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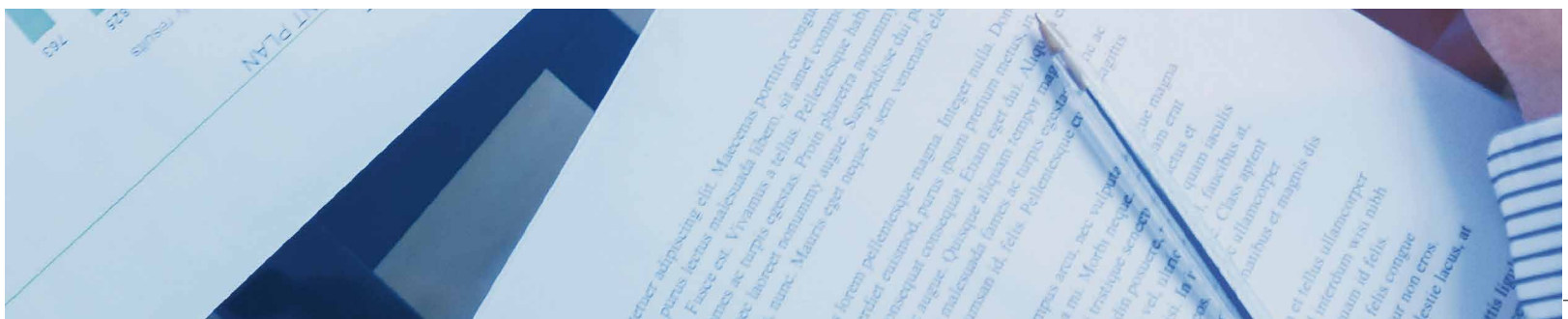
The Association of
Accountants and
Financial Professionals
in Business

美国管理会计师协会



商业和财务领域的数据分析实施过程

The Data Analytics Implementation Journey in Business and Finance



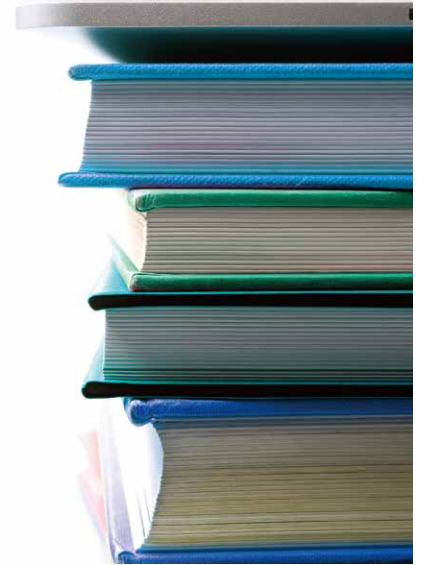


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关于管理会计师协会 (IMA[®])

IMA 被 " 会计师与国际会计公报 " (The Accountant & International Accounting Bulletin) 提名为 2017 年和 2018 年 " 年度最佳专业组织 "。作为全球最大且最受国际认可的会计师团体之一, IMA 协会专注于普及推进管理会计这一职业。在全球范围内, IMA 通过大力推广学术研究、注册管理会计师 (CMA[®]) 项目、持续专业教育、职业人际网络以及倡导最高标准的商业道德、行为来促进管理会计职业的发展。IMA 在 140 个国家拥有规模超过 130,000 名 CMA 考生及持证者的全球网络, 以及 300 个职业分会和学生分会。IMA 的总部位于美国新泽西州蒙特维尔市, 将全球划分为四个区域——美洲、亚太地区、欧洲以及中东 / 印度, 提供本地化服务。如想了解更多有关 IMA 的信息, 请访问 www.imanet.org



关于作者

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Toby Hatch，甲骨文公司负责企业绩效管理的高级产品营销总监，如想与她取得联系，请发送电子邮件至 toby.hatch@oracle.com。

Denis Desroches，自 1993 年起，就是一名企业绩效管理专家，他支持企业选择、实施以及获取与记分卡、绩效管理和作业成本管理解决方案的相关知识。如想与他取得联系，请发送电子邮件至 desroches.associates@sympatico.ca。



执行概要

绝大多数组织都知道如果想生存或取得成功，提高自身的分析能力是至关重要的，分析能力有助于他们获得竞争优势或者帮助他们保持当前的市场地位。

但对许多组织来说，实施前沿分析仍然是一项有待开展的工作，因为很少有组织能够全面实施他们想要的前沿分析方法和技术。造成无法全面实施的原因有很多；举几个例子：需要采用的技术种类繁多、每种技术的成熟阶段各不相同以及每种技术所带来的收益不一样。

而实施前沿分析方法和技术的组织，均报告其业绩得到了提升，无一例外。最受前沿分析影响的流程是绩效衡量环节，许多组织也在研究如何改进这些衡量指标。

在前沿分析中，有可能带来实质性收益的关键领域是战略制定和实施。在制定和执行战略方面，与竞争对手处于同一水平抑或领先的组织及时做出决策的能力方面往往也比竞争对手强。那些主要根据竞争对手的行动做出反应的组织，在战略决策方面往往是够敏捷的。缺乏分析能力（包括收集数据时间以及根据收集的数据做出决策的时间过长）导致这些组织缺乏灵活性。

在拥抱大数据及分析的竞赛中，中型组织往往由于被一些特有问题所困扰。在较小程度上，小型组织在实施分析方面也面临着各种挑战，而大型组织则处于领先地位。

尽管有许多悲观的预测，认为分析将会使得会计和财务领域的许多工作岗位消失，但绝大多数接受 IMA®（美国管理会计师协会）调查的受访者认为，由于企业使用分析技术而改变运营流程的能力有限。

简介

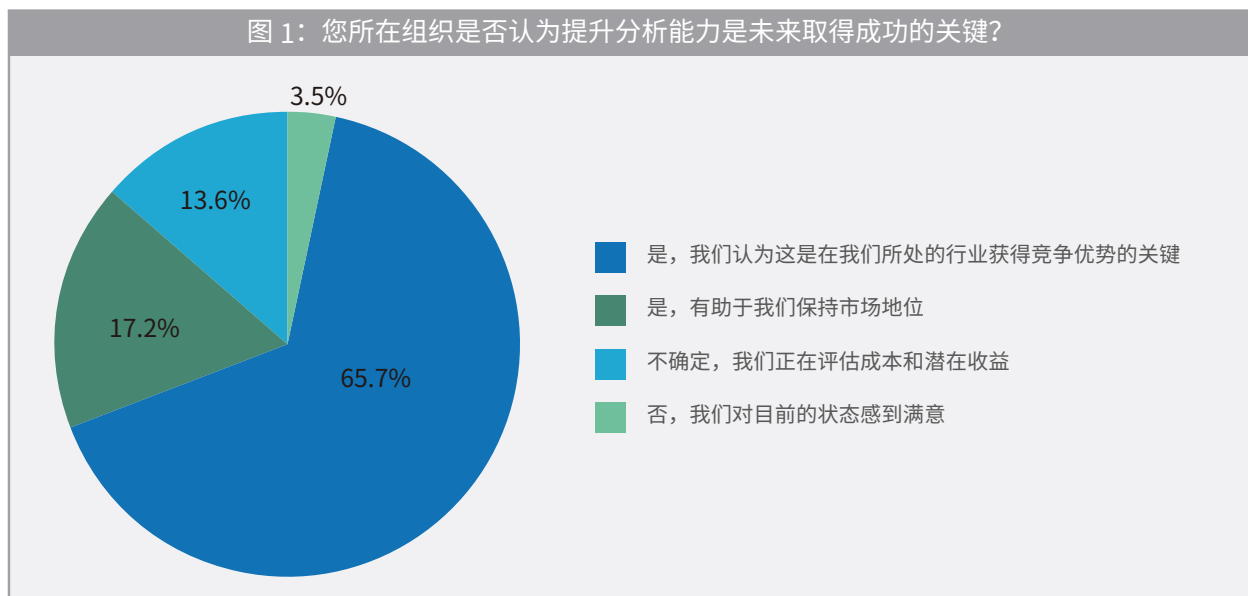
技术正在快速演进和变化，相应地，我们应该重新审视业务模式并做出应对措施。高级分析技术的应用能使得组织从他们的数据中获得洞察力，使他们能够更好地参与竞争，这正是技术的重要影响，然而问题依然存在，"这种潜力已被发掘到何种程度？"以及"这更多的是技术性的'烟'还是革命性的'火'？"

在本报告中，我们将探索组织部署高级分析的程度，讨论实施高级分析的商业案例，并研究前沿分析对财务功能的影响。在后续报告中，我们将分析成功实施分析的关键因素。

本报告的调查结果是基于 IMA[®]（美国管理会计师协会）在 2018 年 1-2 月开展的一项调查。我们一共收到 170 份回复（121 份来自 IMA 成员的全球调查，剩余的回复来自直接邮件和社交媒体邀请）。本文的结论是基于调查回复而做出的。

部署分析 — 组织获得成功的关键

当下，组织强烈认为提高他们的分析能力是未来取得成功的关键，要么是有助于获得竞争优势（66%），要么有助于保持当前的市场地位（17%）（详见图 1）。

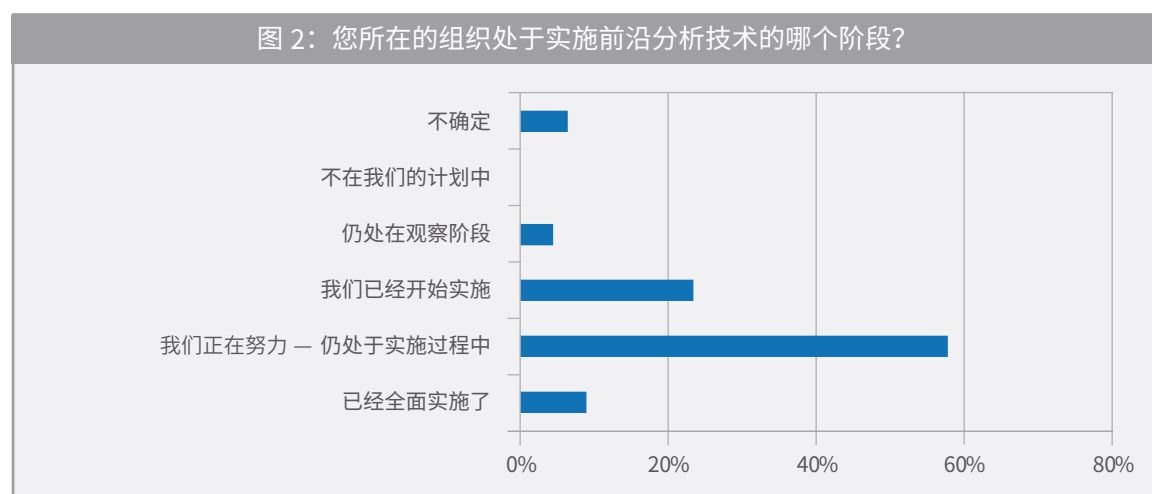




分析能力应用的一个范例是英国格拉斯顿伯里音乐节（世界最大的音乐节）¹。根据以往音乐节的记录，结合天气预报数据，为音乐节现场的小商贩提供有价值的信息，告诉他们应该销售哪些食物、饮料和衣服。使用诸如此类的简单数据集，组织就可以对自身业务有了更深入的了解，从而可以提供可用于产生大量经济价值的信息。

实施前沿分析 — 现实还是虚幻？

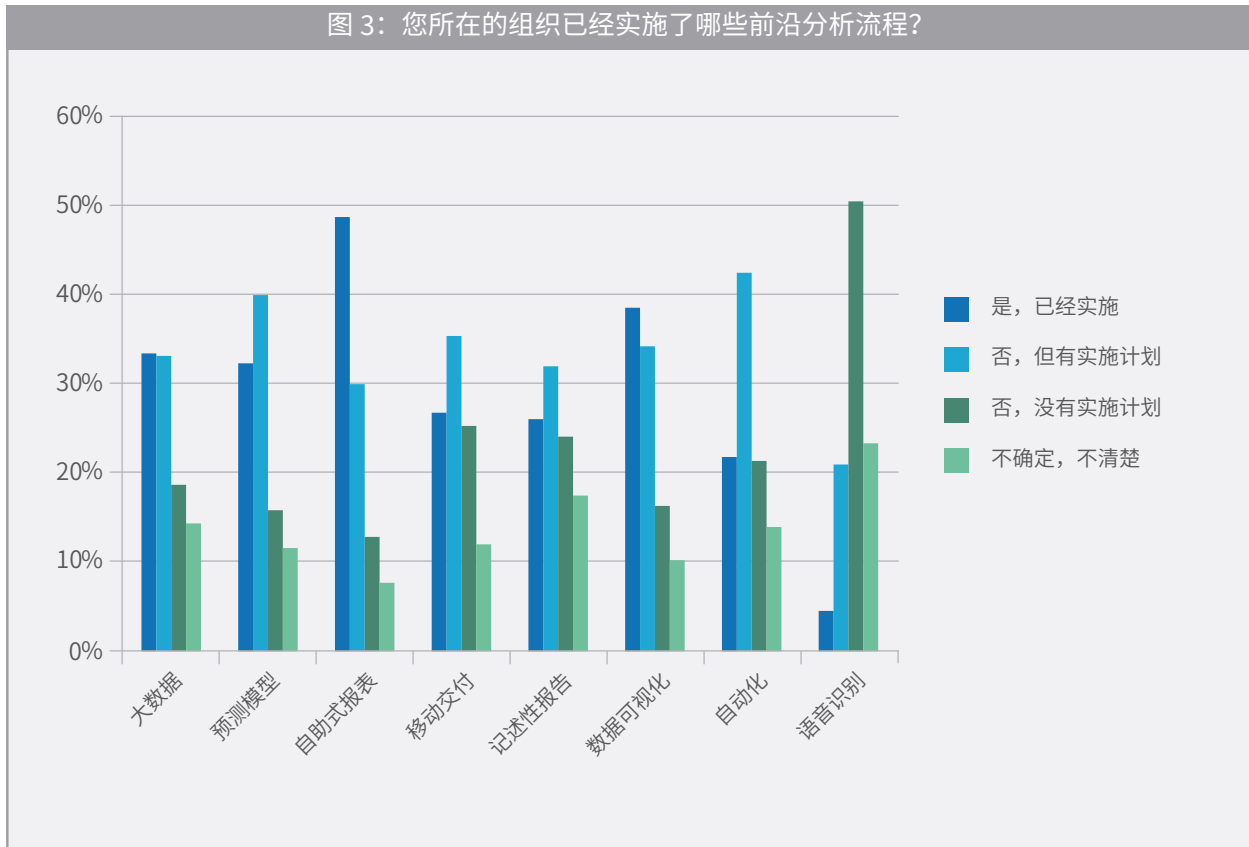
尽管人们普遍认为前沿技术可以带来竞争优势，但对于大多数组织来说，实施前沿技术仍然只是一项正在进行的工作。图 2 显示只有很少一部分组织（8.5%）已经完全实施了他们想要的前沿分析技术。大多数组织（57.5%）正在实施中，而 23.4% 才刚刚开始。很少有组织完成前沿技术实施的一个原因是前沿技术是一个不断发展的过程。值得注意的是，为了强调前沿技术的重要性，虽然有大约 6% 的受访者表示他们不确定前沿分析技术的实施情况，但没有一个受访者表示“前沿分析技术不在我们的计划中”。



