Navigating the digital transformation can be daunting. Invest in the wrong strategy and your company loses time and focus. Then again, miss out on the right tool and other companies may gain a competitive advantage. To help you along in navigating the digital transformation, the following report highlights key findings and insights, based on a research survey of over 400 C-Suite executives carried out by Dow Jones Intelligence in partnership with Tech Mahindra.
About the Research

Surveyed 400 senior executives
- 40% hold C-level positions
- 40% were their direct reports
- 10% were Heads of Transformation

Diverse countries and industries are represented
- The U.S. (45%), The U.K. (13%), plus 6 other major nations in Europe and Asia
- 6 primary industries, including Financial Services, Life Sciences, CPG, Retail, Telecommunications and Manufacturing

Of the respondents:
- 62% serve both consumers and business customers
- 65% interact with customers both online and face-to-face

The survey sample is evenly divided among businesses with $1bn to $2bn in annual global revenue, $2bn to $5bn, and those over $5bn.
Catering to Customer Needs & Expectations
Improving Customer Experience (CX) is the most important priority for senior leadership teams today, a recent global survey finds. This survey of 400 senior executives at companies with $1bn+ in revenue was carried out by Dow Jones Intelligence in partnership with Tech Mahindra.

Within CX, three factors are closely grouped as receiving the most emphasis: delivering high-quality customer service (45%), providing innovative products and services (41%) and understanding customer needs and expectations (40%).

Delivering outstanding CX means excellence in several core competencies, understanding not just who the customers are, but what they need and what they expect from the companies with which they engage. A deep understanding of and empathy with the customer is the foundation of seamless customer journeys; it’s also key to personalizing sales transactions and ultimately delivering great customer service.

Key Insights on Catering to Customer Needs & Expectations

**KEY POINTS**

- Learning how to leverage external data through AI and ML is key to truly understand and engage customers
- AI and ML rank more highly than other new technologies such as 5G, blockchain and IoT in terms of their value for improving customer experience
- Implementing a dashboard that holistically combines AI and ML with other new technology solutions is currently helping firms to gain a competitive edge
Step one: integrating multiple data sources

According to surveyed executives, integrating data from a wide range of sources is necessary to understand customer expectations and to develop a holistic view of the customer. While that’s not a new objective, the tools for achieving it are rapidly emerging. Applications powered by Artificial Intelligence and Machine Learning (AI/ML) now make it easier to integrate data from different sources and in different formats, which allow companies to not only achieve a 360° view of the customer but help to anticipate and predict future needs, too. As a result, companies that effectively leverage this technology can move beyond solely tracking internal transactional data to integrate customer intelligence from external sources like social media, review sites and other sources of behavioral information.

While over half of total respondent organizations are using external data to better understand their customers’ needs, it rises to close to three quarters of respondents that were identified as “CX Leaders”—those who report the greatest success in achieving overall customer engagement.

And while a significant number of executives surveyed have invested in dashboards and data visualizations, as well as improved forecasting through analytics and automated community engagement, most are still in the process of implementing all or most of these tools.

The use of technology to create an integrated understanding of customer needs is especially important in banking, for example, because customers are demanding new ways of accessing traditional financial products. “Today’s banking customer needs to know that they can get their line of credit, or money, or whatever approved really, really fast and in a very convenient way that fits their lifestyle,” says Andrew Szabo, VP of Scotiabank. “They’re saying ‘I want to apply for a mortgage, and I want to do it sitting on the porch, in thirty minutes.’”

Sophisticated digital processes are required to make this happen because the bank needs to distill complex regulatory and financial processes into the simple interactions that customers want. “So it’s actually a very large process in the background, but all we’re trying to do with the application of technology is make it faster for clients to access products or tool sets that they need to live their lives.”
Solutions for Catering to Customer Needs/Expectations

% implemented

- Using external data to understand customer needs: 72% CX Leaders, 48% Not Leaders
- Using advanced data & analytics for demand forecasting & planning: 51% CX Leaders, 37% Not Leaders
- Implementing dashboards for decision: 66% CX Leaders, 37% Not Leaders
- Automating engagement with online communities: 48% CX Leaders, 33% Not Leaders
- Leveraging ML/AL to interpret customer data: 41% CX Leaders, 31% Not Leaders
Artificial Intelligence / Machine Learning can deliver deep insights

Most respondents have not yet implemented the AL/ML solutions needed to generate real insights, fewer than one in three companies surveyed. That said, more than 60% of executives say they are in the process of implementing or have definite plans to implement this solution.

