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Transform Customer Experiences With Digital Twins

Embracing A More Efficient, Innovative,
And Customer-Centric Future

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Digital Twin Is An Innovative Approach For Business Growth

APAC organizations are evolving rapidly on their digital transformation journeys, and they have been investing heavily in IT capabilities to empower business growth. Driven by the need to improve operational efficiency, boost customer experience (CX), and grow revenue, organizations leverage digital twin technologies to optimize customer experiences and facilitate development of more immersive and personalized content for their customers.

Our study of 748 business decision-makers responsible for their organizations' digital twin strategy in APAC sheds light on their journeys. Despite such high expectations for the technology, implementation shortages and other challenges stand in the way as real estate, retail, and travel and hospitality companies seek to drive innovation.

Key Findings

Digital twin technology shows great potential in APAC. Forty-five percent of respondents have implemented some form of digital twin technology as part of their digital transformation journey.

Respondents' organizations have been experiencing benefits: 74% are improving their products and services with digital twins and 82% expect digital twins to enhance their data analysis capabilities.

Key challenges hinder further deployment of digital twins. Sixty-nine percent of respondents report a lack of technology skills or knowledge and 65% fall short in content development skills.

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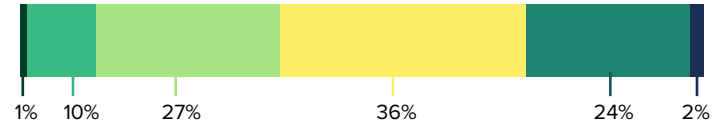# Digital Twin Technology Is Growing Fast In APAC

Digital twin technology is gaining traction in APAC and is expected to have more growth over the next two years. Forty-five percent of respondents have implemented some form of digital twin technology as part of their digital transformation and 55% are planning to deploy it. Represented real estate companies are especially active in planning digital twin implementation in the next 12 months (63% for commercial real estate and 55% for residential real estate) and plan to achieve full lifecycle data management for their properties.

Respondents' organizations intend to deploy digital twin technology to just over half (54%) of their properties from a square footage perspective. Organizations are likely to first deploy digital twins to new buildings or as part of a rolling property management, upgrade, or improvement cycle.
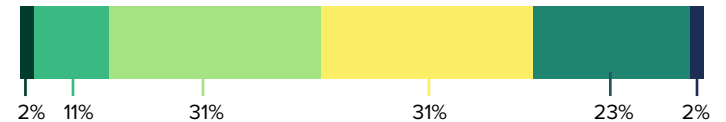
"Which of the following best describes your level of interest in implementing each of the following technologies as part of your digital transformation?"

● Not interested
● Planning to implement
● Expanding or upgrading implementation
● Interested but no plans to implement
● Implemented, not expanding / upgrading
● Decreasing or removing

Internet of Things (IoT)

1%   10%   27%   36%   24%   2%

Metaverses or virtual worlds

2%   11%   31%   31%   23%   2%

Digital twin

55%   32%   13%

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Data And CX Need To Drive Digital Experiences

Organizations have been improving CX with emerging technology, and IT priorities align as drivers towards digital twin. Seventy-six percent of organizations prioritize improving IT capabilities to enhance CX. Investment in digital experience technologies (72%) and adoption of emerging technologies to drive innovation (67%) are key IT priorities that make data a strategic differentiator. Seventy-five percent of respondents improved their use of data and analytics technology, and access to data insights (72%).

IT priorities differ for organizations of different digital maturity, particularly for those in the advanced stages. Organizations with advanced digital businesses are prioritizing complex activities such as adopting emerging technology to drive innovation (76%), developing co-innovation third-party partnerships (77%), and linking investment initiatives to strategic business objectives (63%).

"Which of the following initiatives were your organization's top IT priorities in the past 12 months?"

