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KNOWLEDGE ASSETS, THEIR DEFENSE AND REGULATION – MAKING THEM WORK FOR YOU



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About this study



- The Second Annual Study on the Cybersecurity Risk to Knowledge Assets, produced by the Ponemon Institute and Kilpatrick Townsend, was done to see whether and in what ways organizations are beginning to focus on safeguarding "knowledge assets" (also often known as "crown jewels") in a period of targeted attacks on those assets.
- "Knowledge assets" are defined as confidential information critical to the development, performance and marketing of a company's core business, other than personal information that would trigger notice requirements under law. For example, they include:
 - trade secrets and corporate confidential information such as product design, development or pricing;
 - sensitive non-public information about the organization, its plans or relationships; and
 - competitively valuable or other important information of or about customers, including profiles.
- This presentation is about how the study provides practical guidance for successful advocacy and action toward securing knowledge assets.





About our sample response



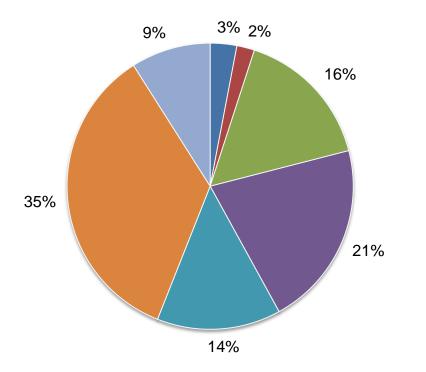
Sample response	FY2017	FY2016
Sampling frame	17,991	17,540
Total returns	709	691
Rejected or screened surveys	75	88
Final sample	634	603
Response rate	3.5%	3.4%





Current position within the organization







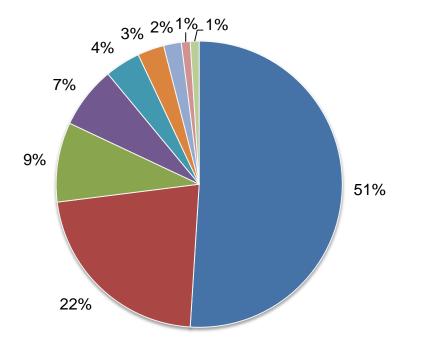
- Vice President
- Director
- Manager
- Supervisor
- Technician
- Staff





The primary person reported to within the organization





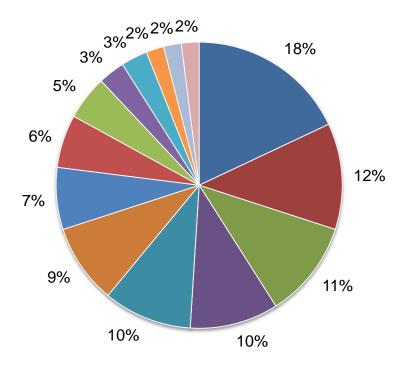
- Chief Information Officer (CIO)
- Chief Information Security Officer (CISO)
- Chief Risk Officer (CRO)
- Compliance Officer
- General Counsel
- Chief Security Officer (CSO)
- Chief Financial Officer (CFO)
- CEO/Executive Committee
- Human Resources VP





Primary industry classification





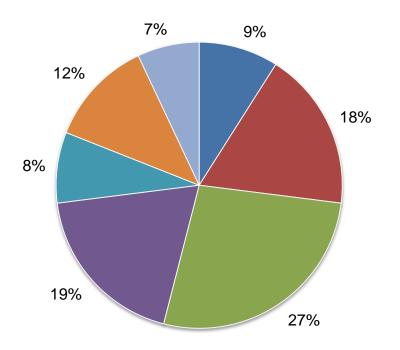
- Financial services
- Public sector
- Industrial & manufacturing
- Health & pharmaceutical
- Retail
- Services
- Technology & software
- Consumer products
- Energy & utilities
- Communications
- Hospitality & leisure
- Education & research
- Transportation
- Other





Worldwide headcount of the organization





- Less than 500
- 500 to 1,000
- 1,001 to 5,000
- 5,001 to 25,000
- **25,001** to 50,000
- 50,001 to 75,000
- More than 75,000





What are your crown jewels?

