Accenture Life Sciences
Rethink Reshape Restructure...for better patient outcomes

Industry at a Crossroads:
The Rise of Digital in the Outcome-Driven R&D Organization

Accenture Research Note: Key findings from a survey of 76 Pharmaceutical R&D senior executives from the US and Europe.
The pharmaceutical industry is making a fundamental shift from a product focus to a patient-outcome focus. Consequently, R&D organizations—from the processes used to the capabilities in which they invest—must also reflect this strategic shift. The question for many R&D organizations is how to make the transition given the options available and very real budget constraints.

It was in this context that Accenture undertook a survey of R&D leaders at US-based and European pharmaceutical firms (see About the research) to identify how R&D organizations are prioritizing achievement of this fundamental shift, what they are specifically doing, and how they are investing to ensure success. This paper presents key findings and insights from the research that can help pharmaceutical leaders place the right bets, and chart a path toward improved patient outcomes, higher productivity and more profitable growth and innovation.
Accenture surveyed 76 R&D leaders at US-based and European pharmaceutical firms to identify what R&D teams are doing to make this shift, and how they are investing to ensure success.

About the Research

Company Headquarter & Respondent Location

- United States: 35
- Germany: 10
- Switzerland: 10
- United Kingdom: 11
- France: 10

Revenue of Respondent Organization

- $1-5B: 30
- $6-10B: 17
- $11-25B: 14
- >$25B: 15

86% of respondents were the firm’s most senior R&D executive or senior divisional R&D executive.

14% of respondents were the firm’s senior R&D technology executive.
Key Findings

1. Improving patient outcomes ranked as R&D’s #1 priority.

2. Digital is a primary driver of becoming more focused on patient outcomes.

3. Adoption of digital is inconsistent; half of respondents are "all in" while others are exploring or waiting.

Key Findings

Improving patient outcomes ranked as R&D's #1 priority.

The vast majority of respondents (99%) report that transforming their R&D model to be more patient outcome focused is critical or very important. While 39% of respondents ranked transforming R&D to be more focused on patient outcomes as among the top 3 keys priorities of R&D organizations, an even larger number—49%—stated that it should be among the top 3 priorities (Figure 1).

These objectives were followed closely by:

1. Developing more targeted therapies rather than broad based therapies (37%)
2. Achieving faster time to market from First in Human to Approval (36%)
3. Improving R&D productivity via increased quantity and quality of NMEs (36%)

Figure 1: Key strategic imperatives ARE/SHOULD BE across the industry for R&D to facilitate getting medicines to patients faster? (Top Three)

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The vision of executives indicates a shift to value for patients that enables cost reduction. Speed is no longer the top priority.

What does it mean for an organization to be "patient outcome focused"?

We refer to a company as "patient outcome focused" when its stated value proposition centers on delivering outcomes-based health and therapy management services. This usually is realized through connected devices, sensors, services, social engagement, and other "aware" solutions. Executives see the application of digital technology as a way to address patients in a more sophisticated way to improve patient outcomes. Improving productivity and enhancing product quality and innovation rounded out the top three benefits that digital could deliver.

It is worth noting that the prioritization to patient outcome focus in the future was consistent regardless of size, geography or product focus.
Among respondents, one in four said that digital will have the greatest impact on their firm’s ability to transform their R&D model to become more patient-focused. Digitizing processes to improve R&D productivity was cited as the second area where digital would have the largest impact (22%) (Figure 2).

There was significant correlation between the areas that organizations felt that digital capabilities could have a beneficial impact on and the strategic imperatives that they were already prioritizing. As a result, this revealed additional opportunities for organizations to consider when implementing digital capabilities that could yield tangible benefits.

