

# A Multi-Region Investigation of the Perceptions and Use of Smart Home Devices

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## CODEBOOK FOR VARIABLES

Variable Name	Question/Description	Values
id	Participant ID	A number from 1 to 431
region	Region where the participant is based	US = United States UK = United Kingdom GS = German-speaking countries (Austria, Germany, and Switzerland)
consent	Do you agree with the above terms for participating in the study?	1 = Yes 2 = No -9 = No answer
followedinstructions	Have you answered all questions in the study according to the provided instructions? Please answer honestly. Your answer has NO consequences for you or the compensation you will receive.	1 = I answered all questions according to the provided instructions. 2 = I sometimes chose random answer options because I was not motivated to answer the question or did not know how to answer it. 3 = I often chose random answer options because I wanted to finish as quickly as possible. -9 = No answer
distractions	Could you complete the questionnaire without distractions? Please answer honestly. Your answer has NO consequences for you or the compensation you will receive.	1 = I completed the study will full attention. 2 = I was sometimes distracted (by people, noises, etc.). 3 = I was often distracted (by people, noises, etc.). -9 = Not answered
commitment	We care about the quality of our data. In order for us to get the most accurate measures of your knowledge and opinions, it is important that you thoughtfully provide your best answers to each question in the study. Will you provide your best answers to each question in this study?	1 = I will provide my best answers. 2 = I will NOT provide my best answers. 3 = I cannot promise either way. -9 = No answer
In your opinion, which of the household devices listed below would benefit from Smart capabilities?		
smartbenefit_coffeemaker	Coffee Maker	FALSE = Not checked; TRUE = Checked
smartbenefit_dishwasher	Dishwasher	FALSE = Not checked; TRUE = Checked
smartbenefit_doorlock	Door Lock	FALSE = Not checked; TRUE = Checked
smartbenefit_doorbell	Doorbell	FALSE = Not checked; TRUE = Checked
smartbenefit_electricitymeter	Electricity Meter	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
smartbenefit_outlet	Electrical Outlet	FALSE = Not checked; TRUE = Checked
smartbenefit_fridge	Fridge	FALSE = Not checked; TRUE = Checked
smartbenefit_gardening	Gardening Equipment	FALSE = Not checked; TRUE = Checked
smartbenefit_hvac	Heating/Cooling System	FALSE = Not checked; TRUE = Checked
smartbenefit_homemonitor	Home Monitoring System	FALSE = Not checked; TRUE = Checked
smartbenefit_lightbulb	Light Bulb	FALSE = Not checked; TRUE = Checked
smartbenefit_oven	Oven	FALSE = Not checked; TRUE = Checked
smartbenefit_speaker	Speaker	FALSE = Not checked; TRUE = Checked
smartbenefit_stove	Stove	FALSE = Not checked; TRUE = Checked
smartbenefit_tv	TV	FALSE = Not checked; TRUE = Checked
smartbenefit_thermostat	Thermostat	FALSE = Not checked; TRUE = Checked
smartbenefit_toy	Toy	FALSE = Not checked; TRUE = Checked
smartbenefit_vacuum	Vacuum Cleaner	FALSE = Not checked; TRUE = Checked
smartbenefit_washer	Washing Machine	FALSE = Not checked; TRUE = Checked
smartbenefit_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
smartbenefit_othertext	Other (Please specify):	Open-ended text response
In your opinion, which of household devices listed below would present a security risk if they were equipped with Smart capabilities?		
smartsecurityrisk_coffeemaker	Coffee Maker	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_dishwasher	Dishwasher	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_doorlock	Door Lock	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_doorbell	Doorbell	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_electricitymeter	Electricity Meter	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_outlet	Electrical Outlet	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_fridge	Fridge	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_gardening	Gardening Equipment	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_hvac	Heating/Cooling System	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_homemonitor	Home Monitoring System	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
smartsecurityrisk_lightbulb	Light Bulb	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_oven	Oven	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_speaker	Speaker	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_stove	Stove	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_tv	TV	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_thermostat	Thermostat	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_toy	Toy	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_vacuum	Vacuum Cleaner	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_washer	Washing Machine	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
smartsecurityrisk_othertext	Other (Please specify):	Open-ended text response
On a scale of 1 to 7, please indicate the extent to which you believe the following functionalities add Smart capabilities to a device: (1 indicates 'Strongly Disagree' and 7 indicates 'Strongly Agree.')		
smartfunction_media	Playing media content (e.g., videos, music, etc.)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_appliances	Controlling appliances (e.g., lights, coffee maker, stove, oven, etc.)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_hvac	Adjusting internal climate (e.g., temperature, air quality, etc.)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_powerconsumption	Managing power consumption	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_detectproblems	Detecting malfunction	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_monitorhealth	Monitoring health	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_safety	Improving safety	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_communication	Enabling more communication modes (voice, text, email, etc.)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_othertext	Other (Please specify):	1; 2; 3; 4; 5; 6; 7; -9 = No answer
smartfunction_othertext	Other (Please specify):	Open-ended text response
On a scale of 1 to 7, please indicate the extent to which you find the following factors to be benefits of Smart Home technologies: (1 indicates 'Strongly Disagree' and 7 indicates 'Strongly Agree.')		
benefit_savemoney	Saving money	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_saveenergy	Saving energy	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_convenience	Increasing convenience	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_leisure	Enhancing leisure activities	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_peaceofmind	Providing peace of mind	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_comfort	Providing comfort	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_safety	Increasing safety	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_care	Providing care	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_lifequality	Improving the quality of life	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_propertyvalue	Increasing property value	1; 2; 3; 4; 5; 6; 7; -9 = No answer
benefit_othertext	Other (Please specify):	Open-ended text response
On a scale of 1 to 7, please indicate the extent to which you use Smart Home Devices for the following purposes: (1 indicates 'Not at all' and 7 indicates 'All the time.')		

