KPMG

cutting through complexity™

KPMG INTERNATIONAL

Confronting complexity

How business globally is taking on
the challenges and opportunities

kpmg.com

Research executive summary

Contents

Research methodology

KPMG commissioned Lighthouse Global to carry out a study of the causes and impact of complexity among large companies – 40 percent of the companies have global revenues of US$1 billion or more – in 22 countries; 1,400 interviews were conducted with senior executives including CEOs, CFOs, and finance directors.

The research was conducted across a range of industry sectors between October and December 2010 in the following countries: Australia, Brazil, Canada, China, Denmark, France, Germany, India, Ireland, Italy, Japan, Mexico, Netherlands, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, UK and US.

Detailed findings and insights
KPMG will be releasing additional research findings and insights based on this research in the near future.

Introduction

Disruptive structural forces and seismic shifts are impacting the global economy – reconfiguring the landscape in critical ways for business. The pace of change is extraordinary. Business has become more global and interconnected, buffeted by financial stress and economic contraction in the developed western economies, while at the same time realizing booming opportunity with the rapid rise of China, Brazil, India, and other developing economies.

Technology is a hot-spot – it's changing business models, improving processes, and opening new markets, but also creating volumes of new data that must be managed, supported, and secured. More transactions are taking place across more borders, and the changing global regulatory environment is forcing businesses to react to ensure compliance while managing new risks.

Rapid change and economic turbulence has accelerated the rise of complexity as a force business must increasingly reckon with. Complexity is not just an inconvenience – it can radically affect the way businesses are managed, challenging profitability with new costs and adding risks that were previously unthought of and unprepared for, while also presenting new opportunities that may not have existed last year, or even last month.

Complexity is the new norm and requires new perspective. To gain insight into the impact of complexity on businesses around the world and how they are responding, KPMG has conducted research globally, speaking with 1,400 senior corporate decision makers from 22 countries, representing seven primary business sectors.

"Managing complexity is dependent upon the industry and company dynamics. Strategies need to be evolved keeping in mind the company's core competencies and the competition."

Managing Director, Diversified Industrials, India
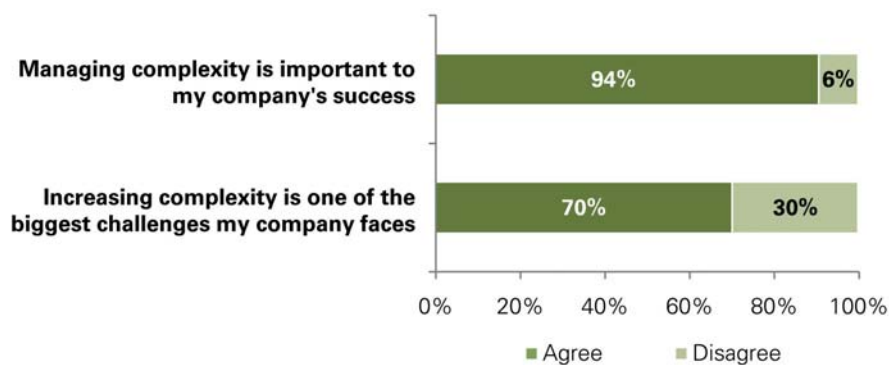
The impact of complexity

Managing complexity is at the top of the business agenda

Managing complexity is central among the scope of critical issues facing business today.

Senior decision makers surveyed were virtually unanimous on the importance to their companies of addressing complexity, with 94 percent agreeing that managing complexity is important to the success of their company.

Further, 70 percent of the executives characterized increasing complexity as one of the biggest challenges they face. The pervasiveness of the challenge was further demonstrated by three-quarters of respondents reporting that complexity has increased for their business over the past two years and a majority expecting complexity to continue to grow over the next two years – albeit in different ways.

Complexity is a major issue for businesses globally – 94 percent of executives believe managing complexity is important to the success of their company

	Agree	Disagree
Managing complexity is important to my company's success	94%	6%
Increasing complexity is one of the biggest challenges my company faces	70%	30%

"It is necessary to always be interested in complexity, and try to adapt and find solutions."