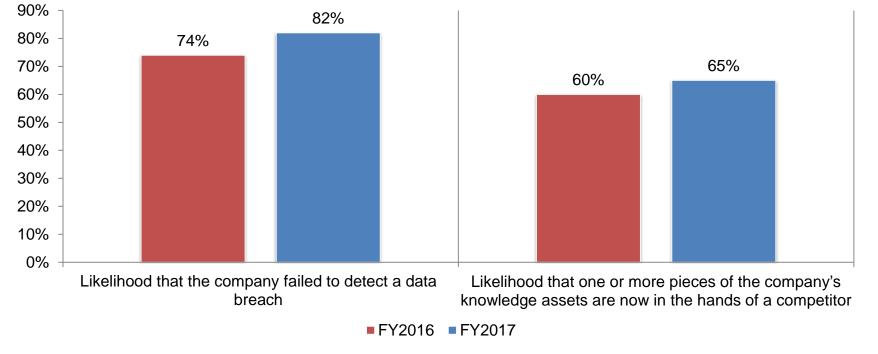




New study: Increased threats and awareness



Very likely and Likely responses combined







Evidence of the growing awareness of threats to knowledge assets



requiring assurances

Integration into IT security strategy

Focus on employee carelessness and third party access

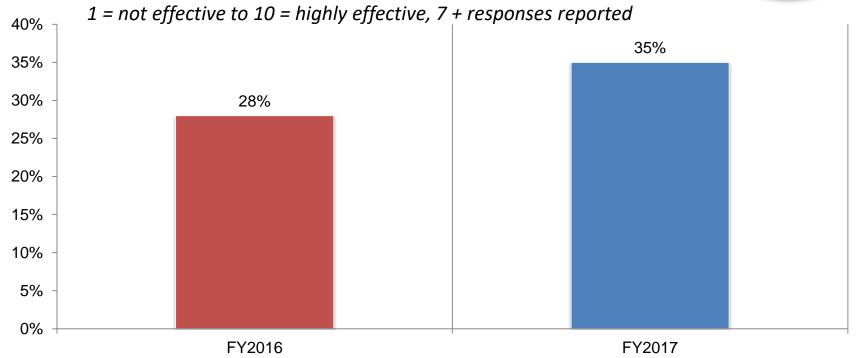
Clear trends in technologies to protect knowledge assets





Some more – but still few – consider their organizations good at this





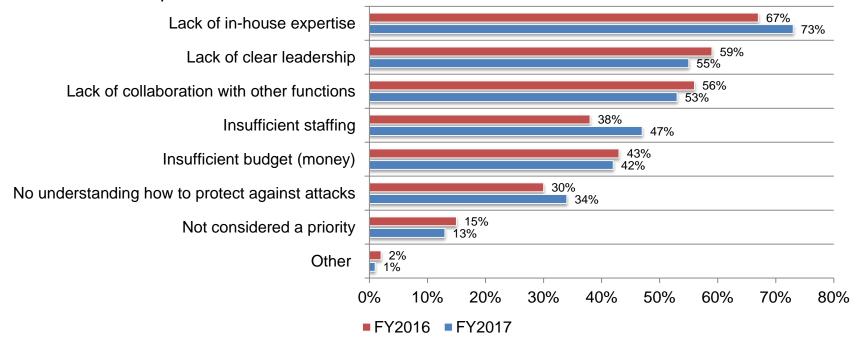




For the 65% who don't think they've got this: What is holding your company back?



More than one response allowed







For the 35% who think their company is effective: Why?



More than one response allowed

64% Restricts access to only those who have a need to know 69% Creates employee awareness about information risk 63% 40% Accomplishes mission within budgetary constraints 35% 37% Prevents attacks that seek to exfiltrate information 35% Innovates in the use of enabling security technologies 29% Detects and contains data breaches quickly 21% Other 10% 20% 30% 40% 50% 60% 70% 80% 0%





■FY2016 ■FY2017

The "high performers," the 14% who rate their firms 9 or 10, are instructive:



Much greater attention by senior management and the board

External, third-party
audits and regular,
customized, actionable
training

Much greater reliance on these 3 techs/processes:

access governance,

privileged user

management and DLP

More convinced that their knowledge assets are very valuable to a **nation state** attacker