Variable Name	Question/Description	Values
purpose_appliances	Controlling appliances (e.g., lights, coffee maker, stove, oven, etc.)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purpose_homemonitoring	Controlling home monitoring systems	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purpose_internalcommunication	Communicating with the inside of the home (e.g. calling Smart Home Devices within the home)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purpose_externalcommunication	Communicating with the outside of the home (e.g. using a video doorbell or home monitoring system installed on the outside of the home)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purpose_automation	Automating tasks	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purpose_othertext	Other (Please specify):	Open-ended text response
shdexperience	How would you rate your experience in using Smart Home Devices? (1 indicates 'Very Unfamiliar' and 7 indicates 'Very Familiar.')	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shdknowledge	How would you rate your overall knowledge of Smart Home Devices? (1 indicates 'Very Unfamiliar' and 7 indicates 'Very Familiar.')	1; 2; 3; 4; 5; 6; 7; -9 = No answer
Which of the following Smart Home Devices do you own?		
numberofshds		Integer number of devices
own_smartcoffeemaker	Smart Coffee Maker	FALSE = Not checked; TRUE = Checked
own_smartdishwasher	Smart Dishwasher	FALSE = Not checked; TRUE = Checked
own_smartdoorlock	Smart Door Lock	FALSE = Not checked; TRUE = Checked
own_smartdoorbell	Smart Doorbell	FALSE = Not checked; TRUE = Checked
own_smartmeter	Smart Electricity Meter	FALSE = Not checked; TRUE = Checked
own_smartoutlet	Smart Electrical Outlet	FALSE = Not checked; TRUE = Checked
own_smartfridge	Smart Fridge	FALSE = Not checked; TRUE = Checked
own_smartgardening	Smart Gardening Equipment	FALSE = Not checked; TRUE = Checked
own_smarthvac	Smart Heating/Cooling System	FALSE = Not checked; TRUE = Checked
own_smarthomemonitor	Smart Home Monitoring System	FALSE = Not checked; TRUE = Checked
own_smartlightbulb	Smart Light Bulb	FALSE = Not checked; TRUE = Checked
own_smartoven	Smart Oven	FALSE = Not checked; TRUE = Checked
own_smartrobot	Smart Robot	FALSE = Not checked; TRUE = Checked
own_smartspeaker	Smart Speaker	FALSE = Not checked; TRUE = Checked
own_smartstove	Smart Stove	FALSE = Not checked; TRUE = Checked
own_smarttv	Smart TV	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
own_smartthermostat	Smart Thermostat	FALSE = Not checked; TRUE = Checked
own_smarttoy	Smart Toy	FALSE = Not checked; TRUE = Checked
own_smartvacuum	Smart Vacuum Cleaner	FALSE = Not checked; TRUE = Checked
own_smartwasher	Smart Washing Machine	FALSE = Not checked; TRUE = Checked
own_smartdevice_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
own_smartdevice_othertext	Other (Please specify):	Open-ended text response
pickeddevice1	A device picked at random from those marked as owned in the question: 'Which of the following Smart Home Devices do you own?' If no device was marked as owned then a device picked at random from the list of all devices listed in the question.	Smart Coffee Maker Smart Dishwasher Smart Door Lock Smart Doorbell Smart Electricity Meter Smart Electrical Outlet Smart Smart Fridge Smart Smart Gardening Equipment Smart Smart Heating/Cooling System Smart Home Monitoring System Smart Light Bulb Smart Oven Smart Robot Smart Speaker Smart Stove Smart TV Smart Thermostat Smart Toy Smart Vacuum Cleaner Smart Washing Machine
pickeddevice1_owned	A flag to indicate whether the selected device is owned.	0 = Not owned; 1 = Owned

Variable Name	Question/Description	Values
device1_price	What was the purchase price of the [device1] in US Dollars?	1 = Free/Gift 2 = Less than \$5 3 = \$5.01 - \$10.00 4 = \$10.01 - \$20.00 5 = \$20.01 - \$40.00 6 = \$40.01 - \$60.00 7 = \$60.01 - \$80.00 8 = \$80.01 - \$100.00 9 = \$100.01 - \$120.00 10 = \$120.01 - \$140.00 11 = \$140.01 - \$160.00 12 = \$160.01 - \$180.00 13 = \$180.01 - \$200.00 14 = \$200.01 - \$250.00 15 = \$250.01 - \$300.00 16 = \$300.01 - \$350.00 17 = \$300.51 - \$400.00 18 = \$400.51 - \$450.00 19 = \$450.01 - \$500.00 20 = \$500.01 - \$750.00 21 = \$750.01 - \$1000.00 22 = \$1000.01 - \$1250.00 23 = \$1250.01 - \$1500.00 24 = \$1500.01 - \$2000.00 25 = \$2000.01 - \$2500.00 26 = \$2500.01 - \$3000.00 27 = More than \$3000 -9 = No answer
device1_purchaselocation	Where did you purchase this [device1]?	1 = Budget online store from your own country 2 = Online store from another country 3 = Brick-and-mortar store other than that of the manufacturer (but not a general purpose or departmental store) 4 = Brick-and-mortar general purpose or departmental store 5 = Received as a gift 6 = Other (Please specify): -9 = No answer
device1_purchaselocation_othertext	Other (Please specify):	Open-ended text response
device1_used	Did you purchase a used [device1]?	1 = Yes 2 = No -9 = No answer
What [is/would be] the primary use of the [device1]?		
device1_primaryuse_convenience	Increasing convenience	FALSE = Not checked; TRUE = Checked
device1_primaryuse_savemoney	Saving money	FALSE = Not checked; TRUE = Checked
device1_primaryuse_savepower	Reducing power consumption	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device1_primaryuse_safety	Providing safety for household members	FALSE = Not checked; TRUE = Checked
device1_primaryuse_automation	Automating tasks	FALSE = Not checked; TRUE = Checked
device1_primaryuse_latesttech	Experimenting with the latest trends in technology	FALSE = Not checked; TRUE = Checked
device1_primaryuse_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device1_primaryuse_othertext	Other (Please specify):	Open-ended text response
device1_purchasereason	Why did you purchase the [device1]	Open-ended text response
Which of the following sources [did/would] you consult prior to purchasing a [device1]?		
device1_infosources_reviews	Online reviews	FALSE = Not checked; TRUE = Checked
device1_infosources_forums	Online forums	FALSE = Not checked; TRUE = Checked
device1_infosources_printmedia	Print media (e.g., Newspapers, Magazines, etc.)	FALSE = Not checked; TRUE = Checked
device1_infosources_friendsfamily	Friends and Family	FALSE = Not checked; TRUE = Checked
device1_infosources_news	Online news sites	FALSE = Not checked; TRUE = Checked
device1_infosources_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device1_infosources_othertext	Other (Please specify):	Open-ended text response
How [did you hear/have you heard] about the [device1] you purchased?		
device1_hearinfo_tv	TV	FALSE = Not checked; TRUE = Checked
device1_hearinfo_internet	Internet	FALSE = Not checked; TRUE = Checked
device1_hearinfo_printmedia	Print media (e.g., Newspapers, Magazines, etc.)	FALSE = Not checked; TRUE = Checked
device1_hearinfo_friendsfamily	Friends and Family	FALSE = Not checked; TRUE = Checked
device1_hearinfo_store	Brick-and-mortar store	FALSE = Not checked; TRUE = Checked
device1_hearinfo_tradeshows	Trade show	FALSE = Not checked; TRUE = Checked
device1_hearinfo_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device1_hearinfo_othertext	Other (Please specify):	Open-ended text response
On a scale of 1 to 7, please indicate your level of agreement with the following statements as they pertain to your [device1]. (1 indicates 'Never' and 7 indicates 'Always'.)		
device1_protectdata	I believe my [device1] possesses adequate security measures to protect my data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
device1_preventthirdparty	My [device1] has adequate security measures to prevent third-party access to my data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
Do you continue to educate yourself about the [device1] after purchase (e.g., via tutorials)?		
device1_continueeducation		1 = Yes 2 = No -9 = No answer