COO, Healthcare, Russia

The global impact

While intuitively it might seem that the mature western economies have experienced the greatest increase in complexity, in fact developing economies are equally impacted, according to the research. More than half of developing market executives expect a significant increase in complexity over the next two years, slightly more than their mature market counterparts.
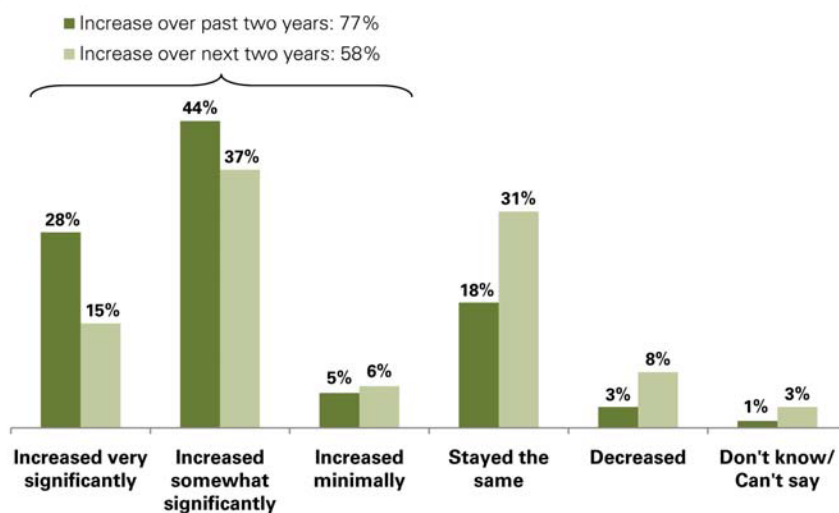
Complexity also cuts across business sectors – with more than 70 percent of executives from five key sectors saying complexity has increased for their businesses. Not surprisingly, financial services has been particularly impacted by complexity, with nearly 80 percent of executives in that sector saying complexity has increased significantly, and a third saying the increase has been very significant. Moreover, six in 10 financial services executives expect complexity to continue to increase significantly over the next two years.

The technology sector is also experiencing high levels of complexity, with three-quarters of executives seeing a significant increase over the past two years – and nearly a third seeing a very significant increase. Further, more than half anticipate a significant increase over the next two years.

A significant increase in complexity over the next two years is also projected by half the executives in the energy and natural resources, diversified industrials, and consumer sectors.

The level of complexity has risen over the past two years and companies expect complexity to increase over the next two years

Change in level of complexity

- Increase over past two years: 77%
- Increase over next two years: 58%

	Increased very significantly	Increased somewhat significantly	Increased minimally	Stayed the same	Decreased	Don't know/ Can't say
Past two years	28%	44%	5%	18%	3%	1%
Next two years	15%	37%	6%	31%	8%	3%

Causes of complexity

Regulation/government oversight and information management leading drivers globally

Regulation is a reality. It is identified by almost three-quarters of executives as the leading cause of complexity, with four in 10 pointing to regulation as the single greatest cause. Closely related to regulation, "government oversight" is identified by 60 percent of executives as a top cause of complexity.

