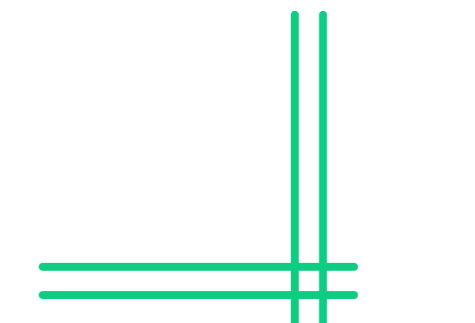


INDIA

CONNECTED

CONSUMER



2025

A decorative graphic element consisting of a vertical line and a horizontal line intersecting at the top left, with a second horizontal line above it, all in a light green color.

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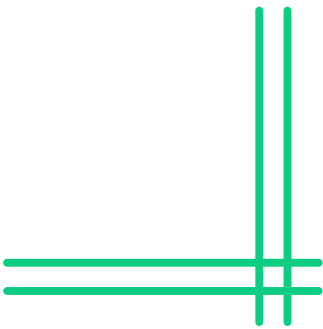
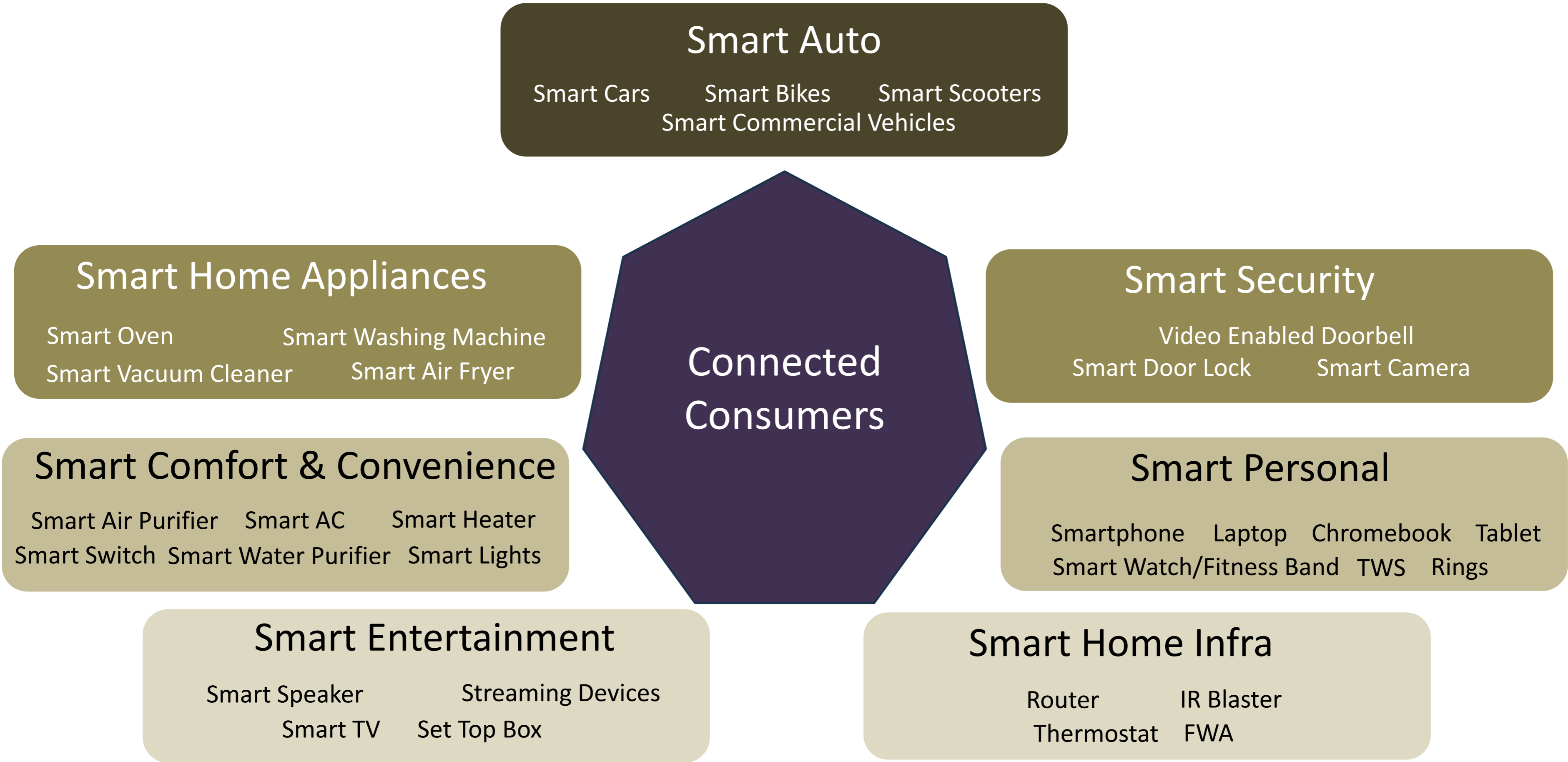
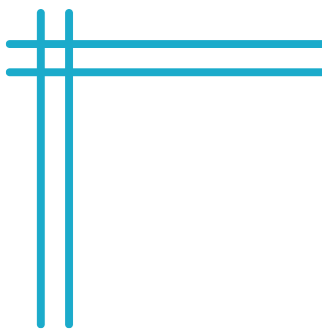
Smart / Connected cars are the bridging platform for seamless connectivity between homes, offices and on-the-go.

