

Stephen described the approach of asking for help on achieving specific goals.

"We have to show that finance is very vested in the project," she said. "We are not saying, 'You do the job.' We are saying, 'We want to do it, and we need your help.'"

The relationship should extend through the lifecycle of a project, MacPhee and Stephen said. In some companies, finance and IT leaders are paired on steering committees for major projects, making decisions together all along the way.

"Both sides need to be involved — not just to make the final decisions, but they need to be involved the entire way," Bialick said.

And when projects succeed, the relationship grows stronger.

"They're beginning to see the success, which is reflected on them as well," Stephen said. At her previous job, she said,

LEARNING RESOURCES

Digital Transformation and Underpinning Technologies

Designed for the busy finance leader, this short course provides you with a baseline understanding of digital transformation and the technologies that are changing the finance function.

Find this course in the AICPA Store and in the CGMA Store.

COURSE

Technology and the Disappearing Cost Curve

A panel of thought leaders in finance and technology discusses why it is important for C-suite executives to become familiar with technologies if they want to gain a competitive advantage.

VIDEO

AICPA & CIMA CFO Conference

10–12 May, Salt Lake City, US

Seasoned CFOs from across the country are providing the latest innovations and anticipated trends to keep you on the cutting edge.

CONFERENCE

finance's good track record on tech projects ensured support for a later pilot project in robotic process automation.

Bring teams together

The relationship between finance and technology teams isn't just about the executives. At AstraZeneca, MacPhee has ensured that employees at all levels of the organisation can work directly with their peers on the technology team.

"If you're working on a particular activity, what you want is for the teams to come together and divide the responsibilities between them," she said. One way to encourage that is by ensuring finance and technology team members are meeting regularly. Leaders should model a culture of cross-team collaboration.

"It's got to come from the top down," Bialick said, with executives pushing for their employees to collaborate directly. A stream of constant communication during project planning and execution can ensure that the project is designed and implemented efficiently.

And it's not just communication about specific projects, he added. Each team should teach the other about their respective worlds and workstreams. "I think it can be informal, and it could just be lunch-and-learns," Bialick said. "Have the finance people tell the IT people what they do on a daily basis."

As the departments build mutual understanding, it becomes easier to meet each team's goals, according to Jazmin Ribeiro, ACMA, CGMA, who previously worked as an Oracle enterprise planning consultant for IT services at UK consulting firm Brovanture.

On one project, the IT team was seen as a roadblock to implementation, Ribeiro said, but the biggest delays were due to the team's well-justified insistence on reviewing access and data security at each step. Finance team members at the client company eventually learned to speed up the process by helping track down crucial information required by IT.

"Finance can make it easier by supplying relevant documentation to IT that details the security protocols in place for the systems being implemented," Ribeiro said. She added that the vendors of cloud-based systems can also provide this information.

Allow finance to take on more tech responsibilities

In some companies, finance is taking on more tech-related responsibilities as technological change accelerates. That's especially evident with cloud-based platforms, said Ribeiro, who now works as a UK-based blockchain technical communications manager for Minima, a global decentralised, mobile-native blockchain network.

Cloud-based apps can make it easier for finance teams to take on basic system administration roles, she said. At her previous job, she said, many clients wanted to "take on as much [responsibility] as they could in the finance department and reduce the responsibility that IT was to take on".

Finance teams might even turn to a dedicated system administrator for tasks such as adding new users and managing permissions. System administrators could be new hires or trained from within the team, Ribeiro said.

"They would need to be a bit technically minded so that they could pick up these new cloud systems, which generally have a good user interface," she said. "They don't need to know coding, but they need to be able to quickly understand the inner workings of new systems so they can manage things like data integration, creating new rules and reports."

Finance executives are hiring for technological skills throughout their teams. MacPhee said she recruited engineers and mathematicians who can "think logically through the development of the finance function". And many new hires have an aptitude for lower-level coding, as well as data aggregation and visualisation tools, Bialick said.

But he and others had a warning: While finance may be taking on a more active role in planning and managing projects, IT should retain authority and expertise in the domain. Instead of duplicating the efforts and skills of IT, Bialick said, "what you need is better alignment between the two groups." ■

Andrew Kenney is a freelance writer based in the US. To comment on this article or to suggest an idea for another article, contact Oliver Rowe at Oliver.Rowe@aicpa-cima.com.

Get more with a CIMAplus subscription.

Exclusive for CIMA® members, CIMAplus allows you to purchase CPD in advance. Save time and money with access to resources worth hundreds of pounds to gain skills to support your day-to-day work.