The research reveals one of the driving issues with regulation to be global inconsistency; in fact, close to 90 percent of respondents say governments should work together to make the global regulatory environment less complex.
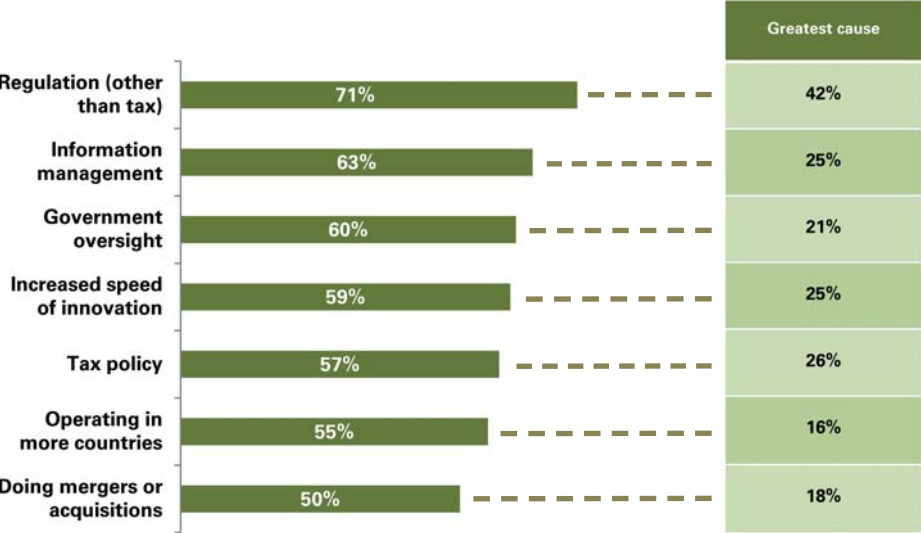
Not unexpectedly, regulation and government oversight are identified most by financial services executives as leading causes of complexity – with 78 and 73 percent citing them, respectively, although both are also identified as leading causes of complexity by half to three-quarters of executives across all sectors.

Geographically, regulation is a somewhat bigger issue in the Americas and Europe and the mature economies – with almost three-quarters saying it is a top cause of complexity, compared to Asia-Pacific and the developing markets where two-thirds say it is a leading cause of complexity.

Information management is key

The second most identified cause of complexity in the research is "information management." The importance of information management is a key theme of the research – not only is it a leading cause of complexity, but it is also identified as the leading area where businesses address increased complexity. In both senses, this is consistent with management challenges in making decisions and managing in an increasingly complex and information-intensive environment.

Identifying and ranking the causes of complexity

		Greatest cause
Regulation (other than tax)	71%	42%
Information management	63%	25%
Government oversight	60%	21%
Increased speed of innovation	59%	25%
Tax policy	57%	26%
Operating in more countries	55%	16%
Doing mergers or acquisitions	50%	18%

Speed of innovation increasingly creates complexity

Examining the causes of complexity also highlights distinctions between mature economies, where regulation has received much more attention, and the developing economies that were less heavily impacted by the financial crisis and have been leading the economic recovery. In the developing economies, "increased speed of innovation" is identified as a leading cause of complexity on par with regulation.

That is not to say the speed of innovation is an issue limited to developing economies. Across all sectors, speed of innovation is identified as a leading cause of complexity by more than half of the executives. Moreover, the speed of innovation is seen as having a much greater impact on complexity going forward -- 70 percent of executives in developing economies, and 60 percent and more in the Americas and Asia-Pacific, project a greater impact from the speed of innovation on complexity facing their companies over the next two years.

Complexity is not static

Globally, almost half of the executives surveyed believe that the causes of complexity facing their businesses will shift over the next two years. This view is particularly strong in Asia-Pacific, where 60 percent said they foresee changes in the causes of complexity coming.

Overall, developing economies expect greater change in the causes of complexity than developed economies by a 58 to 43 percent margin.

"Training and hiring excellent people – we can only meet the challenge of complexity in this way."

CFO, Chemicals & Pharmaceuticals, Switzerland

Complexity: the challenges and opportunities

Three challenges stand out

Complexity is clearly creating challenges for business. In the research, three challenges in particular rose to the top:
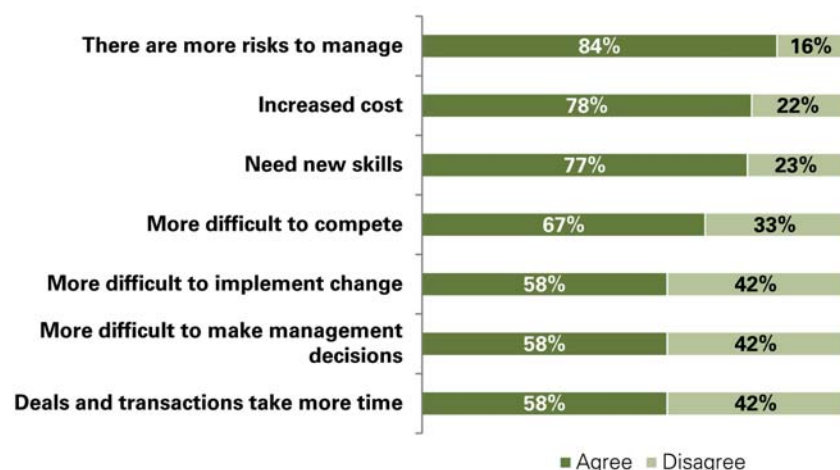
• More risks to manage

• Increased costs

• The need for new skills.