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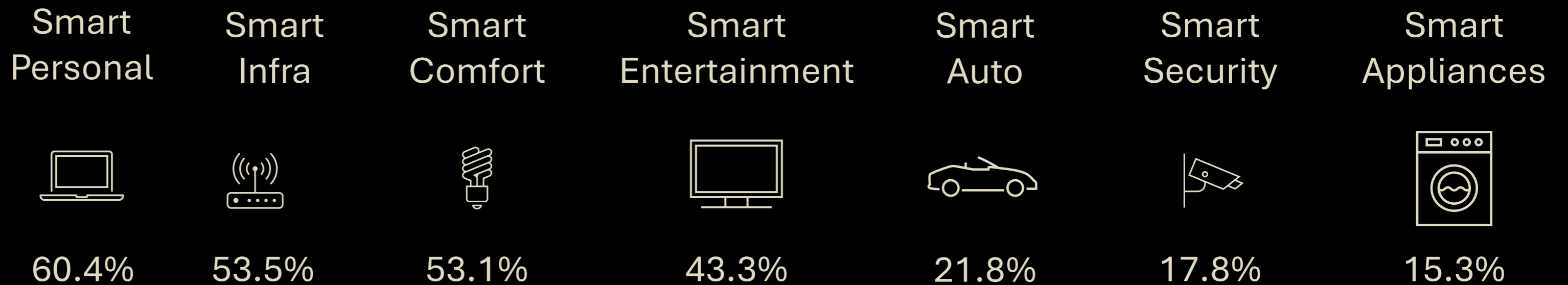
# Smart Devices



Smart Devices continue to aide a tech led lifestyle in India. The connected consumers in India prefer to spend on better quality and experience of smart devices.

- Smartphone continues to remain central to the Connected Consumer ecosystem. No other smart device gets the same importance as a smartphone.
- Many consumers are owning several smart devices but are not actively using them. They are finding the relevance of such devices going down with the passage of time. On average 27% of the respondents have stopped or reduced using at least one of the smart devices they own.
- Consumers are interested in spending on improving the value proposition in terms of features, quality and experience rather than exploring too many smart devices. 22% of the respondents shared about considering optimising their smart devices portfolio.
- Among the new set of categories, Smart / Connected Cars is generating high interest among consumers. 55% of the respondents said that they have come across news or information about smart / connected cars in recent times.
- Consumers are keen to understand and see how AI can help improve the relevance of smart devices across the spectrum. 42% of the respondents feel AI features might change their opinion about the utility of several smart devices.

The Indian consumers are increasingly adding various smart devices to their lifestyles to holistically elate the experiences.