Despite these challenges, our research confirms that AI/ML is a clear imperative for firms that want to successfully anticipate customer expectations. More than 80% of CX Leaders, say that AI/ML has played the most important role in powering their solutions. This compares with only about one in three who say the same about technologies like 5G wireless, blockchain or the Internet of Things (IoT).

Success depends on an integrated set of solutions

While AI/ML is plainly a key to success in CX, it’s just one piece of the puzzle. CX Leaders are much more likely to say they have instituted every solution included in the survey. Moreover, Leaders are more than twice as likely as other firms to have implemented at least three of the five solutions. What this shows is that while many firms are beginning to use external data and implement dashboards and other visualization tools, the leaders are building an integrated set of complementary technologies, giving them a competitive edge.
Today’s banking customer needs to know that they can get their line of credit, or money, or whatever approved really, really fast and in a very convenient way that fits their lifestyle.

Andrew Szabo, VP of Scotiabank
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Understanding and Evolving The Customer Journey
Improving Customer Experience (CX) is the most important priority for senior leadership teams today (with 4 out of 10 citing it as one of the two most important priorities), a recent global survey finds. This survey of 400 senior executives at companies with $1bn+ in revenue was carried out by Dow Jones Intelligence in partnership with Tech Mahindra.

Understanding and evolving the customer journey is central to the task of improving customer experience because it encompasses every interaction at every touchpoint across multiple channels. It builds on an understanding of customer expectations by making it easier for customers to achieve their goals when they engage with your company.

Key Insights on Understanding and Evolving The Customer Journey

**KEY POINTS**

- Delivering a great customer journey is key to gaining the competitive advantage but will require investment in and understanding of how to use new and critical technologies
- When it comes to applying digital solutions to improve customer experience, the best place to start is with understanding customer intent as it achieves multiple objectives, including strong customer engagement and improved cost efficiencies
- AI and ML will be the most important solutions for tailoring the customer journey because of their ability to distil patterns from multiple, vast data sets
Generating real customer insights can involve analyzing billions of data points across millions of unique customer journeys, so it’s not surprising that executives rank it as the most promising outcome of data analytics and other technology-driven solutions. Yet relatively few companies have fully succeeded in mastering this element of CX.

While close to half of respondent organizations (47%) say they map customer journeys, almost as many indicating that they have implemented tools to: classify customer intent (41%), apply UX solutions (37%) or create “persistent” omni-channel interactions (36%). However, only a handful has implemented all of these solutions, with most having implemented only one or two of the above.

Solutions for Understanding and Evolving the Customer Journey

% Implemented

- Mapping customer journeys through interaction data and observational research: 47%
- Classifying customer intent to personalize content and interactions: 41%
- Applying UX solutions to ensure cross channel consistency: 37%
- Creating “persistent” omni-channel interactions to build interactions: 36%
- Using split testing to optimize digital engagement & interaction: 31%
Personalized content through classifying customer intent

While an integrated set of digital solutions would be ideal, our research finds that classifying customer intent to personalize content and interactions is a great place to start because it achieves multiple objectives. Executives most frequently point to it as critical in helping to deepen their understanding of customer needs, and it is also foundational for creating stronger engagement and improving cost efficiency. Moreover, it generates solid payoffs: fully 60% of executives who have applied technology to classify customer intent say their investment has been “extremely successful”.

True insights require massive data sets

The main solution for evolving the customer journey, however, ultimately relies on mapping the customer journey and analyzing channel interactions. While this understanding can guide CX decision making and deliver measurable performance metrics, it requires deep analysis of very large amounts of data—a task well suited to Artificial Intelligence and Machine Learning (AI/ML) and difficult to achieve without these technologies.

Machine learning, for example, can extract patterns from data without human guidance, and AI can enable the integration of multiple data sources to generate insights. Moreover, companies that achieve this can dynamically assess and respond to emerging trends in customer behavior. This explains why AI/ML are the most frequently cited technologies for powering CX solutions.

Customer journeys in banking can be especially complex with the proliferation of touchpoints using mobile apps, online tools and physical branches. Andres Szabo, VP of Scotiabank, says that the variety of touchpoints across jurisdictions around the globe means that some of them are necessarily developed independently of each other.

“In the past this would have been terrible,” he says, “because none of these products could talk to each other.” But the situation has changed because of the availability of cloud platforms. “Now we can link multiple journey maps together for a client who might start something on their phone and finish in a branch, or vice versa. That puts client experience at the core of most of the technology we use, and process decisions that we make.”
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Andres Szabo, VP of Scotiabank
Success depends on an integrated approach

Of respondents, 15% were identified as “CX Leaders” or those who report the greatest success in achieving overall customer engagement. CX Leaders were substantially more likely to have implemented every solution for understanding and evolving the customer journey included in the survey. Moreover, more than one third of the Leaders say they have implemented at least four of the five solutions in this category, compared with only 13% of other firms.