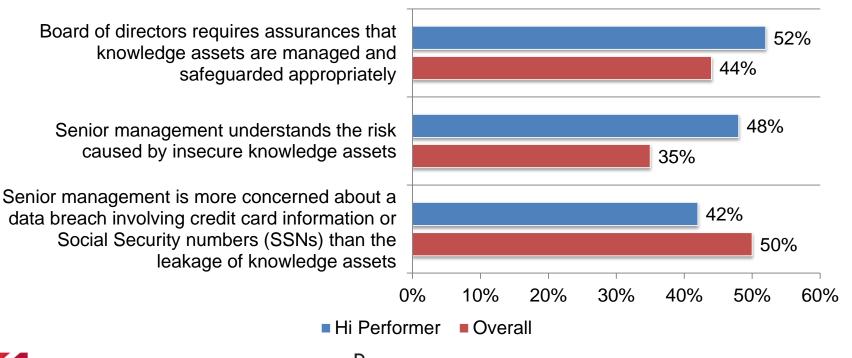




Perceptions about senior management and boards of directors



Strongly agree and Agree responses combined



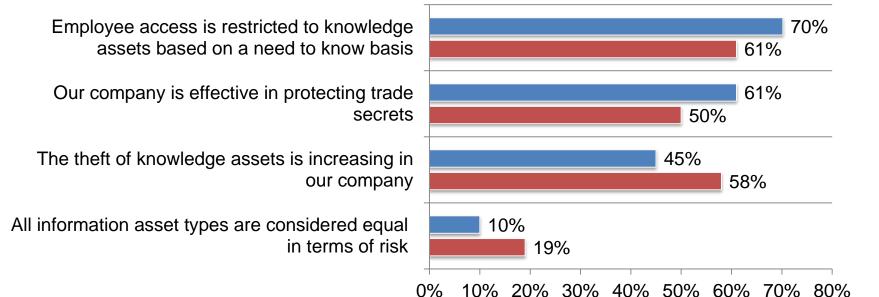




Differences in security practices



Strongly agree and Agree responses combined







Hi Performer

Overall

More training/awareness, audits for the handling of insiders (vs. monitoring, evals, incentives)



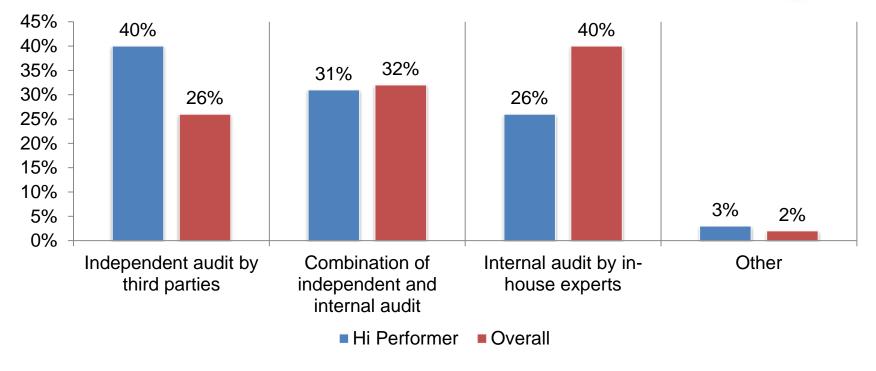
83% Regular training and awareness programs Monitoring of employees 69% Audits and assessments of areas most 55% vulnerable to employee negligence 38% Part of performance evaluations 39% 5% 7% Incentives to stop negligent behavior 0% Other 10% 20% 30% 40% 50% 60% 70% 80% 90% ■ Hi Performer Overall





High performers strongly favor independent 3rd-party audits









Root Causes: Rise of Nation State Attackers

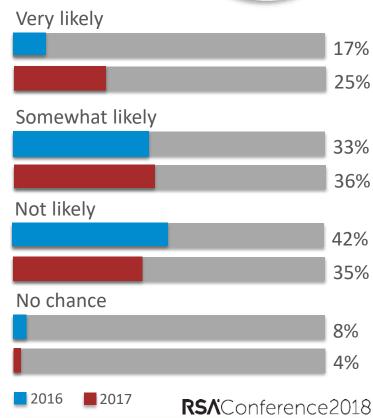




52% of High Performers think their Knowledge Assets are "very valuable" to nation states, vs. 45% of all All participants are increasingly seeing nation-state attacks as "very likely"







Root Causes: Who is responsible?