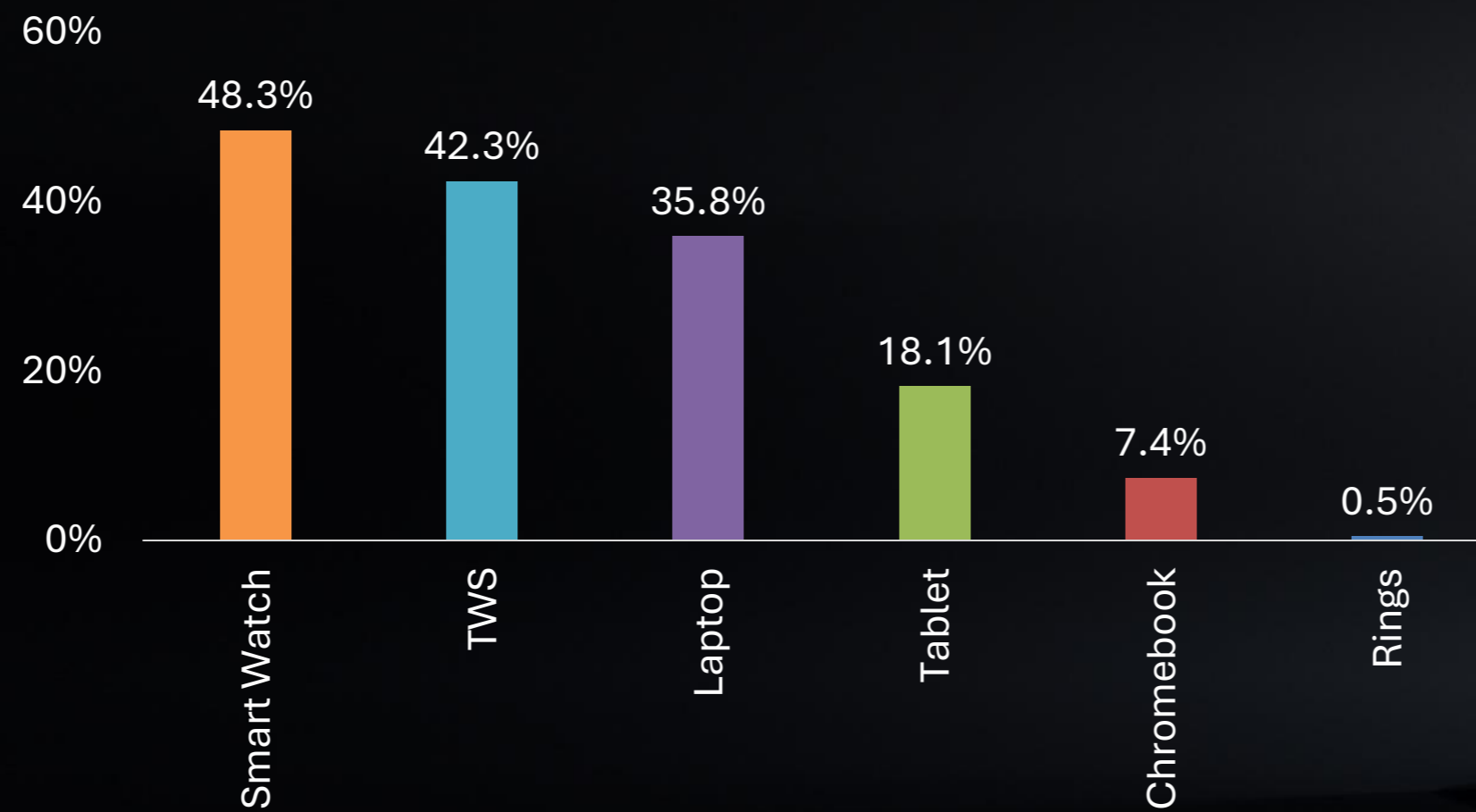


After the exploratory years, consumers are now having a relook of several smart devices and retaining only those which are offering unique value. Though they are not throwing away many of such devices that are still in their possession, but they are either rarely using them or the usage pattern has substantially gone southwards.

Tablets see a rise in adoption, Rings is a new entry. The category has the highest degree of overall with the smartphones.