正在实施前沿技术的组织占比很高，出现这种情况可以归结于多种因素。关键因素包括可以采用的技术有很多种、每种前沿技术处于不同的阶段以及每种技术可以给组织带来的好处不一样。如图 3 所示，近一半的组织都引入了自助式报表。诸如自动化这样的快速演进的技术正在被实施，而像语音识别这类回报不确定的技术则不太可能被实施。

¹ William Trotman "看穿人群"，甲骨文，2018年8月，<https://blogs.oracle.com/analyticscloud/seeing-through-the-crowds>。

图 3：您所在的组织已经实施了哪些前沿分析流程？



分析的商业案例

虽然许多组织仍然处于实施前沿分析的过程中，但早期的结果是令人鼓舞的：在实施前沿分析技术的组织中，有一半的组织表示，前沿技术使得组织的业绩获得了极大的提升，而另一半的组织则表示只有小幅改进。组织能从实施前沿技术中获益的关键领域包括绩效衡量和战略制订。

绩效衡量

分析能力的演进以及数据实用性的提高使得组织能够制定和实施增强版的绩效衡量，而绩效衡量是许多受访者已经应用分析的一个领域。当被问及绩效衡量将如何改变时，典型的回答包括：



" 由于可以进行更深入的分析，使用不同类型的数据，绩效衡量预计将发生变化 "

" 更多基于驱动的信息将来自于更少结构化的来源 "

" 关键 KPI 将会发生变化，变得更为复杂和精确 "

" 目前，业务拓展机会是根据业绩来评估的，有时是一个特定的投资回报率（ROI），或是项目实证经济效益，而实施前沿分析将加速实现组织战略 "

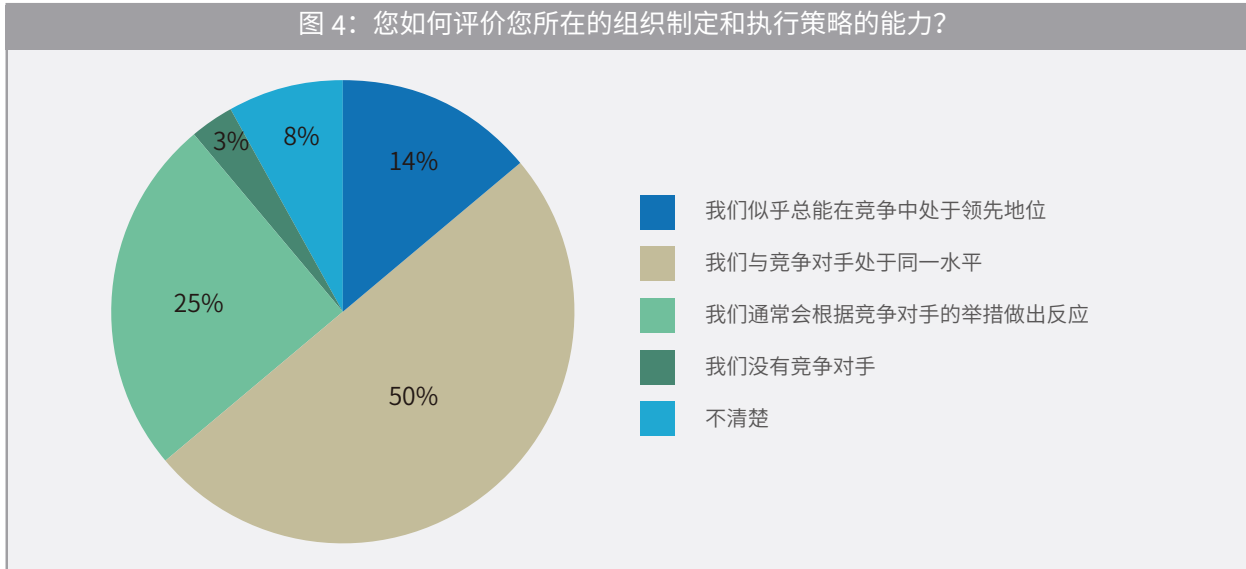
实施分析并以此支持绩效衡量的组织均报告组织的绩效得到了改善。然而，在实施绩效衡量分析时，组织采取了一种谨慎的方法——只有 20% 的受访者表示，绩效衡量已经或将要得到改变，当被问及绩效衡量分析是否反映以分析为导向的战略时，近一半的受访者（47%）表示不确定。

与建筑行业相关的支出占 GDP 的比例为 13%，但在过去 20 年里，该行业的生产率仅增长了 1%。全球工程、建筑和项目管理公司 Bechtel 公司决定解决这个问题。该公司建立了一个卓越的大型数据中心，拥有一个由 5PB 数据组成的数据湖。数据中心的概念验证使用了照片识别技术，代表客户检查和标记网站的照片，节省了 200 万美元。自然语言处理（NLP）工具解析索赔、请求和合同。曾经需要数天乃至数周的评估和计划，现在只需要数小时就能处理完毕。此外，Bechtel 公司还将分析工作扩展到其他领域，包括通过预测员工的离职时间来了解员工保有情况。²

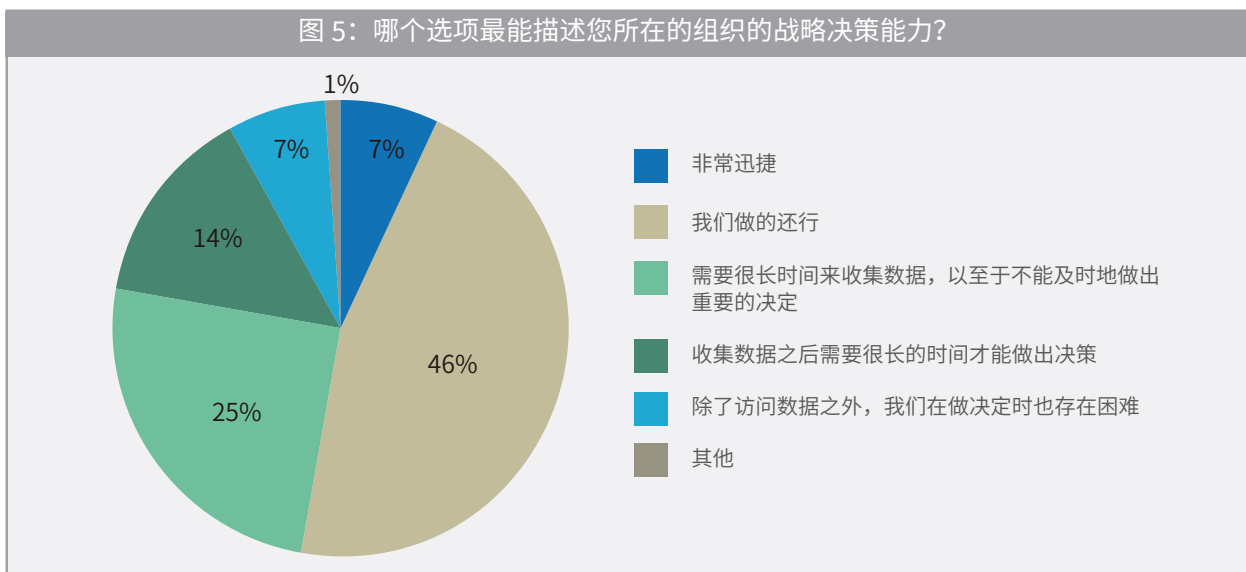
战略制定

分析有可能带来实质性收益的领域是组织管理战略制定和实施的重要职责。许多组织在这个领域都表现不佳：仅有 14% 的受访者认为自己在这一领域的竞争中处于领先地位，有一半的受访者认为自己与竞争对手处于同一水平，有 25% 的受访者感觉自己落后于竞争对手，往往是在竞争对手开展行动后才有所反应（详见图 4）。

² Clint Boulton, "6 个数据分析的成功案例：内部观察"，CIO，2017 年 9 月 5 日，www.cio.com/article/3221621/analytics/6-data-analytics-success-stories-an-inside-look.html。



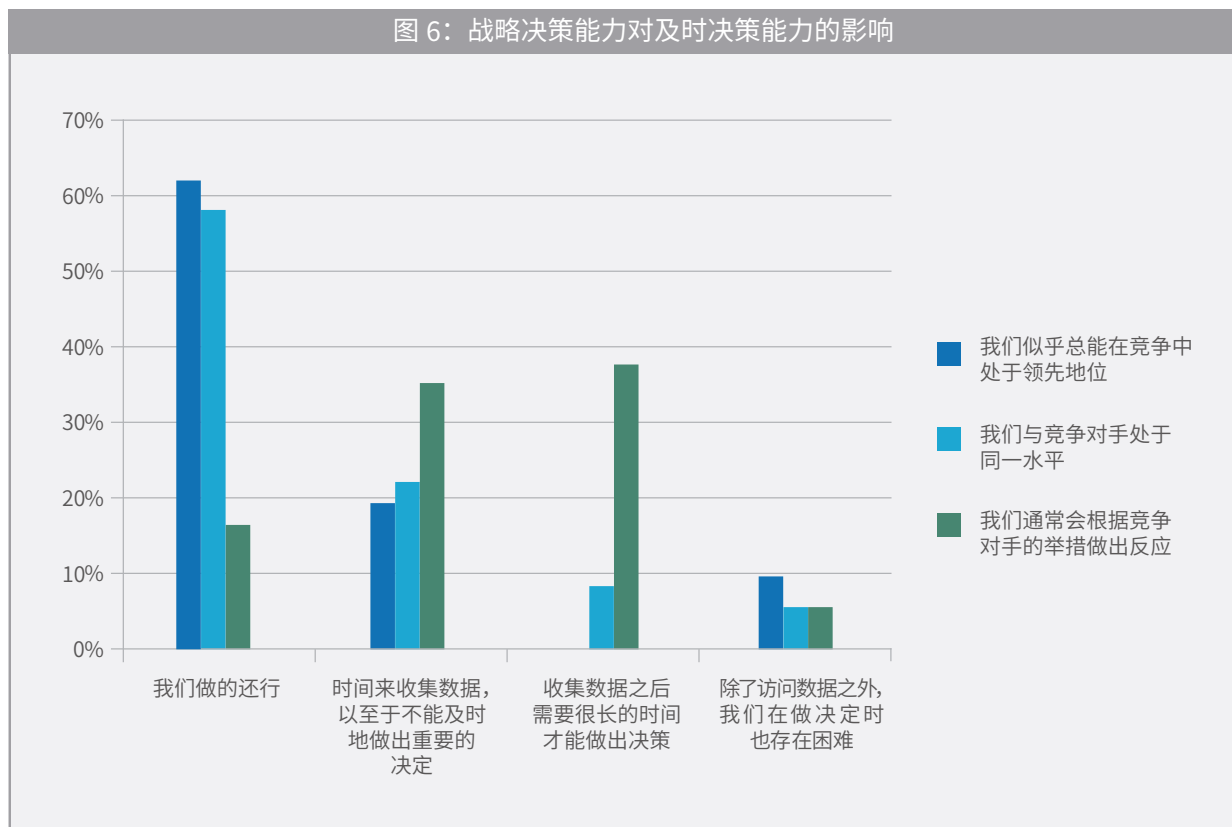
类似的情况也存在于战略决策（详见图 5）。只有 7% 的组织认为他们在战略决策方面非常迅捷，而有 46% 的组织认为他们在这方面“还行”。



是什么让高绩效组织（在制定和执行战略方面表现优异的组织）脱颖而出？一个重要的原因是及时做出决策的能力。在制定和执行战略方面处于领先或与竞争对手平起平坐的组织中，绝大多数都具有这种能力。相反，那些根据竞争对手的举措来采取对策的组织缺乏战略决策灵活性。缺乏灵活性的原因有两个，一是收集数据花费的时间太长，二是收集数据后做决策的时间太长（详见图 6）。



图 6：战略决策能力对及时决策能力的影响

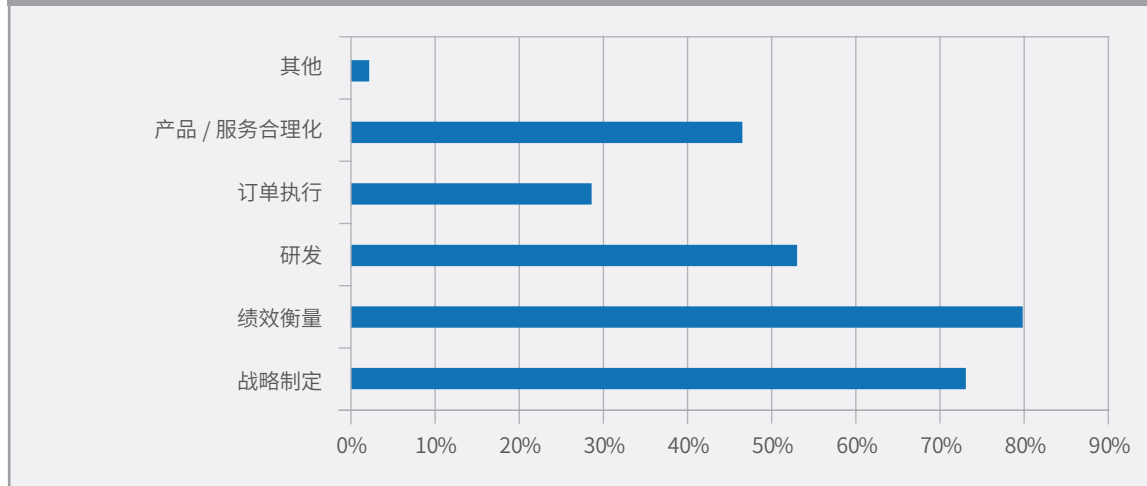


为了解决在制定和执行战略方面的挑战，企业转而使用分析。即绩效衡量后，战略制定是被广泛报告，并更为受到前沿技术积极影响的领域，有三分之二的公司在战略制定领域实施了分析，并报告绩效得到显著提升。

其他领域

虽然策略制定和绩效衡量是实施分析的主要重点领域，但是包括研发、订单执行和产品 / 服务合理化流程等其他领域也被视为是可以通过实施前沿分析技术得到改进的领域（详见图 7）。

图 7：您希望通过向更广泛地使用前沿分析技术过渡，对组织流程产生哪些积极影响？



有些人可能会把 StitchFix 称为在线服装零售商的破坏者。它提供基于分析的个人造型服务，无论年龄、尺寸或预算如何，为每个人送货上门。StitchFix 在推荐系统、人力计算（配置偏好）、资源管理、库存管理和算法时尚选择中使用了数据科学。分析的使用使 StitchFix 能够以一种高效的方式为客户选择备受瞩目的时尚风格，并同时保持低成本，维护对种类繁多的商品的访问，轻松管理商品的购买和退货³。