Increased risk stands out as the greatest challenge presented by complexity, with more than 80 percent of executives globally saying that complexity is creating more risks for their business to manage. More risk is the number one or two challenge identified across all key sectors measured, and is also the leading challenge across both mature and developing economies.

Closely linked to having more risks to manage is the issue of increased costs, and three-quarters of executives cited it as a key challenge. The critical nature of costs was especially notable in Asia-Pacific, as well as in the consumer sector, where it was identified as a top challenge.

Complexity is also creating a critical need for new skills, a challenge identified by three-quarters of respondents. As expected, it is closely correlated with innovation and technology. In countries where speed of innovation is a strong driver of complexity, the need for skills is more acute, most notably in Brazil, China, and Japan, where 90 percent and more of the executives say it is a top challenge. Similarly, in the technology and diversified industrials sectors, at least 80 percent identify the need for new skills as a top challenge resulting from complexity.

Challenges created by complexity

	Agree	Disagree
There are more risks to manage	84%	16%
Increased cost	78%	22%
Need new skills	77%	23%
More difficult to compete	67%	33%
More difficult to implement change	58%	42%
More difficult to make management decisions	58%	42%
Deals and transactions take more time	58%	42%

■ Agree ■ Disagree

"Adapt to new environments, know the business well, and be open to new opportunities."

CFO, Consumer Products, Spain

> **"Try to simplify your client's life, and deal with complexity like an opportunity."**
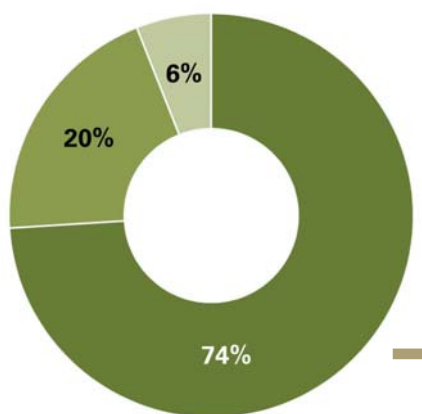>
> *CEO, Financial Services, Switzerland*

Creating new opportunities

The research showed that, alongside the challenges, increasing complexity is clearly a source of new opportunity. Three-quarters of all executives surveyed see the opportunity in complexity. While opportunity is consistently seen by a majority across all sectors and countries, developing economies hold the view most strongly, with about 80 percent identifying the opportunity in complexity, about 10 points higher than in the mature economies.

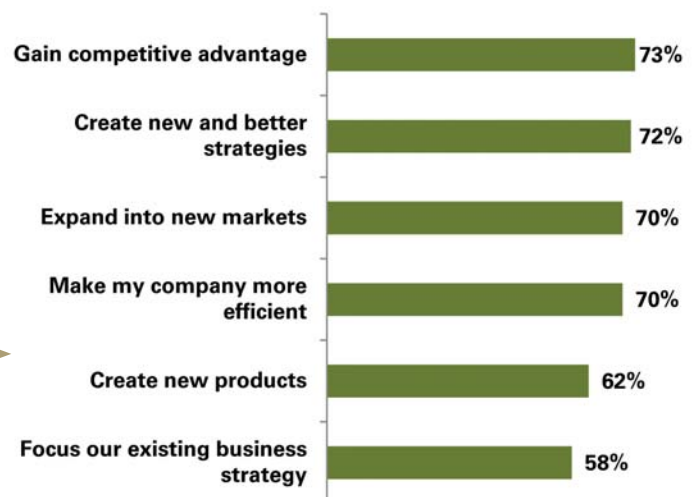All told, at least seven of 10 executives surveyed say complexity can create the opportunity for:

- "Gaining competitive advantage"
- "Creating new and better strategies"
- "Expanding into new markets"
- "Making their company more efficient."