Variable Name	Question/Description	Values
device1_continueeducation_text	[If the answer to the question 'Do you continue to educate yourself about the [device] after purchase (e.g., via tutorials)?' is 'Yes'] Please tell us how you continue to educate yourself?	Open-ended text response
device1_whenpurchased	How long ago was the [device1] purchased?	1 = 0-6 months 2 = 7-12 months 3 = 13-24 months 4 = 25-36 months 5 = 37-48 months 6 = More than 48 months -9 = No answer
device1_usefrequency	On average, how often do you use the [device1] each day?	1 = 0 times 2 = 1-5 times 3 = 6-10 times 4 = 11-20 times 5 = 21-30 times 6 = 30+ times 7 = Don't know -9 = No answer
device1_alwayson	Is the [device] always on?	1 = Yes 2 = No 3 = Don't know -9 = No answer
device1_disabledfeatures	[Have you disabled/Would you disable] any of the features of the [device1]?	1 = Yes 2 = No -9 = No answer
device1_disabledfeatures_text	[If the answer to the question '[Have you disabled/Would you disable] any of the features of the [device1]' is 'Yes'] Which feature(s) of the [device1], if any, [did/would] you disable?	Open-ended text response
If you mentioned disabling any feature(s) above, why [did/would] you disable the above feature(s)?		
device1_disabledfeatures_battery	Conserving battery life	FALSE = Not checked; TRUE = Checked
device1_disabledfeatures_savepower	Reducing power consumption	FALSE = Not checked; TRUE = Checked
device1_disabledfeatures_privacy	Protecting your privacy	FALSE = Not checked; TRUE = Checked
device1_disabledfeatures_security	Reducing security risks	FALSE = Not checked; TRUE = Checked
device1_disabledfeatures_ux	Enhancing the user experience	FALSE = Not checked; TRUE = Checked
device1_disabledfeatures_unused	Turning off unneeded or unused features	FALSE = Not checked; TRUE = Checked
device1_disabledfeatures_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device1_disabledfeatures_othertext	Other (Please specify):	Open-ended text response
Which types of data do you believe the [device1] [uses/would use]?		
device1_uselocation	Location	FALSE = Not checked; TRUE = Checked



Variable Name	Question/Description	Values
device1_useroutines	Routines	FALSE = Not checked; TRUE = Checked
device1_usespeech	Speech (via microphone)	FALSE = Not checked; TRUE = Checked
device1_usevideo	Video (via camera)	FALSE = Not checked; TRUE = Checked
device1_useimages	Still images (via camera)	FALSE = Not checked; TRUE = Checked
device1_useenvironment	Environmental parameters (e.g., temperature, humidity, noise levels, etc.)	FALSE = Not checked; TRUE = Checked
device1_useinternet	Internet activity	FALSE = Not checked; TRUE = Checked
device1_useonlinepurchases	Online purchases	FALSE = Not checked; TRUE = Checked
device1_useofflinepurchases	Offline purchases	FALSE = Not checked; TRUE = Checked
device1_usepowerconsumption	Power consumption	FALSE = Not checked; TRUE = Checked
device1_useactivities	Activities and gestures	FALSE = Not checked; TRUE = Checked
device1_useother	Other (please specify):)	FALSE = Not checked; TRUE = Checked
device1_useothertext	Other (Please specify):	Open-ended text response
Where do you believe the [device1] [stores/would store] data?		
device1_storeinternet	On the Internet router in the home	FALSE = Not checked; TRUE = Checked
device1_storecloud	On a cloud platform	FALSE = Not checked; TRUE = Checked
device1_storelocal	Locally on the device itself	FALSE = Not checked; TRUE = Checked
device1_storeisp	Servers of the Internet Service Provider (ISP)	FALSE = Not checked; TRUE = Checked
device1_storemanufacturer	Servers of the device manufacturer	FALSE = Not checked; TRUE = Checked
device1_storethirdparties	Servers of third parties	FALSE = Not checked; TRUE = Checked
device1_storeother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device1_storeothertext	Other (Please specify):	Open-ended text response
Where in your home [is/would] the [device1] [be] located?		
device1_locationattic	Attic	FALSE = Not checked; TRUE = Checked
device1_locationbalcony	Balcony	FALSE = Not checked; TRUE = Checked
device1_locationbasement	Basement	FALSE = Not checked; TRUE = Checked
device1_locationkidsroom	Children's room	FALSE = Not checked; TRUE = Checked
device1_locationdining	Dining room	FALSE = Not checked; TRUE = Checked
device1_locationgarage	Garage	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device1_locationguestbedroom	Guest bedroom	FALSE = Not checked; TRUE = Checked
device1_locationhallway	Hallway	FALSE = Not checked; TRUE = Checked
device1_locationkitchen	Kitchen	FALSE = Not checked; TRUE = Checked
device1_locationlivingroom	Living room	FALSE = Not checked; TRUE = Checked
device1_locationmasterbedroom	Master bedroom	FALSE = Not checked; TRUE = Checked
device1_locationpatio	Patio	FALSE = Not checked; TRUE = Checked
device1_locationyard	Yard	FALSE = Not checked; TRUE = Checked
device1_locationother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device1_locationothertext	Other (Please specify):	Open-ended text response
How [do/would] you interact with the [device1]?		
device1_interactvoice	Voice Assistant	FALSE = Not checked; TRUE = Checked
device1_interactapp	App on your phone	FALSE = Not checked; TRUE = Checked
device1_interactbuttons	Physical buttons on the [device1]	FALSE = Not checked; TRUE = Checked
device1_interactscreen	Screen on the [device1]	FALSE = Not checked; TRUE = Checked
device1_interactinternet	Internet-based service connected to the [device1]	FALSE = Not checked; TRUE = Checked
device1_interactrouter	Home Internet router	FALSE = Not checked; TRUE = Checked
device1_interactother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device1_interactothertext	Other (Please specify):	Open-ended text response

Variable Name	Question/Description	Values
pickeddevice2	A device picked at random from those marked as owned in the question: ‘Which of the following Smart Home Devices do you own?’ If no device was marked as owned then a device picked at random from the list of all devices listed in the question.	Smart Coffee Maker Smart Dishwasher Smart Door Lock Smart Doorbell Smart Electricity Meter Smart Electrical Outlet Smart Smart Fridge Smart Smart Gardening Equipment Smart Smart Heating/Cooling System Smart Home Monitoring System Smart Light Bulb Smart Oven Smart Robot Smart Speaker Smart Stove Smart TV Smart Thermostat Smart Toy Smart Vacuum Cleaner Smart Washing Machine
pickeddevice2_owned	A flag to indicate whether the selected device is owned.	0 = Not owned; 1 = Owned
device2_price	What was the purchase price of the [device2] in US Dollars?	1 = Free/Gift 2 = Less than \$5 3 = \$5.01 - \$10.00 4 = \$10.01 - \$20.00 5 = \$20.01 - \$40.00 6 = \$40.01 - \$60.00 7 = \$60.01 - \$80.00 8 = \$80.01 - \$100.00 9 = \$100.01 - \$120.00 10 = \$120.01 - \$140.00 11 = \$140.01 - \$160.00 12 = \$160.01 - \$180.00 13 = \$180.01 - \$200.00 14 = \$200.01 - \$250.00 15 = \$250.01 - \$300.00 16 = \$300.01 - \$350.00 17 = \$300.51 - \$400.00 18 = \$400.51 - \$450.00 19 = \$450.01 - \$500.00 20 = \$500.01 - \$750.00 21 = \$750.01 - \$1000.00 22 = \$1000.01 - \$1250.00 23 = \$1250.01 - \$1500.00 24 = \$1500.01 - \$2000.00 25 = \$2000.01 - \$2500.00 26 = \$2500.01 - \$3000.00 27 = More than \$3000 -9 = No answer

