Global Digital Transformation Survey Report

SINGAPORE

Digital Transformation Delivering Business Outcomes

shaping tomorrow with you
Contents

Introduction: Singapore ................................................................. 3

Key findings .............................................................................. 4

What is the focus of digital transformation? ........................................ 5

How advanced are organisations on their digital journey? ......................... 6

What are the benefits of digital transformation? ........................................ 7

What are the key success factors and inhibitors in digital transformation? ........................................ 8

How important is a strong technology partner for digital transformation? ........................................ 10

What is the potential of Artificial Intelligence? ........................................ 12

What are the key skills and capabilities required in the digital era? ........................................ 13
Introduction: Singapore

This report contains analysis of the Singapore data from the 2017 Fujitsu Global Digital Transformation Survey. The research was conducted to find out more about how business leaders are responding to digital transformation challenges, and to identify what initiatives they are undertaking in the area. We received 1,614 responses from business leaders across 15 countries, including 103 from Singapore.

Digital technologies such as the Internet of Things (IoT) and Artificial Intelligence (AI) are being embedded into core value-generation processes in business and society, transforming people’s work and daily lives and generating innovation. This is digital transformation. Business leaders around the world are becoming aware of the power of digital transformation, and taking action to realise its huge potential.

Today, digital technologies are moving into the heart of everything we do, changing the way businesses and people work, how they live and how they innovate. In the new digital society, digital transformation and digital co-creation become business norms. Digital co-creation means blending your business expertise and digital technology, and creating new value – together with ecosystem partners and customers – to shape a better future.

Digital transformation initiatives usually start from the testing phase, then a Proof of Concept (PoC) and a Proof of Business (PoB) phase, and then shift to the implementation phase. But new technology alone is not sufficient for digital transformation. New talents, and people who have different skills and innovative ways of doing things, are required. Leadership, agility and co-creation with partners are very important elements.

The theme of the Global Digital Transformation Survey is aligned with the story of Fujitsu Technology and Service Vision, which sets out our vision and insights into how business leaders can leverage digital transformation in business and society, enabling and creating a better future.

The Fujitsu Technology and Service Vision can be downloaded from the following link:
URL: http://www.fujitsu.com/global/vision/
Key findings

- Workstyle transformation and operations are equally the top functional areas for digital transformation in Singaporean organizations, with 45.6% of organizations reporting projects in those areas. Manufacturing, logistics and finance are the major areas of digital transformation in specific functional areas.

- The most positive outcome of digital transformation is strengthened relationship with customers with 47.8% of Singaporean respondents reporting this as the most positive outcome. Many organizations also report improved efficiency and reduced cost (42.0%) and strengthened competitiveness of products (40.6%).

- Key factors in delivering digital transformation are streamlined organizations and processes, reported by 25.6% of respondents. This was followed by strong leadership (20.9%) and talented staff with the right skills (14.0%). The biggest inhibitors are a lack of talented staff with the right skills (20.8%) and a fear of change or internal resistance (13.9%).

- More than a third (34.0%) business leaders in Singapore say it is important to have a strong technology partner to achieve digital transformation. The technology partners need to an alignment with the organization’s vision and strategy (22.3%) and technological capability(17.5%).

- More than three quarters (81.6% of respondents) believe that artificial intelligence (AI) represents an opportunity, rather than a threat. Even more (83.5%) believe that AI will enhance people’s capabilities in the future, but 70.9% believe that jobs may be displaced.

- Singaporean business leaders believe that professional knowledge of digital technologies is the most important capability needed in the digital era (reported by 19.4% of respondents). But they also believe that creativity and imagination (15.5%) and professional knowledge of specific business function (14.6%) are important, indicating a strong perception that a balance of skills is needed to drive digital transformation.
What is the focus of digital transformation?

Digital transformation is undertaken in many functional areas. The survey asked Singaporean business leaders about the extent to which it has been implemented in four key business infrastructure areas common to most organizations, across all industry sectors. These are marketing, work style transformation, operations and maintenance, and call centers.

Of these functions, digital transformation is equally the most likely to take place in workstyle transformation and operations and maintenance—projects are underway or have been implemented in 45.6% of organizations in Singapore. Marketing (33.0%) and call centers (27.2%) are also areas in which a significant amount of digital transformation is taking place.

The survey also asked about the status of digital transformation in a range of specific functional areas: logistics, finance, manufacturing. These need not be undertaken in these industries—e.g., a finance digital transformation project could take place in most industry sectors.

28.2% of respondents have implemented or are implementing digital transformation process in manufacturing, followed by logistics (18.4%) and finance (16.5%). Over a third (37.9%) have implemented other digital transformation projects, in a range of specific functional areas.
How advanced are organisations on their digital journey?

The highest level of delivered digital transformation outcomes in Singapore is marketing (44.1%), followed by operations and maintenance (29.8%), workstyle (25.5%) and specific functions (22.4%).

Call center transformation is the least likely to have delivered outcomes (14.3%) and most likely to be in the planning phase (14.3%). Marketing is the most likely to be in the testing phase (8.8%) and operations and maintenance is the least likely to be in the planning phase (6.4%).

