



2025 Smart Home Trends & Technology Adoption

LANDMARK RESEARCH PROJECT

EXECUTIVE SUMMARY



ASHB AND THE FOLLOWING ASHB MEMBERS FUNDED THIS RESEARCH PROJECT



Introduction

In support of ASHB's research and analysis of smart home opportunities, Harbor Research fielded a comprehensive survey on smart home technologies and trends. The 2025 Smart Home Technology Trends Survey includes feedback from 611 consumers spanning the U.S. and Canada. The primary objective was to deeply explore residential renter and owner perceptions, preferences, and reservations regarding the adoption and usage of smart home technologies. The insights garnered from this study present a picture of the prevailing trends, challenges, and opportunities in the face of growing connectivity, data, AI, and sustainability technologies.

The 2025 ASHB Smart Home Survey saw a reported smart home tech adoption rate of 59%. Readers of the 2024 Smart Home Survey will notice this is an increase from the 49% adoption rate reported in 2024. This increase encompasses a combination of accelerated market forces (e.g., AI hype cycle) and continued iteration of sampling methodology to improve data quality. The latter speaks to Harbor's continued effort to refine methodology and capture a more characteristic sample of the current state of the smart home. In doing so, Harbor Research deployed a targeted, configured sampling exercise to ensure consistent, valid year-over-year data collection.

Smart Home Technology Adoption Trends & Challenges

In terms of adoption, entertainment (smart TVs, displays, and speakers) leads with 55% of adopters reporting some adoption here. The subsequent four device types encompass Smart Thermostats (34%), Security Alarms & Displays (32%), Smart Lights & Controllers (31%), and Access Controls & Recognition Systems (25%), characterizing a mix of product & application categories in the top five device types.

When examining barriers to adoption, cost dominates. 46% of adopters reported cost as a barrier, with 52% of non-adopters also reporting it as a barrier. Following cost, implementation, and setup are the most commonly reported challenges (approximately 28% for both adopters and non-adopters). Both adopters and non-adopters reported no challenges, at 13.5% and 10% of the groups, respectively.

Smart Home Technology & Application Opportunities

The survey explored four sub-topics, covering the current state of AI usage and its impact in the home, sustainability & occupant priorities, environmental comfort & assisted living. The first topic, which explored AI trends, found that nearly 32% of respondents have AI-based capabilities in the home. Of these capabilities, Voice Recognition & Control and AI-Based Energy

Management were the highest reported present today, at 45% and 40% of AI users, respectively. Of this subset of Smart Home users with AI-based capabilities, 46% indicated they have high trust in AI technology vendors to deliver responsible AI, while 45% indicated moderate trust levels.

Relative to sustainability, respondents were asked about their solution preferences, indicating real-time energy monitoring (28%), Automated Energy Optimization (25%), and real-time water monitoring (21%) as the top desired features or capabilities. Occupants were then asked to indicate openness to share data given certain outcomes, to which *Reduced Utilities Costs, Reduced Resource Consumption, and Reduced Food & Single-Use Waste* were the top outcomes where respondents were somewhat or very willing to share data.

The final two topics implemented a combination of solution rankings and stakeholder needs & preferences. Please refer to the final report for the detailed data and analysis of these topics.

Outlook & Solution Development

When assessing data-related solution development, smart home solution providers find themselves in a strategically advantageous position regarding consumer trust and market opportunities. The 2025 survey data reveals that electric and water utilities command the highest consumer confidence for data sharing (3.74/5.0 comfort score), significantly outperforming social media and cloud service providers (3.09-3.12). Security solution providers (3.53) and communication service providers (3.58) also maintain strong levels of trust, while smart device suppliers and HVAC vendors occupy the middle tier (3.45-3.38). This trust hierarchy creates clear partnership pathways for solution providers seeking to leverage established consumer relationships.

The data sharing patterns extend beyond company types to specific data categories, where consumers express the highest comfort with energy/water usage data (3.64), home environment data (3.61), and appliance usage patterns (3.57). This comfort foundation enables sophisticated AI applications around energy optimization and environmental control while providing competitive differentiation opportunities for providers who can demonstrate transparent, valuable data utilization.

Looking ahead at priorities, the survey reveals compelling market opportunities at key technology intersections. Safety and security emerge as the dominant priority at 55.9%, while environmental comfort (36.6%) and air/water quality (38.8%) represent substantial secondary markets. Most significantly, AI adoption willingness peaks in security applications at 26.7%—nearly double the rates seen in other categories—while 45.0% identify

security automation as most useful. This convergence of high priority, strong AI acceptance, and automation preference creates immediate development opportunities for AI-enhanced security systems with integrated environmental monitoring capabilities.

The energy management landscape shows similar intersection potential, with 35.0% citing high energy costs as their primary home challenge, while 28.6% demand real-time energy monitoring and 24.6% seek automated optimization. When combined with the high trust levels for utilities and strong comfort sharing energy data, this creates pathways for comprehensive energy ecosystems that integrate renewable energy, grid connectivity, and AI-driven optimization. Current fragmentation—where only 8.5% of homes achieve truly integrated smart home systems—represents a significant market opportunity for providers offering unified platforms.

The smart home landscape is increasingly shaped by AI capabilities and consumer control preferences. Current AI adoption reaches 32.4% among survey respondents, but willingness expands dramatically when consumers gain transparency and control: 53.8% show increased adoption likelihood with improved data transparency, while 53.2% express greater interest when offered personalized AI workflow configuration. Entertainment systems continue serving as the primary entry point (54.8% of users employ smart TVs/displays), while security (32.0%) and climate control (34.4% smart thermostats) represent the next adoption tier.

Cost barriers remain the dominant challenge at 48.8% of respondents, but solution pathways are emerging through utility partnerships and subscription models. Setup complexity affects 27.9% of potential adopters, while data privacy concerns impact 26.2% generally and 43.5% specifically for AI applications. However, the survey demonstrates that transparency and user control can overcome privacy resistance—creating opportunities for providers who prioritize local processing options, granular consent mechanisms, and clear data usage dashboards.

As smart solution providers look toward 2025 and beyond, the data reveals three critical development priorities. First, AI-enhanced security solutions with environmental monitoring integration represent the highest-value intersection, combining top consumer priority (55.9%) with the strongest AI willingness (26.7%) and substantial automation demand (45.0%). Second, energy management ecosystems leveraging utility partnerships can address the 35.0% experiencing energy cost challenges while building on the highest trust relationships (3.74 utility comfort score). Third, comprehensive assisted living solutions serve the growing demographic represented by the 27.8% of respondents with direct assisted living experience, of whom 38.7% rate wearable biometrics as critically important.

The convergence of consumer priorities, AI acceptance, sustainability focus, and assisted living needs creates unprecedented opportunities for solution providers who can bridge technology capabilities with authentic user value. Providers who emphasize partnership with high-trust entities, demonstrate clear financial benefits, and maintain user control over AI functionality will be best positioned to capture market expansion as smart home adoption accelerates beyond the current 49.9% active user base toward mainstream market penetration.

For more information on the survey and related report, please visit ASHB's website at <https://www.ashb.com/>