Variable Name	Question/Description	Values
device2_purchaselocation	Where did you purchase this [device2]?	1 = Budget online store from your own country 2 = Online store from another country 3 = Brick-and-mortar store other than that of the manufacturer (but not a general purpose or departmental store) 4 = Brick-and-mortar general purpose or departmental store 5 = Received as a gift 6 = Other (Please specify): -9 = No answer
device2_purchaselocation_othertext	Other (Please specify):	Open-ended text response
device2_used	Did you purchase a used [device2]?	1 = Yes 2 = No -9 = No answer
What [is/would be] the primary use of the [device2]?		
device2_primaryuse_convenience	Increasing convenience	FALSE = Not checked; TRUE = Checked
device2_primaryuse_savemoney	Saving money	FALSE = Not checked; TRUE = Checked
device2_primaryuse_savepower	Reducing power consumption	FALSE = Not checked; TRUE = Checked
device2_primaryuse_safety	Providing safety for household members	FALSE = Not checked; TRUE = Checked
device2_primaryuse_automation	Automating tasks	FALSE = Not checked; TRUE = Checked
device2_primaryuse_latesttech	Experimenting with the latest trends in technology	FALSE = Not checked; TRUE = Checked
device2_primaryuse_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device2_primaryuse_othertext	Other (Please specify):	Open-ended text response
device2_purchasereason	Why did you purchase the [device2]	Open-ended text response
Which of the following sources [did/would] you consult prior to purchasing a [device2]?		
device2_infosources_reviews	Online reviews	FALSE = Not checked; TRUE = Checked
device2_infosources_forums	Online forums	FALSE = Not checked; TRUE = Checked
device2_infosources_printmedia	Print media (e.g., Newspapers, Magazines, etc.)	FALSE = Not checked; TRUE = Checked
device2_infosources_friendsfamily	Friends and Family	FALSE = Not checked; TRUE = Checked
device2_infosources_news	Online news sites	FALSE = Not checked; TRUE = Checked
device2_infosources_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device2_infosources_othertext	Other (Please specify):	Open-ended text response
How [did you hear/have you heard] about the [device2] you purchased?		
device2_hearinfo_tv	TV	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device2_hearinfo_internet	Internet	FALSE = Not checked; TRUE = Checked
device2_hearinfo_printmedia	Print media (e.g., Newspapers, Magazines, etc.)	FALSE = Not checked; TRUE = Checked
device2_hearinfo_friendsfamily	Friends and Family	FALSE = Not checked; TRUE = Checked
device2_hearinfo_store	Brick-and-mortar store	FALSE = Not checked; TRUE = Checked
device2_hearinfo_tradeshows	Trade show	FALSE = Not checked; TRUE = Checked
device2_hearinfo_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device2_hearinfo_othertext	Other (Please specify):	Open-ended text response
On a scale of 1 to 7, please indicate your level of agreement with the following statements as they pertain to your [device2]. (1 indicates 'Never' and 7 indicates 'Always'.)		
device2_protectdata	I believe my [device2] possesses adequate security measures to protect my data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
device2_preventthirdparty	My [device2] has adequate security measures to prevent third-party access to my data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
Do you continue to educate yourself about the [device2] after purchase (e.g., via tutorials)?		
device2_continueeducation		1 = Yes 2 = No -9 = No answer
device2_continueeducation_text	[If the answer to the question 'Do you continue to educate yourself about the [device] after purchase (e.g., via tutorials)?' is 'Yes'] Please tell us how you continue to educate yourself?	Open-ended text response
device2_whenpurchased	How long ago was the [device2] purchased?	1 = 0-6 months 2 = 7-12 months 3 = 13-24 months 4 = 25-36 months 5 = 37-48 months 6 = More than 48 months -9 = No answer
device2_usefrequency	On average, how often do you use the [device2] each day?	1 = 0 times 2 = 1-5 times 3 = 6-10 times 4 = 11-20 times 5 = 21-30 times 6 = 30+ times 7 = Don't know -9 = No answer
device2_alwayson	Is the [device] always on?	1 = Yes 2 = No 3 = Don't know -9 = No answer
device2_disabledfeatures	[Have you disabled/Would you disable] any of the features of the [device2]?	1 = Yes 2 = No -9 = No answer

