The Next Steps in Digital Transformation
How small and midsize companies are applying technology to meet key business goals

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The Next Steps in Digital Transformation: Introduction

What is digital transformation?

Digital transformation is directly related to the changing digital economy with individuals, businesses, and society becoming interconnected in real-time, supported by technology. Think of the advanced capabilities that are changing the nature of business:

- Hyper-connectivity — the result of anytime/anywhere communications
- Unlimited computing power available though diverse platforms
- Cloud computing, with easy access to hosted software and services
- The proliferation of sensors and mobile devices, providing new and continuous streams of information as well as ways of accessing them
- Advances in cybersecurity that support reliable access and use of key information, minimizing internal and external vulnerability

Almost all small businesses (firms with 10-99 employees) and midsize firms (with 100-999 employees) have some of these digital transformation resources in place: collaboration software, powerful computing and communications resources, cloud computing. But effective deployment and integration are needed to bring your firm to the next level of business performance.
The Next Steps in Digital Transformation: Key findings

Customer acquisition, revenue growth, and efficiency are top priorities for small and midsize firms worldwide

Around the world, small and midsize firms of different sizes and from various industries identify similar business priorities as most important. Looking in detail at faster-growing firms (those with 10%+ annual revenue growth) shows them to be especially ambitious in identifying multiple priorities such as driving revenue growth, improving productivity, and, above all, getting new customers. Many of these goals are interrelated and many are supported through advanced technology. The natural question is: What approach to the acquisition and use of technology can best support business objectives?
The investments made by small and midsize firms in advanced software resources have been considerable and continue to grow. In just one year the average firm surveyed added a new application, with ecommerce and HR/Talent management showing the greatest increase in penetration. Larger firms and fast-growing ones tend to use more applications, but even the smallest firms are adding resources. Collaboration, CRM, and ecommerce all help internal productivity and efficiency. And when information in one application is shared and updated across others throughout the organization, significant performance gains can be achieved – the goal of digital transformation.

In 2016, survey respondents indicated that they were using an average of 3.8 solutions; in 2017, the number was 4.8.

See Appendix 3 for country details.
Practicality drives resource choice for small and midsize businesses

The most widely used software applications are also the ones both small and midsize firms implement first: collaboration, CRM, ecommerce. The drivers behind selection are obvious: the greatest need and the most immediate impact. Midsize firms are more likely to note partner or customer influence. While the basic forces for technology investment are typically internal in nature, outside encouragement is important as well. Keeping an eye on the needs and demands of the changing competitive environment is always a good idea as you refine your technology investment plans.

Drivers for implementing software applications

- **Where need was greatest**
  - Total: 48%
  - 10-99: 49%
  - 100-499: 45%
  - 500-999 employees: 48%

- **Easiest/quickest to implement**
  - Total: 35%
  - 10-99: 33%
  - 100-499: 35%
  - 500-999 employees: 37%

- **Quickest/highest ROI**
  - Total: 27%
  - 10-99: 22%
  - 100-499: 29%
  - 500-999 employees: 31%

- **Driven by customer/partner need**
  - Total: 20%
  - 10-99: 15%
  - 100-499: 21%
  - 500-999 employees: 23%

- **Driven by IT department independently**
  - Total: 18%
  - 10-99: 17%
  - 100-499: 20%
  - 500-999 employees: 18%

- **Directed by CEO, President**
  - Total: 13%
  - 10-99: 8%
  - 100-499: 14%
  - 500-999 employees: 16%

- **Driven by software vendor, VAR, etc.**
  - Total: 18%
  - 10-99: 12%
  - 100-499: 20%
  - 500-999 employees: 23%

- **Driven by IT dept.**
  - Total: 13%
  - 10-99: 14%
  - 100-499: 12%
  - 500-999 employees: 13%

- **Part of expansion of current technology**
  - Total: 49%
  - 10-99: 45%
  - 100-499: 48%
  - 500-999 employees: 48%
Exceptional results: 70%+ say expectations met or exceeded for key technology investments

Between 73% and 87% of small and midsize businesses surveyed indicate that their expectations regarding technology investments were met or exceeded. This high level of success naturally paves the way for additional investment. In theory, building a successful portfolio of different technology components implies slightly lower marginal improvement for each additional investment. In reality, the effective coordination of new resources can bring greater performance impact than the sum of the parts: providing greater customer insight to bear on ecommerce engagement, for example.