Your 12-month subscription includes:

- Three courses from the CGMA Store
- Three videos or webcasts from the CGMA Store

Subscribe today at cimaglobal.com/cimaplus.

© 2021 Association of International Certified Professional Accountants. All rights reserved. 2011-96017

Should I quit my job and work on my side hustle?

Moving from side hustle to main hustle requires careful thought. Consider these questions when making the decision.

By Rhymer Rigby

IMAGE BY ROCCO-HERRMANN/GETTY IMAGES

It's the dream, isn't it? That fun, little sideline you've been working on starts generating some real money. Soon you find yourself wondering if it's time to quit the day job and move into your side hustle full time. But what should you consider before you make the leap?

Do you really love it?

It's always worth remembering that one of the reasons your side hustle is so much fun is that it's not your full-time job. So, take a step back and ask yourself if it will be as enjoyable if you have to do it all day, every day. Conversely, if you think about it all the time, are endlessly enthused by it, and love doing it, this is a good sign.

How do you feel about your current job?

Dissatisfaction with your real job can be the flip side of wanting to take your side hustle full time. Are you just a bit bored? Could a small change in your job be enough to remedy this? Is your enthusiasm for your side hustle actually antipathy towards your job? Next, ask yourself if you are at a crucial point in your career — could the next year or so see you move into a much bigger role if you play your cards right?

None of these factors should necessarily deter you from quitting to pursue a dream, but they should make you think.

Is your sideline producing real money?

Is your side hustle producing an income that is starting to challenge your main income? And, just as importantly, has it been doing so for a number of months? Don't fall into the trap of assuming one great month is how it's going to be forever. But, equally, if the finances have been solid for six months and are getting better, that's a very good sign.

Do you have a financial cushion?

How much of a financial cushion do you need to live for six months or even a year if the side hustle doesn't deliver or is slow to get started? Bear in mind too that, even if the side hustle delivers, it is unlikely to pay you as regularly as a normal salary, so you may still need a cushion. Turning your side hustle into a full-time business while constantly worrying about how you're going to pay the rent will be incredibly stressful and will increase the chance of failure. So, make sure you have enough put away before you make the leap.

What are your overheads?

If you're single, in your 20s, and you rent, you don't have much in the way of overheads. You can afford to make mistakes, even quite big mistakes, and can possibly live on very little if the side hustle doesn't pan out. If you're married with three children and a mortgage, you need to be a lot more certain or in a stronger position. If you are not the primary breadwinner in a family or relationship or you have a very supportive partner, you may also have more latitude to try something risky. Whatever the case, it is a good idea to look at your commitments holistically and ask yourself what your plan is if it all goes wrong.

How will it fit your lifestyle?

With many normal jobs, you can knock off at 6pm and the rest of your life is your own. But running a small business is rarely like this. If things go wrong at 9pm on a Saturday, you have to deal with it. If an irate customer calls while you're having dinner with friends, you probably have to take that call. Similarly, you may enjoy large amounts of family time and play sports or do other recreational activities, and being self-employed could impact all this. Not all small businesses are like this — but many can be very demanding, especially when they're starting or scaling up.

What support do you need?

Think about all the great stuff your company provides you with, such as IT support, organisational support, payroll, and so on. You probably don't even think about it most of the time. Now you need to. What do you need to replicate those things, and how will you do it? The good news here is that the range of cost-effective, off-the-shelf solutions for SMEs has expanded enormously over the past few years and become much cheaper or even free. But even so, learning about everything from accounts to marketing to setting up a limited company can be a very steep learning curve.

Can you deal with working alone?

You may have a better feel for this if you were sent home for long periods during the pandemic. But, even then, you likely had a constant stream of calls and Zoom meetings with colleagues, which helped maintain *esprit de corps*. If you start running a small business, you're likely to be by yourself at first. Think about how you will deal with this and how you might build the sort of support network you currently enjoy in your job.

How long will leaving your job take?

Extricating yourself from your current position may take time. You may have to work a notice period, and even if you can get this down, it's likely to take at least a month in some parts of the world. A possibility to consider (if your company is amenable) is going down to part time in your current job — say three days a week — meaning you have both security and a chance to try something on your own.

Speak to people who've started their own businesses

There is no substitute for first-hand experience, so ask around. Who do you know? Or who do your contacts know? Don't worry about asking for help. Many entrepreneurs live and breathe their businesses. They will be delighted that you are showing an interest and be happy to help you out.