Complexity can create new opportunities

6%
20%
74%

- Yes
- No
- Don't know/Can't say

Opportunities created by complexity

Gain competitive advantage	73%
Create new and better strategies	72%
Expand into new markets	70%
Make my company more efficient	70%
Create new products	62%
Focus our existing business strategy	58%

Opportunities created by complexity

Executives in approximately half of the 22 countries surveyed see gaining competitive advantage and making their companies more efficient as the top opportunities created by complexity.

Comparing mature and developing economies, both see complexity creating opportunities to gain competitive advantage. However, executives in developing economies say complexity will also allow them to create new strategies. In line with gaining a competitive advantage, developing economies view complexity as creating opportunities to expand into new markets and make their companies more efficient.

Three-quarters of executives surveyed see opportunity in complexity

Can complexity create new opportunities for your company?	Overall	Geographic region (%)			Economic status (%)	
		Americas	Europe	ASPAC	Developing economies	Mature economies
Yes	74	76	69	78	81	72
No	20	21	24	14	12	22
Don't know/Can't say	6	3	7	9	7	6

Americas – Brazil, Canada, Mexico, US

Europe – Denmark, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, Switzerland, UK

ASPAC – Australia, China, India, Japan, Singapore, South Korea

Developing economies – Brazil, China, India, Mexico, Russia, South Africa

"I think we need to prioritize, simplify ... we need to provide for the resources that are required."

Finance Director, Technology, India

Business responds to complexity

Actions to address the challenge

Whether viewed through the prism of challenge or opportunity, executives recognize that the impact of complexity on their businesses is increasing and must be addressed.

The need to better manage information is recognized by executives not only as a leading challenge, but also as the number one action to address complexity – across all sectors, all regions, and across both mature and developing economies.

Changing the way their business is organized is also an important action being taken to address complexity, identified by 70 percent of executives surveyed globally. It is an especially important step for companies that have experienced a very significant increase in complexity over the past two years – 81 percent of executives with those companies say their company has reorganized all or part of their business in response to complexity.
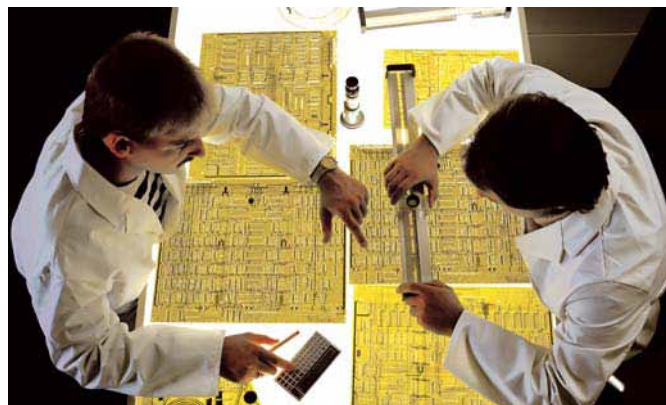
Managing complexity requires new skills

The need for new skills is identified as a particular challenge caused by complexity in developing economies – and it is having a pronounced impact on the actions being taken to address complexity:

• Sixty-eight percent of executives in developing economies say their companies have significantly changed their approach to human resources to address complexity, and 51 percent say they have outsourced functions (compared to 48 percent and 39 percent respectively in developed economies)

• Making significant changes to human resources is a particularly important action in China, India, and Brazil, where more than three-quarters say it is an action their company is taking

• A majority of executives in several countries say their company will outsource functions to help manage complexity: China, Japan, Brazil, Russia, and Ireland.

Investing in new countries/geographies

Interestingly, almost half of executives surveyed say that investing in new countries or geographies is an action their company has taken to address complexity. It is an action taken in Asia-Pacific by about six in 10 companies – 25 points higher than in the Americas, and nine points higher than in Europe. Looking across sectors, it is most often an action being taken by technology and chemical/pharmaceutical companies.