This integrated approach generates major payoffs: Leaders are more successful at using every technology to deliver improvements to the quality of the customers’ experiences. It is clear, therefore, that delivering a great customer journey creates substantial competitive advantage for firms that are prepared to invest in the necessary technologies.
Personalizing Sales Interactions
Improving Customer Experience (CX) is the most important priority for senior leadership teams today (with 4 out of 10 citing it as one of the two most important priorities), a recent global survey finds. This survey of 400 senior executives at companies with $1bn+ in revenue was carried out by Dow Jones Intelligence in partnership with Tech Mahindra.

Personalizing a customers’ experiences is most important during the actual sales interaction—the point where a customer makes the final decision to do business with a firm. It’s the best opportunity to both ensure that a customer gets exactly what they want, as well as to uncover opportunities for cross-selling and up-selling. Indeed, this is an area that surveyed executives indicated could be most helped by effectively leveraging customer data.

Key Insights on Personalizing Sales Interactions

KEY POINTS

• Promotions based on location and consumer behavior data are the most commonly implemented ways to personalize sales, and have shown encouraging results.

• AI and ML will be critical for improving personalized sales tactics moving forward.

• Personalizing sales interactions must be part of a larger approach to leverage new technology solutions to improve overall CX.

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## Personalized Sales Solutions

<table>
<thead>
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<th>% Implemented</th>
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<tr>
<td>Implementing dynamic pricing/rewards to maximize customer lifetime value</td>
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<tr>
<td>Enhancing sales interactions with personalized information/content delivered to sales professionals</td>
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<tr>
<td>Location-based promotions &amp; content-based customer behaviour data</td>
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<td>Enabling self-service sales</td>
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## Leveraging customer data for sales professionals

Maximizing customer lifetime value through dynamic pricing, rewards and recognition is the most commonly utilized personalization solution today (implemented by 44% of respondents). However, many are looking to arm their sales professionals with better data for improved outcomes. Fully 80% of businesses represented in the survey have either already implemented or are in the process of implementing a system to deliver personalized information to in-person and online sales professionals (42% fully implemented).

Providing sales professionals with details regarding customer preferences, buying patterns and past purchases enables them to offer a bespoke sales experience that generates not only improved understanding of customer needs and expectations (45%) but stronger loyalty (42%), engagement (34%), cost efficiency (31%) and increased sales (26%).

Vish Narendra, SVP and CIO of Graphic Packaging, explains that even though his business depends largely on established relationships with large companies in the food industry, personalized interactions still depend on technology.

“Our goal is to provide a 360-degree view of the customer,” he says. “The salesperson needs to know everything about the account: What's the overall contract volume? What's been ordered today? What deals are in the pipeline? What's the fulfillment status on orders?” He goes on to explain that this information may also include where trucks are positioned at any given time, as well as the status of any outstanding customer issues. “So we're leveraging technology to provide that type of visibility before the sales person has the next customer interaction.”
Personalized promotions are accelerating

Promotions based on location and consumer behavior data are rapidly emerging, having been by implemented by 44% of respondents, with an additional 37% indicating it’s in development at their firm. Further, more than half of executives who have implemented these solutions say their investments have been “extremely successful” in delivering improvements, and nearly everyone reports a substantial degree of enhancement to the quality of their sales interactions.

Artificial Intelligence and Machine Learning are key

Artificial Intelligence and Machine Learning (AI/ML) have a growing role in enabling these solutions. They enable more rapid delivery of relevant personalized information to not just the sales team but to the supporting business functions as well. And AI/ML will become even more essential as businesses increasingly implement advanced analytics to support their sales interactions. Over two-thirds of the executives who call the personalization of the sales interaction the best candidate for improvement through data analytics also say that AI/ML are critical to making those improvements a reality.

Top performance requires a comprehensive approach

The unique needs of each business will determine which solutions are most appropriate for personalizing sales interactions. The research, however, demonstrates that a comprehensive approach works best. Of respondents, 15% were identified as “CX Leaders”—executives who report the greatest possible success in achieving overall customer engagement. These leaders are substantially more likely to have implemented every measured personalized sales solution included in the survey. In fact, more than half have already implemented at least three of the four, compared with only 20% of other firms. CX Leaders are also better at applying each technology to improve the quality of customers’ experiences, giving them a substantial competitive advantage.
The salesperson needs to know everything about the account: What's the overall contract volume? What's been ordered today? What deals are in the pipeline? What's the fulfillment status on orders?