What if it all goes wrong?

In the US, it's estimated that around half of small businesses fail in their first five years, while in the UK the figure is 60% for three years. So, think about what you might do if it doesn't work out. Will you return to a role similar to the one you left? Or will you try something completely different?

Whether your side hustle replaces your job, and whether it works out or not, by asking these questions, you'll know whether you made a well-thought-out decision. And for many people, not following the side hustle dream is very much the right choice. What's more, having thought about "the dream" seriously and rationally means they are far happier in their present jobs. ■

Visit the Global Career Hub from AICPA & CIMA for help with finding a job or recruiting.

Rhymer Rigby is an FM *magazine contributor and author of* The Careerist: Over 100 Ways to Get Ahead at Work. *To comment on this article or to suggest an idea for another article, contact Oliver Rowe at Oliver.Rowe@aicpa-cima.com.*

Excel: How to count unique items in a list

PHOTOS BY CLICKHERE/GETTY IMAGES

Using dynamic arrays, PivotTables, and the SUMPRODUCT function are three approaches to this common task.

By Liam Bastick, FCMA, CGMA

When working with data, you often need to know how many unique items you have in a list. For example, you might wish to know how many customers you have in your database, how many products you can offer to distributors, or all the countries or geographical regions you make sales in.

The required data is frequently stored in tables or lists where duplication is rife. Therefore, how do you "retire" the replicants? Here, I consider three approaches, reviewing the advantages and disadvantages of each.

First, let's consider my data, highly tailored for the purposes of this article:

List
a
b
c
a
b
d
e
e
a
f

A cursory glance may help you glean the information you require: Upon inspection, there are six unique items in the screenshot, not including the heading. But how do we get Excel to confirm this total? I present three alternatives, all detailed in the downloadable Excel file.

Option 1: Using dynamic arrays

I can employ the dynamic array formula UNIQUE. That would be an obvious start, considering the title of this article. I assume the range (excluding the heading) is called **Example1**.

Dynamic array formulas are calculations that use a function that will automatically extend its range depending upon the quantum of the results. This automatic extending is known as *spilling* and, although it potentially produces an array (a range of results that may encapsulate both more than one row and more than one column), it does not have to be entered using CTRL+SHIFT+ENTER, which is how array formulas needed to be entered in the past.

The ironic thing about UNIQUE is that it does two things: It details distinct items (ie, provides each value that occurs with no repetition), and also it can return values that occur once and only once in a referred range. It is the former feature we require here.

The UNIQUE function has the following syntax:

=UNIQUE(array, [by_column], [occurs_once])

It has three arguments:

- **array:** This is required and represents the range or array from which to return unique values.
- **by_column:** This argument is optional. This is a logical value (TRUE/FALSE) indicating how to compare. If you wish to compare by row, the argument should be FALSE or omitted (since this is the default). To compare by column, you will need to select TRUE.
- **occurs_once:** This argument is also optional. It requires a logical value, too:
    - **TRUE:** Only return unique values that occur once.
    - **FALSE:** Include all distinct values (default if omitted).

It may sound complicated, but in truth, it isn't. Generating a unique list from **Example1** is straightforward:

List		
a		=UNIQUE(Example1)
b		
c		
d		
e		
f		

The formula,

=UNIQUE(Example1)

is both simple and intuitive to use, producing the list of the six [6] unique items in the order they are encountered (they are not sorted automatically — use the dynamic array function SORT to achieve this). Once this has been derived, all we need to do is count the items in the list. COUNTA will achieve this as it counts the number of nonempty cells in a range (see the screenshot "Using the UNIQUE Function to Count Unique Items in a List").

Using the UNIQUE function to count unique items in a list

N32 =COUNTA(F32#)

	C	D	E	F	G	H	I	J	K	L	M	N
28												
29		Using UNIQUE						Result				
30												
31				List								
32				a		=UNIQUE(Example1)				No. of Unique Items		6
33				b								
34				c								=COUNTA(F32#)
35				d								
36				e								
37				f								

You should note that here the UNIQUE formula is in cell F32 and *spills* down the range F32:F37. Highlighting this range will result in Excel displaying it as F32#, the hash/pound sign (#) denoting that the range may vary. Therefore,

=COUNTA(F32#)

counts the spilled range emanating from cell F32 and hence totals the six [6] unique items. You should note that blanks will appear as "0" in the range as will zeroes, but they will be treated as two *different* unique items, which is quite useful.