Coordination and consolidation of internal processes and external customer and partner engagement can help leverage the impact of technology investment.
Senior management and IT management lead in initiating technology purchases

Influence on technology acquisition decisions is divided between senior/LOB management and IT, with the influence of IT staff growing with company size. The real takeaway is the collaborative nature of the process, at least for more successful outcomes. Delivering near-term tactical benefits makes building consensus for acquisition easier. Ensuring that purchases meet the needs of multiple constituencies is also key to success. Being attentive to outside advice – from software vendors, cloud service providers, or other technology partners – can be an additional source of guidance when used with care.
Deployment preferences reflect caution, convenience, and impact

**Firms accept disruptions but are cautious**
- Timely adoption of new tech for maximum benefit despite significant disruption: 5%
- Minimum disruption - gradual adoption of new tech despite benefits delay: 25%
- Some disruption - cautious adoption of new tech despite slowed improvements: 26%
- 44% of firms accept disruptions but are cautious.

**Solutions combining bundles with some customization are preferred**
- Solution assembles best hardware, software, etc. to meet our requirements: 29%
- Bundled solutions (different hardware, software, etc.), single product/single source: 50%
- Some disruption - cautious adoption of new tech despite slowed improvements: 21%

**Firms favor quick and easy projects with impact**
- Timely adoption of new tech for maximum benefit despite some disruption: 11%
- Bundled product/custom options in a customizable solution: 36%
- Incremental (near term/modest return) and major impact (longer term/greater cost, return): 54%

Companies prefer to move forward cautiously with new solutions. Effective integration with current operations is key.

Half of firms lean toward off the shelf rather than customized solutions. Modest fine tuning helps achieve performance objectives.

Investing in small, quick impact projects sets stage for more ambitious and demanding projects.

*Numbers may add to more than 100 due to rounding*
On-premise versus cloud preferences evenly divided

Cloud resources, which are hosted and accessed online, are an increasingly important part of how small and midsize businesses obtain technology. Over half of small businesses and three quarters of midsize firms worldwide use at least one cloud-based resource, and cloud engagements continue to grow. Fast-growing firms show the same level of cloud interest as small and midsize firms in general – all find cloud resources increasingly appealing.

**Preferred application platform by company size**

- Prefer on-premises solutions in general
  - Total: 42%
  - 10-99: 42%
  - 100-499: 44%
  - 500-999 employees: 40%

- Prefer cloud solutions in general
  - Total: 40%
  - 10-99: 40%
  - 100-499: 40%
  - 500-999 employees: 46%

- No preference
  - Total: 16%
  - 10-99: 18%
  - 100-499: 16%
  - 500-999 employees: 14%

Cloud is of interest to firms in developed and developing countries, with greatest interest in China, India, and Brazil. See Appendix 5 for country details.
Cloud drivers and inhibitors are in transition

While cost savings drew initial interest in the cloud 5-10 years ago, the key reasons for using cloud capabilities today are convenience and ease of integration. Security is still a concern but less so than in the past. Management, control, and performance issues are all potential concerns whether firms are fast growing or not.

### Key Factors/Benefits Encouraging Cloud Use

<table>
<thead>
<tr>
<th>Fast growing</th>
<th>All others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to integrate into current apps/IT environment</td>
<td>35.8%</td>
</tr>
<tr>
<td>Expand IT resources without adding staff</td>
<td>30.3%</td>
</tr>
<tr>
<td>Add new users without difficulty</td>
<td>33.9%</td>
</tr>
<tr>
<td>Have everyone use latest software</td>
<td>33.5%</td>
</tr>
<tr>
<td>Remote management/coordination</td>
<td>32.6%</td>
</tr>
<tr>
<td>Pay only for what’s used</td>
<td>29.6%</td>
</tr>
</tbody>
</table>

