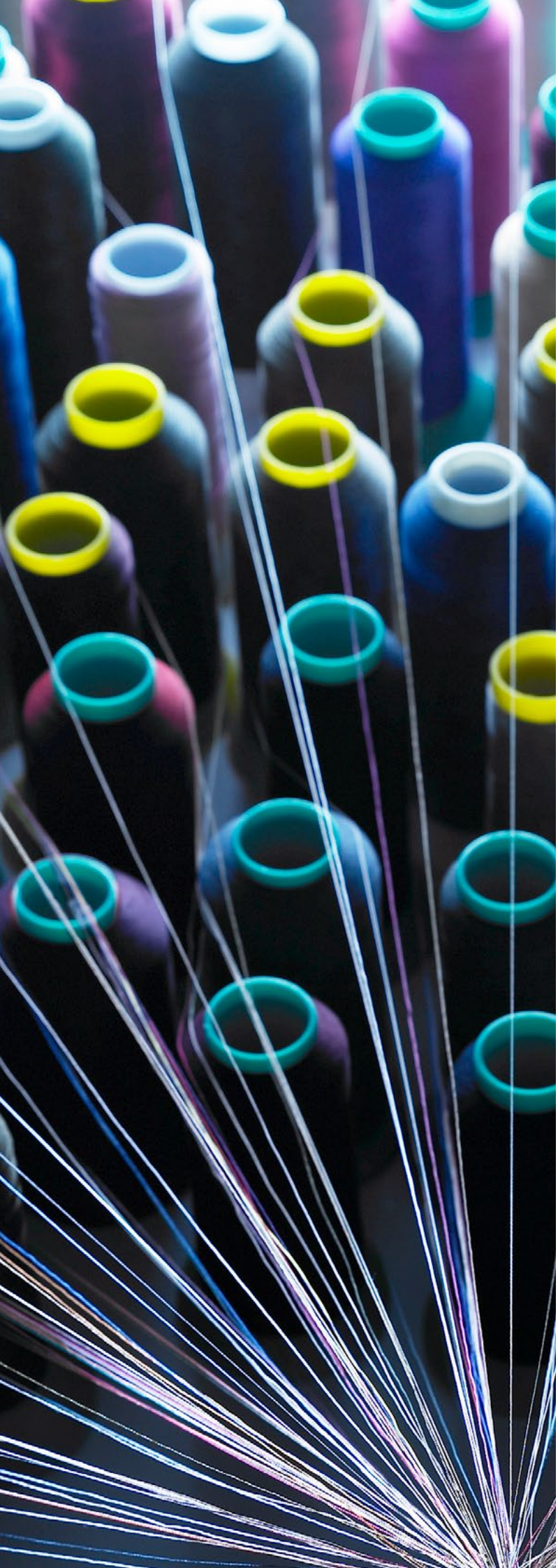

Benchmark Insights

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Stronger M&A strategies through AI-driven processes

Ten tenets for electronics companies

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By Paul Price, Bruce Anderson, Christophe Begue, Lisa Fisher, and Cristene Gonzalez-Wertz

Talking points

Our analysis discovered ten tenets to embed analytics and automation into the M&A process.

These tenets can help find high value targets, identify and reduce potential risks, and elevate a company's portfolio above any one transaction. Automation, analytics, and AI are critical to scoping and scaling these tenets throughout the M&A cycle.

Governance, organization, and process, coupled with analytics and AI, define three distinct capability models for modern M&A execution.

Our research revealed that companies fall within the Old Guard, New Guard, or Vanguard models. Leading Vanguard organizations report the highest use of automation, analytics, and AI in both the early and later stages M&A processes.

Electronics companies demonstrate quantifiable success through merger and acquisitions (M&A) strategies.

Companies choosing M&A to expand their market presence or geographic reach have increased their overall market share from an average of 22 percent pre-merger to 26 percent post-merger.

The M&A route to reinvention

Globally, organizations spent USD 4.1 trillion on mergers and acquisitions (M&A) in 2018.[1] A significant chunk of capital changed hands: 44 deals were each worth over USD 10 billion.[2]

The electronics industry is no stranger to M&A. Recent examples include Hitachi's acquisition of ABB's Power Grids business to create economies of scale.[3] Apple purchased Intel's mobile modem business to increase control of its supply chain.[4] And Siemens purchased Mendix to accelerate research and development for low-code environments.[5]

Large acquisitions reshape the marketplace, and powerhouse deals indicate the industry's fundamental shifts and transformations (see Figure 1).

Figure 1

How M&As both perpetuate and reflect industry trends

Strategy	Industry development	M&A deal
Breaking down boundaries	Entering new markets, and creating capabilities or business models	Whirlpool bought Yummly in 2017 to add services to connected appliances[6] Microsoft purchased Nokia in 2013 for USD 7.6B[7] SoftBank bought ARM in 2016 for USD 31.4B[8]
	Crossing industry boundaries into automotive or mobility	Intel purchased Mobileye in 2017 for USD 15B[9] Samsung purchased Harman in 2017 for USD 8B[10]
Cloud-enabled business models	Shifting from hardware to software and services	Cisco acquired MindMeld in 2017 to bring conversational AI to its products[11]
	Moving from single points of purchase to more continuous revenue streams	Dell purchased EMC in 2015 for USD 67B[12]
Enhanced efficiencies	Pursuing verticalization/ consolidation for improved control, costs, and speed to market	NXP bought Freescale for USD 11.8B in 2015[13]
From physical to digital, and vice versa	Co-mingling digital and physical presences	Amazon purchased Whole Foods in 2017 for USD 13.7B[14]

30%

of electronics companies have higher levels of M&A automation and intelligence, with higher performance gains

58%

of total projected synergies were realized by surveyed electronics companies

Electronics companies in our study that acquired unique IP reduced their time-to-market by

22%

M&A deals are complex, time-consuming, and inherently risky. It takes electronics companies an average of 52 weeks to execute the M&A process from strategy to integration. On average, they achieve about 58 percent of projected synergies, taking an additional 56 weeks to do so. Respondents report taking 100 weeks post integration to realize a profit.

Using analytics and AI to advance the M&A process

It's mission critical for buyers and sellers to know if their organizations can blend successfully. Until two organizations move beyond "dating" to merging, "mismatches" are a risk. How can organizations quantify and avoid them?

As we embarked on the 2019 Cross-Industry M&A Benchmark Study, we knew that organizations were examining how advanced analytics and AI could answer these questions—and improve overall M&A performance. Less clear were:

- What dimensions of the M&A functions (either on their own or as part of the larger corporate development structure) differentiate organizations and performance?
- To what extent are companies applying advanced analytics and AI throughout the M&A lifecycle, and how are they applying them?
- To what extent have analytics and AI improved M&A performance?

Time kills deals, says the old adage. But what makes some deals—and more importantly some organizations—successful?