许多组织正在努力实施先进的分析技术，但一些组织已经在绩效衡量和战略制订等关键领域获益。基于在这些管理领域的早期成功，他们已经开始将分析应用于其他组织过程，相信不久后将会有更多的应用程序跟进。而那些不想被竞争对手远远抛下的组织需要确保他们投入了足够的资源来改进新的分析方法和技术的使用。

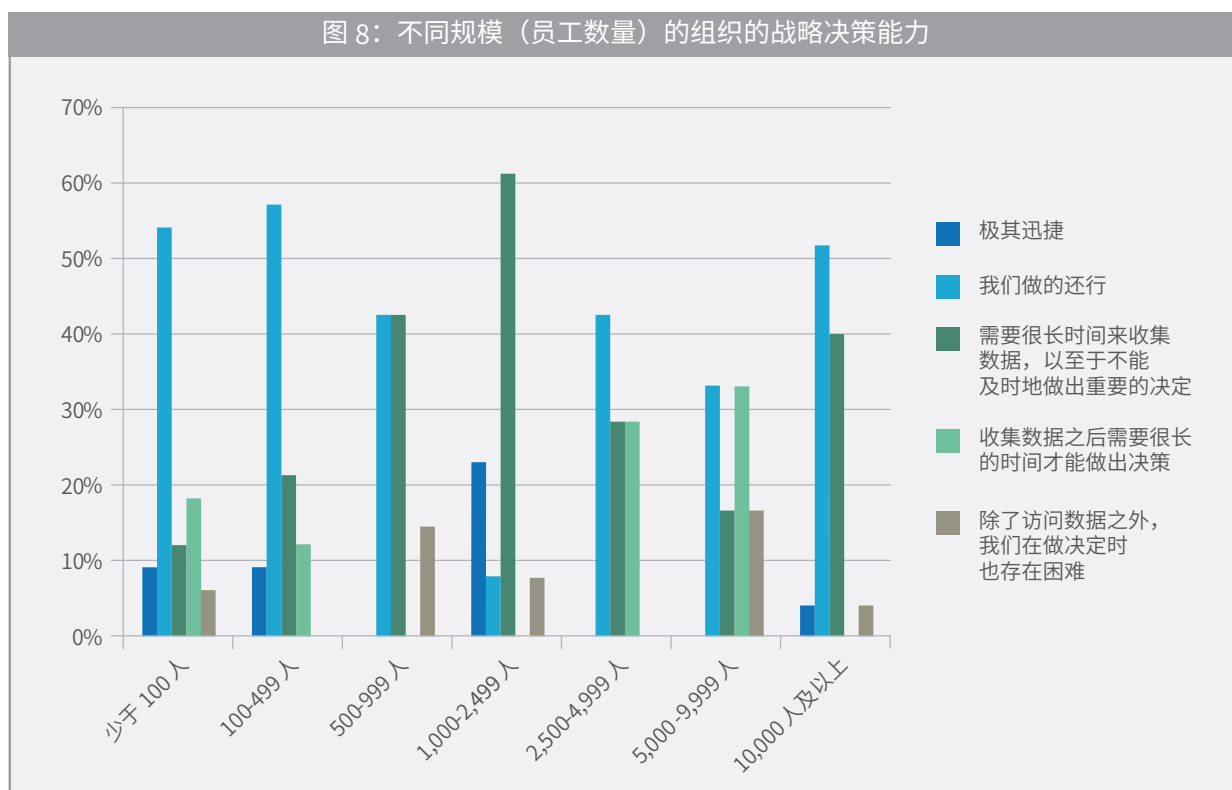
³ [http://www.oracle.com/search/customers?bcid=5785735688001](http://www.oracle.com/search/customers?bcid=5785735688001;); "Stitch Fix 进行了哪些工作以及是如何开展的？常见问题", <https://support.stitchfx.com/hc/en-us/articles/204222994FAQ>.



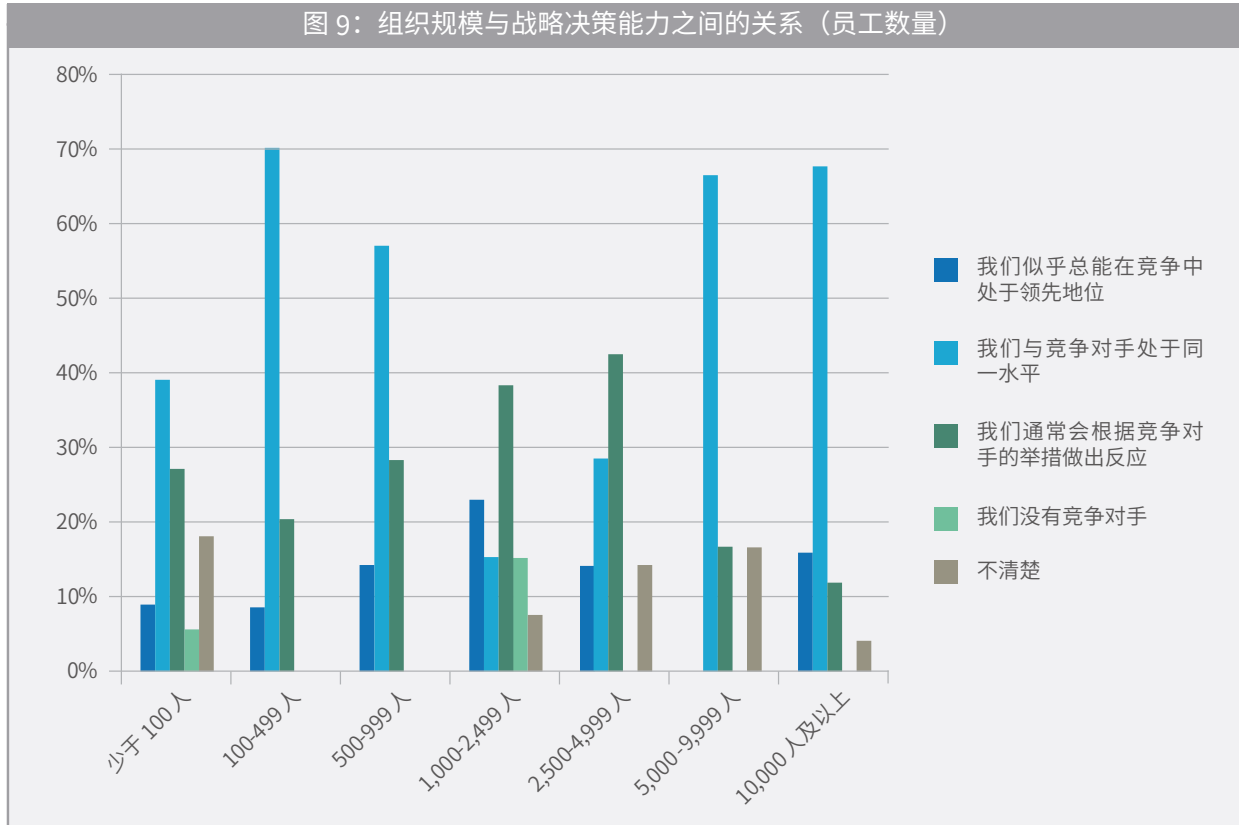
中型组织的挑战

在拥抱大数据和分析的竞争中，中型组织往往以一种独特的方式在努力着。他们必须与灵活的初创企业竞争，后者开始用空白画布来满足市场需求，中型组织可能在保留系统或多个软件平台上进行操作，而大型组织倾向于部署分析工具来创建跨组织的运转效率。但在中型组织，集中规划和带宽限制了卓越分析中心的创建。

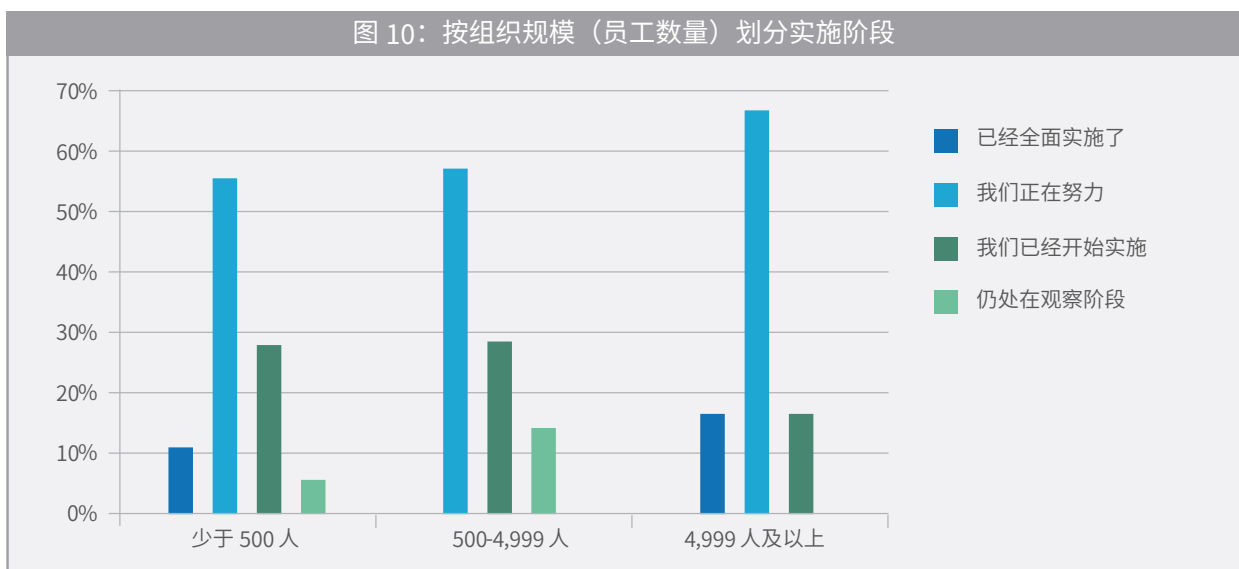
中型组织的努力方式之一是他们的战略决策能力。小型公司最为灵活，鉴于他们的规模和简单的运营方式，这是可以理解的。大型组织在数据收集之后的决策能力存在更多的难度。中型组织在收集决策所需的数据方面最为困难。一半以上的组织表示，在组织决策中存在一定程度的困难（详见图 8）。



也许，由于战略决策能力的下降，中型组织比小型或大型组织更有可能对竞争做出反应（详见图 9）。

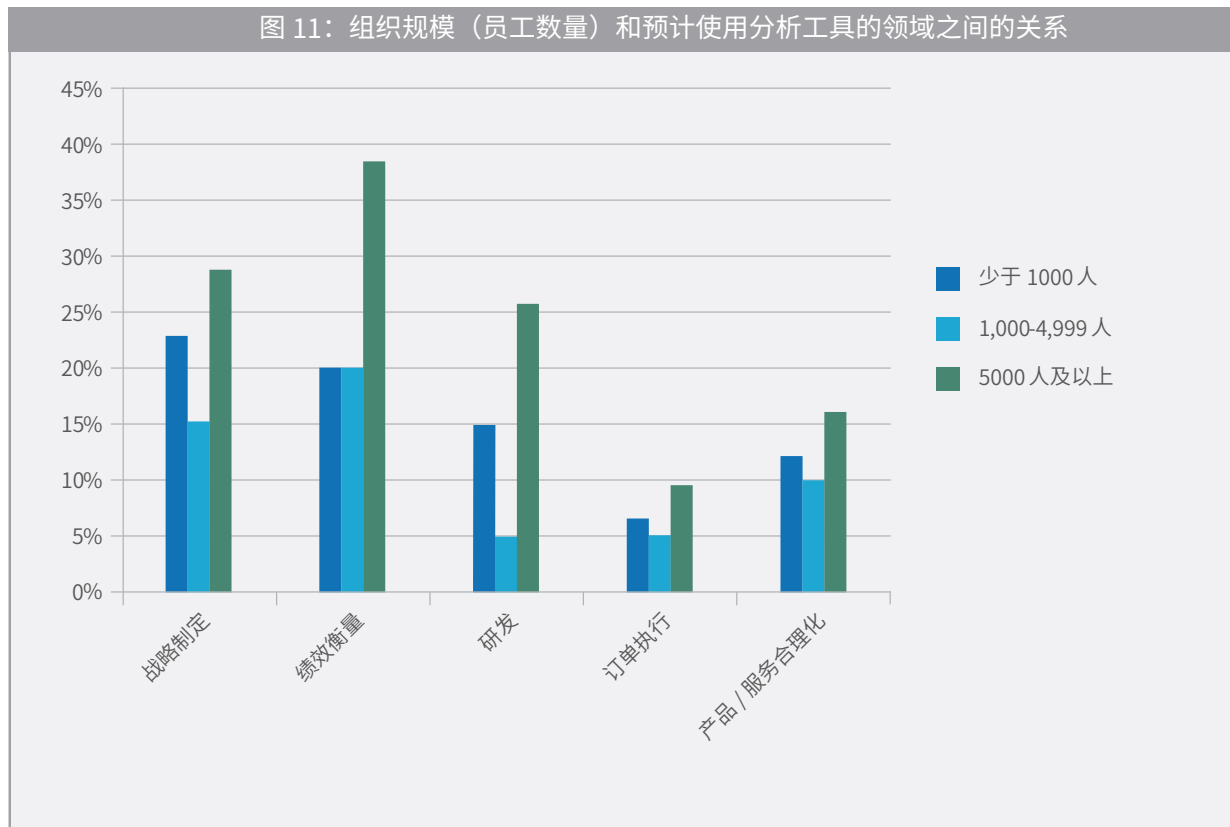


尽管绝大多数组织，无论规模大小，仍然处于实施前沿分析的过程中，但是大型组织，正如预期的那样，由于拥有更大的资源，往往在这一过程中走得更远（详见图 10）。





相较于小型组织，大型组织更有可能考虑在各种流程中使用分析工具，而最大的区别在研发领域（详见图 11）。

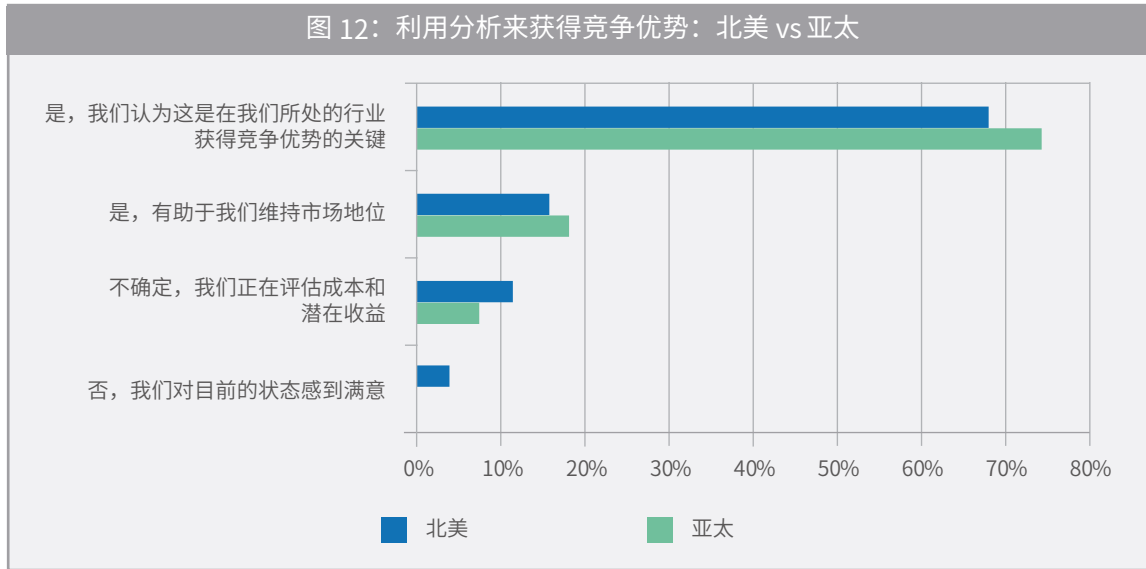


考虑到大型组织拥有更多的资源，相较于小型组织，大型公司更有可能对流程进行重大改变，图 11 反映的就是这种情况。但是，在不同规模的组织中，做出改变的可能性惊人地一致。