### Key Factors/Concerns Discouraging Cloud Use

<table>
<thead>
<tr>
<th>Fast growing</th>
<th>All others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data security</td>
<td>44.9%</td>
</tr>
<tr>
<td>Service reliability</td>
<td>31.1%</td>
</tr>
<tr>
<td>Recurring cost of ownership</td>
<td>29.8%</td>
</tr>
<tr>
<td>Don’t want to be locked in to using single service provider</td>
<td>27.4%</td>
</tr>
<tr>
<td>Loss of IT department control over apps</td>
<td>25.2%</td>
</tr>
<tr>
<td>Potential regulatory/compliance issues</td>
<td>24.9%</td>
</tr>
</tbody>
</table>

Fast-growing firms are more likely to note multiple cloud benefits and multiple cloud concerns.
Midsize firms more likely to indicate transformation progress, but there’s work ahead

The majority of small and midsize firms say they are on the road to digital transformation, although for many the acquisition of key resources and their coordination is still at an early stage. For most firms, the awareness of the opportunity in aligning and leveraging technology assets is where real benefit can be found. Coordinating and updating customer information across CRM, financial, and other applications can improve internal efficiency and the quality of a customer’s experience, for example.

**Digital transformation progress by company size**

<table>
<thead>
<tr>
<th>Total</th>
<th>10-99</th>
<th>100-499</th>
<th>500-999 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>14%</td>
<td>19%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>22%</td>
<td>26%</td>
<td>20%</td>
<td>21%</td>
</tr>
<tr>
<td>31%</td>
<td>30%</td>
<td>33%</td>
<td>31%</td>
</tr>
<tr>
<td>26%</td>
<td>22%</td>
<td>29%</td>
<td>27%</td>
</tr>
<tr>
<td>7%</td>
<td>5%</td>
<td>7%</td>
<td>9%</td>
</tr>
</tbody>
</table>

We have done little to no work in applying technology as part of digital transformation and participation in the Digital Economy.

We are beginning to automate different functions but not in a coordinated fashion.

We are at an early stage in coordinating and automating different activities within operating areas but have more work to do.

We are well underway in applying technology to connect people, devices, and businesses in the way we conduct business in the Digital Economy.

We have gone beyond integration and now derive real-time insights to drive optimizations in processes and workflows to yield business results.

of small and midsize firms say they are well underway or better. This increases to 40% among fast growing firms. There is a clear association between business success (revenue growth) and technology engagement and coordination, which is at the heart of digital transformation. See Appendix 2 for country details.
Firms don’t feel further along in digital transformation despite technology use

Compared to almost a year ago, the share of small to midsize companies that see themselves as well along in digital transformation is actually lower: while 43% considered themselves well underway or better a year ago, only 35% make that assessment today. IDC doesn’t think firms have actually lost ground, but rather that they have a more realistic view of where they are and what they still have to do. After all, the use of different technology solutions has grown significantly. The increase in firms saying they are beginning the transformation journey reflects recognition of the complexity and continuing nature of the process.

**Digital transformation stage by company size**

- Jan. 2017

- **14%** - 13%
  - We have done little to no work in applying technology as part of digital transformation and participation in the Digital Economy.

- **18%** - 22%
  - We are beginning to automate different functions but not in a coordinated fashion.

- **25%** - 30%
  - We are at an early stage in coordinating and automating different activities within operating areas but have more work to do.

- **33%** - 27%
  - We are well underway in applying technology to connect people, devices, and businesses in the way we conduct business in the Digital Economy.

- **10%** - 8%
  - We have gone beyond integration and now derive real-time insights to drive optimizations in processes and workflows to yield business results.
Customer-facing teams most likely seen to benefit from digital transformation

Small and midsize businesses, independent of size and region, are remarkably consistent regarding the areas they consider the greatest potential beneficiaries of digital transformation. Sales and marketing are most often identified as areas that could benefit from technology updating, especially by fast-growing companies. Every major industry group, from services to manufacturing, also named sales and marketing as the top potential beneficiaries, especially wholesale and retail firms. While internal processes may be considered sufficient and even exceptional by many, external-facing sales and marketing are considered real opportunity areas for new investment.

