



**2016 IT Risk/Reward Barometer
Africa Results**

November 2016

www.isaca.org/risk-reward-barometer

Number of respondents (n) = 389

Respondents are business and IT professionals in Africa 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)	4%
Holographic meetings	2%
Remote business applications (e.g., remote diagnostics, remote healthcare, etc.)	13%
Transportation applications (e.g., vehicle HUD, etc.)	7%
Digital navigation tablets (e.g., for warehouse searching efficiency)	6%
Smartphone apps that overlay the camera view with additional information or graphics on top of the real scene	8%
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	32%
My organization has not used augmented reality applications for business purposes in the past year, but plans to do so within the next year	17%
None of these	22%
Unsure	10%
Other (please specify)	1%

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

Insufficient budget	26%
Insufficient staff resources	2%
Lack of skills/knowledge from existing staff	23%
Insufficient ROI	8%
Security concerns	14%
There are no barriers	8%
Unsure	16%
Other (please specify)	2%

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	42%	45%	5%	1%	7%
Better marketing	44%	39%	6%	2%	10%
Better collaboration	40%	45%	7%	2%	7%
Increased efficiency	40%	46%	7%	1%	5%
Resource optimization	35%	46%	9%	2%	7%
Improved safety	20%	39%	23%	5%	13%
Financial savings	20%	45%	21%	3%	12%

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	6%
No	72%
Unsure	21%

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	21%
No	57%
Unsure	23%

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	21%
Yes, and we allow them with limitations	16%
Yes, and we prohibit them	8%
No	63%
Unsure	11%

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

Yes	45%
No	13%
Unsure	42%

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

Top three choices are bolded.

Financial/Banking	35%
Insurance	20%
Entertainment	58%
Travel	41%
Transportation	33%
Aerospace	37%
Retail	33%
Government/Military	40%
Technology	65%
Manufacturing	25%
Engineering	37%
Telecommunications	50%
Mining/Construction/Petroleum/Agriculture	25%
Utilities	17%
Legal	7%

Real Estate	31%
Healthcare/medical	51%
Marketing/media	53%
Education	51%
Other (please specify)	3%
Unsure	2%

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

Very concerned	73%
Somewhat concerned	21%
Not too concerned	2%
Not at all concerned	0%
Unsure	4%

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

Very concerned	70%
Somewhat concerned	23%
Not too concerned	3%
Not at all concerned	0%
Unsure	3%

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

Yes	12%
No	88%

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

Yes	5%
No	95%

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	46%
No	41%
Unsure	13%

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

Yes, we allow it	15%
Yes, we prohibit it	37%
No, we do not have a policy regarding putting workloads into the cloud	37%
Unsure	11%

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

Yes, we allow it	16%
Yes, we prohibit it	41%
No, we do not have a policy about staff using apps	34%
Unsure	10%

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

Low	6%
Medium	29%
High	59%
Unsure	5%

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	83%
Data leakage	86%
Access control	73%
Asset management	34%
IoT does not pose any significant security concerns	2%
Other (please specify)	1%

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.	8%	47%	33%	12%
Manufacturers make consumers sufficiently aware of the information that IoT devices can collect.	8%	38%	39%	15%

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

Yes	14%
No	57%
Unsure	29%

Demographics

20. In what industry do you work?

Financial/Banking	30%
Insurance	4%
Public accounting	4%
Transportation	3%
Aerospace	0%
Retail/Wholesale/Distribution	2%
Government/Military	13%
Technology Services/Consulting	18%
Manufacturing/Engineering	3%
Telecommunications/Communications	4%
Mining/Construction/Petroleum/Agriculture	4%
Utilities	2%
Legal/Law/Real Estate	0%

Healthcare/Medical	2%
Pharmaceutical	1%
Advertising/Marketing/Media	1%
Education/Student	3%
Other	7%

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

Fewer than 50	10%
50-149	12%
150-499	15%
500-1,499	20%
1,500-4,999	16%
5,000-9,999	13%
10,000-14,9	3%
15,000 or more	10%

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

Student	0%
External consultant	6%
Professor/teacher	1%
Practitioner	11%
Supervisor	15%
Manager	41%
Director	6%
Vice president	1%
CIO/CISO/CAE	6%
President/CEO	1%
Other	14%

23. Please select your gender.

Female	22%
Male	78%
Prefer not to answer	1%

24. Please select your age group.

Less than 20 years old	0%
20 to 25 years old	3%
26 to 30 years old	17%
31 to 35 years old	32%
36 to 40 years old	19%
41 to 45 years old	14%
46 to 50 years old	8%
51 to 55 years old	3%
56 to 60 years old	2%
61 to 65 years old	1%
66 to 70 years old	0%
71 years old or older	0%
Prefer not to answer	0%

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 389 from Africa, 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.

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