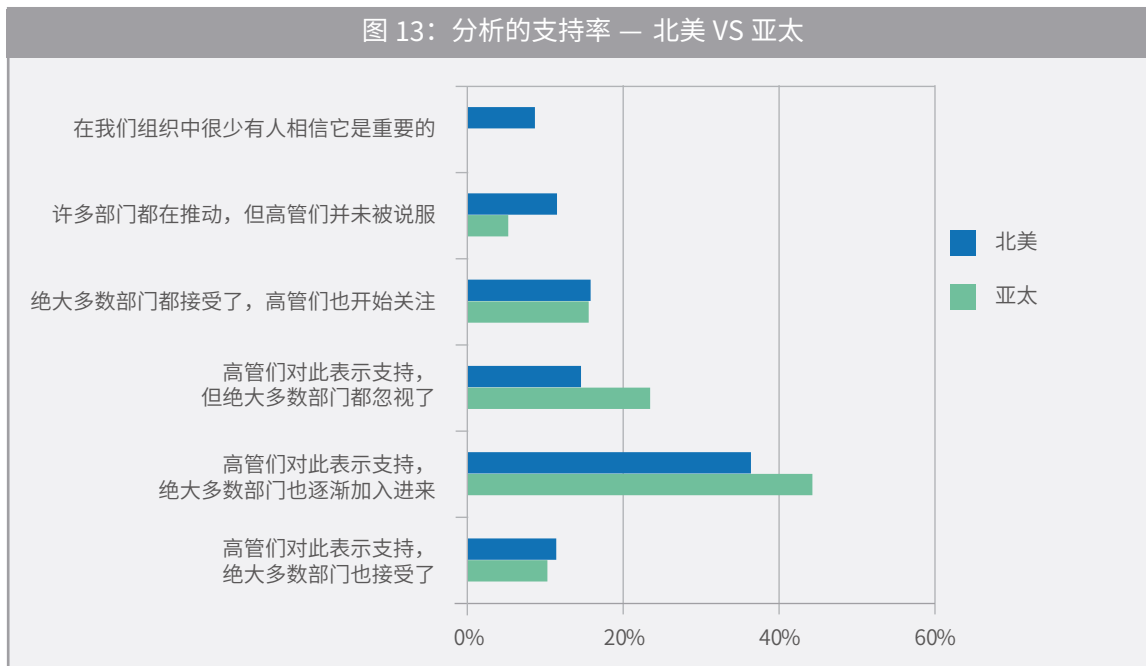
地区差异

54%的受访者来自北美（主要是美国），31%的受访者来自亚洲/太平洋地区（主要是中国），剩余的受访者来自世界各地。

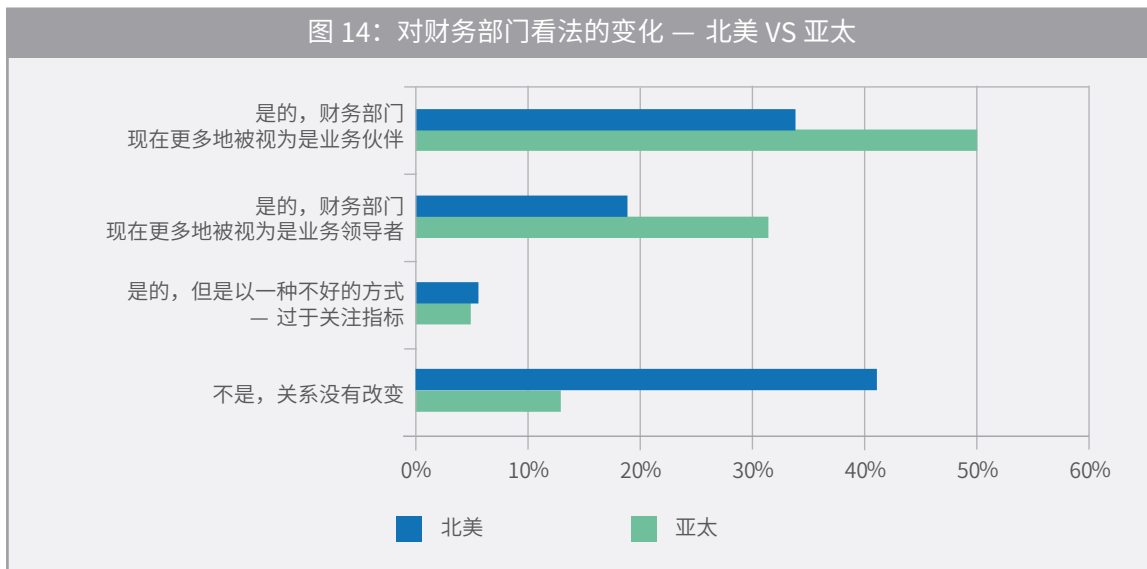
亚太和北美的组织都认为使用高级分析是获得竞争优势的关键（见图 12）。由于反馈数量较少，其他地区的调查结果并没有列报。



在支持使用前沿分析方面, 北美和亚太地区的高管支持比例都很高, 但亚太地区的支持比例似乎更高 (详见图 13)。



在对财务职能角色认知的影响方面, 不同地域之间存在着非常显著的差异。在北美, 分析的使用对财务职能产生了积极的影响, 在略微过半的组织更积极看待财务职能, 更多的成为业务伙伴或业务领导者。在亚太地区, 分析的实施产生了更加积极和显著的影响: 82% 的组织报告说, 财务职能现在被认为是更受欢迎的 (详见图 14)。



前沿分析对财务部门职能的影响

虽然已经有很多关于分析技术将减少会计和财务领域工作岗位的悲观预测, 但我们的受访者给出的意见似乎相对乐观, 大多数人认为, 只有少数流程由于分析技术的使用已经或可能会发生改变 (详见图 15)。

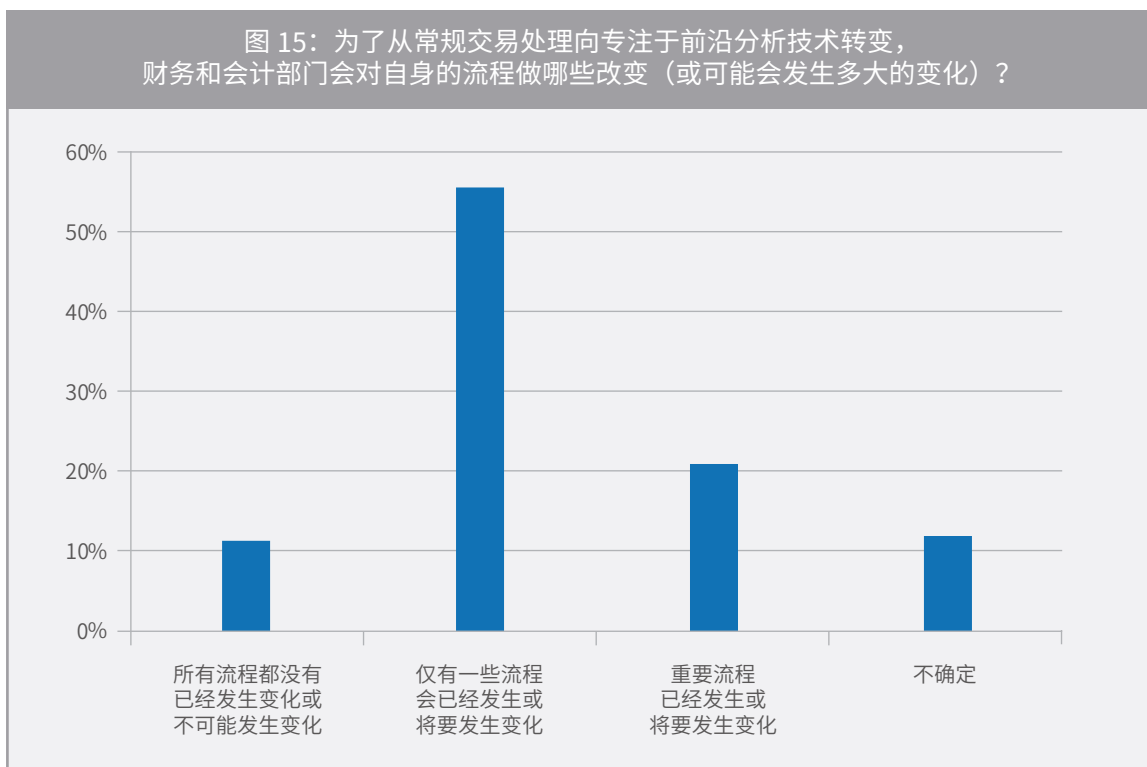
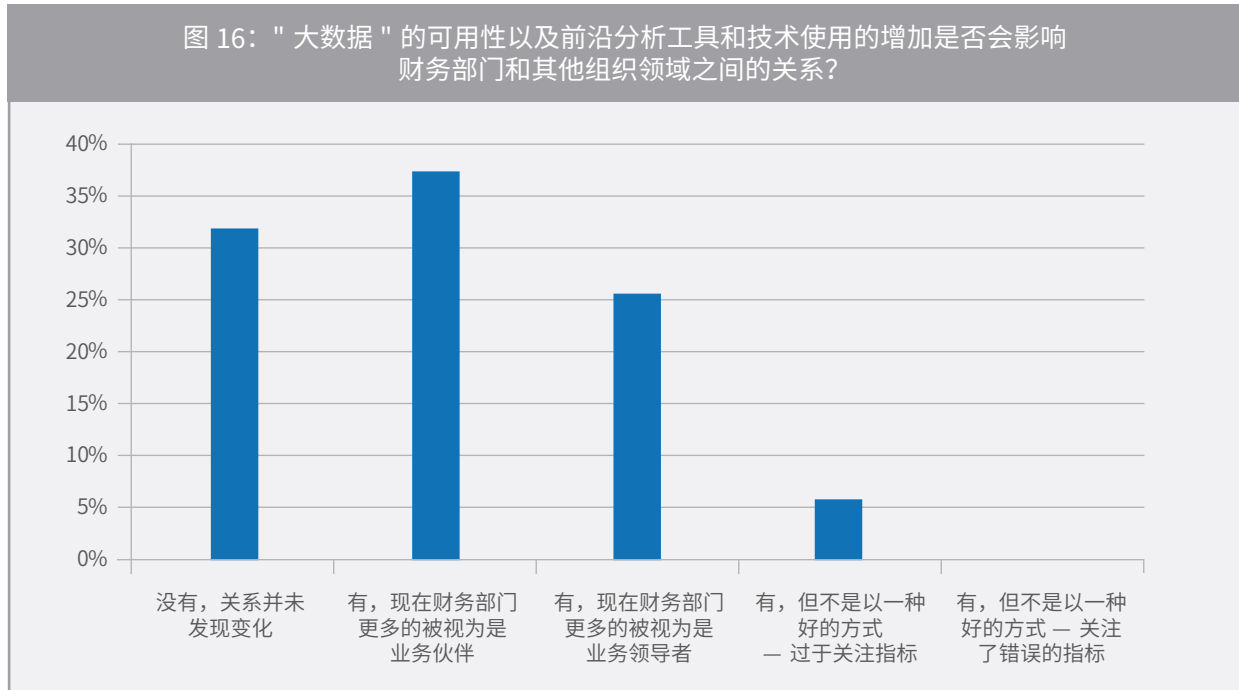
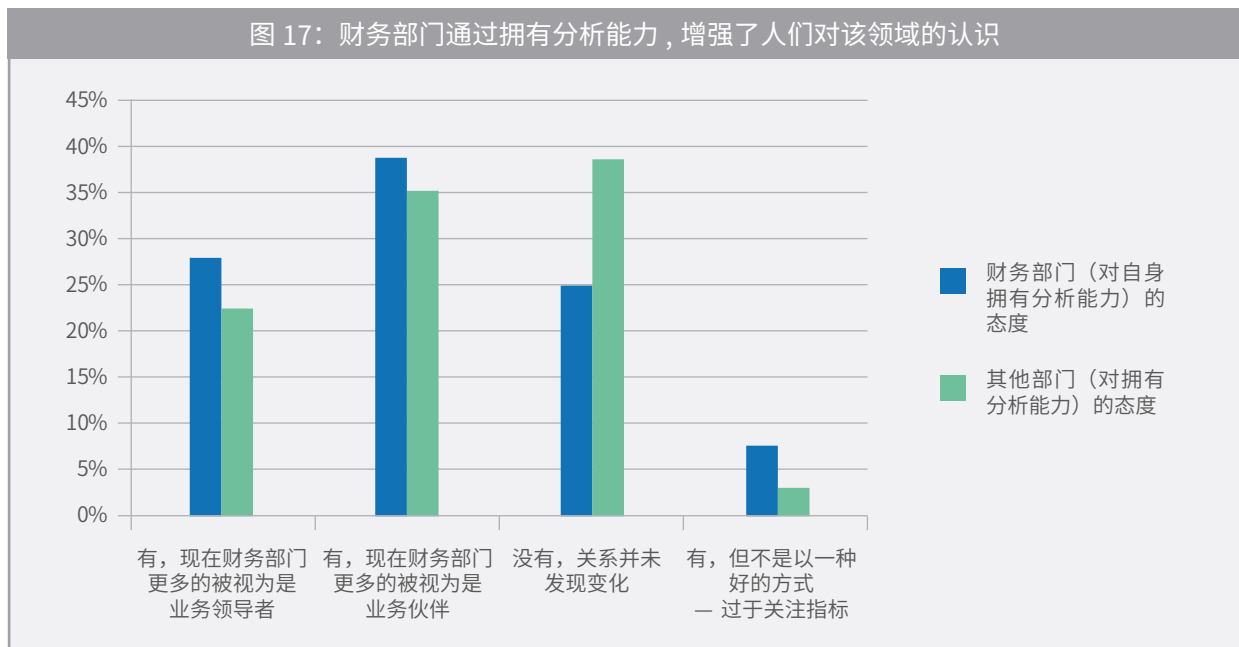