● High priority ● Critical priority

Improve IT capabilities to enhance customer experience

| 48% | 28% |

Improve the use of data and analytics technology

| 46% | 29% |

Reduce IT costs

| 42% | 30% |

Acquire IT equipment to improve customer experience

| 38% | 35% |

Invest in digital experience technologies

| 43% | 29% |

Improve access to insights to unlock the value of data

| 46% | 26% |

Align IT performance metrics to business outcome metrics

| 46% | 24% |

Create a virtual reality/augmented reality experience for customers

| 44% | 26% |

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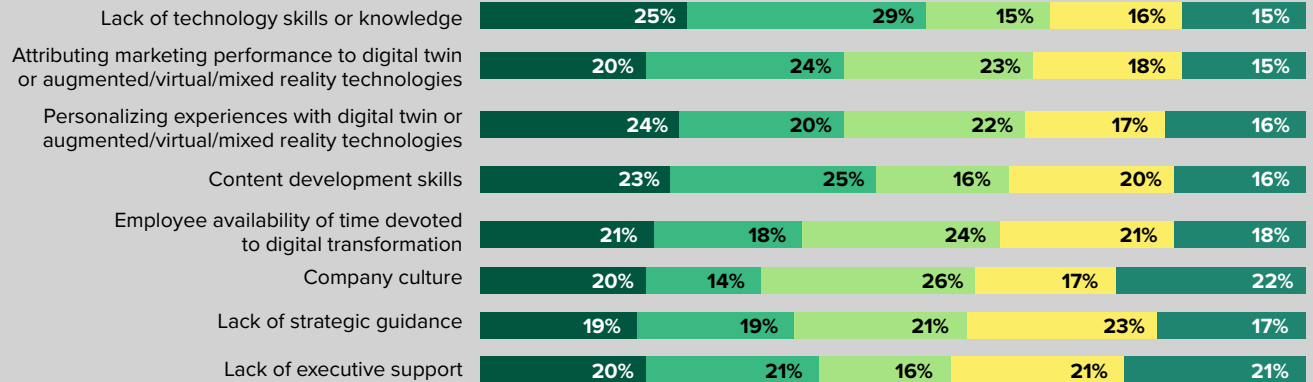# Internal Challenges Threaten To Mute Digital Twin Benefits

Respondents' organizations face challenges with lack of talent, difficulty attributing performance of digital twin to business outcomes (67%), and personalizing digital twin experiences (67%), all of which could hinder digital twin technology growth. Respondents' organizations face a lack of employees with technology skills or knowledge (69%) and content development skills (65%).

Internal challenges threaten and undermine efforts to deploy digital twins. The lack of strategic guidance (60%) and executive support (57%) leads to a poor company culture (60%) and affects employees' available time for digital twin adoption. Sixty-two percent of respondents say employees do not have enough available time to devote to digital transformation.

"It's difficult to find the right skills in related technologies in Australia." **– CSO, real estate**

"What are your organization's biggest challenges with leveraging digital twin technology today?"

- ● Rank 1
- ● Rank 2
- ● Rank 3
- ● Rank 4
- ● Rank 5

Challenge	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Lack of technology skills or knowledge	25%	29%	15%	16%	15%
Attributing marketing performance to digital twin or augmented/virtual/mixed reality technologies	20%	24%	23%	18%	15%
Personalizing experiences with digital twin or augmented/virtual/mixed reality technologies	24%	20%	22%	17%	16%
Content development skills	23%	25%	16%	20%	16%
Employee availability of time devoted to digital transformation	21%	18%	24%	21%	18%
Company culture	20%	14%	26%	17%	22%
Lack of strategic guidance	19%	19%	21%	23%	17%
Lack of executive support	20%	21%	16%	21%	21%

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Situation

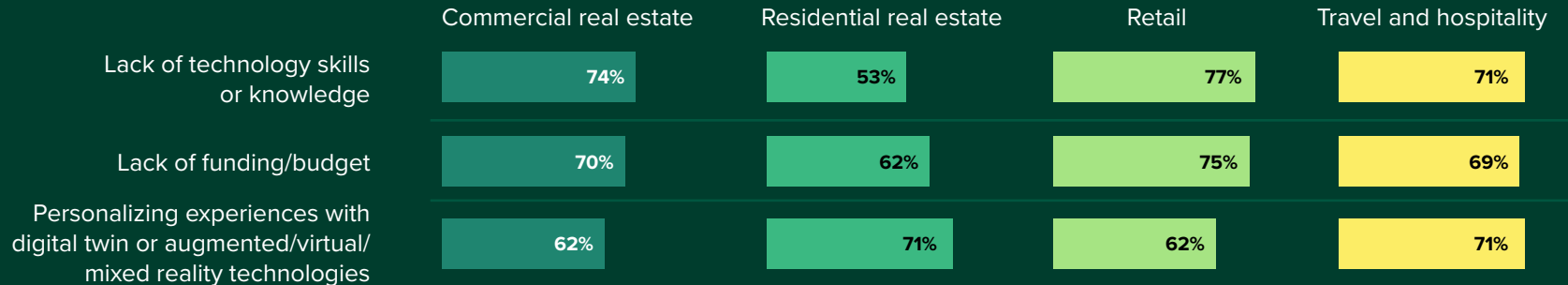**Challenges**

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Identify And Tackle Challenges In Your Industry

Decision-makers face challenges unique to their industry during their adoption of digital twins, and organizations need to identify these when forming their digital twin strategy.