Variable Name	Question/Description	Values
device2_disabledfeatures_text	[If the answer to the question ‘[Have you disabled/Would you disable] any of the features of the [device2]’ is ‘Yes’] Which feature(s) of the [device2], if any, [did/would] you disable?	Open-ended text response
If you mentioned disabling any feature(s) above, why [did/would] you disable the above feature(s)?		
device2_disabledfeatures_battery	Conserving battery life	FALSE = Not checked; TRUE = Checked
device2_disabledfeatures_savepower	Reducing power consumption	FALSE = Not checked; TRUE = Checked
device2_disabledfeatures_privacy	Protecting your privacy	FALSE = Not checked; TRUE = Checked
device2_disabledfeatures_security	Reducing security risks	FALSE = Not checked; TRUE = Checked
device2_disabledfeatures_ux	Enhancing the user experience	FALSE = Not checked; TRUE = Checked
device2_disabledfeatures_unused	Turning off unneeded or unused feature	FALSE = Not checked; TRUE = Checked
device2_disabledfeatures_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device2_disabledfeatures_othertext	Other (Please specify):	Open-ended text response
Which types of data do you believe the [device2] [uses/would use]?		
device2_uselocation	Location	FALSE = Not checked; TRUE = Checked
device2_useroutines	Routines	FALSE = Not checked; TRUE = Checked
device2_usespeech	Speech (via microphone)	FALSE = Not checked; TRUE = Checked
device2_usevideo	Video (via camera)	FALSE = Not checked; TRUE = Checked
device2_useimages	Still images (via camera)	FALSE = Not checked; TRUE = Checked
device2_useenvironment	Environmental parameters (e.g., temperature, humidity, noise levels, etc.)	FALSE = Not checked; TRUE = Checked
device2_useinternet	Internet activity	FALSE = Not checked; TRUE = Checked
device2_useonlinepurchases	Online purchases	FALSE = Not checked; TRUE = Checked
device2_useofflinepurchases	Offline purchases	FALSE = Not checked; TRUE = Checked
device2_usepowerconsumption	Power consumption	FALSE = Not checked; TRUE = Checked
device2_useactivities	Activities and gestures	FALSE = Not checked; TRUE = Checked
device2_useother	Other (please specify):	FALSE = Not checked; TRUE = Checked
device2_useothertext	Other (Please specify):	Open-ended text response
Where do you believe the [device2] [stores/would store] data?		
device2_storeinternet	On the Internet router in the home	FALSE = Not checked; TRUE = Checked
device2_storecloud	On a cloud platform	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device2_storelocal	Locally on the device itself	FALSE = Not checked; TRUE = Checked
device2_storeisp	Servers of the Internet Service Provider (ISP)	FALSE = Not checked; TRUE = Checked
device2_storemanufacturer	Servers of the device manufacturer	FALSE = Not checked; TRUE = Checked
device2_storethirdparties	Servers of third parties	FALSE = Not checked; TRUE = Checked
device2_storeother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device2_storeothertext	Other (Please specify):	Open-ended text response
Where in your home [is/would] the [device2] [be] located?		
device2_locationattic	Attic	FALSE = Not checked; TRUE = Checked
device2_locationbalcony	Balcony	FALSE = Not checked; TRUE = Checked
device2_locationbasement	Basement	FALSE = Not checked; TRUE = Checked
device2_locationkidsroom	Children's room	FALSE = Not checked; TRUE = Checked
device2_locationdining	Dining room	FALSE = Not checked; TRUE = Checked
device2_locationgarage	Garage	FALSE = Not checked; TRUE = Checked
device2_locationguestbedroom	Guest bedroom	FALSE = Not checked; TRUE = Checked
device2_locationhallway	Hallway	FALSE = Not checked; TRUE = Checked
device2_locationkitchen	Kitchen	FALSE = Not checked; TRUE = Checked
device2_locationlivingroom	Living room	FALSE = Not checked; TRUE = Checked
device2_locationmasterbedroom	Master bedroom	FALSE = Not checked; TRUE = Checked
device2_locationpatio	Patio	FALSE = Not checked; TRUE = Checked
device2_locationyard	Yard	FALSE = Not checked; TRUE = Checked
device2_locationother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device2_locationothertext	Other (Please specify):	Open-ended text response
How [do/would] you interact with the [device2]?		
device2_interactvoice	Voice Assistant	FALSE = Not checked; TRUE = Checked
device2_interactapp	App on your phone	FALSE = Not checked; TRUE = Checked
device2_interactbuttons	Physical buttons on the [device2]	FALSE = Not checked; TRUE = Checked
device2_interactscreen	Screen on the [device2]	FALSE = Not checked; TRUE = Checked
device2_interactinternet	Internet-based service connected to the [device2]	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device2_interactrouter	Home Internet router	FALSE = Not checked; TRUE = Checked
device2_interactother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device2_interactothertext	Other (Please specify):	Open-ended text response
pickeddevice3	A device picked at random from those marked as owned in the question: 'Which of the following Smart Home Devices do you own?' If no device was marked as owned then a device picked at random from the list of all devices listed in the question.	Smart Coffee Maker Smart Dishwasher Smart Door Lock Smart Doorbell Smart Electricity Meter Smart Electrical Outlet Smart Smart Fridge Smart Smart Gardening Equipment Smart Smart Heating/Cooling System Smart Home Monitoring System Smart Light Bulb Smart Oven Smart Robot Smart Speaker Smart Stove Smart TV Smart Thermostat Smart Toy Smart Vacuum Cleaner Smart Washing Machine
pickeddevice3_owned	A flag to indicate whether the selected device is owned.	0 = Not owned; 1 = Owned



Variable Name	Question/Description	Values
device3_price	What was the purchase price of the [device3] in US Dollars?	1 = Free/Gift 2 = Less than \$5 3 = \$5.01 - \$10.00 4 = \$10.01 - \$20.00 5 = \$20.01 - \$40.00 6 = \$40.01 - \$60.00 7 = \$60.01 - \$80.00 8 = \$80.01 - \$100.00 9 = \$100.01 - \$120.00 10 = \$120.01 - \$140.00 11 = \$140.01 - \$160.00 12 = \$160.01 - \$180.00 13 = \$180.01 - \$200.00 14 = \$200.01 - \$250.00 15 = \$250.01 - \$300.00 16 = \$300.01 - \$350.00 17 = \$300.51 - \$400.00 18 = \$400.51 - \$450.00 19 = \$450.01 - \$500.00 20 = \$500.01 - \$750.00 21 = \$750.01 - \$1000.00 22 = \$1000.01 - \$1250.00 23 = \$1250.01 - \$1500.00 24 = \$1500.01 - \$2000.00 25 = \$2000.01 - \$2500.00 26 = \$2500.01 - \$3000.00 27 = More than \$3000 -9 = No answer
device3_purchaselocation	Where did you purchase this [device3]?	1 = Budget online store from your own country 2 = Online store from another country 3 = Brick-and-mortar store other than that of the manufacturer (but not a general purpose or departmental store) 4 = Brick-and-mortar general purpose or departmental store 5 = Received as a gift 6 = Other (Please specify): -9 = No answer
device3_purchaselocation_othertext	Other (Please specify):	Open-ended text response
device3_used	Did you purchase a used [device3]?	1 = Yes 2 = No -9 = No answer
What [is/would be] the primary use of the [device3]?		
device3_primaryuse_convenience	Increasing convenience	FALSE = Not checked; TRUE = Checked
device3_primaryuse_savemoney	Saving money	FALSE = Not checked; TRUE = Checked
device3_primaryuse_savepower	Reducing power consumption	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device3_primaryuse_safety	Providing safety for household members	FALSE = Not checked; TRUE = Checked
device3_primaryuse_automation	Automating tasks	FALSE = Not checked; TRUE = Checked
device3_primaryuse_latesttech	Experimenting with the latest trends in technology	FALSE = Not checked; TRUE = Checked
device3_primaryuse_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device3_primaryuse_othertext	Other (Please specify):	Open-ended text response
device3_purchasereason	Why did you purchase the [device3]	Open-ended text response
Which of the following sources [did/would] you consult prior to purchasing a [device3]?		
device3_infosources_reviews	Online reviews	FALSE = Not checked; TRUE = Checked
device3_infosources_forums	Online forums	FALSE = Not checked; TRUE = Checked
device3_infosources_printmedia	Print media (e.g., Newspapers, Magazines, etc.)	FALSE = Not checked; TRUE = Checked
device3_infosources_friendsfamily	Friends and Family	FALSE = Not checked; TRUE = Checked
device3_infosources_news	Online news sites	FALSE = Not checked; TRUE = Checked
device3_infosources_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device3_infosources_othertext	Other (Please specify):	Open-ended text response
How [did you hear/have you heard] about the [device3] you purchased?		
device3_hearinfo_tv	TV	FALSE = Not checked; TRUE = Checked
device3_hearinfo_internet	Internet	FALSE = Not checked; TRUE = Checked
device3_hearinfo_printmedia	Print media (e.g., Newspapers, Magazines, etc.)	FALSE = Not checked; TRUE = Checked
device3_hearinfo_friendsfamily	Friends and Family	FALSE = Not checked; TRUE = Checked
device3_hearinfo_store	Brick-and-mortar store	FALSE = Not checked; TRUE = Checked
device3_hearinfo_tradeshows	Trade show	FALSE = Not checked; TRUE = Checked
device3_hearinfo_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device3_hearinfo_othertext	Other (Please specify):	Open-ended text response
On a scale of 1 to 7, please indicate your level of agreement with the following statements as they pertain to your [device3]. (1 indicates 'Never' and 7 indicates 'Always'.)		
device3_protectdata	I believe my [device3] possesses adequate security measures to protect my data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
device3_preventthirdparty	My [device3] has adequate security measures to prevent third-party access to my data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
Do you continue to educate yourself about the [device3] after purchase (e.g., via tutorials)?		
device3_continueeducation		1 = Yes 2 = No -9 = No answer