图 16 显示，对于过半数的受访者来说，大数据和分析会对会计和财务部门与组织其他部门产生积极的影响：现在，在这些组织中，财务部门更多地被视为是业务合作伙伴或业务领导者。



经过更为深入地研究（详见图 17），我们发现在那些财务部门在分析技术中扮演或共享领导角色的组织中，财务部门更有可能被视为业务领导者 / 合作伙伴。





总结并关注下一步会发生什么

想要提高竞争力的组织正在转而采用前沿分析技术。虽然绝大多数组织都在实施，但在包括战略制订和执行以及绩效衡量在内的组织绩效关键领域，前沿分析技术也处于改进过程之中。但是，"成功"在不同的组织中有不同的定义。那些理解实施分析功能流动本质的人最适合管理预期。

当他们这样做的时候，会有很多收获。最先进分析方法的采用正积极地影响着财务部门与组织其他部分之间的关系，财务部门现在更多地被视为业务伙伴或业务领导者。在那些财务部门在分析中扮演或共享领导角色的组织中更是如此。

对于希望使用高级分析能力来实现数据驱动的组织来说，以下四个因素至关重要：

- 具备数据思维的人
- 数据质量
- 最先进的工具
- 支持分析性决策的流程和激励（例如组织目标）

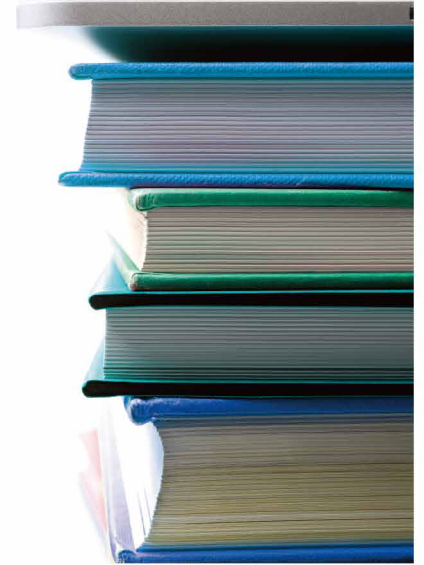
在下一份报告中，我们将重点讨论组织意图。对于公开致力于实现数据驱动目标的组织来说，组织目标可能是上述四个因素中最最重要的一个。这些组织最有可能拥有实现该目标所需的人员、数据和工具。根据调查结果，我们确定了建立这种组织文化的关键因素。

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About IMA[®] (Institute of Management Accountants)

IMA, named 2017 and 2018 Professional Body of the Year by The Accountant/International Accounting Bulletin, is one of the largest and most respected associations focused exclusively on advancing the management accounting profession. Globally, IMA supports the profession through research, the CMA[®] (Certified Management Accountant) program, continuing education, networking, and advocacy of the highest ethical business practices. IMA has a global network of more than 100,000 members in 140 countries and 300 professional and student chapters. Headquartered in Montvale, N.J., USA, IMA provides localized services through its four global regions: The Americas, Asia/ Pacific, Europe, and Middle East/India. For more information about IMA, please visit www.imanet.org.



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Executive Summary

Most organizations know that enhancing their analytical capabilities is critical to their success and survival—helping them gain a competitive advantage or helping them maintain their current market position

But for many, implementation of leading-edge analytics remains a work-in-progress—very few have completely implemented their desired leading-edge analytic techniques and technologies. There are several reasons that implementation is incomplete—to name a few: the wide variety of technologies that are being adopted, the varying stage of maturity of each technology, and the benefits that can be realized by each technology.

Organizations that have implemented leading-edge analytic techniques and technologies uniformly report improvement in their performance. The process most affected by leading-edge analytics is performance measurement, yet many organizations are still working out how these measures should change.

A key area in which analytics has the potential to deliver substantial benefits is strategy formulation and implementation. Companies that are ahead of or on par with their competition in developing and executing strategy also tend to be better than their competition in their ability to make timely decisions. Organizations that are predominantly reactive to moves made by their competition are not agile in strategic decision making. A lack of analytical capabilities—including both taking too long to gather data and taking too long to make decisions once that data is collected—contribute to their lack of agility.

In the race to embrace Big Data and analytics, mid-market firms often struggle in unique ways. To a lesser extent, smaller firms also face challenges with analytics implementation, while larger firms lead the way.

Despite numerous dire predictions that analytics will eliminate a great many jobs in accounting and finance, most of the respondents from an IMA® (Institute of Management Accountants) survey believe that only a few processes have changed (or are likely to change) due to the use of analytics.

Introduction

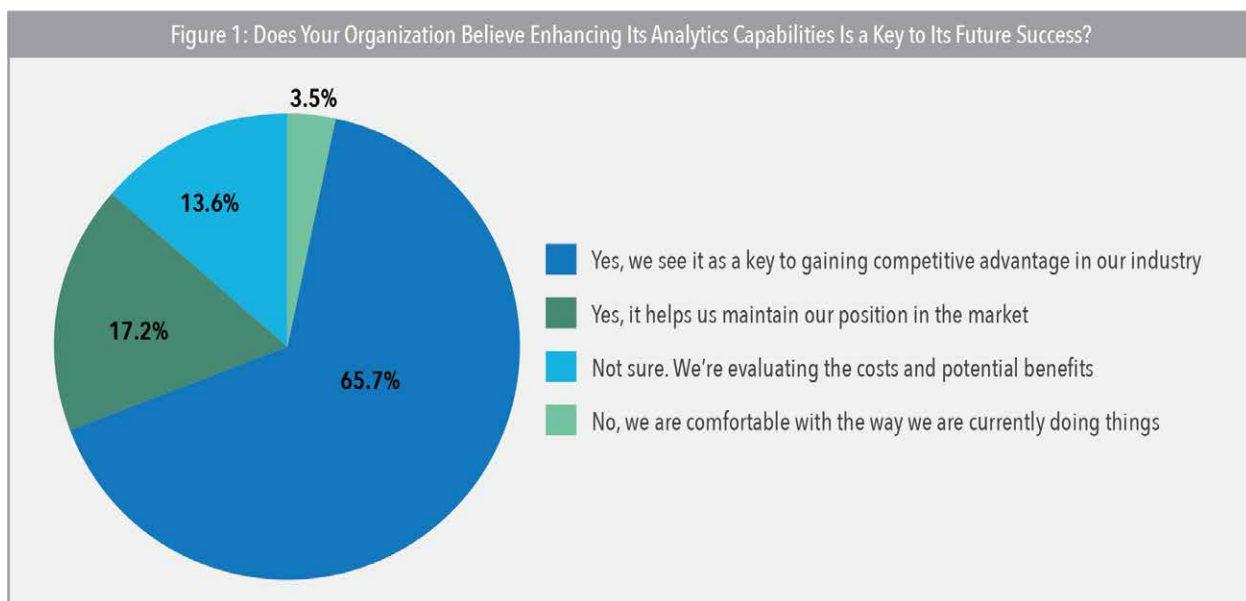
Technology is evolving rapidly and changing the way businesses must think and act. An important part of the technological influence is attributed to the use of advanced analytics to enable organizations to gather insight from their data, enabling them to better compete. Yet the questions remain, "To what extent is this potential being exploited?" and "Is this more technology 'smoke' or is there a revolutionary 'fire'?"

In this report, we explore the extent to which advanced analytics is being deployed by organizations, discuss the business case for implementing advanced analytics, and examine the impact of leading-edge analytics on the role of the finance function. In a follow-up report, we examine key factors for a successful implementation of analytics.

The findings reported here are based on a survey that IMA® (Institute of Management Accountants) conducted in January-February 2018. We received 170 responses (121 from a global survey of IMA members; the balance from direct mail and social media solicitations). Results presented here are based on the responses to this survey.

Deploying Analytics—Key to Organizational Success

Today, organizations strongly believe that enhancing their analytical capabilities is a key to future success, either by helping to gain a competitive advantage (66%) or helping to maintain current market position (17%). (See Figure 1.)

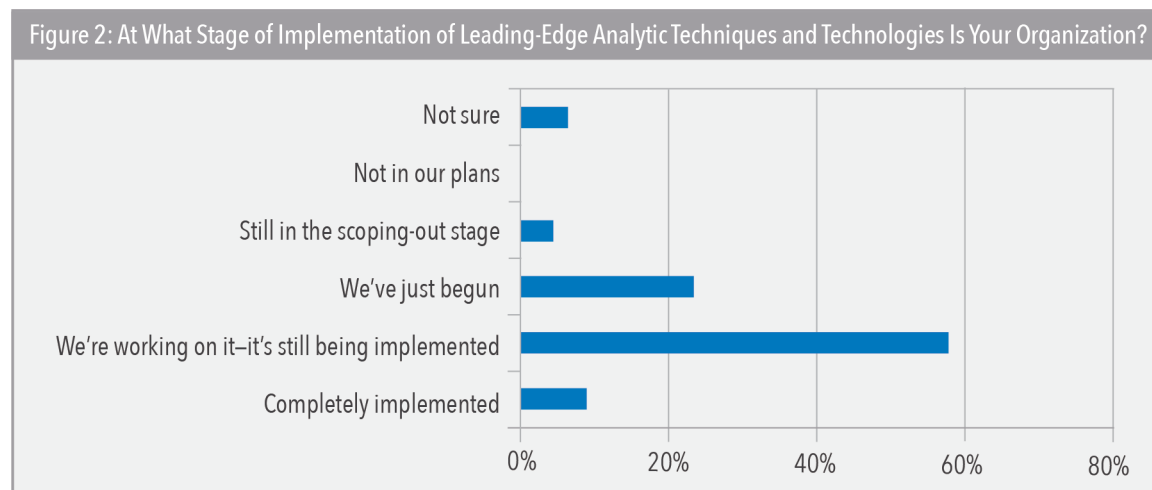




An example of this is an analysis of the U.K.'s Glastonbury Festival, one of the world's largest music festivals.¹ Records of previous festivals, combined with weather forecasting data, proved to be instrumental in providing valued guidance to on-site vendors for what food, drink, and clothing they should stock and sell. Using simple data sets such as these, organizations can obtain greater insights into their businesses, providing information that can be used to generate substantial economic value.

Implementation of Leading-Edge Analytics—Fact or Fiction?

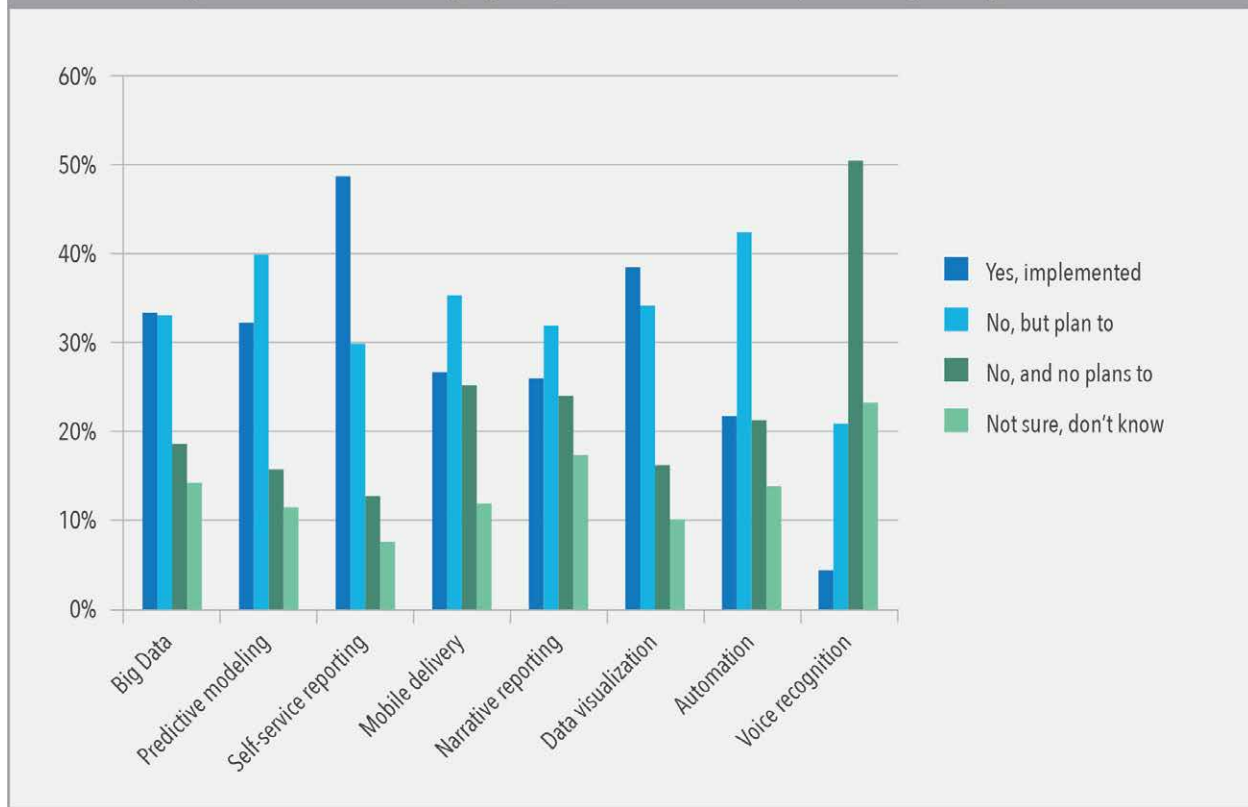
Despite a widespread view that leading-edge technology can deliver competitive advantage, implementation remains a work-in-progress for most organizations. Figure 2 shows that few (8.5%) organizations have completely implemented their desired leading-edge analytic techniques and technologies. Most (57.5%) are in the process of working on it, while 23.4% are just beginning. One reason that few have finished implementation is that it appears to be an ever-evolving process. To emphasize the perceived importance of leading-edge technology, it is interesting to note that although about 6% of respondents said that they weren't sure of the implementation status, none of the respondents indicated that implementation of leading-edge analytic techniques was "not in our plans."



The large percentage of organizations working on implementation of leading-edge technology can be attributed to a variety of factors. Key factors include the wide variety of technologies that can be adopted, the varying stage of development of each technology, and the benefits that each technology can bring to an organization. As indicated in Figure 3, nearly half of all organizations have introduced self-service reporting. Some rapidly evolving technologies, such as automation, are being implemented, while other technologies with perhaps an uncertain payoff, such as voice recognition, are less likely to be implemented.

¹ William Trotman, "Seeing Through the Crowds," Oracle, August 2018, <https://blogs.oracle.com/analyticscloud/seeing-through-the-crowds>.

Figure 3: Which of These Leading-Edge Analytic Processes Have Been Implemented by Your Organization?



The Business Case for Analytics

While many organizations are still in the process of implementing leading-edge analytics, the early results are encouraging: Half of those that have implemented leading-edge analytic techniques and technologies indicate that it has yielded great improvement in their organization's performance, with the other half noting slight improvement. Key areas identified as benefiting from implementation include performance measurement and strategy formulation.