The lack of technology skills is most prevalent in the commercial real estate (CRE) (74%) and retail (77%) industries. For retail organizations, budget is a significant concern as 75% of those respondents face a lack of funding. Using digital twin technology to personalize experiences is more challenging for residential real estate (RRE) (71%) and travel and hospitality (T&H) (71%) organizations than for those in CRE or retail (62%). Organizations need to keep an eye on their industry-specific obstacles while tackling pervasive challenges.

"Budget remains a problem for our [retail sector] company in Japan." **– Senior manager, retail**

"What are your organization's biggest challenges with leveraging digital twin technology today?"

|	Commercial real estate	Residential real estate	Retail	Travel and hospitality
Lack of technology skills or knowledge	74%	53%	77%	71%
Lack of funding/budget	70%	62%	75%	69%
Personalizing experiences with digital twin or augmented/virtual/ mixed reality technologies	62%	71%	62%	71%

Digital Twins Help Real Estate, Retail, And Travel And Hospitality Deliver Superior CX

Customers are key to businesses and digital twins are expected to help deliver superior CX. Improving CX (77%), increasing customer engagement (74%), and increasing customer acquisition (71%) drive digital twin adoption. Organizations see operational efficiency from increased accuracy of space measurements (77%), improved products and services through visualization with 3D models (74%), and reduced cost (77%).

RRE is best at leveraging digital twins to complete sales nearly or completely virtually (70%), whereas CRE falls short (54%), indicating a more complex sales process that requires physical presence. All sectors are able to improve asset visualization through 3D models, but CRE (75%) and RRE (76%) are best. CRE benefits most from improved collaboration with stakeholders.

"Which of the following benefits have you experienced as a result of implementing digital twin technology?"
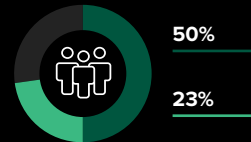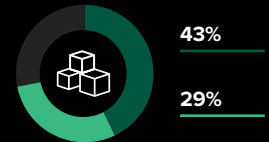
● Agree   ● Strongly agree
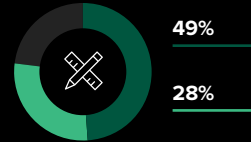
49%
28%
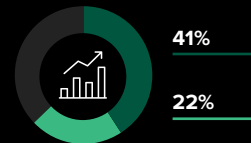Improved operational efficiency due to increased accuracy of space measurements
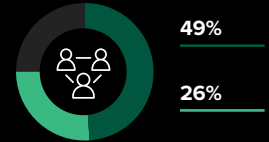
49%
26%
Improved collaboration (with designers, space planners, etc.) with photorealistic 3D models
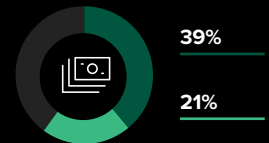
50%
23%
Increased customer engagement