On this occasion, the formulas may be condensed (or "nested"):

=COUNTA(UNIQUE(Example1))

Nesting array formulas does not always provide the required results due to the way Excel's calculation engine works (this is discovered by using the universally and scientifically acclaimed approach known as "trial and error"), but in this instance it will.

This method is remarkably simple and should be understood by the majority of Excel users. However, it's not all peaches and cream: Dynamic arrays are only available in Excel 365 and Excel 2021 presently, so this is not available to all. Call me old fashioned, but many get upset if they see #NAME? instead. Therefore, this solution is useful only when all end users have dynamic array formulas at their disposal.

So, what alternatives may we consider instead?

Option 2: Using PivotTables

Everyone loves a good PivotTable, right? Since creating tables is firmly entrenched in the spreadsheeting software, there is no need to worry about version compatibility using a cross-tab query.

In this instance, I will first convert my source data into a Table (using **Insert -> Table** from the Ribbon or else the keyboard shortcut CTRL+T). This allows the range to be automatically extended, without using those fancy dynamic arrays (see the screenshot "Converting Source Data Into a Table").

Converting source data into a Table

Table Name: Example2
Resize Table
Properties
Summ
Remo
Conv

F12

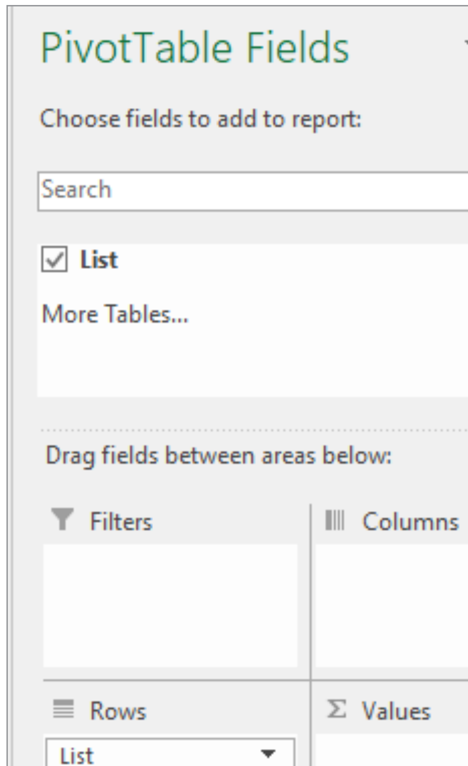
	C	D	E	F
9				
10		Data		
11				
12				List
13				a
14				b
15				c
16				a
17				b
18				d
19				e
20				e
21				a
22				f
23				

On the Ribbon, in the context-specific tab **Table Design** (ie, when you select one or more cells of the Table), you will note I have named this Table **Example2**.

Next, I highlight one or more cells in this Table and select **Insert -> PivotTable** from the Ribbon (the keyboard shortcut varies depending upon the version of Excel you have, but typically starts ALT+N+V).

I now view the **PivotTable Fields** pane. If it hasn't shown up automatically, right-click in the resulting PivotTable and select the final option, **Show Field List** (it's annoying that Excel refers to it as something else in the pop-up shortcut menu). Then, simply move our only field (**List**) to the **Rows** area (see the screenshot "PivotTables Fields Pane").