The results indicate that digital transformation are advanced amongst organizations in Singapore. The great majority of these projects are in the process of being implemented or have delivered on their outcomes with relatively few in the testing and planning phase.

Which best describes the progress of the digital transformation?

- Marketing: Outcomes have been delivered (44.1%), Implementing (38.2%), Testing (8.8%), Planning (6.4%)
- Operations and Maintenance: Outcomes have been delivered (29.8%), Implementing (25.5%), Testing (38.3%), Planning (8.5%)
- Workstyle: Outcomes have been delivered (25.5%), Implementing (38.3%), Testing (27.7%), Planning (8.5%)
- Specific Functions: Outcomes have been delivered (23.1%), Implementing (32.7%), Testing (32.7%), Planning (11.5%)
- Call Center: Outcomes have been delivered (14.3%), Implementing (50.0%), Testing (21.4%), Planning (14.3%)

Global Digital Transformation Survey Report: Singapore
What are the benefits of digital transformation? (Singapore vs global)

The survey asked business leaders what kind of outcomes have been delivered through their digital transformation projects. Almost half (47.8%) say that the greatest benefit of digital transformation has been a strengthened relationship with customers.

42.0% of respondents say it has increased revenue and improved efficiency and reduced cost. This was followed by strengthened competitiveness of products (40.6%), increased revenue (37.7%), the transformation of business models or processes (37.7%) and improved employee satisfaction (27.5%).

A comparison of the Singapore results with those from the full global survey shows that the results are similar. Globally, increased revenue is more significant than in Singapore (37.7% vs 46.1%). However, a strengthened relationship with customers (47.8% vs 44.4%), improved efficiency (42.0% vs 34.9%) and transformed business models (37.7% vs 29.8%) are more significant in Singapore.

The results indicate the many benefits of digital transformation. The effects are felt across the organization, not just on the bottom line.
What are the key success factors and inhibitors in digital transformation?

Digital transformation is not just about introducing new technologies. In order to deliver successful outcomes, organizations need streamlined organizations and processes and strong leadership.

The survey asked Singaporean business leaders what they believed to be the key factors for successful digital transformation. At the top of the list is having streamlined organizations and processes (25.6%) and strong leadership (20.9%). This was followed by having talented staff with the right skills (14.0%), a culture of transformation (11.6%) and aligned digital with existing IT (9.3%).

The survey also asked about which factors hindered digital transformation. The most often mentioned was a lack of talented staff with the right skills (20.8%). Other inhibitors were fear of change or internal resistance (13.9%), lack of budget (10.9%), no technology partners (10.9%) and a lack of leadership (9.9%).
What are the key success factors in digital transformations? (Singapore vs global)

The chart compares the key success factors from the previous chart, for Singapore vs the overall global findings.

There are many differences between the global rankings and the responses obtained from Singaporean business leaders. An important difference is that streamlined organizations and processes is much more important in Singapore, mentioned by 25.6% vs 16.5% globally. This is the same with strong leadership (20.9% vs 17.5%).

The availability of talented staff with the right skills is less important in Singapore, mentioned by 14.0% vs 18.9% globally. Support from technology partners (4.7% vs 7.3%) and the procurement of necessary digital technologies (4.7% vs 6.7%) are less important in Singapore than they are globally.

Which factors were key in delivering digital transformation outcomes? (Singapore vs global)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Singapore</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streamlined organizations and processes</td>
<td>25.6%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Strong leadership</td>
<td>20.9%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Talented staff with the right skills</td>
<td>14.0%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Created a culture for the transformation</td>
<td>10.2%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Aligned digital with existing IT</td>
<td>9.3%</td>
<td>9.4%</td>
</tr>
<tr>
<td>ROI was clear</td>
<td>7.0%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Supported by technology partners</td>
<td>4.7%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Procured necessary digital technologies</td>
<td>4.7%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Controlled cyber security risks</td>
<td>2.3%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Sufficient funding</td>
<td>0.0%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
How important is a strong technology partner for digital transformation?

Success in digital transformation requires cooperation with external technology partners. Business leaders in Singapore were asked which types of partners were most important.

Most highly rated were technology partners, ranked as most important by 34.0% of respondents. Other important partners were suppliers (9.7%), sales partners (9.7%), and consulting firms (9.7%).

Respondents were also asked about what they expect from a technology partner. The most important attribute is an alignment with the organization's vision and strategy, mentioned by 22.3%. This was followed by strong technological capability (17.5%) and trust for collaboration (16.5%).

Other important attributes were a strong understanding of the organization’s business (15.5%) and speed of response and implementation (11.7%).

Which partners are important to collaborate with for digital transformation?

