



## 2016 IT Risk/Reward Barometer Singapore Results

November 2016

[www.isaca.org/risk-reward-barometer](http://www.isaca.org/risk-reward-barometer)

Number of respondents (n) = 104

Respondents are business and IT professionals in Singapore who are members of ISACA.

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1. Which of the following augmented reality applications, if any, has your current workplace used for business purposes in the past year (to the best of your knowledge)? Select all that apply.

Wearable devices (e.g., Google Glass)	5%
Holographic meetings	0%
Remote business applications (e.g., remote diagnostics, remote healthcare, etc.)	15%
Transportation applications (e.g., vehicle HUD, etc.)	4%
Digital navigation tablets (e.g., for warehouse searching efficiency)	8%
Smartphone apps that overlay the camera view with additional information or graphics on top of the real scene	10%
<b>My organization has not used augmented reality applications for business purposes in the past year, and does not plan to use them in the next year</b>	<b>34%</b>
My organization has not used augmented reality applications for business purposes in the past year, but plans to do so within the next year	9%
None of these	31%
Unsure	13%
Other (please specify)	2%

2. What is the biggest barrier, if any, to adopting augmented reality at your organization?

Insufficient budget	12%
Insufficient staff resources	1%
Lack of skills/knowledge from existing staff	19%
Insufficient ROI	13%
<b>Security concerns</b>	<b>25%</b>
There are no barriers	8%
Unsure	20%
Other (please specify)	3%

3. To what extent do you agree or disagree that augmented reality could lead to the following workplace benefits?

	Completely agree	Somewhat agree	Somewhat disagree	Completely disagree	Don't know
New business models/ offerings	27%	<b>54%</b>	9%	2%	9%
Better marketing	18%	<b>54%</b>	14%	2%	12%
Better collaboration	15%	<b>63%</b>	10%	1%	12%
Increased efficiency	10%	<b>63%</b>	17%	2%	9%
Resource optimization	8%	<b>52%</b>	25%	3%	13%
Improved safety	8%	<b>37%</b>	35%	4%	17%
Financial savings	5%	<b>42%</b>	31%	4%	18%

4. Virtual graffiti programs enable individuals to post negative or inappropriate comments about places via augmented reality apps. Does your organization have a program in place to monitor negative comments on augmented reality programs (e.g., virtual graffiti)?

Yes	9%
<b>No</b>	<b>62%</b>
Unsure	30%

5. Does your organization have a way to detect any publicly posted social media posts, picture or videos that are geotagged to your business or tagged to your signage or advertisements and could show up in augmented reality applications that aggregate such information?

Yes	25%
No	35%
<b>Unsure</b>	<b>40%</b>

6. Does your organization have a policy that addresses staff use of augmented reality apps in the workplace?

Yes, we allow them with no restrictions	2%
Yes, and we allow them with limitations	9%
Yes, and we prohibit them	13%
<b>No</b>	<b>60%</b>
Unsure	17%

7. Do the benefits of augmented reality outweigh the risks?

Yes	17%
No	17%
<b>Unsure</b>	<b>65%</b>

8. Which industries do you think will benefit the most from augmented reality? Select all that apply.

*Top three responses are bolded.*

Financial/Banking	15%
Insurance	7%
<b>Entertainment</b>	<b>57%</b>
<b>Travel</b>	<b>58%</b>
Transportation	31%
Aerospace	29%
Retail	37%
Government/Military	31%
Technology	52%
Manufacturing	20%
Engineering	31%
Telecommunications	20%
Mining/Construction/Petroleum/Agriculture	13%
Utilities	13%
Legal	4%

Real Estate	30%
Healthcare/medical	38%
<b>Marketing/media</b>	<b>55%</b>
Education	51%
Other (please specify)	5%
Unsure	4%

9. How concerned should organizations be about the privacy risks of augmented reality?

<b>Very concerned</b>	<b>51%</b>
Somewhat concerned	38%
Not too concerned	5%
Not at all concerned	0%
Unsure	6%

10. How concerned should consumers be about the privacy risks of augmented reality?

<b>Very concerned</b>	<b>46%</b>
Somewhat concerned	44%
Not too concerned	4%
Not at all concerned	0%
Unsure	6%

11. Have you used augmented reality applications for personal use within the past year?

Yes	23%
<b>No</b>	<b>77%</b>

12. Have you used augmented reality applications for business use within the past year?

Yes	0%
<b>No</b>	<b>100%</b>

13. Do you think your IT department is aware of all of your organization's connected devices (e.g., connected thermostats, TVs, fire alarms, cars, etc.)?