Variable Name	Question/Description	Values
device3_continueeducation_text	[If the answer to the question 'Do you continue to educate yourself about the [device] after purchase (e.g., via tutorials)?' is 'Yes'] Please tell us how you continue to educate yourself?	Open-ended text response
device3_whenpurchased	How long ago was the [device3] purchased?	1 = 0-6 months 2 = 7-12 months 3 = 13-24 months 4 = 25-36 months 5 = 37-48 months 6 = More than 48 months -9 = No answer
device3_usefrequency	On average, how often do you use the [device3] each day?	1 = 0 times 2 = 1-5 times 3 = 6-10 times 4 = 11-20 times 5 = 21-30 times 6 = 30+ times 7 = Don't know -9 = No answer
device3_alwayson	Is the [device] always on?	1 = Yes 2 = No 3 = Don't know -9 = No answer
device3_disabledfeatures	[Have you disabled/Would you disable] any of the features of the [device3]?	1 = Yes 2 = No -9 = No answer
device3_disabledfeatures_text	[If the answer to the question '[Have you disabled/Would you disable] any of the features of the [device3]' is 'Yes'] Which feature(s) of the [device3], if any, [did/would] you disable?	Open-ended text response
If you mentioned disabling any feature(s) above, why [did/would] you disable the above feature(s)?		
device3_disabledfeatures_battery	Conserving battery life	FALSE = Not checked; TRUE = Checked
device3_disabledfeatures_savepower	Reducing power consumption	FALSE = Not checked; TRUE = Checked
device3_disabledfeatures_privacy	Protecting your privacy	FALSE = Not checked; TRUE = Checked
device3_disabledfeatures_security	Reducing security risks	FALSE = Not checked; TRUE = Checked
device3_disabledfeatures_ux	Enhancing the user experience	FALSE = Not checked; TRUE = Checked
device3_disabledfeatures_unused	Turning off unneeded or unused feature	FALSE = Not checked; TRUE = Checked
device3_disabledfeatures_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device3_disabledfeatures_othertext	Other (Please specify):	Open-ended text response
Which types of data do you believe the [device3] [uses/would use]?		
device3_uselocation	Location	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device3_useroutines	Routines	FALSE = Not checked; TRUE = Checked
device3_usespeech	Speech (via microphone)	FALSE = Not checked; TRUE = Checked
device3_usevideo	Video (via camera)	FALSE = Not checked; TRUE = Checked
device3_useimages	Still images (via camera)	FALSE = Not checked; TRUE = Checked
device3_useenvironment	Environmental parameters (e.g., temperature, humidity, noise levels, etc.)	FALSE = Not checked; TRUE = Checked
device3_useinternet	Internet activity	FALSE = Not checked; TRUE = Checked
device3_useonlinepurchases	Online purchases	FALSE = Not checked; TRUE = Checked
device3_useofflinepurchases	Offline purchases	FALSE = Not checked; TRUE = Checked
device3_usepowerconsumption	Power consumption	FALSE = Not checked; TRUE = Checked
device3_useactivities	Activities and gestures	FALSE = Not checked; TRUE = Checked
device3_useother	Other (please specify):	FALSE = Not checked; TRUE = Checked
device3_useothertext	Other (Please specify):	Open-ended text response
Where do you believe the [device3] [stores/would store] data?		
device3_storeinternet	On the Internet router in the home	FALSE = Not checked; TRUE = Checked
device3_storecloud	On a cloud platform	FALSE = Not checked; TRUE = Checked
device3_storelocal	Locally on the device itself	FALSE = Not checked; TRUE = Checked
device3_storeisp	Servers of the Internet Service Provider (ISP)	FALSE = Not checked; TRUE = Checked
device3_storemanufacturer	Servers of the device manufacturer	FALSE = Not checked; TRUE = Checked
device3_storethirdparties	Servers of third parties	FALSE = Not checked; TRUE = Checked
device3_storeother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device3_storeothertext	Other (Please specify):	Open-ended text response
Where in your home [is/would] the [device3] [be] located?		
device3_locationattic	Attic	FALSE = Not checked; TRUE = Checked
device3_locationbalcony	Balcony	FALSE = Not checked; TRUE = Checked
device3_locationbasement	Basement	FALSE = Not checked; TRUE = Checked
device3_locationkidsroom	Children's room	FALSE = Not checked; TRUE = Checked
device3_locationdining	Dining room	FALSE = Not checked; TRUE = Checked
device3_locationgarage	Garage	FALSE = Not checked; TRUE = Checked

Variable Name	Question/Description	Values
device3_locationguestbedroom	Guest bedroom	FALSE = Not checked; TRUE = Checked
device3_locationhallway	Hallway	FALSE = Not checked; TRUE = Checked
device3_locationkitchen	Kitchen	FALSE = Not checked; TRUE = Checked
device3_locationlivingroom	Living room	FALSE = Not checked; TRUE = Checked
device3_locationmasterbedroom	Master bedroom	FALSE = Not checked; TRUE = Checked
device3_locationpatio	Patio	FALSE = Not checked; TRUE = Checked
device3_locationyard	Yard	FALSE = Not checked; TRUE = Checked
device3_locationother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device3_locationothertext	Other (Please specify):	Open-ended text response
How [do/would] you interact with the [device3]?		
device3_interactvoice	Voice Assistant	FALSE = Not checked; TRUE = Checked
device3_interactapp	App on your phone	FALSE = Not checked; TRUE = Checked
device3_interactbuttons	Physical buttons on the [device3]	FALSE = Not checked; TRUE = Checked
device3_interactscreen	Screen on the [device3]	FALSE = Not checked; TRUE = Checked
device3_interactinternet	Internet-based service connected to the [device3]	FALSE = Not checked; TRUE = Checked
device3_interactrouter	Home Internet router	FALSE = Not checked; TRUE = Checked
device3_interactother	Other (Please specify):	FALSE = Not checked; TRUE = Checked
device3_interactothertext	Other (Please specify):	Open-ended text response
On a scale of 1 to 7, please indicate how you would rate the privacy risks for each of the following devices: (1 indicates the 'Lowest Risk' and 7 indicates the 'Highest Risk'.)		
devicerisk_coffeemaker	Smart Coffee Maker	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_dishwasher	Smart Dishwasher	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_doorlock	Smart Door Lock	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_doorbell	Smart Doorbell	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_electricitymeter	Smart Electricity Meter	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_outlet	Smart Electrical Outlet	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_fridge	Smart Fridge	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_gardening	Smart Gardening Equipment	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_hvac	Smart Heating/Cooling System	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_homemonitor	Smart Home Monitoring System	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_lightbulb	Smart Light Bulb	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_oven	Smart Oven	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_robot	Smart Robot	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_speaker	Smart Speaker	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_stove	Smart Stove	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_tv	Smart TV	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_thermostat	Smart Thermostat	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicerisk_toy	Smart Toy	1; 2; 3; 4; 5; 6; 7; -9 = No answer