Areas that benefit from leveraging technology by company size

- **Sales**: 27% Total, 28% 10-99, 27% 100-499, 26% 500-999
- **Marketing**: 30% Total, 30% 10-99, 31% 100-499, 29% 500-999
- **Production/operations**: 20% Total, 22% 10-99, 22% 100-499, 21% 500-999
- **Commerce/ecommerce**: 21% Total, 22% 10-99, 22% 100-499, 21% 500-999
- **Customer service/call center**: 19% Total, 21% 10-99, 20% 100-499, 20% 500-999
- **Finance**: 14% Total, 14% 10-99, 13% 100-499, 13% 500-999
- **Supply chain management**: 14% Total, 15% 10-99, 12% 100-499, 13% 500-999
- **Manufacturing**: 12% Total, 14% 10-99, 10% 100-499, 12% 500-999
- **Strategic planning**: 10% Total, 9% 10-99, 10% 100-499, 9% 500-999
- **HR**: 9% Total, 9% 10-99, 6% 100-499, 8% 500-999

Independent of size, half of firms say sales or marketing could benefit from technology updating.

See Appendix 3 for country details.
Lessons from past technology deployments will help in the future – up to a point

In keeping with the high levels of success (70%+) in achieving performance goals of technology investments, 4 out of 5 small and midsize firms also note that technology acquisition and deployment were no harder than anticipated. The implication? Firms tended to overestimate potential challenges in moving forward with new technology. Of course, preparation is critical. And in the future, most firms expect their past experiences to be helpful. Funding can be seen as the greatest challenge by those moving ahead with new technology; in retrospect, firms are more likely to call out training and execution timetables rather than budget as requiring more attention. Implementation may take longer and involve more staff training than anticipated.

Impact of past lessons on future deployments by company

<table>
<thead>
<tr>
<th>Impact of lessons</th>
<th>Total</th>
<th>10-99</th>
<th>100-499</th>
<th>500-999 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>These lessons will greatly help in planning and implementing future applications</td>
<td>41%</td>
<td>40%</td>
<td>38%</td>
<td>40%</td>
</tr>
<tr>
<td>These lessons will be helpful but each case has its unique issues</td>
<td>40%</td>
<td>39%</td>
<td>37%</td>
<td>38%</td>
</tr>
<tr>
<td>Specifically, will involve greater user training</td>
<td>35%</td>
<td>36%</td>
<td>30%</td>
<td>34%</td>
</tr>
<tr>
<td>Specifically, will allocate more time</td>
<td>31%</td>
<td>32%</td>
<td>30%</td>
<td>31%</td>
</tr>
<tr>
<td>Specifically, will allocate greater budget</td>
<td>28%</td>
<td>30%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>Specifically, will work with third party/involve third party more</td>
<td>27%</td>
<td>26%</td>
<td>22%</td>
<td>25%</td>
</tr>
<tr>
<td>Lessons not really applicable</td>
<td>19%</td>
<td>17%</td>
<td>14%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Next time:
» More training
» More time
» More budget
How to manage your digital transformation

Three takeaways

1. **Leveraging technology** to improve efficiency and competitive position is not enough. New technology should be integrated effectively, leveraging and contributing to key internal databases for maximum impact.

2. **Digital transformation is a process, not a destination.** It supports company business objectives at the highest level.

3. **Direct and continuing participation** of senior management and line-of-business executives as well as IT management is key. Flexibility and agility in technology investment is good, but it should contribute to digital transformation objectives.
Key questions to ask about your firm’s transformation efforts

Benchmark your performance and get regular feedback from internal and external stakeholders. Given the pace of competitive change, customers and business partners may be aware of potential opportunities (or problems) before you are. **Do you know where you are falling short compared to competitors?**

Business best practices are now table stakes for successful small and midsize firms. **Do you have a technology investment road map in support of digital transformation to enable business strategy?**

High levels of satisfaction and performance gains are associated with digital transformation efforts – and concerns about potential difficulties were generally overestimated.