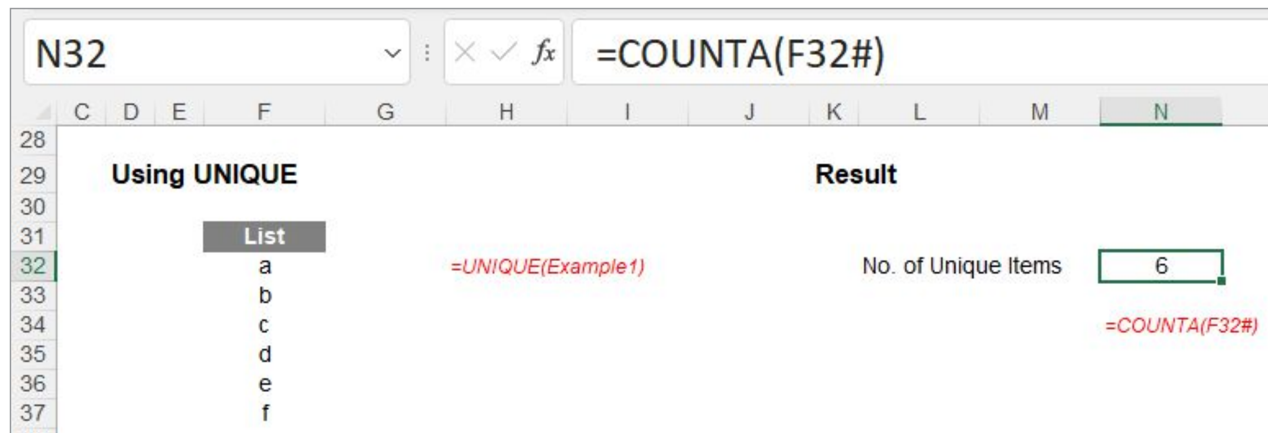
PivotTables Fields pane



This produces the following PivotTable:

List
a
b
c
d
e
f

Using PivotTables to count unique items in a list



Regular readers will know that SUMPRODUCT is one of my favourite functions in Excel. ... The function is highly underestimated.

This list *will* be sorted alphanumerically by default. Now, we simply count the number of nonblank items in this list. If you had a blank item in your original list, don't worry, it will still appear in the PivotTable as **(blank)** so will be treated as, er, nonblank (see the screenshot "Using PivotTables to Count Unique Items in a List").

There are a couple of drawbacks with this approach:

1. You should note that the COUNTA formula may need to include a larger range than is filled by the PivotTable. This is in case the range extends when the data is refreshed. This may cause issues if end users add other data to this worksheet.
2. If the source data changes, the PivotTable must be refreshed: The COUNTA formula will not necessarily provide the right answer until this action is performed. Many users forget to do this.

Therefore, the idea is simple. However, although it will work in all current versions of Excel, end users may forget to refresh the data should the source list be updated. So, what alternative do we have?

Option 3: Using SUMPRODUCT

Regular readers will know that SUMPRODUCT is one of my favourite functions in Excel, so much so that I named our company after it.

The function is highly underestimated. Consider the example in the screenshot "Example Use of the SUMPRODUCT Function".

Example use of the SUMPRODUCT function

	A	B	C	D	E	F	G
1							
2		Unit Price	Quantity		Product		
3		$ 1.00	16		$ 16.00		=B3*C3
4		$ 2.50	9		$ 22.50		=B4*C4
5		$ 5.00	12		$ 60.00		=B5*C5
6		$ 7.50	14		$ 105.00		=B6*C6
7		$ 10.00	5		$ 50.00		=B7*C7
8		$ 15.00	8		$ 120.00		=B8*C8
9		$ 20.00	6		$ 120.00		=B9*C9
10		$ 25.00	3		$ 75.00		=B10*C10
11		$ 50.00	7		$ 350.00		=B11*C11
12							
13			SUM		$ 918.50		=SUM(E3:E11)
14							
15			SUMPRODUCT		$ 918.50		=SUMPRODUCT(B3:B11,C3:C11)

Revised example of the SUMPRODUCT function

	A	B	C	D	E	F	G
1							
2		Unit Price	Quantity		Product		
3		$ 1.00	16		$ 0.06		=B3/C3
4		$ 2.50	9		$ 0.28		=B4/C4
5		$ 5.00	12		$ 0.42		=B5/C5
6		$ 7.50	14		$ 0.54		=B6/C6
7		$ 10.00	5		$ 2.00		=B7/C7
8		$ 15.00	8		$ 1.88		=B8/C8
9		$ 20.00	6		$ 3.33		=B9/C9
10		$ 25.00	3		$ 8.33		=B10/C10
11		$ 50.00	7		$ 7.14		=B11/C11
12							
13			SUM		$ 23.98		=SUM(E3:E11)
14							
15			SUMPRODUCT		$ 23.98		=SUMPRODUCT(B3:B11/C3:C11)

Here, I have various pricing points and the corresponding quantities sold. To calculate my total sales, I can compute my sales by taking the *product* of **Unit Price** multiplied by **Quantity** on a line-by-line level and then *summing* them. As you can see, SUMPRODUCT does it all in one go:

=SUMPRODUCT(B3:B11,C3:C11)

But SUMPRODUCT is more powerful than that. The formula

=SUMPRODUCT(B3:B11*C3:C11)

does *exactly* the same thing. However, consider

=SUMPRODUCT(B3:B11/C3:C11)

Take a look at this revised example in the screenshot "Revised Example of the SUMPRODUCT Function".

Do you see how SUMPRODUCT divides on a record-by-record basis? This is powerful, and it is this concept that I shall use for our final method to be employed, using our list now conveniently called **Example3** (see the screenshot "Using SUMPRODUCT to Count Unique Items in a List").