Vish Narendra, SVP and CIO of Graphic Packaging
Delivering High-Quality Customer Service
Improving Customer Experience (CX) is the most important priority for senior leadership teams today (with 4 out of 10 citing it as one of the two most important priorities), a recent global survey finds. This survey of 400 senior executives at companies with $1bn+ in revenue was carried out by Dow Jones Intelligence in partnership with Tech Mahindra.

Within CX, three factors are closely grouped as receiving the most emphasis: delivering high-quality customer service (45%), providing innovative products and services (41%) and understanding customer needs and expectations (40%).

Proactive, personalized customer service is a critical element of the overall customer experience, especially in driving customer satisfaction and loyalty. Executives point to customer service as the top candidate for CX improvement using customer data, not only through direct improvement of service quality but also through sharing customer intelligence with other customer-facing functions.

Key Insights on Delivering High-Quality Customer Service

**KEY POINTS**

- In terms of effectiveness, the low-hanging fruit of equipping employees with digital tools like smartphones and tablets shows dramatic results for improving CX

- Implementing knowledge-management systems is key for delivering high-quality customer service as well as improved cost efficiencies, product innovation and overall customer engagement

- The use of bots powered by AI and ML is growing in popularity and implementation, and early adopters report great satisfaction with how this solution is helping them improve service
Employee enablement is top priority

When businesses set out to use technology to enhance their customer service, the most widely used solution is the use of digital tools like smartphones and tablets by employees, with the goal of enabling ‘anywhere anytime’ accessibility.

Well over half of respondent organizations have leveraged this solution, with virtually all of the remaining executives surveyed indicating they are in the process of implementation or have plans to do so. While this may appear as a basic first step, the impact has been dramatic: it was the most successful of the measured technology-based solutions in the study, with nearly two-thirds of executives saying that it has been “extremely successful” in improving their CX, particularly in terms of cross-departmental collaboration and fostering customer loyalty.

Knowledge management is essential

The efficient flow of information is a major enabler of high-quality customer service. Employees with rapid access to the information they need to resolve customer problems and those who can to track issues to provide more accurate and timely information to customers, are excelling at customer service.

Companies are addressing those information needs with advanced community sharing and knowledge management systems. About 38% of respondents have already implemented these systems and another 43% are in the process of doing so. Further, executives in the study agree that this solution has delivered major enhancements in cost efficiency, product innovation and customer engagement.

In doing so, the Leaders are not only improving service and building customer loyalty but also enabling other functions to work together to deliver an outstanding overall customer experience.

The specific techniques of empowering employees to resolve customer problems vary greatly across industries. Applied Materials provides engineering solutions for manufacturers of advanced microelectronic components. Jay Kerley, Group Vice President and CIO, explains how knowledge management drives customer service in that environment. “We work on a 300-millimeter wafer of silicon, and our products and technologies deposit, remove, and modify materials on that wafer,” he says. “We represent all that in 3D models that our service engineers can work with in a virtual
reality environment on the factory floor. So, for example, he or she can virtually lay underneath a tool and say, “Is there going to be enough access? Am I going to be able to get my arm in here to change this valve or do X, Y, and Z?”

Kerley points out that this specific example illustrates a broader point that applies across industries: “Knowledge management tools are only as effective as the person who is in the right context to use them.”

Artificial Intelligence & Machine Learning power emerging solutions

A less commonly implemented solution—but one that is growing rapidly in both frequency and effectiveness—is the use of service ‘bots’ to route customer interactions to the best source and, in some cases, actually resolving customer problems. This solution depends on Artificial Intelligence and Machine learning (AI/ML), which have seen rapid improvement to the point where many customers don’t distinguish between a bot and a human. More than one-third of firms (37%) represented in the survey have already seen positive results from bots. Though this lags other, more common customer service solutions, it indicates strong uptake of this emerging technology.
A multi-faceted approach is essential

The survey findings demonstrate that the most successful firms are using a multi-faceted approach to improving customer service. We identified “CX Leaders” (15% of respondents) as those who report the greatest success in achieving overall customer engagement. Of Leaders, 62% say they have implemented at least two of three solutions included in this category, compared with only 40% of non-leaders. Additionally, CX Leaders are much more likely than other firms to have implemented every solution included in the survey.
Knowledge management tools are only as effective as the person who is in the right context to use them.

Jay Kerley, Group Vice President and CIO of Applied Materials
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