This approach to M&A is not simply about better strategy or better integration approaches. Organizations need *both*.

About our research

To better understand strategies behind M&A success, the IBM Institute for Business Value (IBV), in cooperation with Oxford Economics, surveyed leaders from 720 organizations across the electronics, chemicals and petroleum, and healthcare and life sciences industries. Respondents spanned 18 countries and included 280 electronics leaders. Each respondent holds overall responsibility for the M&A process, from the definition of M&A strategy to post-purchase integration. (See "Study approach and methodology" on page 18).

Our research shows how high value contributors are driving effective, inorganic portfolio growth using ten tenets. These tenets outline how electronics organizations can structure, prioritize, and deliver advanced corporate development functions using a modern M&A foundation. This foundation should include an M&A workflow with process and governance models that are scalable across multiple transactions.

Ten tenets for modern M&A

This report shows how the ten M&A tenets can help you integrate automation, analytics, and AI into your M&A processes. (Hint: Begin with the end in mind.) The desired outcome is a set of M&A capabilities that are repeatable and scalable.

This approach to M&A is not simply about better strategy or better integration approaches. Organizations need *both*. We found:

1. M&A governance and execution approaches, in conjunction with workflow and organizational processes, drive corporate development models for modern M&A.
2. Automation, analytics, and AI are critical to scoping and scaling the process. They help to repeat prior successes, reduce friction, and elevate a company's portfolio above any one transaction.
3. Not all AI-enabled processes are equal. If you're in the early stages of infusing intelligence into your processes, some areas contribute more to overall success and synergy than others.

Figure 2

Why electronics executives buy

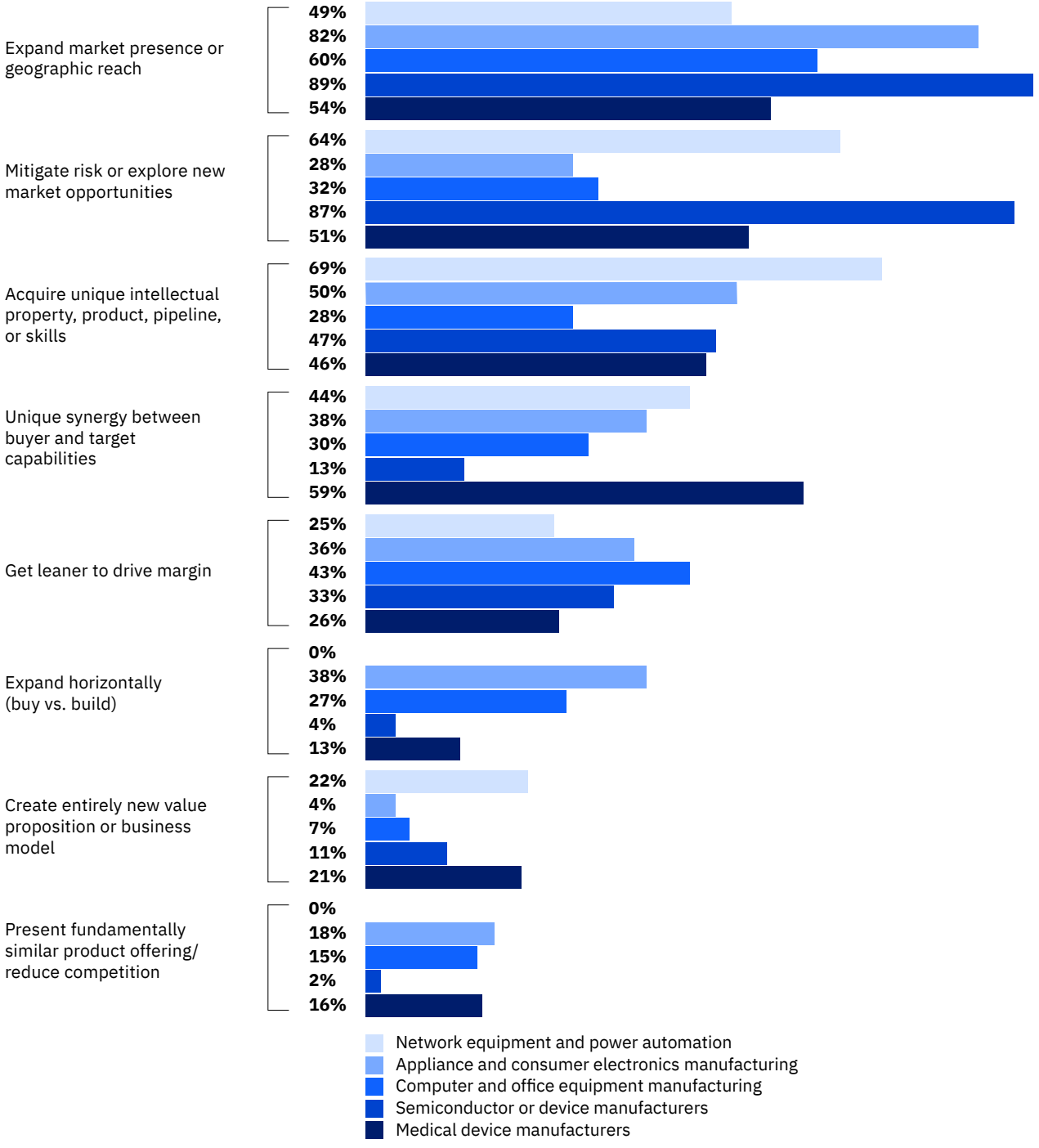
Q. What are the primary objectives of your organization's M&A activity? Select the top three. If you have executed only a single M&A transaction, or if all M&A activity has had a single objective, select only one.

Why organizations buy: An electronics-specific view

Electronics companies buy for the same reasons as organizations in other industries: to expand market presence or geographic reach (see Figure 2). But beyond those basics, most companies have a more nuanced and layered set of buying criteria. In fact, responses yield more than 70 unique combinations.

Figure 3

Why electronics executives buy—subsector view*



*Q. What are the primary objectives of your organization's M&A activity? Select the top three. If you have executed only a single M&A transaction, or if all M&A activity has had a single objective, select only one. *Some data points have a low n count (n<20). They are statistically unreliable but can be considered comparatively directional.*

Electronics companies admit to challenges throughout the M&A process. Fifty-four percent say their integration efforts are too slow.

Our research validates a number of industry-specific areas, including the premium the electronics industry places on acquiring intellectual property (IP). Electronics industry leaders select this motivation in nearly half of their responses. Life sciences and chemicals and petroleum industries cite it far less—12 percent and 28 percent respectively.

Why we buy also impacts outcomes. Our research indicates electronics companies wanting to expand their market presence or geographic reach have increased their overall market share by four percent—from an average of 22 percent pre-merger to 26 percent post-merger.