The downloadable Excel file details the three alternatives.

Here, I have used the formula

=SUMPRODUCT((Example3<>"")/COUNTIF(Example3, Example3&""))

Clearly, this seems to work, although its logic may be a little less transparent than the other two approaches upon first glance. The initial condition:

(Example3<>"")

checks whether the range **Example3** contains nonempty cells (TRUE if so, FALSE otherwise). Here, it does not need to be nonblank — it just needs to be *anything* that cannot occur in the list in this scenario. You could just substitute this for one [1] should you wish, but I wanted to demonstrate how this might work if you wished to exclude blank cells. This gives us:

TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE

Using SUMPRODUCT to count unique items in a list

1. Data

Example List

Data

List
a
b
c
a
b
d
e
e
a
f

2. Using SUMPRODUCT

Calculation

Using SUMPRODUCT

No. of Unique Items | 6 | =SUMPRODUCT((Example3<>"")/COUNTIF(Example3,Example3&""))

The second part,

COUNTIF(Example3,Example3&"")

uses one of the more unusual ways of using COUNTIF. Again, it returns an array, but this time each value in the array represents a count of the numbers in the array using each value of the array as a criterion (the &"" addendum merely coerces the value to a text string, which may be required in certain instances). This results in:

3, 2, 1, 3, 2, 1, 2, 2, 3, 1

ie, there are three [3] instances of "a", two [2] of "b", and so on. The numerator is then divided by the denominator on an item-by-item basis to give us:

0.33, 0.5, 1, 0.33, 0.5, 1, 0.5, 0.5, 0.33, 1

Liam Bastick, FCMA, CGMA, FCA, is director of SumProduct, a global consultancy specialising in Excel training. He is also an Excel MVP (as appointed by Microsoft) and author of Introduction to Financial Modelling *and* Continuing Financial Modelling. *Send ideas for future Excel-related articles to him at liam.bastick@sumproduct.com. To comment on this article or to suggest an idea for another article, contact Oliver Rowe at Oliver.Rowe@aicpa-cima.com.*

When used in mathematical operations, TRUE behaves like one [1] and FALSE behaves as if it were zero [0]. These results are then summed together to give us six [6]. Easy when you know how.

The advantage of this approach is that it neither requires dynamic arrays nor data refreshing. The problem is the calculation is a little opaque. No solution is perfect, but this final option may prove to be the best all-rounder.

Word to the wise

Some of you may be surprised that I did not use Power Query/Get & Transform as one of the options above, since removing duplicates is a base transformation in the Power Query Editor. For the arbitrary purposes of this article, I merely wanted to consider basic Excel features and functions.

Indeed, Get & Transform may be used, too. It is a great method for cleansing data where there may be surplus spaces (trimming), nonprintable characters (cleaning), or a preponderance of haphazard upper/lowercase lettering. However, similar to the PivotTables solution detailed above, this requires data to be refreshed in order to be updated, which many end users forget. Therefore, given the "behind the scenes" nature of this option, I chose to discount it *in this instance*. Nonetheless, this extract/transform/load (ETL) tool should be viewed as an essential tool in every modeller's armoury. It's merely a case of knowing which may work best when. ■