Improving information management is the number one action taken across all market sectors

Actions taken	Overall	Market sector (%)						
		Financial services	Technology	Comm. & media	Consumer	Chemicals & pharmaceuticals	Diversified industrials	Energy & natural resources
Improved information management	84	83	88	85	83	81	82	82
Reorganized all or part of your business	70	69	78	76	65	67	76	65
Significantly changed approach to human resources	53	51	57	44	54	54	58	54
Invested in new countries or geographies	49	44	60	40	45	58	52	44
Influenced regulation or public policy	46	55	43	47	40	40	40	53
Did mergers or acquisitions	45	41	51	36	44	50	48	43
Outsourced functions	42	44	50	49	38	39	44	39

"The current situation makes you innovate, be more efficient and look for strategies that help to achieve objectives in the medium and long-term."

Finance Director, Consumer Products, Mexico

Mixed results

Business leaders recognize that complexity is here to stay, and they are working to respond appropriately. While the research shows businesses are making serious efforts to address complexity, fewer than half the executives say that any one action they have taken has been very effective in addressing complexity.

Most effective, with more than 40 percent saying the action has been very effective, have been:

• Business reorganization

• Improving information management

• Mergers or acquisitions

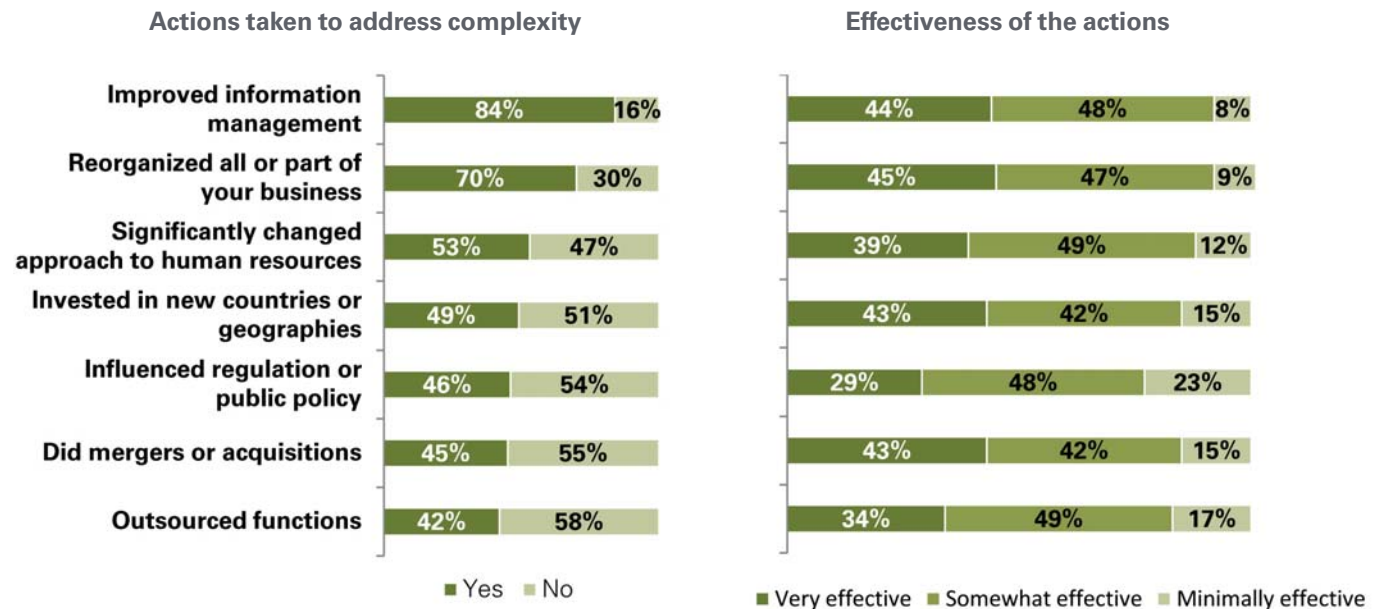• Investing in new countries or geographies.

Least effective in addressing complexity, with fewer than 40 percent saying the action was very effective, have been:

• Influencing regulation or public policy

• Outsourcing functions

• Taking a new approach to human resources.