<table>
<thead>
<tr>
<th>Partner Type</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology partners</td>
<td>34.0%</td>
</tr>
<tr>
<td>Suppliers</td>
<td>9.7%</td>
</tr>
<tr>
<td>Sales partners</td>
<td>9.7%</td>
</tr>
<tr>
<td>Consulting firms</td>
<td>9.7%</td>
</tr>
<tr>
<td>Companies in the same industry</td>
<td>9.7%</td>
</tr>
<tr>
<td>Startup companies</td>
<td>8.7%</td>
</tr>
<tr>
<td>Government organizations</td>
<td>8.7%</td>
</tr>
<tr>
<td>Academic and research institutions</td>
<td>4.9%</td>
</tr>
<tr>
<td>Companies in other industries</td>
<td>2.9%</td>
</tr>
<tr>
<td>Consortiums</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

What do you expect from a technology partner for digital transformation?

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment with your vision and strategy</td>
<td>22.3%</td>
</tr>
<tr>
<td>Technological capability</td>
<td>17.5%</td>
</tr>
<tr>
<td>Trust for collaboration</td>
<td>16.5%</td>
</tr>
<tr>
<td>Understanding of your business</td>
<td>15.5%</td>
</tr>
<tr>
<td>Speed of response and implementation</td>
<td>11.7%</td>
</tr>
<tr>
<td>Experience and track record</td>
<td>5.8%</td>
</tr>
<tr>
<td>Quality of products or services</td>
<td>5.8%</td>
</tr>
<tr>
<td>Consulting capability</td>
<td>4.9%</td>
</tr>
</tbody>
</table>
Which partners are important? (Singapore vs global)

The chart compares the importance of technology partners from the previous chart, for Singapore vs the overall global findings.

Technology partners are both the top priority in terms of preferred partners, mentioned 34.0% in Singapore vs 29.0% globally. Suppliers (9.7% vs 14.9%) and sales partners (9.7% vs 11.6%) are less important in Singapore than they are globally.

Startup companies (8.7% vs 6.1%) and government organizations (8.7% vs 5.6%) are more important partners to collaborate with in Singapore than they are globally.
What is the potential of Artificial Intelligence?

The survey asked Singaporean business leaders three questions about perceptions of artificial intelligence (AI).

Of the respondents surveyed, 81.6% see AI as an opportunity, with just 8.7% seeing it as a threat. But there is some ambivalence about its effects.

Most survey respondents strongly agree (22.3%) or agree (61.2%) that AI will enhance people’s capabilities in future, but they also believe that AI will be used for work currently performed by people (14.6% strongly agree, 56.3% agree).

Is AI an opportunity or a threat?

Opportunity 81.6%

Neither 9.7%

Threat 8.7%

Will AI substitute for people's work in the future?

Strongly agree, Agree 70.9%

Agree 56.3%

Strongly agree 14.6%

Neither agree nor disagree 20.4%

Disagree 7.8%

Strongly disagree 1.0%

Will AI enhance people's capabilities in the future?

Strongly agree, Agree 83.5%

Agree 61.2%

Strongly agree 22.3%

Neither agree nor disagree 13.6%

Disagree 2.9%
Business leaders in Singapore believe that professional knowledge of digital technologies is the most important capability needed in the digital era (19.4% of responses).

Other important capabilities are creativity and imagination (15.5%), professional knowledge of specific business function (14.6%) and logical and analytical capability (14.6%), Also mentioned was liberal arts (11.7%) and professional knowledge of specific industry (9.7%).

The rankings of capabilities needed are similar in Singapore as they are globally. More valued in Singapore are a professional knowledge of digital technologies (19.4% vs 18.3%), professional knowledge of specific business functions (14.6% vs 12.2%) and logical and analytical capability (14.6% vs 10.1%) However, a professional knowledge of specific industry was mentioned by 9.7% of Singaporean respondents, compared to 12.6% globally.

The range of capabilities mentioned indicates that there is a strong perception that a balance of skills is required to drive digital transformation – it is not just about technical capabilities.
About the survey

Survey topics:
- Current awareness of digital transformation: Fields, progress, outcomes, factors behind success, issues
- Co-creation in digital businesses: Required partners, elements required of technology partners
- AI (artificial intelligence) awareness: Perspective on AI, skills required during the digital era

Survey method:
- Online

Fieldwork period:
- February 2017

Survey respondents:
- Company size: Medium and large (at least 100 employees and sales of at least USD 1 million during the previous FY)
- Respondents: Management (CEOs, CMOs, CFOs, CIOs, CDOs, CSOs) and decision-makers equivalent to management

Surveyed countries:
The reports surveyed 1,614 business leaders in 15 countries, including 103 from Singapore. Other countries surveyed for the global report were:
- Americas: Canada (56), USA (258)
- Europe: Finland (56), Germany (103), France (103) Spain (103), Sweden (52), United Kingdom (103)
- Asia: China (103), Indonesia (52), Japan (309), Republic of Korea (55), Singapore (103), Thailand (52)
- Oceania: Australia (106)

A Note Concerning Future Projections, Forecasts and Plans

This publication contains forward-looking statements in addition to statements of fact regarding the Fujitsu Group's past and current situation. These forward-looking statements are based on information available at the time of publication and thus contain uncertainties. Therefore, the actual results of future business activities and future events could differ from the forward-looking statements shown in this publication.

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