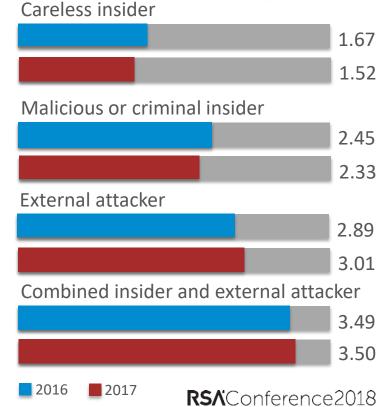
Careless insider most likely

75% of both High Performers & all respondents rate "employee negligence" "most significant" in

2017



Ponemon



Root Causes: Attacker motives

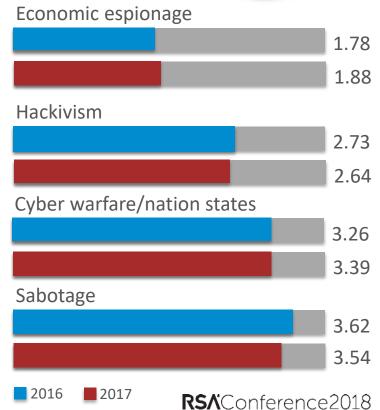




Economic espionage most likely, particularly when one considers such espionage by nation states



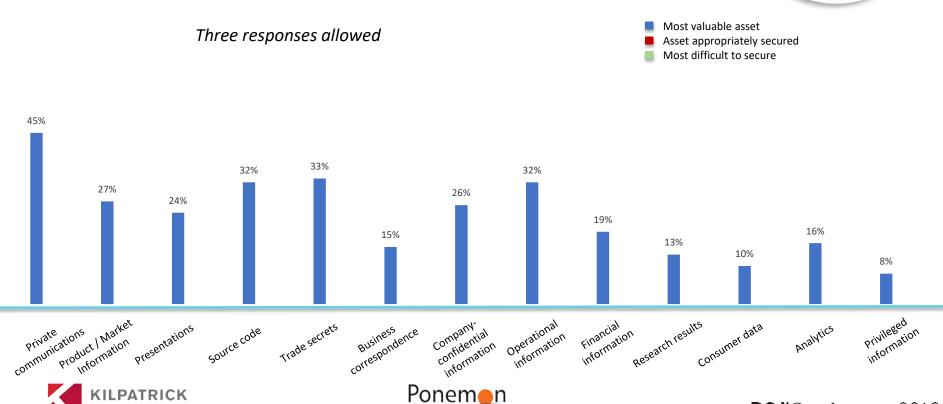




The knowledge-asset-type security gap



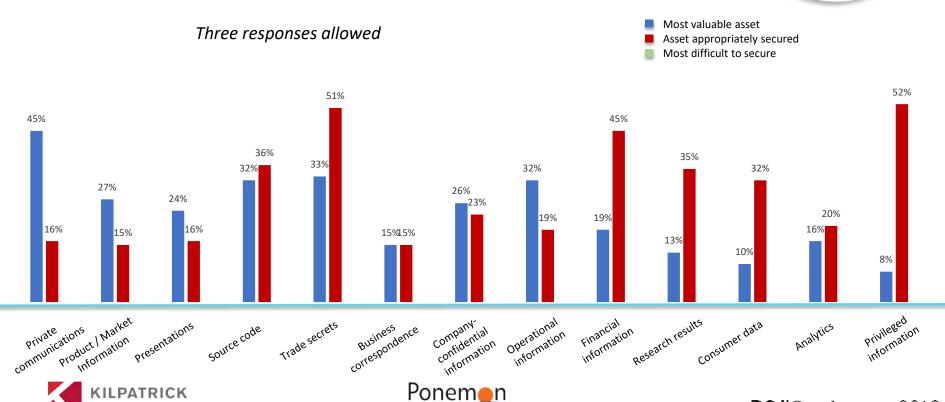
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The knowledge-asset-type security gap