**Small and midsize firms see clear results of their technology investments, with continued progress on the path to transformation.**
Methodology

» For this report, IDC conducted a worldwide survey of 3,904 small and midsize business decision makers.

» The survey included companies with between 10 and 999 employees.

» The online survey was completed in November 2016.

» Countries in the survey include Australia/New Zealand, Brazil, China, France, Germany, India, Japan, Korea, Mexico, Singapore, South Africa, U.K., and the U.S.
Appendix: Details by country

» Top priorities for small and midsize businesses worldwide by country
» Digital transformation self-assessment
» Use of different software resources
» Key reasons for adding advanced technology solutions
» Cloud versus on-premise deployment preferences
1. Top priorities for small and midsize businesses worldwide by country (%)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Australia/New Zealand</th>
<th>Brazil</th>
<th>China</th>
<th>France</th>
<th>Germany</th>
<th>India</th>
<th>Japan</th>
<th>Korea</th>
<th>Mexico</th>
<th>Singapore</th>
<th>South Africa</th>
<th>U.K.</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer acquisition OR acquire new customers</td>
<td>52.0</td>
<td>65.8</td>
<td>53.3</td>
<td>57.0</td>
<td>66.0</td>
<td>59.7</td>
<td>44.7</td>
<td>47.7</td>
<td>60.3</td>
<td>53.3</td>
<td>58.5</td>
<td>58.3</td>
<td>54.0</td>
</tr>
<tr>
<td>Improve revenue growth</td>
<td>37.3</td>
<td>44.5</td>
<td>42.7</td>
<td>30.7</td>
<td>39.0</td>
<td>49.3</td>
<td>38.7</td>
<td>41.7</td>
<td>40.7</td>
<td>44.0</td>
<td>47.5</td>
<td>44.7</td>
<td>41.7</td>
</tr>
<tr>
<td>Improve efficiency/productivity</td>
<td>39.7</td>
<td>48.5</td>
<td>45.7</td>
<td>37.0</td>
<td>35.0</td>
<td>43.3</td>
<td>28.7</td>
<td>37.3</td>
<td>43.7</td>
<td>40.3</td>
<td>44.9</td>
<td>44.7</td>
<td>40.1</td>
</tr>
<tr>
<td>Reduce costs/expenses</td>
<td>39.0</td>
<td>50.2</td>
<td>31.3</td>
<td>38.3</td>
<td>36.3</td>
<td>38.7</td>
<td>41.0</td>
<td>31.7</td>
<td>43.0</td>
<td>42.0</td>
<td>39.5</td>
<td>44.3</td>
<td>41.4</td>
</tr>
<tr>
<td>Grow our business while maintaining the same level of quality</td>
<td>33.7</td>
<td>37.2</td>
<td>47.0</td>
<td>25.0</td>
<td>35.7</td>
<td>35.7</td>
<td>26.0</td>
<td>28.7</td>
<td>40.0</td>
<td>27.7</td>
<td>37.5</td>
<td>39.0</td>
<td>37.1</td>
</tr>
<tr>
<td>Become more innovative</td>
<td>32.0</td>
<td>33.9</td>
<td>51.0</td>
<td>26.3</td>
<td>18.0</td>
<td>46.0</td>
<td>13.3</td>
<td>28.7</td>
<td>40.0</td>
<td>29.0</td>
<td>41.2</td>
<td>26.0</td>
<td>27.8</td>
</tr>
<tr>
<td>Improve customer loyalty</td>
<td>27.7</td>
<td>36.9</td>
<td>35.3</td>
<td>26.7</td>
<td>31.7</td>
<td>42.7</td>
<td>13.0</td>
<td>14.7</td>
<td>23.0</td>
<td>25.0</td>
<td>36.9</td>
<td>30.3</td>
<td>24.5</td>
</tr>
<tr>
<td>Improve cash flow</td>
<td>27.0</td>
<td>29.6</td>
<td>25.7</td>
<td>15.0</td>
<td>20.0</td>
<td>35.0</td>
<td>16.0</td>
<td>19.3</td>
<td>28.7</td>
<td>29.7</td>
<td>37.9</td>
<td>32.7</td>
<td>26.8</td>
</tr>
<tr>
<td>Improve staff retention/development</td>
<td>28.0</td>
<td>18.6</td>
<td>37.7</td>
<td>13.3</td>
<td>20.0</td>
<td>33.0</td>
<td>26.0</td>
<td>35.7</td>
<td>24.3</td>
<td>24.7</td>
<td>28.9</td>
<td>29.0</td>
<td>20.2</td>
</tr>
<tr>
<td>Improve competitive position with regard to larger competitors</td>
<td>21.3</td>
<td>26.6</td>
<td>30.3</td>
<td>18.3</td>
<td>18.3</td>
<td>30.0</td>
<td>17.7</td>
<td>21.7</td>
<td>29.0</td>
<td>22.3</td>
<td>27.6</td>
<td>20.7</td>
<td>20.2</td>
</tr>
</tbody>
</table>
## 2. Digital transformation self assessment by country (%)