Those aspiring either to acquire specialized IP or to realize unique synergies between organizational capabilities have reduced their time to market by 22 percent and 24 percent, respectively. To underscore that point: These organizations drove potential new product launches in 40 weeks—down from 52.

Each subsector within the electronics industry pursues different strategies in its M&A (see Figure 3). Semiconductor companies look for risk mitigation or new market opportunities with nearly the same frequency as expanding market presence. Network equipment providers dramatically over-index—by more than 20 percentage points—on acquiring IP, product, pipeline, or skills.

Each strategy is reflective of current market realities. The upfront investments in semiconductor research, materials, and fabrications present above average risks needing mitigation. Acquisition, while risky, is a strategy to prevent squandering assets, time, and money on developing a new capability or market from the ground up. For network equipment, the still-evolving market around 5G is driving expansion and a hunger for fresh intellectual assets.

Still, seeing potential doesn't always make it happen. Electronics companies admit to challenges throughout the M&A process. Fifty-four percent say their integration efforts are too slow. Almost half—48 percent—acknowledge this can be partially attributed to insufficient due diligence of the target. This issue can also be explained by the lack of a clearly defined integration approach, which 37 percent highlight as a challenge. Sixty-four percent of electronics companies say their integration teams initially engage during due diligence. In sophisticated M&A models, integration teams engage and start planning far earlier.

How organizations buy: The three "guards" of M&A

As we profiled respondents' M&A capabilities, three distinct segments emerged that transcend industry, region, and company size. We call them the Vanguard, the New Guard, and the Old Guard. Demonstrating varying levels of sophistication, each shows some degree of success (see "Insight: Three M&A capability segments" on page 6).

Each segment depicts a set of specific capabilities across four dimensions of the business:

- M&A governance and execution
- M&A organization and process maturity
- M&A tools—process and workflow automation
- M&A tools—analytics and AI.

Insight: Three M&A capability segments

30%

Vanguard
30 percent of electronics companies have sophisticated M&A capabilities and are best positioned for scope and scale.

40%

New Guard
40 percent of electronics companies are progressing with automation but lack an M&A foundation. This means they don't optimize the benefits from their own automation investments.

30%

Old Guard
30 percent of electronics companies have a strong M&A foundation and past success. But without new tools and techniques, they are missing the opportunity to scope and scale.

The Old Guard: Documented and disciplined

The majority of both Vanguard, the most technologically sophisticated segment of our respondents, and Old Guard, the least tech-savvy, have centralized M&A governance and execution. But the similarity ends there.

The Old Guard has documented and standardized M&A processes, which gives them the necessary discipline to repeat earlier successes. But their focus is at an individual transaction level. The overwhelming majority have limited or no automation, relying on well-vetted spreadsheets and manual materials. They have yet to "bake" their experience and expertise into tools that make the M&A process faster and scalable.

Both Old Guard and Vanguard companies perceive their dedicated, capable M&A teams as their greatest strength. However, our findings show that high levels of automation make Vanguard M&A operations less resource intensive and less costly overall (see Figure 4).

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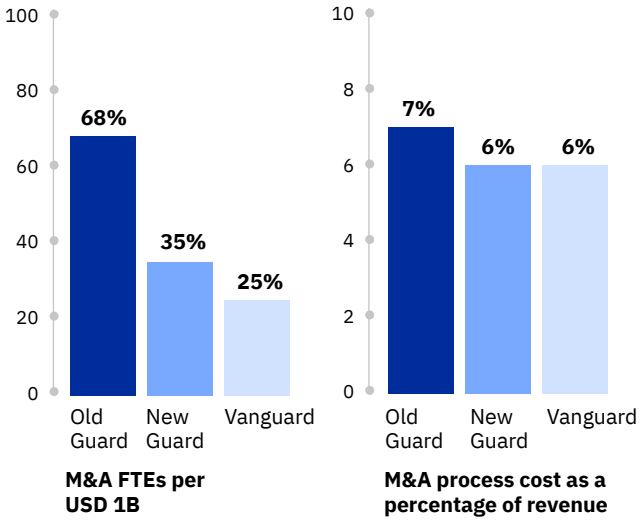
Figure 4

What Vanguards know: M&A automation = lower HR and process costs



Qs. What number of FTEs were employed to perform the M&A process at your organization over your most recent year of M&A activity? What is the total annual revenue (in USD) for your organization? What is the average annual cost of the M&A process at your organization?

Automation, analytics, and AI can deliver additive value across M&A transactions.

The Old Guard has the potential to embrace technology as a galvanizing force to improve transparency, speed, and information management. Nearly half say they are planning to execute an M&A transaction in the next year, creating a window to modernize outdated capabilities before proceeding.

The New Guard: AI-driven and analytical

The majority of New Guard companies rely on external resources to perform M&A activities on an ad hoc basis, with senior advisors providing expertise in pre-deal activities. Compared to the other two groups, they include more companies with no defined M&A processes or dedicated M&A resources.

The majority automate their due diligence and integration steps, with analytics and AI applied to a moderate extent throughout the M&A lifecycle. These tools may be provided by external M&A partners, with the insights creating value only for that particular transaction. However, that value may not accrue to the acquirer over time. While some companies are using tools more extensively, they don't retain and capture the knowledge gained. And once lost, it's not repeatable.

The value an organization obtains in developing the business case, proposing synergies, and examining a target in detail during due diligence can provide an understanding of strategy, cultures, and operations. Synergies and the integration needed to optimize value aren't Lego® blocks—no two are the same. Understanding what to look for and how to interrogate the data is a highly valuable skill.

The Vanguard: Higher performance through automation and scalability

The majority of Vanguard organizations dedicate corporate development M&A groups to drive process and strategy across business units. They clearly define metrics and targets for the M&A process: Performance is measured, reported, and analyzed. The majority have standardized tools that implement or manage key process steps.

They are also increasingly automating their M&A processes. They apply analytics and AI to a greater extent throughout the M&A lifecycle, obtaining additive value across transactions (see Figure 5). The Vanguard companies adapt to a more portfolio-based approach. In other words, they can scale to manage multiple transactions simultaneously.

All three M&A models deliver benefits, and their operational nuances affect the extent of those benefits. While the Vanguard shows consistently higher performance, they include a subset (18 percent of the population) that are both profitability and M&A outperformers. These companies achieve higher gains across all aspects of performance (see Figures 5 and 6). What sets them apart? The significant application of insights from analytics and AI in the later stages of the M&A lifecycle.