Figure 2: In which of the following areas are digital technologies having the greatest impact on the industry? (Top three answers)

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Transforming our R&amp;D model to be more patient outcome focused</td>
<td>25%</td>
</tr>
<tr>
<td>Improving R&amp;D Productivity through Digitized Processes</td>
<td>22%</td>
</tr>
<tr>
<td>Enhancing Quality and Compliance to meeting changing regulatory requirements</td>
<td>18%</td>
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Executives felt that digital can enable better patient outcome focus, improve productivity and enhance quality and compliance. Additional benefits included cost saving benefits, operation integration, analytics and patient recruitment.
Industry at a Crossroads: The Rise of Digital in the Outcome-Driven R&D Organization
Despite the shared belief that digital can deliver sharper patient focus and improved outcomes, and the clear impact digital has had in transforming other sectors of pharma, there appears to be an even split among survey respondents about their own organization’s digital adoption rate. Over half of executives surveyed confirm that their companies are already adopting digital as a key strategy in R&D (55%) while 42% characterize their firm’s efforts as exploring how digital might improve their organizations and 3% are “waiting and seeing” how digital is deployed before ramping up capability (Figure 3).

Companies that have made the commitment to digital have made organizational changes to scale digital efforts. For example, several companies have appointed a Global Head of Digital. Many companies also have a digital Center of Excellence that can assist in assessing and embedding digital capability across functions from R&D to Commercial to Medical Affairs.

**Figure 3: Which of the following statements best describes the degree to which your R&D organization is adopting new digital technologies?**

- **We are adopting digital as a key strategy in R&D**
  - 55%

- **We are exploring how digital can enable R&D**
  - 42%

- **We are observing how others are benefiting from digital before adopting digital**
  - 3%

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Executives from the companies that have already adopted digital report significantly stronger R&D capabilities in key areas. They are far more advanced in core process redesign of Target Product Profile and Clinical Development Plan, collaborating with other commercial organizations, harnessing real-world data analytics and using digital to make more effective use of Medical Science Liaisons (Figure 4).

Figure 4: Percentage of respondents who answered “Strong” when asked about current performance in each area:

| Activity                                      | Percentage
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<tbody>
<tr>
<td>Harnessing real-world data analytics</td>
<td>60%</td>
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<tr>
<td>Core process redesign of TPP and CDP</td>
<td>55%</td>
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<tr>
<td>Using digital to make more effective use of Medical Science Liaisons (MSLs)</td>
<td>57%</td>
</tr>
<tr>
<td>Collaborating with other commercial organizations</td>
<td>60%</td>
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<tr>
<td></td>
<td>50%</td>
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<tr>
<td></td>
<td>34%</td>
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<tr>
<td></td>
<td>47%</td>
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<td>41%</td>
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In addition to the split among companies that are fully embracing versus merely exploring digital, it is clear that companies' approach to digital differs depending upon whether their focus is primary care products versus specialty or hybrid products. Primary care organizations ranked digital in the top third of needed future capabilities, but rated their current digital capability in the lowest third. The opposite was true for specialty and hybrid organizations. Hybrid and specialty care companies rated digital as less important, and fewer have adopted digital, yet those that have tend to perform well in it (Figure 5).

Digital services are often seen by primary care companies as one way to achieve product differentiation in crowded therapeutic areas, while hybrid and specialty firms rely more on product efficacy itself for differentiation. This finding is consistent with Accenture Life Sciences patient research which found that patients want and expect pharmaceutical companies to offer services to help them better manage their health, including digitally-enabled services.

Figure 5: Capability to use Digital to enhance R&D—Social Media in mining patient feedback for unmet need, effectiveness of Rx (virtual trials):

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<thead>
<tr>
<th></th>
<th>Primary Care</th>
<th>Specialty Care</th>
<th>Hybrid</th>
<th>MedTech</th>
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<tbody>
<tr>
<td>Current Capability Assessment (“Excellent”)</td>
<td>8% 10%</td>
<td>5% 6%</td>
<td>13% 6%</td>
<td>7% 7%</td>
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<tr>
<td>Future Capability Importance</td>
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Digital platforms offer a uniquely efficient way of integrating more patient information in pharma R&D processes—information that could impact patient outcomes—yet many of these opportunities are missed or not fully explored. For example, when asked to identify the most important changes required to demonstrate patient outcomes we found that:

- Only 59% of respondents thought it was important to create a new process to include patient outcomes/value in TPP and CDP (Figure 6) and
- Only 53% of respondents felt that enabling more emphasis on patient input into clinical research was important to patient outcomes.