<table>
<thead>
<tr>
<th>Australia/ New Zealand</th>
<th>Brazil</th>
<th>China</th>
<th>France</th>
<th>Germany</th>
<th>India</th>
<th>Japan</th>
<th>Korea</th>
<th>Mexico</th>
<th>Singapore</th>
<th>South Africa</th>
<th>U.K.</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have done little to no work in applying technology as part of digital transformation and participation in the Digital Economy.</td>
<td>15.0</td>
<td>16.6</td>
<td>9.0</td>
<td>11.7</td>
<td>16.0</td>
<td>15.3</td>
<td>16.0</td>
<td>13.3</td>
<td>13.0</td>
<td>13.0</td>
<td>16.3</td>
<td>12.7</td>
</tr>
<tr>
<td>We are beginning to automate different functions but not in a coordinated fashion.</td>
<td>23.3</td>
<td>22.9</td>
<td>20.0</td>
<td>27.7</td>
<td>21.3</td>
<td>21.7</td>
<td>18.0</td>
<td>25.0</td>
<td>23.0</td>
<td>28.3</td>
<td>18.9</td>
<td>22.7</td>
</tr>
<tr>
<td>We are at an early stage in coordinating and automating different activities within operating areas but have more work to do.</td>
<td>33.7</td>
<td>29.9</td>
<td>31.7</td>
<td>23.0</td>
<td>30.0</td>
<td>27.3</td>
<td>30.7</td>
<td>38.3</td>
<td>34.7</td>
<td>35.0</td>
<td>26.9</td>
<td>29.0</td>
</tr>
<tr>
<td>We are well underway in applying technology to connect people, devices, and businesses in the way we conduct business in the Digital Economy.</td>
<td>23.0</td>
<td>24.6</td>
<td>20.7</td>
<td>33.0</td>
<td>28.7</td>
<td>28.0</td>
<td>29.7</td>
<td>20.0</td>
<td>24.3</td>
<td>18.0</td>
<td>29.9</td>
<td>30.0</td>
</tr>
<tr>
<td>We have gone beyond integration and now derive real-time insights to drive optimizations in processes and workflows to yield business results.</td>
<td>5.0</td>
<td>6.0</td>
<td>18.7</td>
<td>4.7</td>
<td>4.0</td>
<td>7.7</td>
<td>5.7</td>
<td>3.3</td>
<td>5.0</td>
<td>5.7</td>
<td>8.0</td>
<td>5.7</td>
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</table>
3. Small and midsize businesses use of different software by country (%)