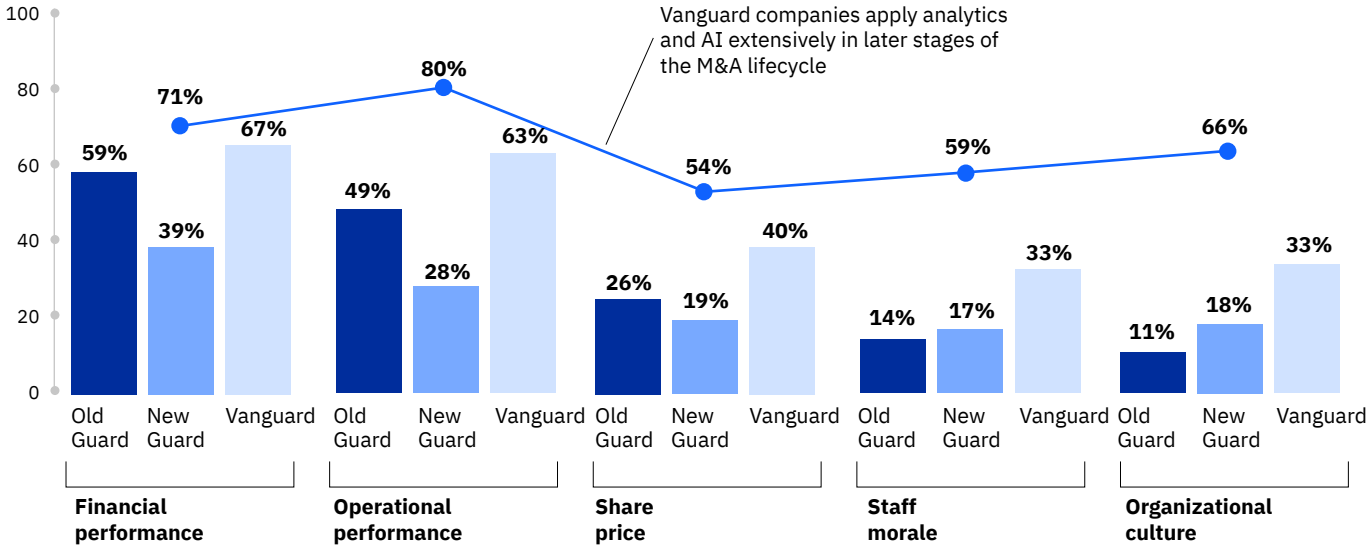
Headed toward a new goal: Modern M&A

Modern M&A is differentiated by scope and scale: The ability to evaluate unlimited opportunities in target screening instead of a handful. Scrutinizing virtually all relevant data and contracts in due diligence instead of a sample. Building detailed integration plans that are execution-ready on day one.

Creating modern M&A requires capabilities on two fronts. First, work with IT to develop a flexible conceptual architecture that can evolve with company needs. Next, establish a set of principles, practices, and applications that use AI. These can increase the scope and scale of dedicated M&A capabilities across the entire M&A lifecycle—from strategy and screening through integration.

Figure 5

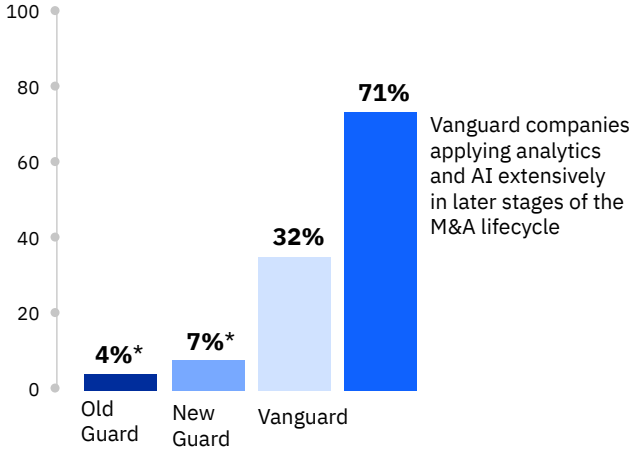
Positive performance: The impact of M&A activity



Q. What impact has your organization's M&A activity had on each of the above areas?

Figure 6

Outperforming their peers:
Vanguards outpace in profitability



Q. How does your organization's profitability compare with that of your industry peers over the past three years? Percentage who selected "Significantly outperform industry."
**Many of the data points have a low n count (n<20). They are statistically unreliable but can be considered directional when compared to remaining respondents.*

A conceptual architecture for modern M&A

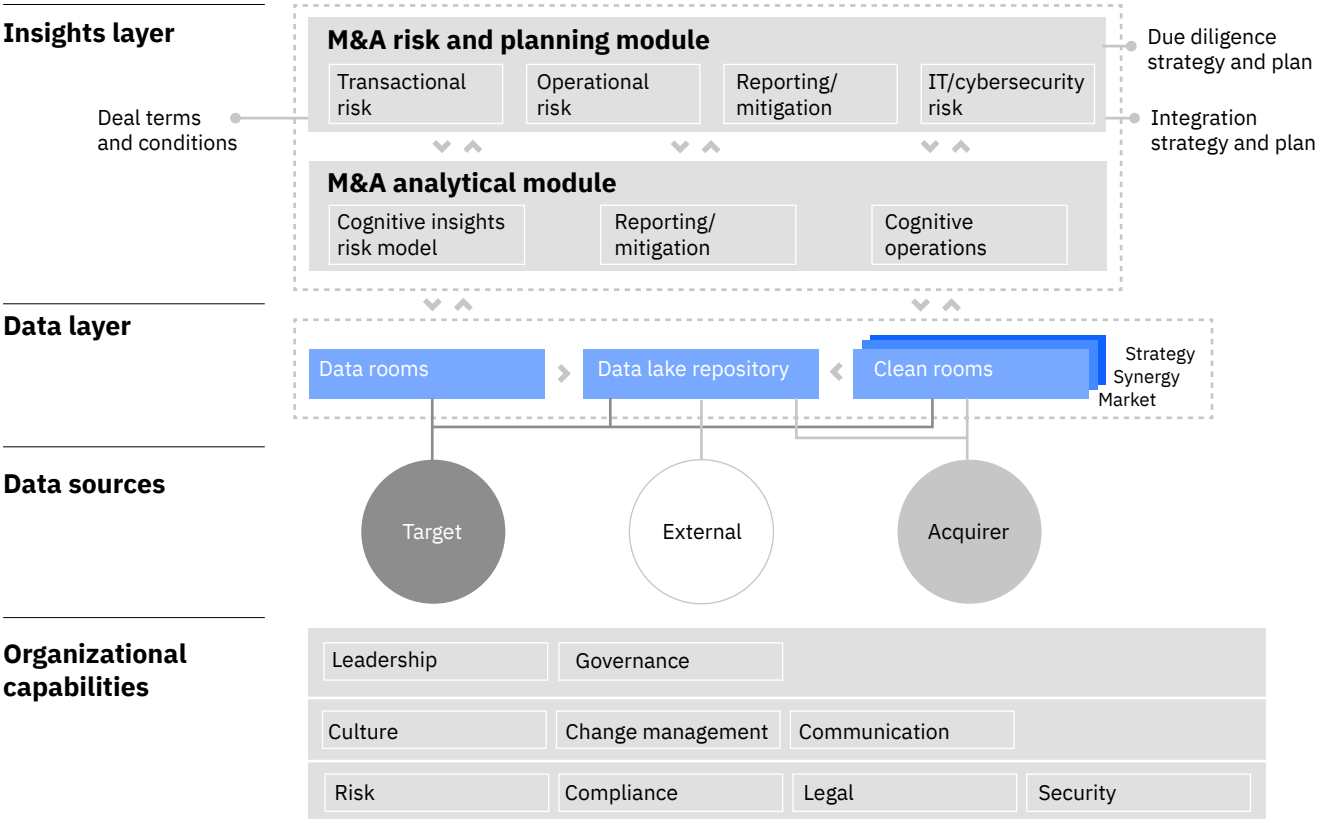
The complexity of M&A encompasses multiple stakeholders. A conceptual, domain-specific architecture sets the foundation for implementations of M&A capabilities, including the ten M&A tenets (see page 10). This architecture supports conversations with stakeholders responsible for data, technology, and regulatory compliance (see Figure 7). It supports both the organization and its advisors during evaluation and synergy development, addresses non-disclosure and anti-competitive requirements, and helps enable a more robust review of the market. It allows for multiple M&A "clean rooms" with rigorous permissions, gating, and regulatory requirements.