Performance Measurement

The evolution of analytical capabilities and the greater availability of data enable companies to develop and implement enhanced measures of performance, an area in which analytics has been implemented by many of our survey respondents. When asked in what way such measures would change, typical responses included:



"Performance measures are expected to change due to much deeper analysis and varied data."

"More driver-based information from less structured sources."

"Key KPIs will change, and these KPIs will have more sophistication and be more incisive."

"Business development opportunities are now evaluated on performance measures, sometimes a specific ROI, in addition to positive economics for a project that will accelerate achieving the company's strategy."

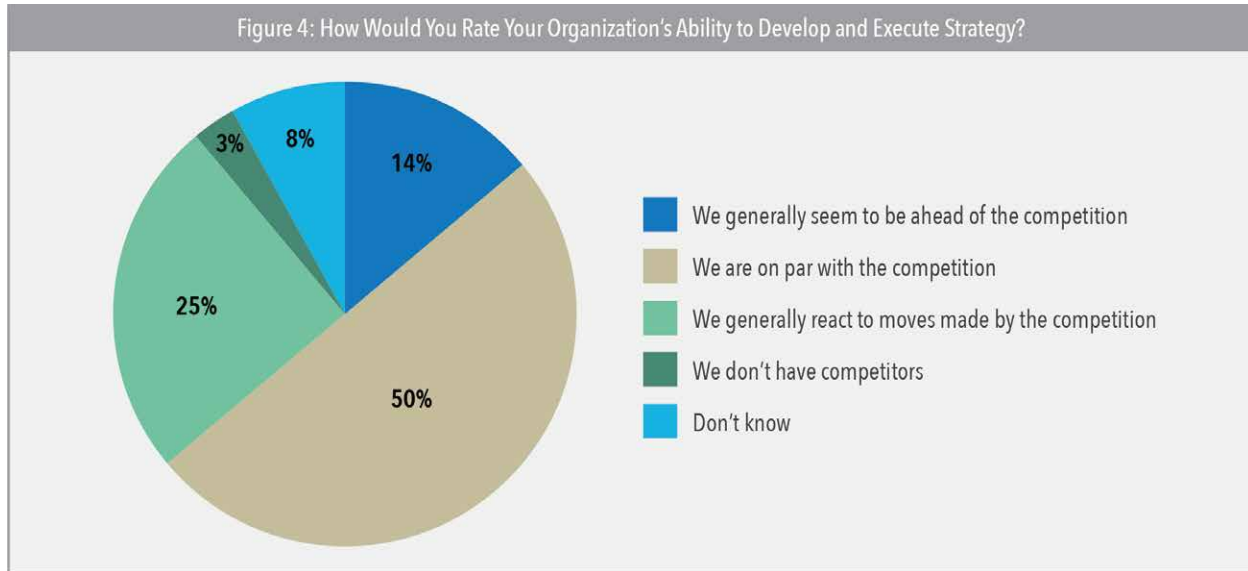
Companies that have implemented analytics to support performance measurement have uniformly reported improvement in organizational performance. Yet companies are taking a cautious approach in implementing performance measurement analytics—only 20% of respondents indicate that performance measures have or will change to reflect the new analytics oriented strategy and almost half (47%) are not sure.

Construction-related spending is 13% of GDP, but the industry has generated only a 1% productivity gain over the past two decades. Bechtel, a global engineering, construction, and project management company, decided to address this issue. It built a large data center of excellence, in which sits a data lake comprised of 5 petabytes of data. Its proof-of-concept used photo recognition technology to inspect and label photos of sites on behalf of customers, saving \$2 million. Natural language processing (NLP) tools parse claims, requests for proposal, and contracts. Estimates and plans that once took days and weeks now take hours. Bechtel has also expanded its analytics efforts to other areas, including understanding staff retention by predicting when employees may leave.²

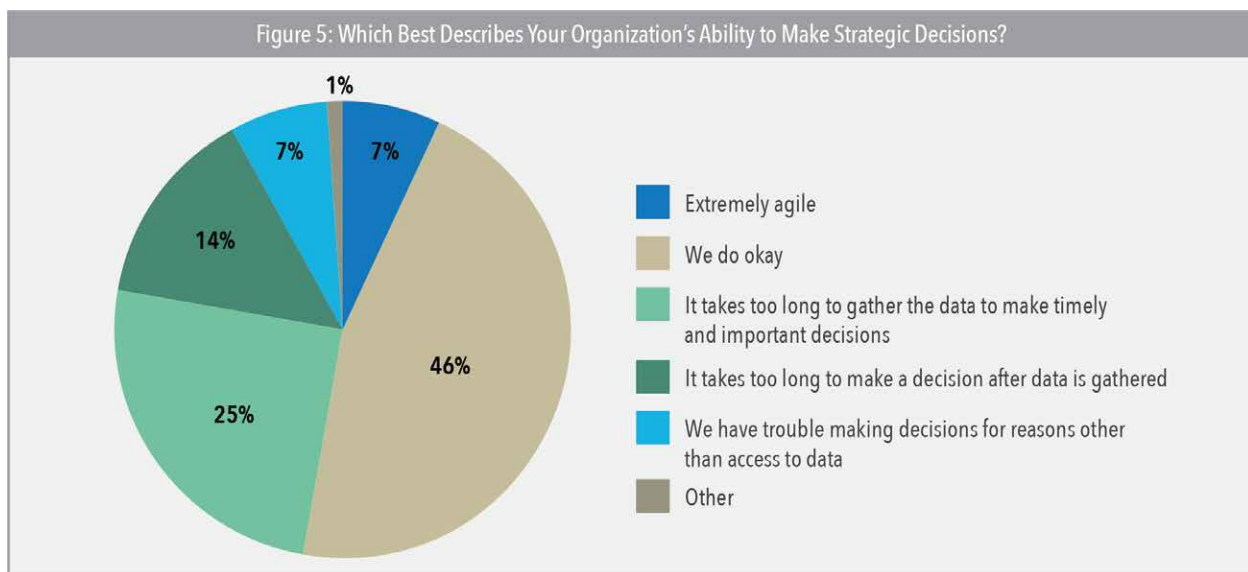
Strategy Formulation

An area in which analytics has the potential to deliver substantial benefits is a key responsibility of an organization's management—strategy formulation and implementation. Many companies struggle to excel in this area: Only 14% of our respondents feel they are ahead of the competition in this area, with another half believing they are on par with the competition and 25% feeling they are reacting to the competition (see Figure 4).

² Clint Boulton, "6 data analytics success stories: An inside look," September 5, 2017, www.cio.com/article/3221621/analytics/6-data-analytics-success-stories-an-inside-look.html.



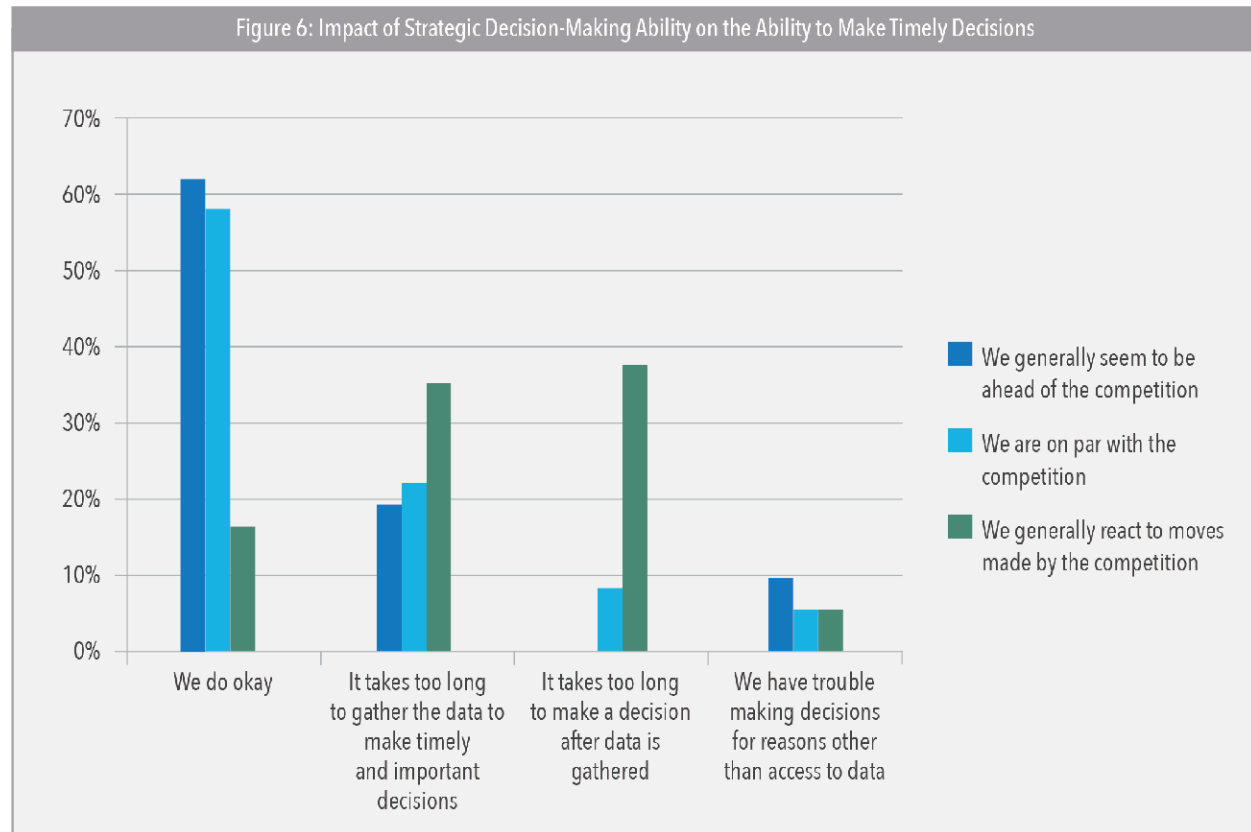
A similar situation holds true concerning strategic decision making (see Figure 5). Only 7% of companies believe they are extremely agile at making strategic decisions, while 46% say they are "okay" at it.



What differentiates high-performing companies—those that excel at developing and executing their strategy—from the others? One important factor is the ability to make timely decisions. Of those organizations that are ahead or on par with their competition in developing and executing strategy, the great majority have this ability. Conversely, those



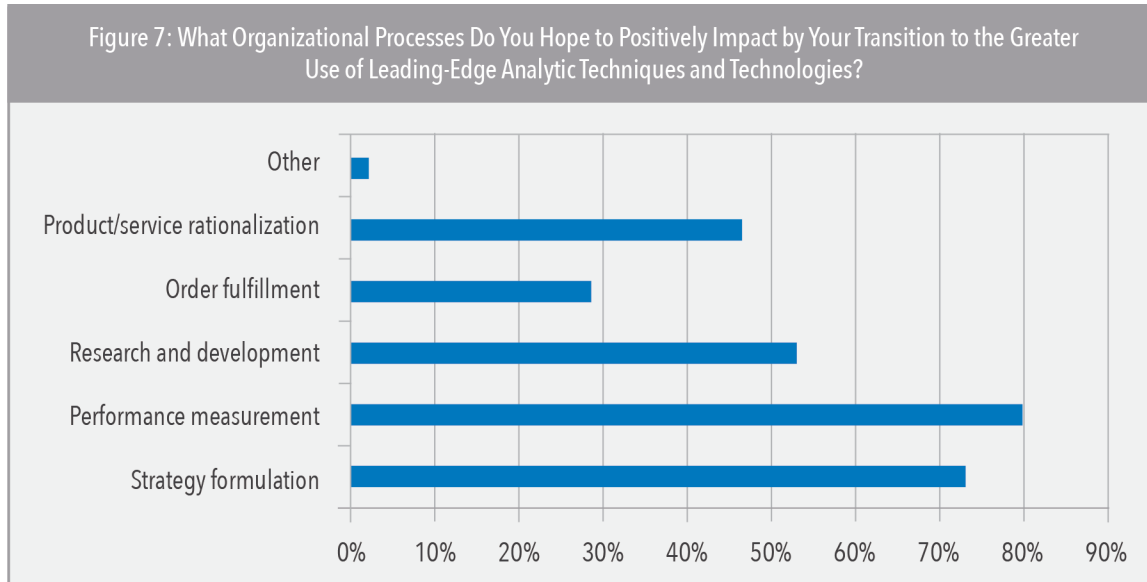
that are largely reactive to their competition are not agile in strategic decision making. This lack of agility arises from both taking too long to gather data and taking too long to make decisions once that data is collected. (See Figure 6.)



To address their challenge in formulating and executing strategy, companies are turning to the use of analytics. After performance measurement, strategy formulation is the area most widely reported as having been positively impacted from the greater use of leading-edge techniques and technologies, with two-thirds of companies implementing analytics in this area reporting substantial performance improvement.

Other Areas

While strategy formulation and performance measurement are major focus areas for the implementation of analytics, other areas—including research and development, order fulfillment, and product/service rationalization processes—are also being viewed as areas of potential improvement through implementation of leading-edge analytics technology (see Figure 7).



Some might call StitchFix a disruptor to the online clothing retailer. It provides analytics-based personal styling service with door-to-door delivery for everyone regardless of age, size, or budget. It uses data science in its recommendation systems, human computation (profile preferences), resource management, inventory management, and algorithmic fashion choices. The use of analytics has enabled it to select focused fashion choices for its clients in an efficient manner, while keeping costs low, maintaining access to a huge assortment of items, and easily managing items purchased and returned.³

While implementation of advanced analytical techniques is an ongoing effort at many companies, benefits in key areas such as performance measurement and strategy formulation are already being achieved by some. Based on early successes in these management areas, applying analytics to other organizational processes is already starting to be undertaken with more applications soon to follow. Organizations that do not want to be left behind by their competition will need to ensure that they are devoting enough resources to improve the usage of new analytic techniques and technologies.