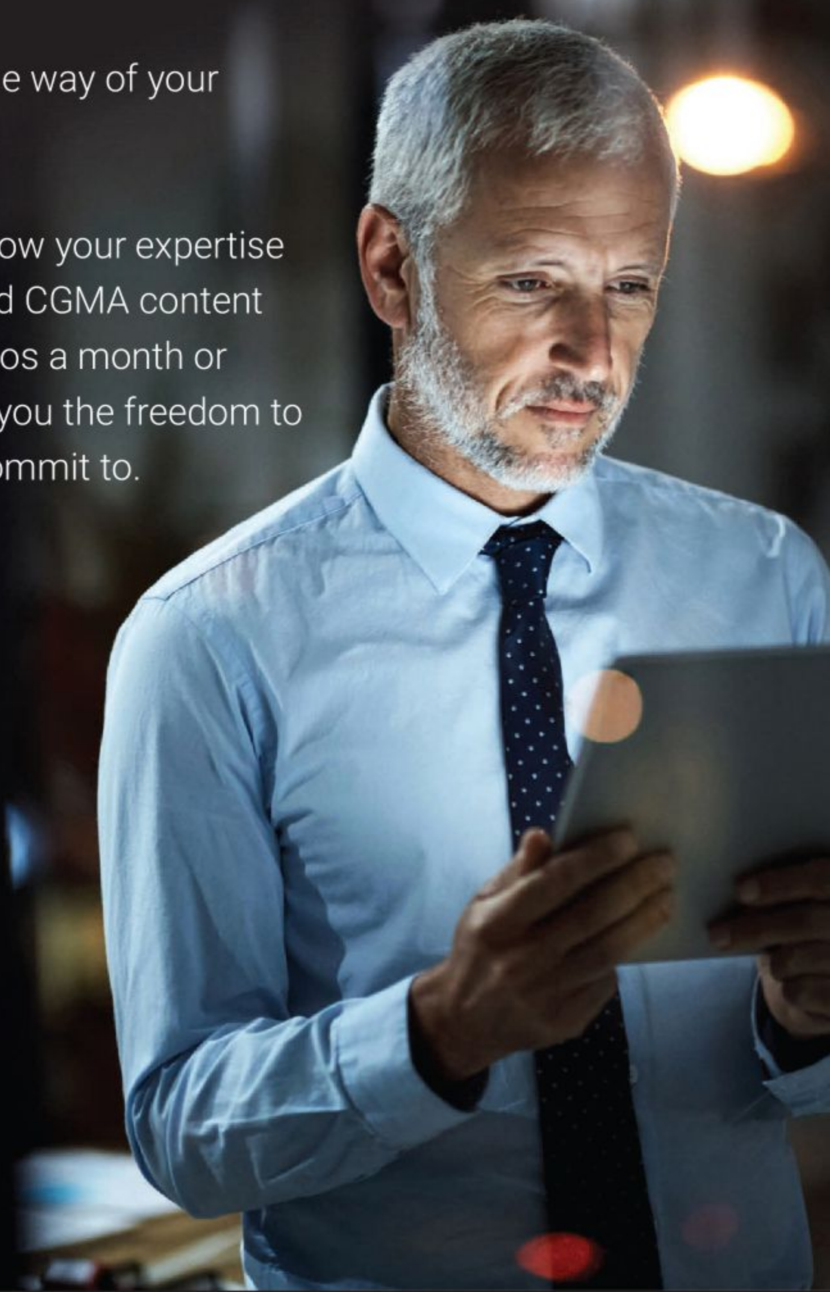
Learn anytime, anywhere.

Get CPD on-demand with CGMA Essentials.

Busy schedules don't have to get in the way of your growth as a CGMA®.

Subscribe to CGMA Essentials and grow your expertise by accessing hundreds of hand-picked CGMA content on-demand. Whether it's just two videos a month or one hundred, CGMA Essentials gives you the freedom to decide how much learning you can commit to.

Learn more at **cimaglobal.com/CGMAEssentials**.



The Association of International Certified Professional Accountants, powering leaders in accounting and finance around the globe

© 2020 Association of International Certified Professional Accountants.All rights reserved. 2005-01103

INSTITUTE NEWS

AICPA & CIMA CGMA Leadership Academy

In October, Singapore was the venue for the CGMA Leadership Academy 2022, which brought together business, accounting, and finance thought leaders and experts with up-and-coming accounting and finance talent to discuss two major trends in today's business landscape: environmental, social, and governance (ESG) issues, and digital transformation of the finance function.

Aimed at accounting and finance professionals from across Asia, the four-day programme provided an opportunity to develop strategic thinking, self-leadership, and other business skills.

Around 60 CGMA designation-holders attended the CGMA Leadership Academy in Singapore in October.

Employers sign up to AICPA apprenticeship programme

AICPA & CIMA and the US Department of Labor announced in November the signing of Liberty Bank, Aon plc, and HP Inc. to the Registered Apprenticeship for Finance Business Partners programme. The US's first-of-its-type programme for accounting and finance aims to establish a pipeline of highly engaged candidates that allows employers to develop more skilled, diverse, and long-term employees. It is built on the CGMA Finance Leadership Program leading to the award of the CGMA designation.

BOTTOM: IMAGE BY RICHARD DRURY/GETTY IMAGES

AICPA & CIMA brief: *Accounting for Nature*

The third in a series of four AICPA & CIMA "Accounting for" briefs is *Accounting for Nature*.

This brief is designed to help finance professionals build their accounting for nature literacy, allowing their organisations, firms, and clients to adapt new business models that reduce their impact on biodiversity. Directly understanding the material impact of nature on an organisation, and the impact of an organisation on nature, not only builds future business resilience but can also help reverse dramatic nature loss.