The conceptual architecture consists of a *data layer* and an *insights layer*.

In M&A, data needs to be acted upon quickly, yet it's seldom available on day one. As soon as possible, curate and collate data.

Figure 7

Conceptual architecture for modern M&A



Source: IBM Corporate Development research. Unpublished data. September 2019.

The *data layer*: Fueling M&A analysis and decisions

The data layer is where data sets (of all types and from multiple internal and external sources) are integrated, stored, and managed. These data sets are required to feed the analyses performed throughout the M&A lifecycle.

In M&A, data needs to be acted upon quickly, yet it's seldom available on day one. As soon as possible, curate and collate data. Create a continuous method for capturing M&A data, building a rich collection that can be accessed quickly for analytic use. At the core is a data lake that can access and integrate data from other repositories, such as:

- *Internal historical deal and risk data collected for each deal pre-close and refined during post-close integration.* (With the application of analytics and AI, the knowledge and insights yielded can be applied indefinitely.)
- *Data rooms* that house raw internal data provided by the target for due diligence.
- *Clean rooms* that house internal and proprietary data from both target and acquirer.
- *Other external sources* that provide information on historical M&A deals, business news sites that yield insights and perspectives on market trends, emerging threats, and market sentiments—to name just a few.

This data creates opportunities for collaboration across the target, the potential acquirer, and third-party advisors.

Validating source data before it is used and implementing adequate protection for sensitive information—particularly what can be shared and with whom—are critical to achieving a win-win of consistency, transparency, and compliance. Rigorous organizational cybersecurity standards should be applied here as well.

The *insights layer:* Launching the ten M&A tenets

The insights layer is where the ten M&A tenets are executed. It is composed of two interconnected analytical modules that interface with M&A-specific tools and enterprise applications for AI and analytics. Each module has a specific focus:

1. *The M&A analytics module* uses tools that apply advanced analytical techniques to gain optimal value via new insights from the varied data sources.
2. *The M&A risk and planning module* applies analytical tools and techniques dedicated to continually monitoring data and identifying, predicting, and mitigating risk.

This architecture cannot deliver successfully without the support of critical organizational capabilities. Representatives from leadership, governance, communications, security, compliance, legal, and culture and change management all participate.

To support the design and implementation of automated M&A analytical models, data scientists and analysts should be part of the corporate development team. For AI to be effective, business decision makers need an understanding of the tools and how predictions are made.

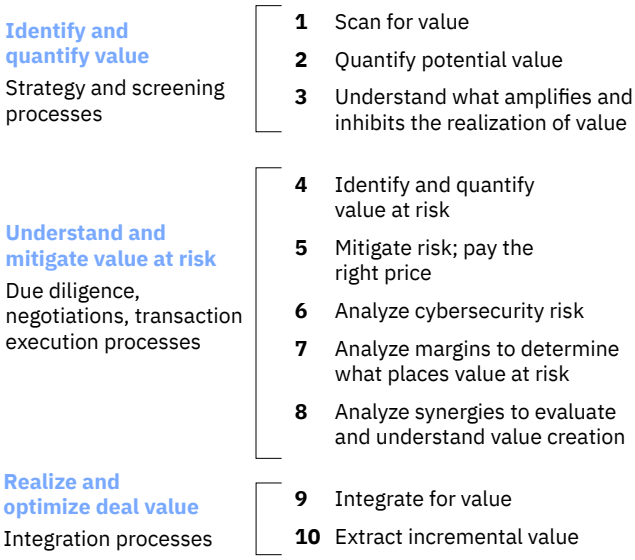
In terms of culture, continuous learning and innovation, with the constant testing of new approaches, are important. Building proofs of concepts can indicate which outputs are valuable. These insights can be applied to update and improve analytical models.

The ten M&A tenets—Modernize the M&A process through automation, analytics, and AI

During our research, we asked companies how they apply analytics and AI at each point in the M&A lifecycle. (Ninety-nine percent of electronics companies not yet applying analytics and AI say they are planning to do so.) An analysis of responses revealed ten application areas—our ten M&A tenets—which we group into three phases: Identify and quantify value, understand and mitigate value at risk, and realize and optimize value (see Figure 8).

Figure 8

The ten M&A tenets



When powered by automation, analytics, and AI, the first three tenets allow companies to consider a broader set of potential acquisitions.

Identify and quantify value

The first three tenets are applied during strategy and screening (see Figure 9). When powered by automation, analytics, and AI, they allow companies to consider a broader set of potential acquisitions. They also support identification, investigation, and management of value-creation opportunities with greater speed and precision, spanning multiple potential transactions simultaneously.

1. Scan for value.

Identify M&A transaction opportunities and potential acquisition targets that match requirements prioritized in the M&A strategy. Start by automating the screening process. Use natural language processing (NLP), information discovery, and categorization services to evaluate business news and companies' public remarks, such as earnings calls. Then, perform sentiment analysis (such as word usage and speech patterns) in real time. This yields a set of companies that align to M&A strategy guidelines and may be potential targets.

Develop investment decisions based on business and market realities. Apply predictive and prescriptive modeling using internal data, historical deal data, and financials to provide guidance on how to proceed. As an alternative, apply machine learning to financial pattern detection. Let it run continuously in the background through automation. This provides quantitative, unbiased insights into potential targets.