Figure 6: What are the most important changes required to demonstrate patient outcomes (as opposed to product claims)? Multiple responses.
Similarly, many seemingly obvious applications of digital were not viewed as top opportunities to enhance respondents’ R&D capabilities (Figure 7):

- 38% of respondents ranked the use or integration of external health data (e.g., patient records, claims data, etc.)
- 32% ranked use of Social Media for patient recruitment, investigator recruitment, and/or safety signaling.
- 32% ranked use of Wearable devices/Mobile health in R&D as important.
- 22% ranked digital enablement of home-based trials as a way of better understanding or supporting patients.

These results raise a number of questions about whether companies’ ability to effectively use digital matches their commitment to do so. Possibilities include a lack of flexibility in a tradition-bound industry; a lack of imagination; fear of regulatory pushback; all of the above or something else entirely...

Figure 7: Which of the following represent the greatest opportunities to enhance your company’s capabilities across R&D?

| Use of external health data e.g., patient records, claims data, etc. | 38% |
| Wearable devices/Mobile health in R&D | 32% |
| Use of Social Media for patient recruitment, investigator recruitment, and/or safety signaling | 32% |
| Trials in the home, and better understanding how to support the patient | 22% |
Where Do We Go from Here?

Together these findings suggest that Life Sciences companies, and the R&D organizations within them, are at a crossroads in terms of moving to a patient outcome oriented model.
Where Do We Go From Here?

R&D executives clearly want to contribute to improving patient outcomes, and see a place for digital in their organizations for helping accomplish this goal. The difference in investment strategies, however, may mean that the journey to that destination may be far longer for some than others. With just over half of the executives surveyed identifying integration of external patient data and increasing patient input at trials as priorities, there appears to be a difference of opinion as to what is actually needed to be patient outcome focused. While some companies are taking a broader perspective and investing in improving internal and external collaboration, frequently by leveraging digital enablers, others remain wedded to more traditional approaches.
Companies that are “exploring” or that are in “wait and see” mode when it comes to digital run the risk of making costly development errors, and by extension ceding competitive position, profit margin, and customer loyalty. To capture the benefits of digital and avoid being left behind, R&D teams should consider the following with respect to transforming digital to be more patient outcome focused:

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<th>Thinking disruptively to gain market growth in specific therapeutic areas (TAs).</th>
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<tr>
<td>TAs such as lifestyle diseases or most chronic illnesses, as well as customer segments like non-mobile patients, provide the best opportunity to think broadly and differently about the strategy to engage patients to ensure improved outcomes.</td>
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<th>Mapping specific digital enablers to major clinical processes as well as to important stakeholders.</th>
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<tr>
<td>Defining quantifiable value, ideal outcomes and experiences for investigators, patients, caregivers, vendors (CROs) etc. can help breakthroug traditional mindsets about whether digital is necessary to serve these stakeholders.</td>
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<table>
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<th>Enabling stronger collaboration with the internal commercial organization as well as third parties.</th>
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<td>The goal could be to identify needed patient engagement services or deficits in patient outcomes that could be closed with digitally solutions.</td>
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<tr>
<th>Fostering a more digital culture and mindset by investing in or leveraging existing digital skills in R&amp;D.</th>
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<td>These could range from data analytic skills and working with Real World Evidence platforms to social media engagement.</td>
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<tr>
<th>Outlining a digital strategy that aligns with current company and R&amp;D priorities.</th>
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<td>For each strategic goal, identify digital enablers that reflect the same scope, objective, competitive differentiation, patient value.</td>
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In the coming weeks our R&D leaders will publish a series of follow-on perspective pieces focused on how R&D organizations can close the gap between their current ways of working and customer expectations toward digital, and leveraging digital innovations to optimize clinical trials.

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References


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About Accenture

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