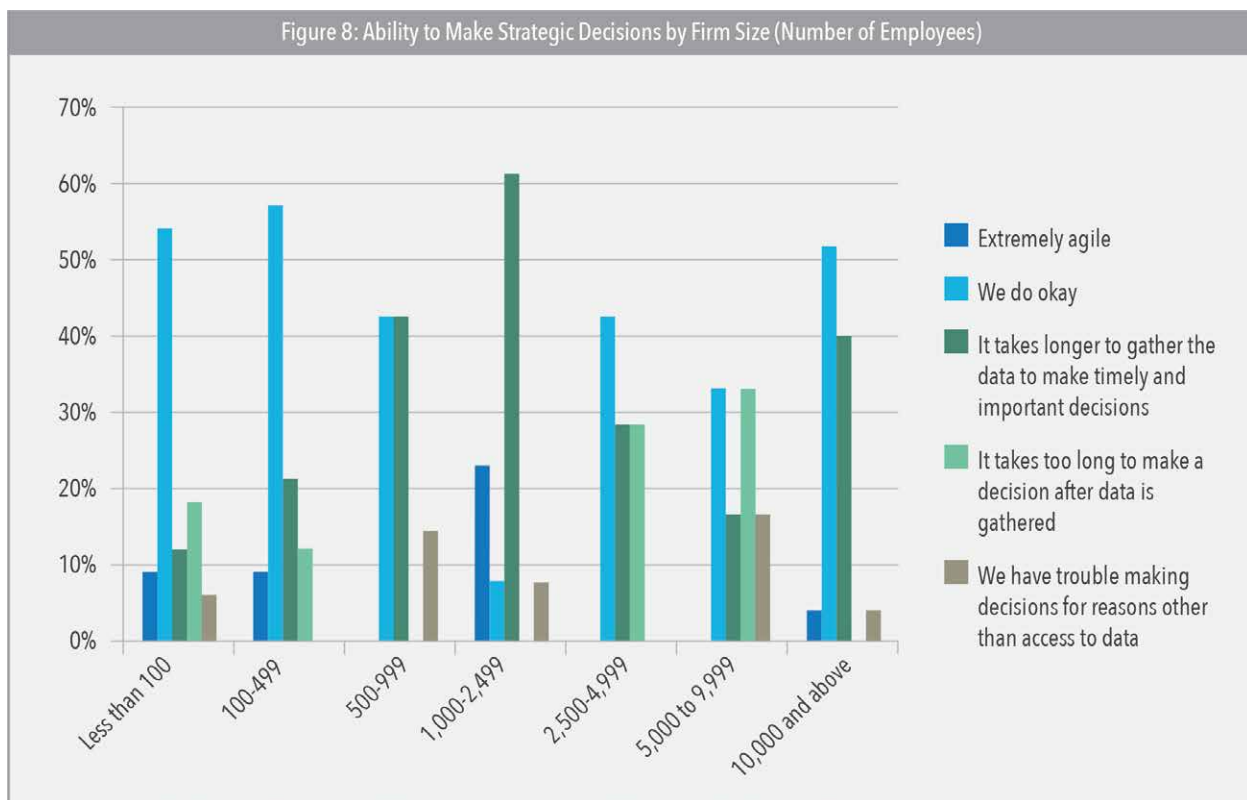
³ <http://www.oracle.com/search/customers?bcid=5785735688001>; "What is Stitch Fix & How Does it Work? FAQ," <https://support.stitchfx.com/hc/en-us/articles/204222994-FAQ>.



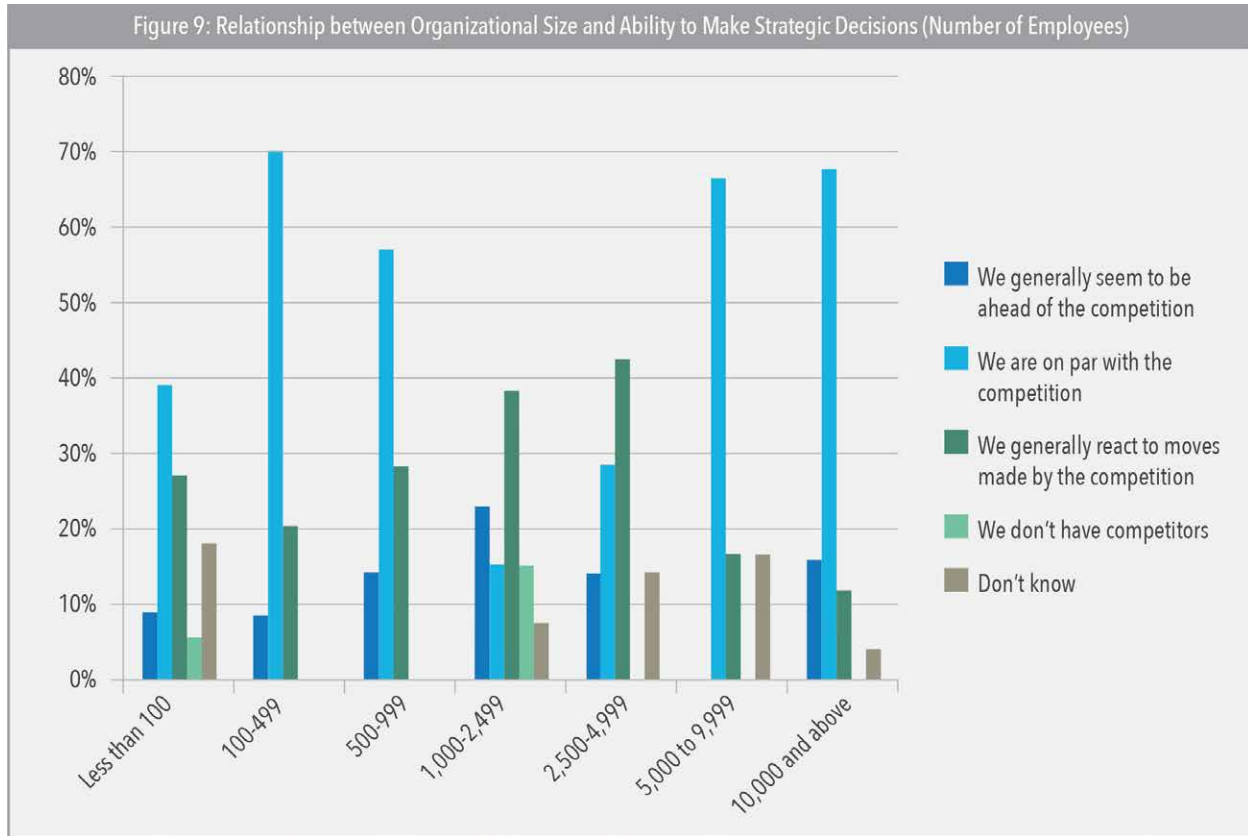
The Mid-Market Challenge

In the race to embrace Big Data and analytics, mid-market firms often struggle in unique ways. They must compete with agile start-ups that begin addressing market needs with blank canvases. They may be operating with legacy systems or with multiple software platforms. Larger organizations tend to deploy analytics to create operational efficiencies across the organization. But in mid-market companies, centralized planning and the bandwidth to create centers of excellence for analytics are limited.

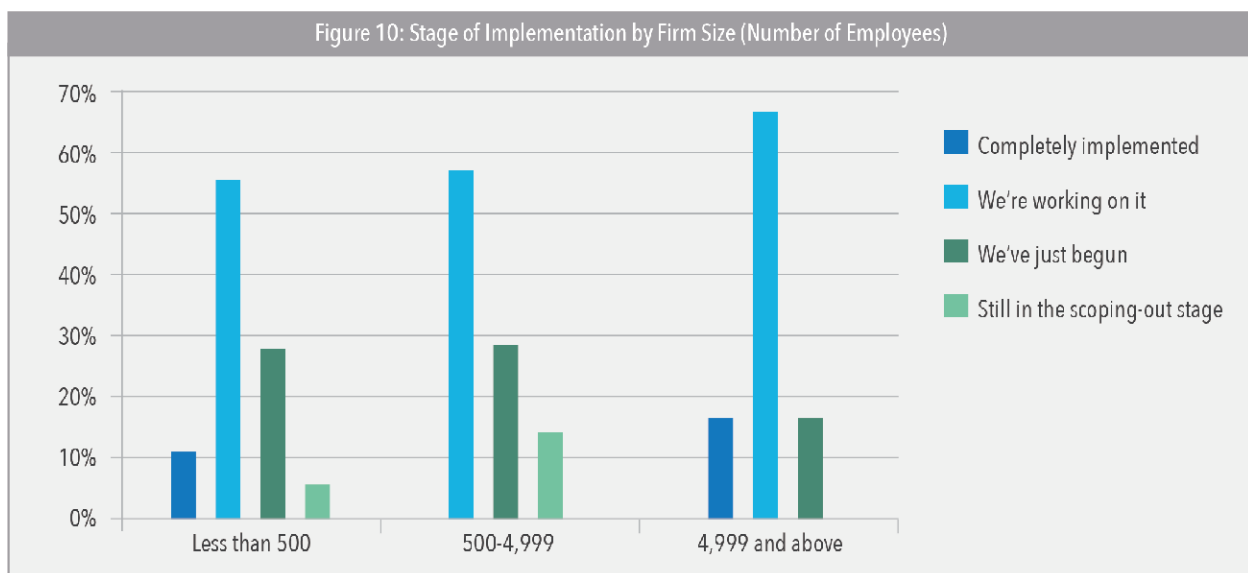
One of the ways that midsized firms struggle is in their ability to make strategic decisions. Small firms are the most agile, which is understandable given their size and less complex operations. Large firms struggle a bit more with the ability to make decisions after data is collected. Midsized organizations struggle the most, with the time to collect the data needed for making decisions an issue. More than half of these organizations express some type of difficulty in organizational decision making (see Figure 8).



Perhaps because of this decreased ability to make strategic decisions, medium-sized organizations are more likely to be reacting to competition than are smaller or larger organizations (see Figure 9).

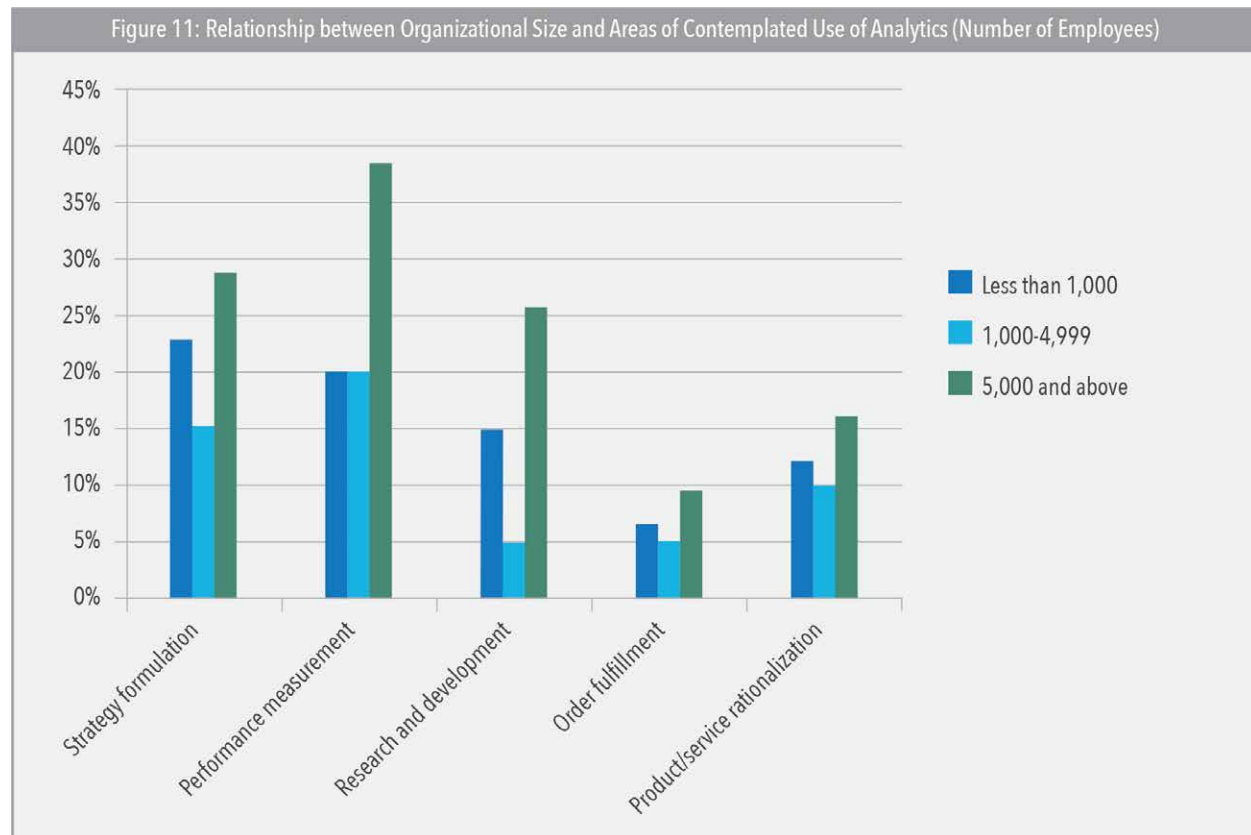


While most organizations, regardless of size, are still in the process of implementing leading edge analytics, larger companies, as might be expected given their greater resources, tend to be further along the journey (see Figure 10).





Larger companies are more likely than smaller ones to be contemplating using analytics in a variety of processes, with the greatest difference being in research and development (see Figure 11).

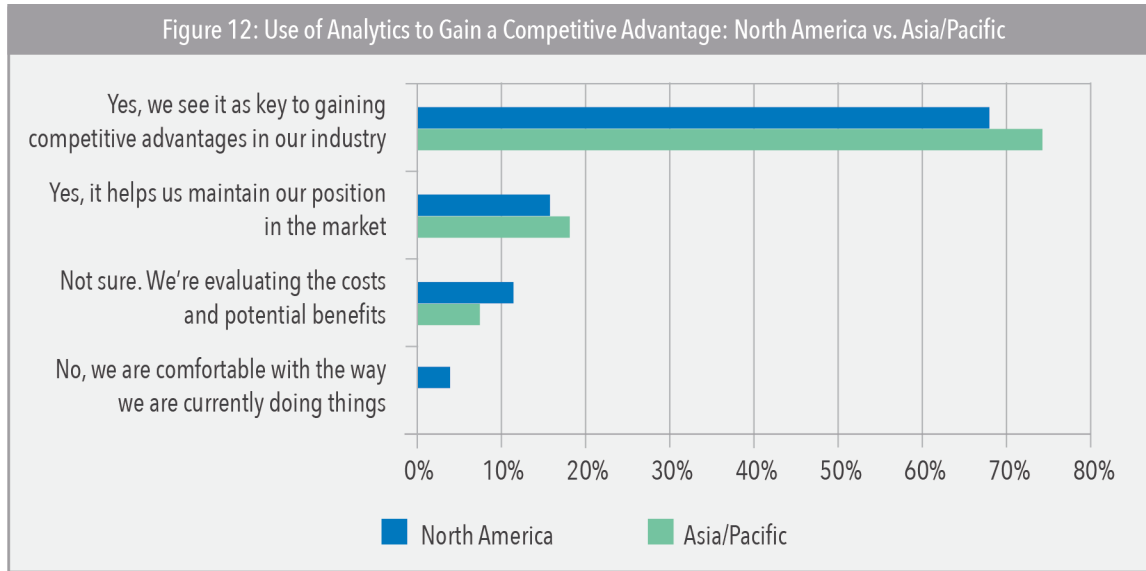


Given their greater resources, it might be expected that larger companies would be more likely to be making substantial changes to their processes than smaller ones, which is the case here. But the likelihood of making change is surprisingly uniform across firms of all sizes.