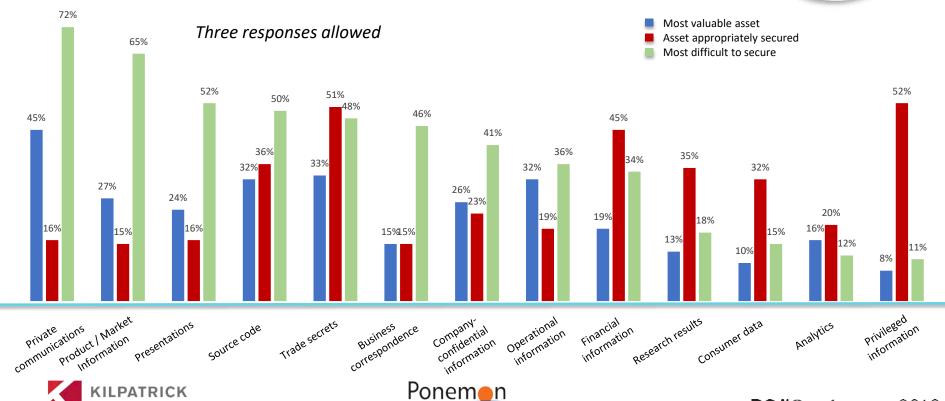
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The knowledge-asset-type security gap

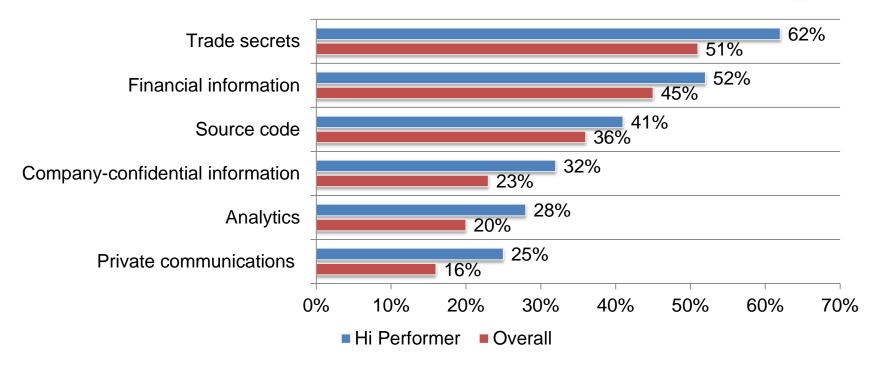


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Note that the high performers are making strides here as well, even for private communications









Trends in overall security technologies for protecting knowledge assets



Eight responses allowed

52% Identity management & authentication 62% Security information and event management (SIEM) 52% 46% Endpoint management systems 39% Tokenization technology 23% Web application firewalls (WAF) 30% 38% Mobile device management (MDM) 30% 36% Anti-virus & anti-malware 30% 22% Penetration testing 27% 15% Big data analytics 21% 10% 60% 0% 20% 30% 40% 50% 70% ■ FY2016 ■ FY2017

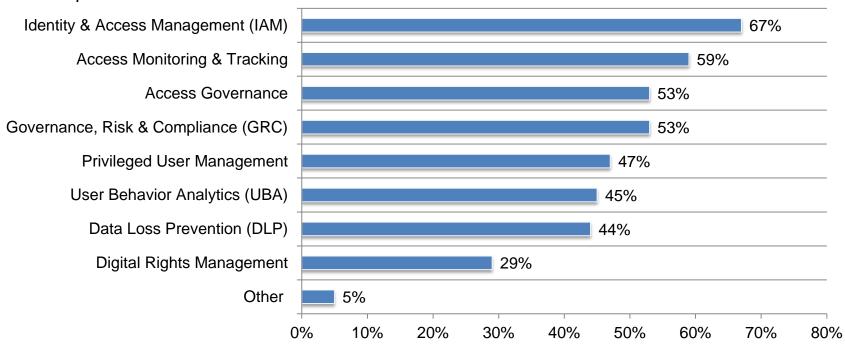




What technologies are used to secure *access* to knowledge assets?