43%
29%
Improved visualization with 3D models

41%
22%
Increased customer acquisition

39%
21%
Complete sales nearly/ completely virtually

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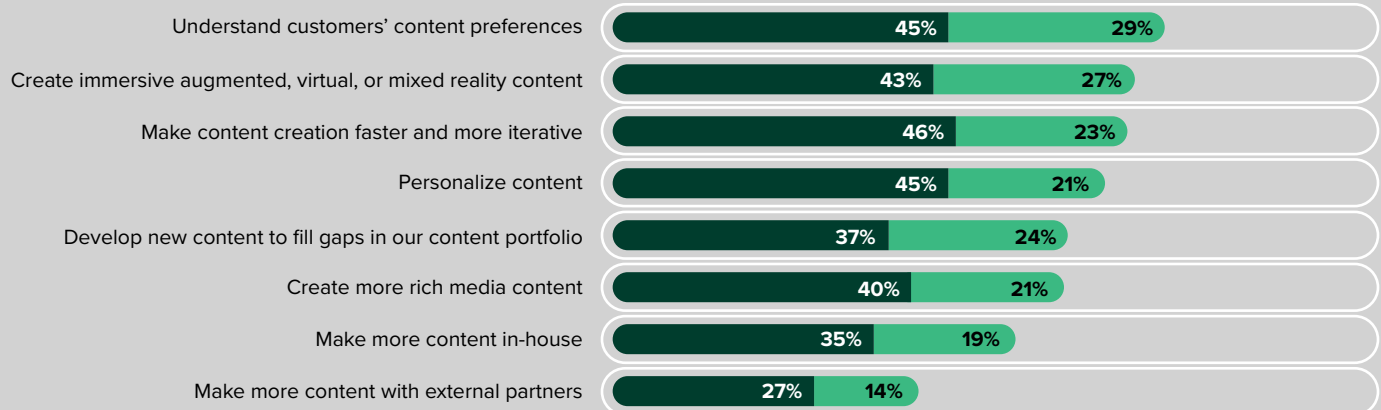
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Digital Twins Will Be Critical To Future Strategic Priorities

Organizations continue prioritizing improving CX and their IT priorities align with that. Respondents plan to strengthen and scale data analytics (75%) and develop connected assets enabled by IoT (80%). Continued investments in IT equipment (77%) and IT capabilities (77%) align with a CX-centric strategy. Organizations will also grow the creation of VR/AR customer experiences (80%).

Organizations want their future content creation to be more customer centric, innovative, and efficient. Respondents plan to do so through understanding customers' content preferences, personalization (66%), and leveraging AR/VR or mixed reality to make immersive and creative content (70%). Despite the lack of content development skills today (65%), companies expect to make more content in-house rather than outsource it (41%).

"Which of the following are your organization's top content priorities for the next 12 months?"

● High priority

● Critical priority

Content priority	High priority	Critical priority
Understand customers' content preferences	45%	29%
Create immersive augmented, virtual, or mixed reality content	43%	27%
Make content creation faster and more iterative	46%	23%
Personalize content	45%	21%
Develop new content to fill gaps in our content portfolio	37%	24%
Create more rich media content	40%	21%
Make more content in-house	35%	19%
Make more content with external partners	27%	14%

Conclusion

Organizations recognize digital twin as a growing set of technologies. Now is the time to start utilizing its potential to support future priorities.

- By leveraging data analytics, IoT, and AR/VR technologies, digital twin has been able to effectively drive operational efficiency, improve products and services, and promote collaboration.

- Customer centricity is key and digital twin brings CX to a whole new level. It improves customer engagement and acquisition and bolsters CX.

- Use cases may vary across industries and geographies, and so do key challenges. The types of challenges organizations face can be highly dependent on the maturity of their digitalization.

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Methodology

This Opportunity Snapshot was commissioned by Matterport. To create this profile, Forrester Consulting supplemented this research with custom survey questions asked of 748 global business and technology decision makers responsible for their organizations' digital twin technology strategy. The custom survey began and was completed in August 2022.

ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key transformation outcomes. Fueled by our customer-obsessed research, Forrester's seasoned consultants partner with leaders to execute on their priorities using a unique engagement model that tailors to diverse needs and ensures lasting impact. For more information, visit forrester.com/consulting.

Demographics

GEOGRAPHY	
Japan	21%
South Korea	21%
Hong Kong	21%
Singapore	19%
Australia	18%

COMPANY REVENUE	
$100M to $199M	2%
$200M to $299M	3%
$300M to $399M	2%
$400M to $499M	5%
$500M to $999M	42%
$1B to $5B	36%
>$5B	12%

COMPANY SIZE	
100 to 499 employees	1%
500 to 999 employees	38%
1,000 to 4,999 employees	31%
5,000 to 19,999 employees	20%
20,000 or more employees	10%

INDUSTRY	
Retail	25%
Travel and hospitality	25%
Commercial real estate	25%
Residential real estate	25%

DEPARTMENT FUNCTION	
Marketing/advertising	20%
Operations	20%
IT	20%
Strategy and transformation	20%
Sales	20%

RESPONDENT LEVEL	
C-level executive	6%
Vice president	18%
Director	33%
Senior manager	44%

DIGITALIZATION STAGE	
Beginner (32%)	32%
Intermediate (56%)	56%
Advanced (12%)	12%

Note: Percentages may not total 100 because of rounding.

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