Variable Name	Question/Description	Values
deviserisk_vacuum	Smart Vacuum Cleaner	1; 2; 3; 4; 5; 6; 7; -9 = No answer
deviserisk_washer	Smart Washing Machine	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shdposedrisks	In your opinion, what risks, if any, are posed by the use of Smart Home Devices?	Open-ended text response
I may decide NOT to own Smart Home Devices for my home because:		
notown_adultprivacy	I wish to preserve the privacy of the adults in my household.	FALSE = Not checked; TRUE = Checked
notown_childrenprivacy	I wish to preserve the privacy of my children.	FALSE = Not checked; TRUE = Checked
notown_guestprivacy	I wish to preserve the privacy of my guests.	FALSE = Not checked; TRUE = Checked
notown_petprivacy	I wish to preserve the privacy of my pets.	FALSE = Not checked; TRUE = Checked
notown_nobenefit	I perceive no benefit from using Smart Home Devices.	FALSE = Not checked; TRUE = Checked
notown_cost	I find Smart Home Devices too expensive.	FALSE = Not checked; TRUE = Checked
notown_nointernet	I do not have a domestic Internet connection suitable for the use of Smart Home Devices.	FALSE = Not checked; TRUE = Checked
notown_other	Other (Please specify):	FALSE = Not checked; TRUE = Checked
notown_othertext	Other (Please specify):	Open-ended text response
For each of the following scenarios, indicate your level of comfort for controlling a Smart Home Device on a scale of 1 to 7: (1 indicates 'Extremely Uncomfortable' and 7 indicates 'Extremely Comfortable.')		
shdcomfort_home	While you are at home	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shdcomfort_away	While you are away from home	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shdcomfort_otherdevice	From someone else's device or equipment	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shdcomfort_owndevice	From your own device or equipment	1; 2; 3; 4; 5; 6; 7; -9 = No answer
For each of the following methods, indicate your level of comfort for using it to interact with a Smart Home Device on a scale of 1 to 7: (1 indicates 'Extremely Uncomfortable' and 7 indicates 'Extremely Comfortable.')		
interactcomfort_speaker	Voice commands via a Smart Speaker	1; 2; 3; 4; 5; 6; 7; -9 = No answer
interactcomfort_assistant	Voice commands via a Voice Assistant on a smartphone	1; 2; 3; 4; 5; 6; 7; -9 = No answer
interactcomfort_app	Smartphone App for the device	1; 2; 3; 4; 5; 6; 7; -9 = No answer
interactcomfort_widget	Smartphone Widgets or Shortcuts	1; 2; 3; 4; 5; 6; 7; -9 = No answer
interactcomfort_insidesensor	Sensors inside the Home (e.g., motion sensors, light sensors, etc.)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
interactcomfort_outsidesensor	Sensors outside the Home (e.g., motion sensors, light sensors, etc.)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
interactcomfort_automation	Automatic operation based on device programming	1; 2; 3; 4; 5; 6; 7; -9 = No answer
interactcomfort_othertext	Other (Please specify):	Open-ended text response
Between yourself and the manufacturer of a typical Smart Home Device, please indicate who you believe is more responsible for handling each of the following matters on a scale of 1 to 7: (1 indicates yourself, 4 both equally, and 7 the manufacturer.)		
softwareupdate	Keeping the Smart Home Device software up-to-date	1; 2; 3; 4; 5; 6; 7; -9 = No answer
ensureprivacy	Ensuring my privacy	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shdecosystemprotection	Protecting my Smart Home ecosystem as a whole	1; 2; 3; 4; 5; 6; 7; -9 = No answer
devicesecurity	Keeping the Smart Home Device secure	1; 2; 3; 4; 5; 6; 7; -9 = No answer
hardwarefix	Fixing hardware failure	1; 2; 3; 4; 5; 6; 7; -9 = No answer
softwarefix	Fixing software failure	1; 2; 3; 4; 5; 6; 7; -9 = No answer
On a scale of 1 to 7, please indicate the extent to which you agree with the following statements: (1 indicates 'Strongly Disagree' and 7 indicates 'Strongly Agree.')		

Variable Name	Question/Description	Values
selfupdate	My Smart Home Device should update itself.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
securityupdates	The manufacturer of my Smart Home Device should provide regular security updates.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
datasecurity	The servers of my Smart Home Device manufacturer should be equipped with adequate data security.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
remotemanagement	The manufacturer of my Smart Home Device should remotely manage my Smart Home Device.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
ensureuptodate	I regularly make sure that my Smart Home Devices are kept up-to date.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
stopsupportnotice	I receive a timely notice when the manufacturer stops supporting my Smart Home Device.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
updateunsure	I am unsure if my Smart Home Device receives security updates.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
updateforever	My Smart Home Device should receive updates as long as I use it.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
[If at least one of the 20 listed Smart Home Devices is checked in response to the question ‘Which of the following Smart Home Devices do you own?’]		
On a scale of 1 to 7, please indicate the extent to which you agree with the following statements: (1 indicates ‘Strongly Disagree’ and 7 indicates ‘Strongly Agree.’)		
My purchase of a Smart Home Device was influenced by:		
purchaseinfluence_price	Low price	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purchaseinfluence_bundle	Bundled offer (e.g., including other devices with purchase of one or more devices)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purchaseinfluence_trial	Trial (e.g., 30-day free use of a service)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purchaseinfluence_sale	Periodic sale	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purchaseinfluence_discount	Discounts (e.g., coupons)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
On a scale of 1 to 7, please indicate your level of comfort with using Smart Home Devices purchased from each of the following stores: (1 indicates ‘Extremely Uncomfortable’ and 7 indicates ‘Extremely Comfortable.’)		
purchasecomfort_online_domestic	Budget online store from your own country	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purchasecomfort_online_foreign	Online store from another country	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purchasecomfort_store	Brick-and-mortar store other than that of the manufacturer (but not a general purpose or departmental store)	1; 2; 3; 4; 5; 6; 7; -9 = No answer
purchasecomfort_departmentalstore	Brick-and-mortar general purpose or departmental store	1; 2; 3; 4; 5; 6; 7; -9 = No answer
On a scale of 1 to 7, please indicate the extent to which you agree with the following statements: (1 indicates ‘Strongly Disagree’ and 7 indicates ‘Strongly Agree.’)		
I feel that current laws and regulations are adequate to protect my Smart Home Device data from:		
regulation_thirdpartyaccess	unwanted access by third parties.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
regulation_thirdpartysharing	unwanted sharing with third parties.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
regulation_thirdpartyprocessing	unwanted processing and analysis by third parties.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
I feel that there are sufficient penalties in places for:		
regulation_accesspenalty	those who access my data without authorization.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
regulation_sharepenalty	those who share my data without permission.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
regulation_storepenalty	those who do not employ proper safeguards for storing my data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
On a scale of 1 to 7, please indicate the extent to which you agree with the following statements: (1 indicates ‘Strongly Disagree’ and 7 indicates ‘Strongly Agree.’)		
shddata_kinds	I am aware of the kinds of data collected by my Smart Home Device.	1; 2; 3; 4; 5; 6; 7; -9 = No answer