Three responses allowed

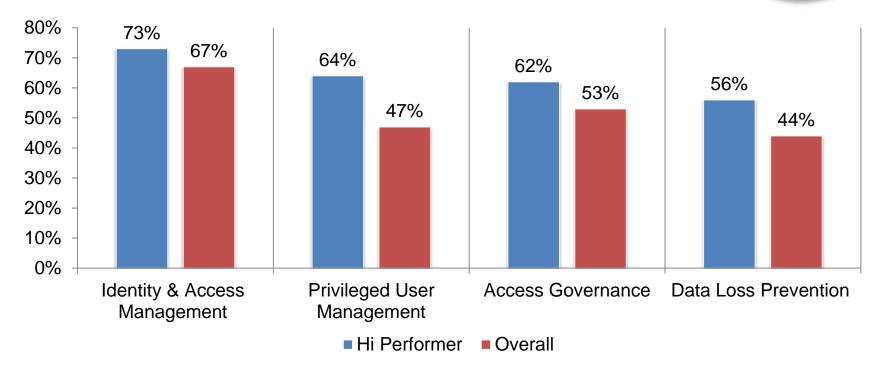






High performers rely more on 4 technologies







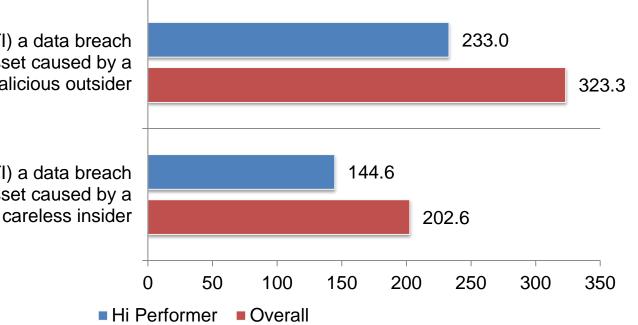


The mean time to identify (MTTI) a data breach involving knowledge assets caused by a careless insider or malicious outsider (in DAYS)



Mean time to identify (MTTI) a data breach involving a knowledge asset caused by a malicious outsider

Mean time to identify (MTTI) a data breach involving a knowledge asset caused by a





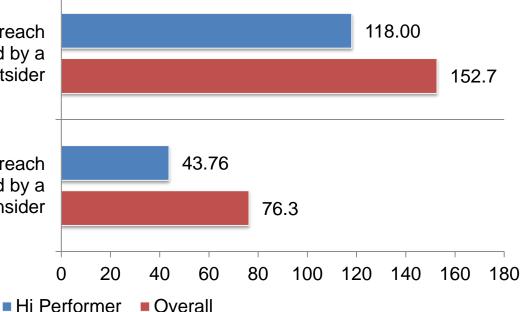


The mean time to contain (MTTC) a data breach involving knowledge assets caused by a careless insider or malicious outsider (in DAYS)



Mean time to contain (MTTC) a data breach involving a knowledge asset caused by a malicious outsider

Mean time to contain (MTTC) a data breach involving a knowledge asset caused by a careless insider





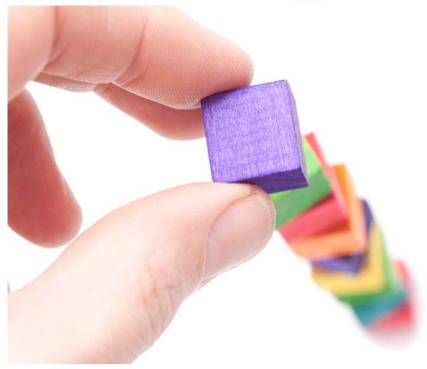


Building for success

- Read the study
- Benchmark against the High Performers
- Understand where you have unbalanced security vs. value
- Benchmark technology use
- Benchmark MTTI & MTTC
- Raise awareness of gaps









Questions?

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Caveats



- This study utilizes a confidential and proprietary benchmark method that has been successfully deployed in earlier Ponemon Institute research. However, there are inherent limitations to benchmark research that need to be carefully considered before drawing conclusions from findings.
- Non-response bias: The current findings are based on a sample of survey returns. We sent surveys to a representative sample of individuals, resulting in a large number of usable returned responses. Despite non-response tests, it is always possible that individuals who did not participate are substantially different in terms of underlying beliefs from those who completed the instrument.
- Sampling-frame bias: The accuracy is based on contact information and the degree to which the list is representative of individuals who are familiar with their companies' approach to managing knowledge assets and involved in the process and are located in the United States. We also acknowledge that the results may be biased by external events such as media coverage. Finally, because we used a Webbased collection method, it is possible that non-Web responses by mailed survey or telephone call would result in a different pattern of findings.
- Self-reported results: The quality of survey research is based on the integrity of confidential responses received from subjects. While certain checks and balances can be incorporated into the survey process, there is always the possibility that a subject did not provide accurate responses.