It is notable that in addressing complexity, a relatively small percentage of companies see the outsourcing of functions as a solution. Just 42 percent of executives identify outsourcing as an action their company has taken to address complexity; and, moreover, only a third of those who say their company has outsourced functions say the action has been very effective.

Overall, the results highlight that simply taking on new tasks or outsourcing functions to respond to complexity does not assure success; if those actions are not integrated into the existing business model there are likely to be overlaps, duplications, and conflicting initiatives.

Businesses are addressing complexity in a variety of ways ... with mixed success*

Actions taken to address complexity

	Yes	No
Improved information management	84%	16%
Reorganized all or part of your business	70%	30%
Significantly changed approach to human resources	53%	47%
Invested in new countries or geographies	49%	51%
Influenced regulation or public policy	46%	54%
Did mergers or acquisitions	45%	55%
Outsourced functions	42%	58%

■ Yes ■ No

Effectiveness of the actions

	Very effective	Somewhat effective	Minimally effective
	44%	48%	8%
	45%	47%	9%
	39%	49%	12%
	43%	42%	15%
	29%	48%	23%
	43%	42%	15%
	34%	49%	17%

■ Very effective ■ Somewhat effective ■ Minimally effective

* Due to rounding, graphs may not add up to 100%

New initiatives

Recognizing the critical need to address increasing complexity, and perhaps in part because of the limited success they have had with actions taken so far, a majority of executives surveyed (nearly 60 percent) say they believe their companies will take different or additional actions to address complexity over the next two years. This includes a majority of executives across most countries and all sectors. Across sectors, technology executives, at 66 percent, are the most likely to take new actions.

Improving information management and reorganizing all/part of their business will continue to be the leading initiatives businesses will take to address complexity in the future, identified by 73 percent and 59 percent, respectively, of executives globally. The continued importance of these actions is largely consistent across all business sectors and most countries.

Human resources will continue to be a critical issue in developing economies. A vast majority (89 percent) agree that businesses will need new skills to manage complexity in the future. And among executives in developing economies who say their companies will take new or additional actions to address complexity over the next two years, about 60 percent cite making significant changes to human resources as an action their company will take.

> **"You have to be willing to change the way you do things to keep up with complexity in the marketplace."**
>
> *Finance Director, Technology, US*

A majority plan to take different or additional actions to address complexity, including improving information management and reorganizing all or part of their business*

Will companies take additional or different actions to address complexity over the next two years?

- Yes
- No
- Don't know/Can't say

11%
31%
59%

Actions companies will take to address complexity over the next two years

Action	%
Improve information management	73%
Reorganize all or part of your business	59%
Significantly change approach to human resources	46%
Do mergers and acquisitions	43%
Invest in new countries or geographies	42%
Outsource functions	41%
Try to influence regulation or public policy	40%
None of these	5%

* Due to rounding, graphs may not add up to 100%

Conclusion

Senior decision makers globally recognize complexity as a critical issue that their companies must take significant actions to address. These executives see complexity not only as a source of additional risk and cost, and as a management challenge, but also as a significant source of opportunity.

Although there are differences in the impact of complexity across countries, regions, and business sectors, there is consistency in the importance decision makers place on it and in the actions they are taking to address it. Also notable is the limited success executives surveyed say their companies have had in pursuing these actions to address complexity and the wide agreement that additional actions are needed in the future.

Leadership in the face of complexity needs to be a management priority. Executives should ask themselves:

- What are the specific drivers of complexity facing my business and industry?

- How can I best address the challenges of complexity?

- How can I leverage knowledge and insight on complexity to drive opportunity and growth?

- How do we ensure that our company is managing these responsibilities effectively today, while also planning for the complexity of tomorrow?

Better understanding of the causes and impact of complexity, and how businesses can integrate actions into their strategies to more effectively manage the challenges that lie ahead, may provide a way forward for many business leaders to take full advantage of new opportunities.

KPMG will be releasing further research findings and insights based on this research in the near future.

"Embrace complexity – a lot of people can get overwhelmed by it. The key is taking advantage of the opportunities."

Finance Director, Business Services, UK

kpmg.com