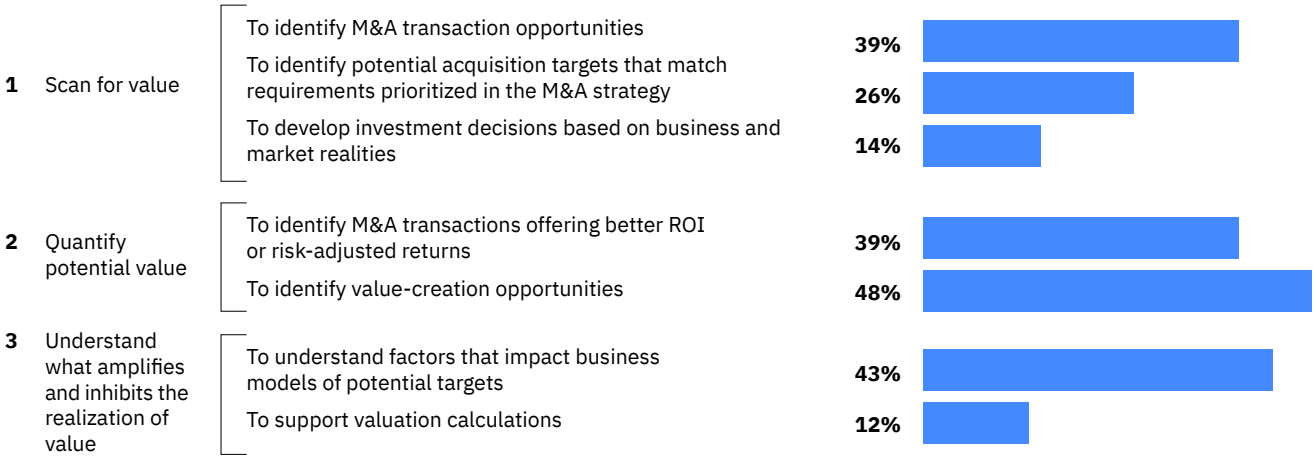
2. Quantify potential value.

Identify M&A transactions offering better return on investment (ROI) or risk-adjusted returns. Use AI-assisted search to develop comparables across markets, sectors, or countries and pinpoint opportunities that offer a better ROI. These values can drive calculations of risk-adjusted returns to derive a fair valuation of each target.

Identify value-creation opportunities. Use AI to flag similar transactions for analysis, extracting real-time EBITDA and public share price data to create a live database of EBITDA multiples. To support discounted cash flow (DCF) valuations, use AI to gather information on discount factors and risks to a company's cash flows. These automated scanning tools can also evaluate multiple potential scenarios or value sources for each target, identify value-creation opportunities, and predict realized value.

Figure 9

How electronics companies are applying analytics and AI in strategy and screening



Q. How are you applying AI in the strategy and screening steps? Select all of the above that apply.

3. *Understand what amplifies and inhibits the realization of value.*

Understand factors that impact the business models of potential targets. Apply AI to perform a deep dive into the target's IP, litigation, investigations, trading partners, or executive team. Then apply predictive modeling to determine the possible impact on value.

Support valuation calculations. Expand the scope beyond traditional modeling to include macroeconomic data, demographic data, and competitor information. This paints a multidimensional view of targets and potential reactions to business and economic conditions with far greater efficiency and reach than human intelligence alone. In turn, organizations receive data that supports better valuations and more accurate models to inform decisions.

Understand and mitigate value at risk

The next five tenets are applied during negotiations, due diligence, and transaction execution (see Figure 10). Once the most promising target has been identified, analytics and AI are applied to support exhaustive due diligence. This includes the identification, understanding, and assessment of all types of risk. These outputs inform critical decisions.

For the negotiating team, better risk assessments help determine if a target's value is truly aligned with the acquirer's needs. These assessments steer pricing guidelines, deal terms, and structure. Seamlessly incorporating findings from multiple internal and external sources into living business case documents—automatically updated by multiple relevant participants throughout the M&A cycle—can stress-test investment hypotheses. This supports and appropriately challenges identification of near-term synergies, pre-merger integration, and execution plans to refine them accordingly.

Figure 10

How electronics companies are applying analytics and AI in negotiations, due diligence, and transaction execution

Q. How are you applying AI in the negotiation step? How are you applying AI in the due diligence step? Select all of the above that apply.

To help prevent unanticipated financial exposures and losses, technology can increase an acquirer's ability to assess target liabilities.

4. Identify and quantify value at risk.

Identify strategic, operational, financial, compliance, reputational, and other potential business risks. Develop machine learning algorithms that can make judgments and recommendations. Then, generate risk assessments based on historical or analogous deal and risk data. For example, identify integration risks that can then be evaluated by executives and subject-matter experts with specific domain knowledge.

Establish the items that may have a material impact on M&A deal decision and valuation. Develop both qualitative and quantitative risk assessments that identify how an acquisition target differs from similar companies bought previously. Algorithms are more apt to identify discrepancies in information provided by the target about past events or future projections—forming the basis of further investigation. They can also protect against human cognitive biases.

The acquirer typically assumes the assets and liabilities of the target. Unforeseen environmental liabilities, management liabilities, political risks, and fiduciary and benefits liabilities can all endanger an M&A transaction. To help prevent unanticipated financial exposures and possible financial losses, technology can increase an acquirer's ability to assess target liabilities. Accounting for this in the deal valuation and purchase and sale agreement allows both sides to fully understand the exchange.

Discover data breaches, associated liabilities, and noncompliance implications. In addition to assuming the assets and liabilities of the target, the acquirer absorbs its digital operations. With that, they also absorb virtually any exposure to cybersecurity threats and risks associated with the target's applications and information systems.

Data breaches, particularly public ones, carry potential liabilities. Additionally, lawsuits and noncompliance implications can negate the acquired company's value. Depending on company size and criticality of vulnerabilities discovered before, during, or after an M&A deal, up to hundreds of millions of US dollars are at stake, to say nothing of losing customers and reputation. These exposures must be accounted for in deal valuation.[15]

5. Mitigate risk; pay the right price.

Identify and rank potential IT risks by likelihood and impact severity. Assess procedures and protocols for protection of all information at the target, digital or not. Consider potential GDPR and other compliance-driven risks. Gather detailed information on access points or potential attack surfaces from across the target. Then apply analytics to coordinate, report, and align them to requirements for compliance evaluation.

Enable faster decisions. Once all potential exposures have been accounted for in the price, compare them to expected returns in the living business case to determine whether the price is appropriate. If the risks associated with achieving potential value are deemed manageable, due diligence can continue in earnest. If not, you may need to negotiate a new price or even walk away from the deal. This data can help you determine next moves—quickly.

6. Analyze cybersecurity risk.

Thirty percent of electronics companies have experienced data breaches that can be attributed to their M&A activity during integration; 17 percent have experienced such breaches post-integration. Yet 10 percent do not perform cybersecurity assessments at any point in the M&A process.