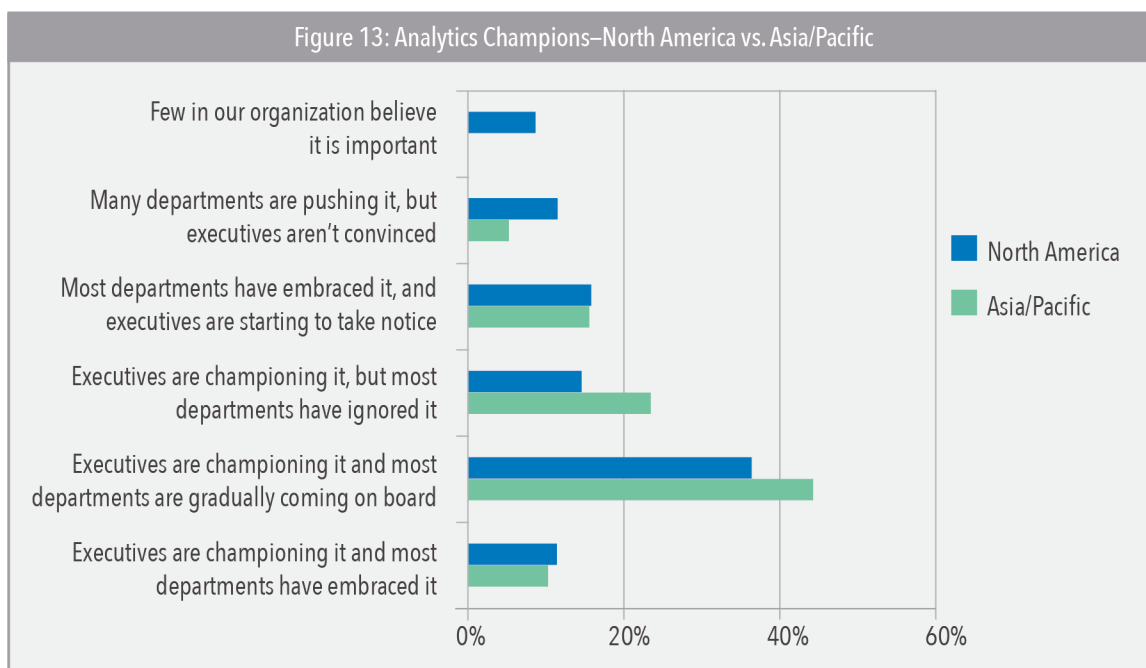
Regional Differences

Fifty-four percent of survey respondents were located in North America (largely the United States), 31% in Asia/Pacific (largely China), and the rest elsewhere in the world.

Organizations in both Asia/Pacific and North America viewed the use of advanced analytics as key to their gaining competitive advantage, with those in Asia/Pacific less likely to be uncertain in this regard (see Figure 12). (Results for other regions are not reported due to the low number of responses.)



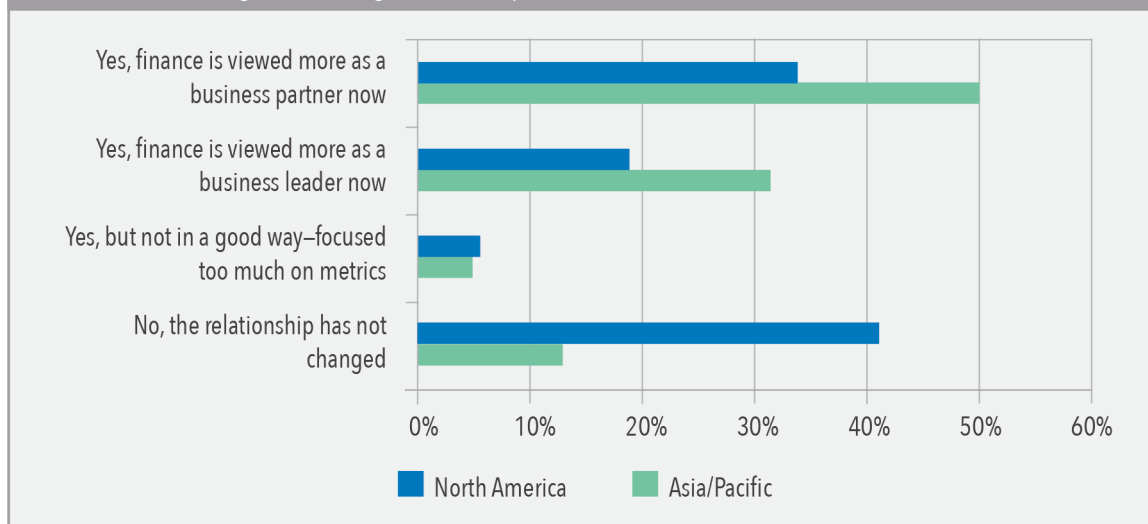
While executives in both North America and Asia/Pacific are likely to be championing leading-edge analytics, those in Asia/Pacific are more likely to be doing so (see Figure 13).



A very significant difference exists between regions on the impact of analytics on the perceived role of the finance function. In North America, the use of analytics has led it to become viewed more positively, as being more of a business partner or business leader, in slightly more than half of all organizations. In the Asia/Pacific region, implementation of analytics has had a much more positive and dramatic impact: 82% of organizations report the finance function as now being viewed more favorably (see Figure 14)



Figure 14: Change in the Perception of Finance—North America vs. Asia/Pacific



The Impact of Leading-Edge Analytics on the Role of Finance

While there have been numerous dire predictions on how analytics will eliminate many jobs in accounting and finance, the opinion of our respondents appears relatively sanguine, with the majority believing that only a few processes have changed or are likely to change due to the use of analytics (see Figure 15).

Figure 15: To What Extent Has the Finance and Accounting Department(s) Changed (or How Much Is It Likely to Change) Its Processes in Order to Transition from Routine Transaction Processing to Focusing on Leading-Edge Analytics?

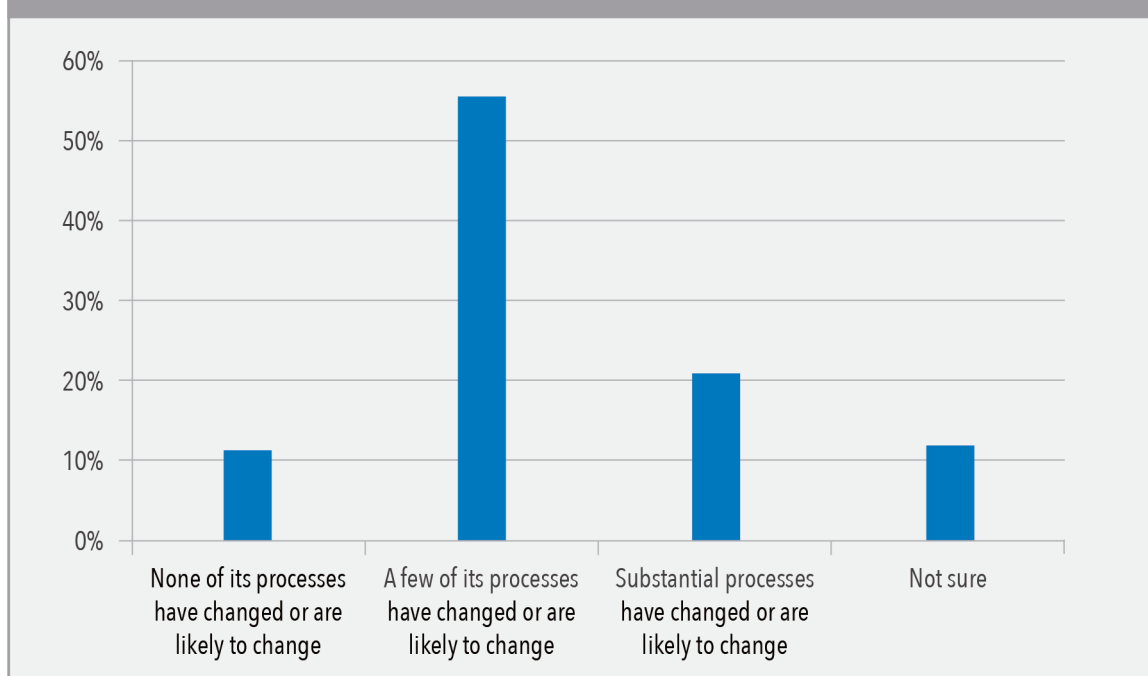
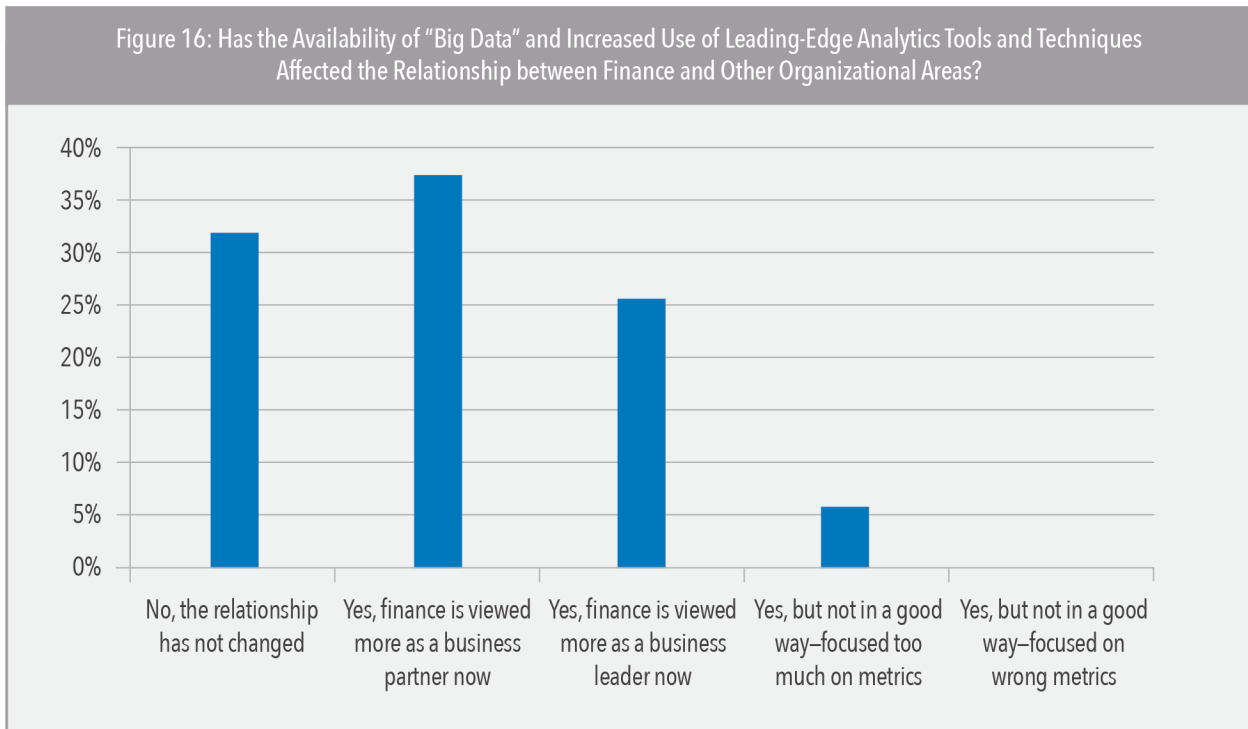
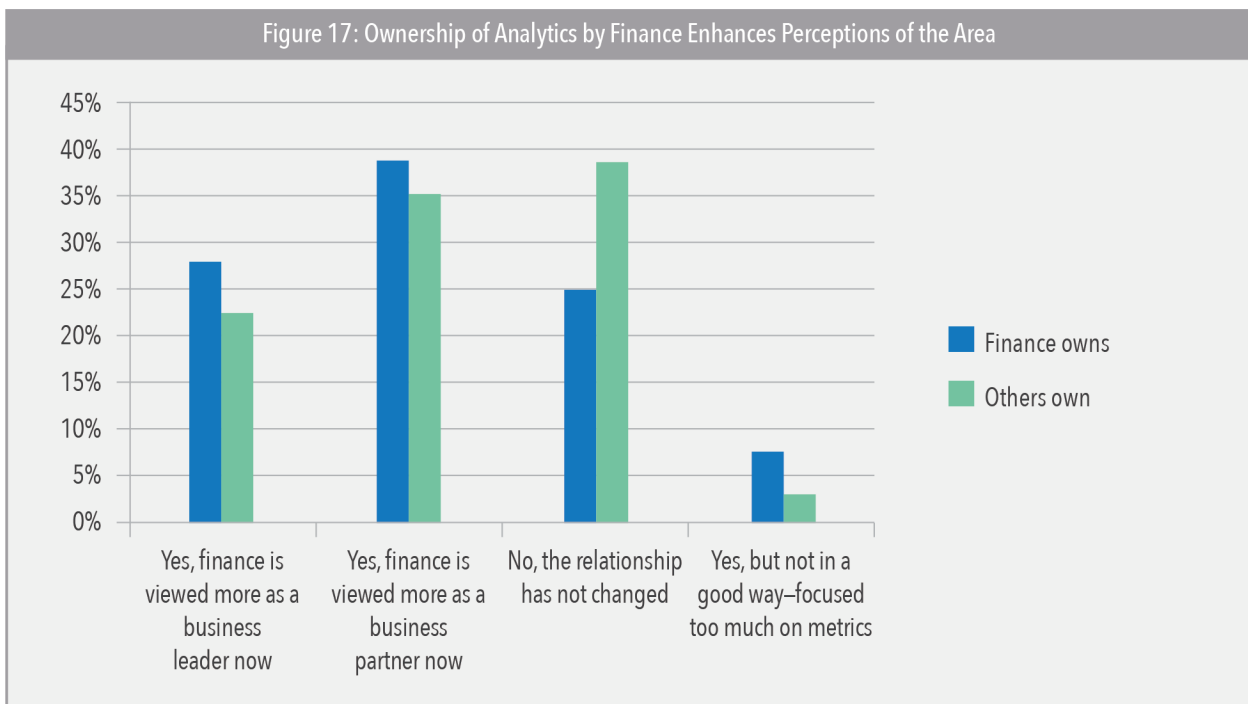


Figure 16 shows that, for more than half of respondents, the impact of Big Data and analytics on the relationship between accounting and finance and the rest of the organization has been positive: In these organizations, finance is now viewed as more of a business partner or business leader.



Digging deeper (see Figure 17), we see that the finance function is more likely to be viewed as a business leader/partner in those organizations where it has taken or shared a lead role in analytics.





Summary and a Look at What's Next

Organizations wanting to enhance their competitiveness are turning to the use of leading edge analytics. This technology, while still being implemented at most companies, is yielding improvements in key areas of organizational performance including strategy formulation and implementation, and performance measurement. But what success looks like varies from organization to organization. Those who understand the fluid nature of implementing an analytics function are best equipped to manage expectations.

There is much to be gained when they do. Adoption of leading-edge analytics is positively impacting the relationship between finance and the rest of the organization, with finance now viewed as more of a business partner or business leader. This is especially true in those organizations where finance has taken or shared a lead role in analytics.

There are four crucial elements for organizations wishing to use advanced analytical capabilities to become data-driven:

- Data-savvy people
- Quality data
- State-of-the-art tools
- Processes and incentives that support analytical decision making (i.e., organizational intent)

In our next report, we focus on organizational intent. It might, perhaps, be the most important of the four elements for an organization overtly committed to the goal of being data-driven. These organizations are the most likely to develop the people, data, and tools needed to accomplish that objective. Drawing from our survey results, we identify key factors for establishing such an organizational culture.



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