Yes	38%
<b>No</b>	<b>40%</b>
Unsure	21%

14. Does your organization have a policy regarding the use of cloud-based applications without involving IT?

Yes, we allow it	16%
<b>Yes, we prohibit it</b>	<b>48%</b>
No, we do not have a policy regarding putting workloads into the cloud	23%
Unsure	13%

15. Does your organization have a policy regarding staff deploying apps to get their job done?

Yes, we allow it	21%
<b>Yes, we prohibit it</b>	<b>47%</b>
No, we do not have a policy about staff using apps	17%
Unsure	14%

16. What do you think is the likelihood of an organization being breached through an IoT device?

Low	5%
<b>Medium</b>	<b>44%</b>
High	43%
Unsure	8%

17. Which of the following, if any, do you see as significant security concerns for organizations, related to the IoT? Select all that apply.

Vulnerabilities in the device themselves	84%
<b>Data leakage</b>	<b>93%</b>
Access control	68%
Asset management	36%
IoT does not pose any significant security concerns	2%
Other (please specify)	2%

18. To what extent, if any, do you agree or disagree with the following statements about IoT device manufacturers?

	Completely agree	Somewhat agree	Somewhat disagree	Completely disagree
Device manufacturers are implementing sufficient security measures in IoT devices.	5%	<b>41%</b>	<b>41%</b>	13%
Manufacturers make consumers sufficiently aware of the information that IoT devices can collect.	9%	35%	<b>44%</b>	13%

19. Is your organization maximizing the potential of the data it collects through IoT devices/applications?

Yes	11%
<b>No</b>	<b>49%</b>
Unsure	40%

### Demographics

20. In what industry do you work?

<b>Financial/Banking</b>	<b>30%</b>
Insurance	10%
Public accounting	1%
Transportation	1%
Aerospace	1%
Retail/Wholesale/Distribution	2%
Government/Military	12%
Technology Services/Consulting	19%
Manufacturing/Engineering	9%
Telecommunications/Communications	3%
Mining/Construction/Petroleum/Agriculture	2%
Utilities	0%
Legal/Law/Real Estate	0%

Healthcare/Medical	3%
Pharmaceutical	0%
Advertising/Marketing/Media	2%
Education/Student	3%
Other	4%

21. How many people are employed in your enterprise, including all branches, divisions and subsidiaries?

Fewer than 50	6%
50-149	3%
150-499	7%
500-1,499	16%
1,500-4,999	17%
5,000-9,999	8%
10,000-14,9	4%
<b>15,000 or more</b>	<b>39%</b>

22. Which of the following is closest to your job title?

Student	0%
External consultant	10%
Professor/teacher	0%
Practitioner	11%
Supervisor	6%
<b>Manager</b>	<b>41%</b>
Director	7%
Vice president	5%
CIO/CISO/CAE	5%
President/CEO	0%
Other	16%

23. Please select your gender.

Female	26%
<b>Male</b>	<b>72%</b>
Prefer not to answer	2%

24. Please select your age group.

Less than 20 years old	0%
20 to 25 years old	0%
26 to 30 years old	7%
31 to 35 years old	22%
<b>36 to 40 years old</b>	<b>30%</b>
41 to 45 years old	26%
46 to 50 years old	6%
51 to 55 years old	8%
56 to 60 years old	1%
61 to 65 years old	0%
66 to 70 years old	0%
71 years old or older	0%
Prefer not to answer	1%

#### **About ISACA's 2016 IT Risk/Reward Barometer**

The annual IT Risk/Reward Barometer is a global indicator of trust in information. Conducted by ISACA, a global association of more than 140,000 IT security, assurance, risk and governance professionals, the Barometer polls thousands of business and IT professionals and consumers worldwide to uncover attitudes and behaviors about essential technologies and information, and the trade-offs people make to balance risk and reward. The study is based on online polling of 6,591 ISACA members among 140 countries, including 104 from Singapore, from 19-29 September 2016. Additional online surveys were fielded by M/A/R/C Research among 1,230 consumers in the US, 1,000 consumers in the UK, 1,000 consumers in Australia, 1,001 consumers in India and 1,000 consumers in Singapore. The US survey ran 6-8 August 2016, and the UK, Australia, India and Singapore surveys ran 12-23 August 2016. At a 95 percent confidence level, the margin of error for each individual country sample is +/- 3.1 percent.

To see the full results, visit [www.isaca.org/risk-reward-barometer](http://www.isaca.org/risk-reward-barometer).

*Note: Due to rounding to the nearest whole number, responses may not add up to 100%.*