Perform a detailed analysis of cybersecurity risks and issues. Put together an M&A security assessment checklist and take these preventive measures to encourage due diligence and vigilance:

- Conduct a third-party cybersecurity audit of the information systems being acquired to detect vulnerabilities and assess the current state of cybersecurity.
- Take careful stock of the organization's technological assets and liabilities—especially in emerging technologies—before completing acquisition formalities.
- Take advantage of third-party services to assess the cybersecurity posture and maturity of the organization being acquired.
- Proactively assess and monitor the networks, applications, and other systems on both the acquirer's and the seller's side. These include IoT, edge, and other potentially porous networks.
- Assess the resilience posture of the target acquisition's third-party vendors.

Consider other M&A security factors. These include IT security expenditures, future cybersecurity plans, certifications, cyber insurance policies, employee background verification and off-boarding, security operations centers (SOCs), cybersecurity awareness programs, vendor risk assessments, authentication and access controls, encryption, network monitoring, disaster recovery and business continuity planning, organizational structure, and the information security reporting chain.[16]

7. Analyze margins to determine what places value at risk.

Understand a target's margins over time. Extensive automation supports thorough interrogation of the many quantitative and qualitative factors that influence profit margins. Financial analysis software tools have long been applied to summarize historical transaction-level revenue and cost data for different geographies, customer segments, and product lines.

For a forward-looking perspective, apply predictive analytics, scenario planning, and game theory. One example: to understand how a variety of scenarios could impact the cost and profit of products or services, highlight potential future problems, and recommend actions to eliminate or reduce their impact.

Categorize related documents and automatically route them to the correct reviewer(s). Apply robotic process automation (RPA) tools for repetitive, time-consuming tasks such as categorizing document contents and automatically routing them to the correct reviewer(s). Other examples include trawling through detailed financial data, analyzing business processes, scrutinizing contracts, assessing technical developments and assets, gauging staff deployments, and evaluating product lines—to name a few.[17] Not only can RPA do this at scale, it frees human M&A experts to evaluate other areas where their expertise adds value: design, organizational culture, and executive and staff alignment to the acquiring organization.

AI provides a higher likelihood of finding useful insights or concerns because it can identify, define, and prioritize correlations across far more data points. For example, consider the use of natural language programming (NLP) to uncover anomalies while performing volume contract reviews. NLP can identify, highlight, and structure certain pre-programmed contract provisions more quickly—for example, party names, dates, change of control, and termination provisions.

8. Analyze synergies to evaluate and understand value creation.

Identify potential synergy opportunities. Use advanced tools to identify and evaluate prospects for the merged organizations to generate more profits or reduce costs. Because those synergies play a critical role in valuation and are often used to justify paying a premium, they must be accurately reflected in financial models and communications to investors and markets.

Use the living business case to define initial execution or implementation plans, including plans to mitigate associated risks, prior to deal close.

Apply AI in IP domains to uncover opportunities to build or extend products, services, or offerings. AI can also be applied to finding distribution sources or paths to market through relationships or partner networks. Analytical models can evaluate supply chain or manufacturing operations and discover ways to optimize assets, efficiency, and effectiveness for the new company.

The living business case will become increasingly accurate as more data becomes available. Use the business case to define initial execution or implementation plans, including plans to mitigate associated risks, prior to deal close. During deal execution, use automated scenario analysis and historical stock performance studies to evaluate various financing options.

Realize and optimize deal value

Data captured during due diligence and pre-close negotiations is translated and used as the basis for additional analysis, detailed integration planning, and detailed synergy execution plans (see Figure 11).

9. Integrate for value.

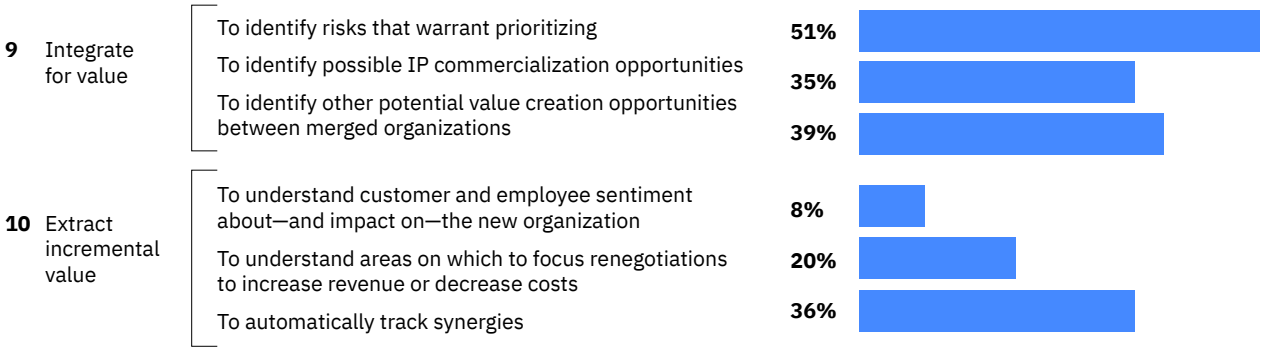
Identify risks that warrant prioritizing. During integration, high priority, high complexity initiatives have multiple associated risk factors. Analytical models can determine the probability of a major risk occurring and the impact it will have for all risk scenarios; flagging those that require additional focus and revising mitigation plans accordingly.

Identify possible IP commercialization opportunities. Machine learning can be trained to continuously identify synergies—for example, analyzing patents to discover new ways to commercialize IP.

Identify other potential value-creation opportunities between merged organizations. Use predictive models to identify cost drivers in customer service processes, or to identify the root cause of product and process failures, highlighting areas for improvement. Perform deeper IT and systems audits to allow for better planning and updates to benefits realization.

Figure 11

How electronics companies are applying analytics and AI in post-merger integration



Q. How are you applying AI in the integration step? Select all of the above that apply.

Corporate development, and M&A in particular, will always be a human plus machine partnership.

Also remember that appropriate traceability inherent in some AI technologies is beneficial, since changes in one area may trigger unforeseen changes to another. Apply AI to analyze the financial performance of previous, similar deals to highlight areas where revenue could outpace the business case. Apply predictive analytics to calculate the likelihood of hitting performance targets.

10. Extract incremental value.

M&A offers companies an opportunity to deliver real change to their organizations during the post-close integration period.

Understand customer and employee sentiment about—and impact on—the new organization. Apply NLP, together with sentiment analysis, to determine customer, employee, and financial market responses to the merger. This can direct customer retention efforts, as well as communications to shareholders and analysts. Similarly, predictive modeling can analyze interactions to identify customers with a higher probability of leaving. Once in place, this model can be used for proactive targeting of customer care initiatives.

Fifty-six percent of electronics companies report having a clearly defined approach to the retention of key talent. Just as with customers, AI-assisted analytics can identify key attrition risks and direct retention and re-recruitment initiatives.