The brief includes ways to integrate accounting for nature into businesses' long-term decision-making. It also includes ways to incorporate the progress towards becoming "nature positive", which increases biodiversity, stores carbon, purifies water, and lowers pandemic risk, into internal and external reporting.

A total of 196 countries and parties adopted the *Post-2020 Global Biodiversity Framework* at the UN biological diversity conference (COP15) in December 2022. This new set of global goals to protect and restore nature by 2050 has been described as the nature equivalent to The Paris Agreement on climate change in 2015. These global biodiversity goals will be translated into national and business targets for making mainstream in economic activity.

In March 2022, AICPA & CIMA signed the Global Accounting Alliance's call to action on nature for the accountancy profession. The call to action, signed by ten accounting bodies, highlights the vital role professional accountants play and how they should commit to helping reverse the process of nature loss.

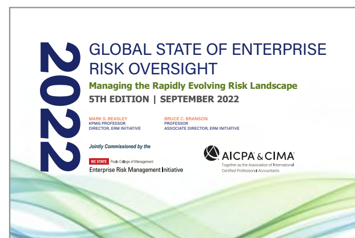
AICPA & CIMA launch ESG fundamentals certificate

AICPA & CIMA offer a new certificate course that provides foundational knowledge on critical topics related to environmental, social, and governance (ESG) reporting, advisory, and assurance.

The Fundamentals of ESG Certificate is available globally and is appropriate for accounting and finance professionals looking to obtain a baseline knowledge of ESG topics.

The course is available in the AICPA Store and the CGMA Store.

Global risk report published



The evolving global risk landscape is outpacing organisational preparedness, a global report by AICPA & CIMA and North Carolina State Poole College of Management in the US has found.

The report, *2022 Global State of Enterprise Risk Oversight: Managing the Rapidly Evolving Risk Landscape*, summarises insights from 747 global senior finance and business leaders.

Around 60% of global finance and business leaders agree that the volume and complexity of corporate risks have increased "mostly" or "extensively" over the past five years, the report said. However, only around one-third to half of respondents have complete enterprise risk management processes in place.

The report includes detailed analyses of specific aspects of risk management practices that business leaders can use to identify potential opportunities for improvement.

UK member awarded CIMA bronze medal

Alistair G. Taylor, FCMA, CGMA, received the CIMA bronze medal in 2022 for his considerable and invaluable contribution to the Institute — in Scotland and the West Midlands in the UK and internationally whilst a member of CIMA Council between 2011 and 2017. Taylor's service includes as a membership assessor and on several CIMA committees previously.

John Hindson, FCMA, CGMA, (left) presents Alistair G. Taylor, FCMA, CGMA, with the CIMA bronze medal.

TOP RIGHT: PHOTO BY BAAC3NES/GETTY IMAGES; BOTTOM RIGHT: PHOTO BY DALE MARTIN/DM PHOTOS

Blossoming business

A recent study by market research company Global Industry Analysts Inc. estimates a compound annual growth rate of 4.8% in the global cut flowers market to 2027, rising from an estimated $30.7 billion in 2020 to $42.7 billion by 2027. According to the report, consumers in Western Europe, Japan, and North America lead the way in demand.

The market in roses — the flower often given on Valentine's Day— is projected to increase by 5.4% a year, reaching $13.2 billion by 2027.

Cut flowers are a global business, with the Netherlands, Colombia, Ecuador, Kenya, and Ethiopia the top exporting countries.

The industry is expected to attract many new entrants despite the large capital requirement, high production and labour costs, and high levels of technical knowledge required, the study said.

A man moves flowers for sale at City Market in Nairobi, Kenya, where cut flowers are a popular gift for Valentine's Day but also an important export.

PHOTO BY BILLY MUTAI/SOPA IMAGES/SIPA USA/REUTERS

DATA ANALYTICS AND BEYOND

The Data Analyst Certificates are learning programs to equip you with the skills to support data-driven decisions to drive your company forward, improve efficiency, increase profits, and achieve organizational goals.

Share your certificate digitally to show your proficiency.
After completing each certificate's requirements, share the certificate digitally on your professional network as a mark of the skills you've acquired.

Data Analytics Core Concepts
AICPA & CIMA

Learn more about the certificates: aicpa.org/dataanalytics

AICPA® & CIMA®

© 2021 Association of International Certified Professional Accountants. All rights reserved. 2106-79410

Worldwide leaders in public and management accounting