Variable Name	Question/Description	Values
shddata_value	Smart Home Device data has monetary value.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_collection	Smart Home Device data is collected by companies.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_regularcollection	Smart Home Device data is gathered regularly by a Smart Home Device.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_internet	Smart Home Device data is sent continuously over the Internet.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_resource	Smart Home Device data is a resource for corporations.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_remotestorage	Smart Home Device data is stored remotely.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_awarestorageelocation	I am aware of where my Smart Home Device stores data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_awareanalysis	I am aware that my Smart Home Device data is analyzed to know about my preferences and practices.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_awareparties	I am aware of the parties who analyze my Smart Home Device data.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_homestorage	I would like my Smart Home Device data to be stored in my home.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_externalstorage	I would like my Smart Home Device data to be stored outside my home.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_localprocessing	I would like my Smart Home Device data to be processed and analyzed within my home.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
shddata_externalprocessing	I would like my Smart Home Device data to be processed and analyzed outside of my home.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
On a scale of 1 to 7, please indicate your level of agreement with the following statements: (1 indicates 'Never' and 7 indicates 'Always.')		
sebis_securement_screenlockauto	I set my computer screen to lock automatically if I don't use it for a prolonged period of time.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_securement_computerpassword	I use a password/passcode to unlock my laptop or tablet.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_securement_screenlockmanual	I manually lock my computer screen when I step away from it.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_securement_mobilepassword	I use a PIN or passcode to unlock my mobile phone.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_awareness_openlink	When someone sends me a link, I open it without first verifying where it goes.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_awareness_sitelookfeel	I know what website I'm visiting based on its look and feel rather than by looking at the URL bar.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_awareness_urlverification	I submit information to websites without first verifying that it will be sent securely (e.g., SSL, "https://," a lock icon).	1; 2; 3; 4; 5; 6; 7; -9 = No answer
attentioncheck	Please choose Never.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_awareness_mouseover	When browsing websites, I mouse over links to see where they go before clicking them.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_awareness_someoneelse	If I discover a security problem, I continue what I was doing because I assume someone else will fix it.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_updating_immediate	When I'm prompted about a software update, I install it right away.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_updating_ensure	I try to make sure that the programs I use are up-to-date.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
sebis_updating_antivirus	I verify that my anti-virus software has been regularly updating itself.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
On a scale of 1 to 7, please indicate your level of agreement with the following statements: (1 indicates 'Strongly Disagree' and 7 indicates 'Strongly Agree.')		
muipc_surveillance_location	I believe that the location of my Smart Home Device is monitored at least part of the time.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
muipc_surveillance_toomuch	I am concerned that Smart Home Devices are collecting too much information about me.	1; 2; 3; 4; 5; 6; 7; -9 = No answer



Variable Name	Question/Description	Values
muipc_surveillance_activities	I am concerned that apps may monitor my activities on my Smart Home Device.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
muipc_intrusion_othersknow	I feel that as a result of my using Smart Home Devices, others know about me more than I am comfortable with.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
muipc_intrusion_readilyavailable	I feel that as a result of my using Smart Home Devices, information about me that I consider private is now more readily available to others than I would want.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
muipc_intrusion_privacyinvasion	I feel that as a result of my using Smart Home Devices, information about me is out there that, if used, will invade my privacy.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
muipc_secondaryuse_unauthorized	I am concerned that Smart Home Devices may use my personal information for other purposes without notifying me or getting my authorization.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
muipc_secondaryuse_otherpurposes	When I give personal information to use Smart Home Devices, I am concerned that apps may use my information for other purposes.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
muipc_secondaryuse_shareunauthorized	I am concerned that Smart Home Devices may share my personal information with other entities without getting my authorization.	1; 2; 3; 4; 5; 6; 7; -9 = No answer
age	How old are you?	1 = Below 18 2 = 18–25 3 = 26–35 4 = 36–45 5 = 46–55 6 = 56–65 7 = 66–75 8 = Older than 75 -9 = No answer
age_prolific	Age information provided by Prolific	Integer age
gender	What is your gender?	1 = Male 2 = Female 3 = Non-binary 4 = Something else (Please specify): -9 = No answer
gender_othertext	Something else (Please specify):	Open-ended text response
education	What is the highest level of education you have completed? (If currently enrolled, indicate the highest degree received.)	1 = Less than high school 2 = High school diploma 3 = Vocational training 4 = Some college (no degree) 5 = Bachelor's degree (B.S., B.A., or other degree) 6 = Master's degree 7 = Doctoral degree 8 = Professional graduate degree (e.g., law or medical degree) 9 = Other (Please specify): -9 = No answer
education_othertext	Other (Please specify):	Open-ended text response

Variable Name	Question/Description	Values
numberofchildren	How many children do you have?	0 = 0 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = More than 6 -9 = No answer
householdsize	How many people live in your household (including you)?	1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = More than 6 -9 = No answer
income	What is your annual household income before taxes in US Dollars?	1 = Less than \$10,000 2 = \$10,000 to \$19,999 3 = \$20,000 to \$29,999 4 = \$30,000 to \$39,999 5 = \$40,000 to \$49,999 6 = \$50,000 to \$59,999 7 = \$60,000 to \$69,999 8 = \$70,000 to \$79,999 9 = \$80,000 to \$89,999 10 = \$90,000 to \$99,999 11 = Above \$100,000 12 = Prefer not to say -9 = No answer
homeowner	Do you own or rent your home?	1 = Own 2 = Rent 3 = Something else (Please specify): -9 = No answer
homeowner_othertext	Something else (Please specify):	Open-ended text response
What is your ethnic background?		
ethnicity_african	African	FALSE = Not checked; TRUE = Checked
ethnicity_asian	Asian	FALSE = Not checked; TRUE = Checked
ethnicity_hawaiian	Hawaiian	FALSE = Not checked; TRUE = Checked
ethnicity_hispanic	Hispanic	FALSE = Not checked; TRUE = Checked
ethnicity_nativeamerican	Native American	FALSE = Not checked; TRUE = Checked
ethnicity_white	White	FALSE = Not checked; TRUE = Checked
ethnicity_other	Something else (Please specify):	FALSE = Not checked; TRUE = Checked
ethnicity_othertext	Something else (Please specify):	Open-ended text response
What is your current employment status?		

Variable Name	Question/Description	Values
employment_fulltime	Employed full-time	FALSE = Not checked; TRUE = Checked
employmentparttime	Employd part-time	FALSE = Not checked; TRUE = Checked
employment_unemployedlooking	Unemployed looking for work	FALSE = Not checked; TRUE = Checked
employment_unemployednotlooking	Unemployed NOT looking for work	FALSE = Not checked; TRUE = Checked
employment_homemaker	Homemaker	FALSE = Not checked; TRUE = Checked
employmentstudent	Student	FALSE = Not checked; TRUE = Checked
employment_retired	Retired	FALSE = Not checked; TRUE = Checked
employment_other	Something else (Please specify):	FALSE = Not checked; TRUE = Checked
employment_othertext	Something else (Please specify):	Open-ended text response
occupation	[If employed] What is your occupation?	Open-ended text response
fieldofstudy	[If student] What is your field of study?	Open-ended text response