<table>
<thead>
<tr>
<th></th>
<th>Australia/New Zealand</th>
<th>Brazil</th>
<th>China</th>
<th>France</th>
<th>Germany</th>
<th>India</th>
<th>Japan</th>
<th>Korea</th>
<th>Mexico</th>
<th>Singapore</th>
<th>South Africa</th>
<th>U.K.</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration software</td>
<td>26.3</td>
<td>32.2</td>
<td>35.0</td>
<td>30.0</td>
<td>27.7</td>
<td>35.0</td>
<td>27.7</td>
<td>34.0</td>
<td>31.3</td>
<td>30.7</td>
<td>23.6</td>
<td>24.0</td>
<td>18.9</td>
</tr>
<tr>
<td>Customer relationship management (CRM)</td>
<td>31.7</td>
<td>34.9</td>
<td>37.7</td>
<td>28.3</td>
<td>27.7</td>
<td>29.0</td>
<td>25.7</td>
<td>35.0</td>
<td>34.3</td>
<td>31.7</td>
<td>35.2</td>
<td>25.0</td>
<td>25.2</td>
</tr>
<tr>
<td>Commerce/ecommerce including online order taking</td>
<td>28.0</td>
<td>25.9</td>
<td>27.3</td>
<td>27.7</td>
<td>25.7</td>
<td>28.3</td>
<td>28.0</td>
<td>31.0</td>
<td>30.7</td>
<td>35.0</td>
<td>28.9</td>
<td>27.0</td>
<td>21.2</td>
</tr>
<tr>
<td>HR/Talent management</td>
<td>32.3</td>
<td>31.2</td>
<td>25.3</td>
<td>33.7</td>
<td>26.0</td>
<td>29.3</td>
<td>30.0</td>
<td>32.7</td>
<td>34.3</td>
<td>33.3</td>
<td>36.9</td>
<td>30.3</td>
<td>25.8</td>
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<tr>
<td>Enterprise resource planning (ERP)</td>
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<td>31.2</td>
<td>35.7</td>
<td>33.3</td>
<td>25.0</td>
<td>33.7</td>
<td>29.7</td>
<td>32.0</td>
<td>35.3</td>
<td>33.7</td>
<td>36.9</td>
<td>34.3</td>
<td>18.9</td>
</tr>
<tr>
<td>Business analytics/BI</td>
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<td>41.9</td>
<td>38.0</td>
<td>29.7</td>
<td>33.7</td>
<td>32.0</td>
<td>38.0</td>
<td>45.3</td>
<td>43.3</td>
<td>37.7</td>
<td>32.9</td>
<td>31.0</td>
<td>26.2</td>
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<td>Social media analytics</td>
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<td>32.6</td>
<td>44.0</td>
<td>33.7</td>
<td>26.3</td>
<td>31.7</td>
<td>26.7</td>
<td>43.3</td>
<td>41.7</td>
<td>34.7</td>
<td>27.9</td>
<td>30.3</td>
<td>27.8</td>
</tr>
<tr>
<td>Planning/coordination solutions with partners/suppliers</td>
<td>34.0</td>
<td>35.5</td>
<td>48.7</td>
<td>34.3</td>
<td>29.0</td>
<td>37.7</td>
<td>29.0</td>
<td>41.3</td>
<td>41.0</td>
<td>40.7</td>
<td>35.5</td>
<td>31.7</td>
<td>26.8</td>
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<tr>
<td>Advanced business networks</td>
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<td>45.7</td>
<td>35.7</td>
<td>35.0</td>
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<td>39.3</td>
<td>34.0</td>
<td>35.5</td>
<td>33.3</td>
<td>29.1</td>
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<tr>
<td>Internet of Things technologies</td>
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<td>33.9</td>
<td>43.7</td>
<td>32.3</td>
<td>32.0</td>
<td>37.7</td>
<td>32.7</td>
<td>45.0</td>
<td>38.0</td>
<td>36.0</td>
<td>33.9</td>
<td>36.3</td>
<td>28.8</td>
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</tbody>