Understand areas on which to focus renegotiations to increase revenue or reduce cost. Apply analytics to highlight where renegotiating contracts can achieve cost savings or new revenue sources.

Automatically track these synergies. Continuously update forecasts based on their probability. For example, use these tools to identify and calculate internal efficiencies from updating legacy systems, especially ERP and duplicated production systems, consolidated data centers, platforms, and other assets.

Are you ready to join the Vanguard?

Corporate development, and M&A in particular, will always be a human plus machine partnership. The Old Guard shows it's possible to succeed with a high touch/low tech approach. Yet, the complexity of electronics products, markets, and revenue models necessitates an executive focus on technology-enabled M&A approaches.

As electronics companies adopt AI and automation, they should dedicate resources to assess the value those technologies can add to corporate development. The one-two punch of analytics and automation can alleviate time-consuming work while increasing broad examinations of acquisition targets.

Many Vanguard organizations extend automation end to end and demonstrate the success of digitized, modern M&A. Electronics companies would do well to build these capabilities. We expect that as electronics companies overall migrate AI capabilities in house, the New Guard will follow suit.

Old Guard. New Guard. Vanguard. Where does your organization fall on the spectrum? Exploring these questions will help you find out.

- How reliant is your organization on internal or external resources during M&A processes? What processes do you use to capture knowledge and insight for reuse and scalability? How do you optimize your talent for a repeatable process? What is your plan for handling multiple M&As at once?
- By what processes does your organization build living business cases that update throughout the M&A cycle to determine the fastest, strongest courses to value?
- What steps have you taken to reduce time to decision? How do you increase the success of your decisions?
- Where have you developed and deployed AI-powered analytics across a broad set of key data sets and problem/risk areas? How can you mitigate risk earlier in the process? What risks are high priority for your organization to assess?
- How frequently do you create detailed integration and synergy execution plans prior to deal closure and updating them post-close?

Action guide

Amplifying your M&A processes with analytics and AI

Start from a domain-specific conceptual architecture.

M&A is complex and requires commitment from diverse stakeholders. A conceptual architecture sets the foundation for dialogue.

- Include a *data layer* where data sets of all types and from multiple sources are integrated, stored, and managed. These data sets fuel analyses throughout the M&A life cycle.
- Incorporate an *insights layer* where ten M&A tenets, or actions, are executed. Design an M&A analytics module that uses advanced analytical techniques to gain new insights. And develop an M&A risk and planning module that continually monitors data and helps identify, predict, and mitigate risk.

Identify and quantify value.

Apply these first three tenets during strategy and screening. Powered by automation, analytics, and AI, these steps allow companies to consider the value of a broader set of potential acquisitions:

1. Scan for value.
2. Quantify potential value.
3. Understand what amplifies and inhibits the realization of value.

Understand and mitigate value at risk.

Use these next five tenets throughout negotiations, due diligence, and transaction execution. Once the most promising target has been identified, apply analytics and AI to these steps, performing exhaustive due diligence:

4. Identify and quantify value at risk.
5. Mitigate risk; pay the right price.
6. Analyze cybersecurity risk.
7. Analyze margins to determine what places value at risk.
8. Analyze synergies to evaluate and understand value creation.

Realize and optimize deal value.

Capture data during due diligence and pre-close negotiations. The data is translated and used as the basis for detailed integration planning, and detailed synergy execution plans. This additional analysis supports the final two tenets:

9. Integrate for value.
10. Extract incremental value.

Study approach and methodology

For the 2019 Cross-Industry M&A Benchmark Study, the IBV surveyed—in cooperation with Oxford Economics—720 leaders with overall accountability for the M&A process in their organizations. This responsibility encompasses strategy definition to post-merger integration. All respondents are from acquiring organizations that had fully executed at least one major M&A transaction in the last two years, or were planning to execute a major M&A transaction in the next year. These individuals included Chief Executive Officers and Chief Financial Officers, as well as Heads of Corporate Development and Corporate Strategy.

The three industries represented include electronics, chemicals and petroleum, and healthcare/life sciences. Each comprises approximately a third of our total sample. The 18 countries in our survey include all major geographies.

Our goal was to understand what makes some acquirers achieve better outcomes from their M&A activity. In order to achieve this, we benchmarked the performance and maturity of organizations' M&A or Corporate Development functions and capabilities. An online survey was administered in two parts:

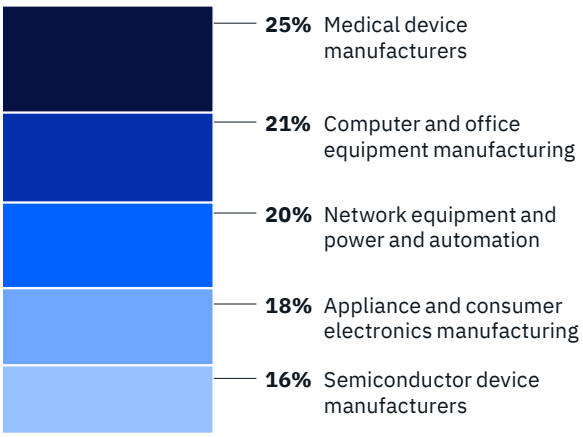
- The first collected data about the organizational and technical capabilities organizations have implemented to support the end-to-end M&A process.
- The second collected cost, cycle time, quality, and efficiency metrics related to the end-to-end M&A process.

We applied a cluster analysis which resulted in organizations being grouped according to three increasingly sophisticated M&A capability models. The most sophisticated, the Vanguard, makes up 30 percent of electronics respondents. The other two groups, the New Guard and the Old Guard, make up 40 percent and 30 percent respectively. All three groups deliver benefits, but the Vanguard—and a subset within them that more significantly apply analytics and AI at later stages in the M&A lifecycle—achieve higher gains across all aspects of performance.

To better understand analytical applications for M&A, a factor analysis highlighted ten natural groups, or ten M&A tenets, that describe how to apply them. All data is self-reported, financial or otherwise.

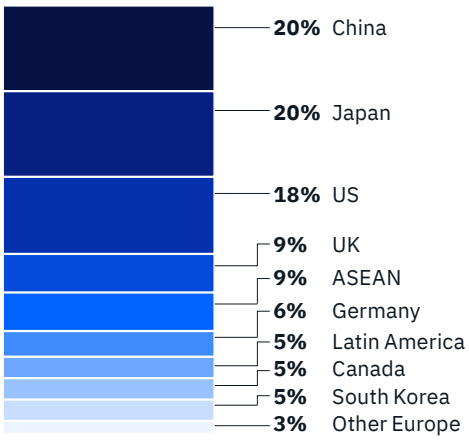
Respondents by minor industry for electronics

100%



Electronics respondents by region

100%



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