</table>
### 4. Reasons for initial technology choice by country (%)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Australia/New Zealand</th>
<th>Brazil</th>
<th>China</th>
<th>France</th>
<th>Germany</th>
<th>India</th>
<th>Japan</th>
<th>Korea</th>
<th>Mexico</th>
<th>Singapore</th>
<th>South Africa</th>
<th>U.K.</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where need was greatest</td>
<td>43.0</td>
<td>55.9</td>
<td>51.4</td>
<td>44.9</td>
<td>48.2</td>
<td>49.3</td>
<td>43.5</td>
<td>56.6</td>
<td>43.4</td>
<td>43.2</td>
<td>48.4</td>
<td>48.6</td>
<td>41.4</td>
</tr>
<tr>
<td>Easiest/Quickest to implement</td>
<td>34.8</td>
<td>28.7</td>
<td>41.2</td>
<td>31.9</td>
<td>29.4</td>
<td>41.4</td>
<td>33.5</td>
<td>34.7</td>
<td>37.5</td>
<td>36.8</td>
<td>39.3</td>
<td>36.8</td>
<td>31.4</td>
</tr>
<tr>
<td>Quickest/highest ROI</td>
<td>24.1</td>
<td>21.9</td>
<td>50.3</td>
<td>31.2</td>
<td>12.5</td>
<td>41.1</td>
<td>17.6</td>
<td>27.0</td>
<td>23.5</td>
<td>23.3</td>
<td>27.4</td>
<td>28.6</td>
<td>23.1</td>
</tr>
<tr>
<td>Driven by customer/partner need</td>
<td>27.4</td>
<td>22.2</td>
<td>43.6</td>
<td>18.5</td>
<td>16.1</td>
<td>40.1</td>
<td>24.7</td>
<td>28.1</td>
<td>26.8</td>
<td>34.2</td>
<td>32.3</td>
<td>20.4</td>
<td>25.5</td>
</tr>
<tr>
<td>Driven by department or group independently</td>
<td>17.4</td>
<td>16.5</td>
<td>30.4</td>
<td>14.9</td>
<td>9.4</td>
<td>33.6</td>
<td>18.8</td>
<td>21.2</td>
<td>18.8</td>
<td>17.7</td>
<td>19.3</td>
<td>17.5</td>
<td>16.2</td>
</tr>
<tr>
<td>Directed by CEO, President</td>
<td>19.3</td>
<td>13.3</td>
<td>25.0</td>
<td>18.8</td>
<td>14.5</td>
<td>30.1</td>
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<td>17.2</td>
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<td>19.5</td>
<td>18.2</td>
<td>17.5</td>
<td>15.2</td>
</tr>
<tr>
<td>Driven by software vendor, VAR, etc.</td>
<td>9.3</td>
<td>9.0</td>
<td>21.3</td>
<td>8.0</td>
<td>6.3</td>
<td>27.4</td>
<td>8.8</td>
<td>12.4</td>
<td>13.2</td>
<td>10.9</td>
<td>14.0</td>
<td>9.6</td>
<td>9.7</td>
</tr>
<tr>
<td>Driven by IT department</td>
<td>15.2</td>
<td>17.2</td>
<td>16.2</td>
<td>10.9</td>
<td>11.8</td>
<td>34.6</td>
<td>16.7</td>
<td>13.1</td>
<td>14.3</td>
<td>14.3</td>
<td>24.6</td>
<td>23.9</td>
<td>20.3</td>
</tr>
<tr>
<td>Part of expansion/upgrade of current technology</td>
<td>11.1</td>
<td>11.8</td>
<td>24.0</td>
<td>6.5</td>
<td>5.9</td>
<td>15.1</td>
<td>9.2</td>
<td>14.2</td>
<td>19.5</td>
<td>13.9</td>
<td>5.1</td>
<td>9.6</td>
<td>9.7</td>
</tr>
</tbody>
</table>
5. Cloud versus on-premise application deployment preferences by country (%)

<table>
<thead>
<tr>
<th>Prefer on-premises solutions in general</th>
<th>Prefer cloud solutions in general</th>
<th>No preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia/New Zealand</td>
<td>Brazil</td>
<td>China</td>
</tr>
<tr>
<td>40.3</td>
<td>37.2</td>
<td>28.7</td>
</tr>
<tr>
<td>42.0</td>
<td>51.5</td>
<td>56.0</td>
</tr>
<tr>
<td>17.7</td>
<td>11.3</td>
<td>15.3</td>
</tr>
</tbody>
</table>