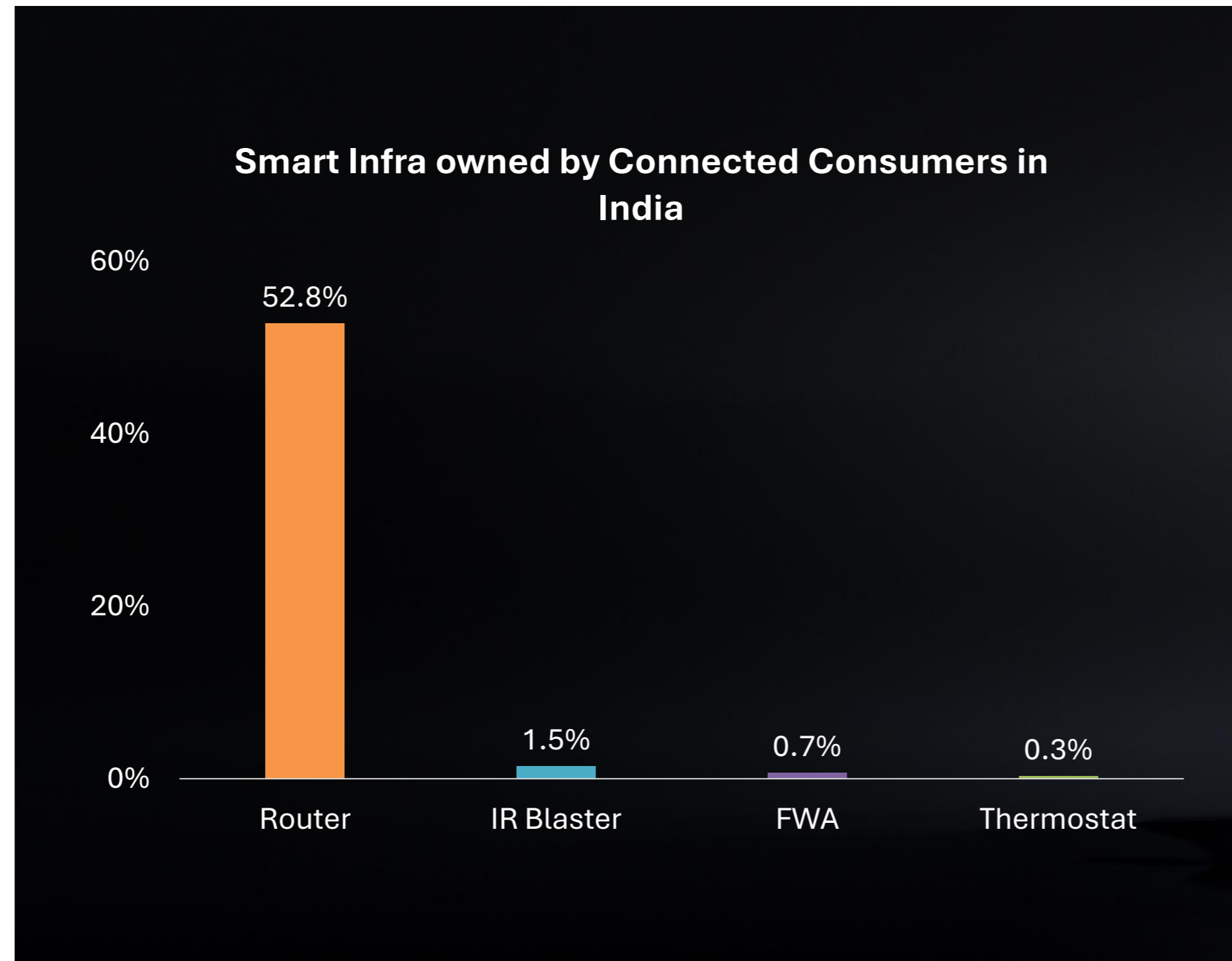
# Smart Personal

**Smart Personal Gadgets owned by Connected Consumers in India**



- The entry level smart watches are perceived of very little relevance by consumers. 67% of the respondents said they are no longer using their entry level smart watch purchased earlier.
- TWS Earbuds are increasingly becoming popular especially among the youth. The category of wearables is expected to witness growth as youth prefer using these for immersive music without bothering others around. 83% of the respondents said they use their TWS Earbuds at least 1 hour each day.
- Laptops, after smartphone do not see any decline in their utility before consumers. 92% of the respondents believe there is no alternative to their laptops for productivity tasks.
- Consumers find Tablet as a perfect device for consuming content, especially for entertainment including gaming by children. 38% of the respondents said they have started switching to Tablets for entertainment and gaming.
- Sub-optimal performances and lack of good specifications in Chromebooks is resulting in decline in consumer interest in them. 48% of the respondents said they have either switched from Chromebook as their primary device or are considering to switch to a Laptop or Tablet.
- Rings has got attention of consumers and become a 'gadget of interest'. But consumers are still unsure. 62% of the respondents said they are undecided about considering buying a ring.

Router maintains its essentiality for connected consumers, FWA is a promising new entry. IR Blaster and Thermostat losing relevance.

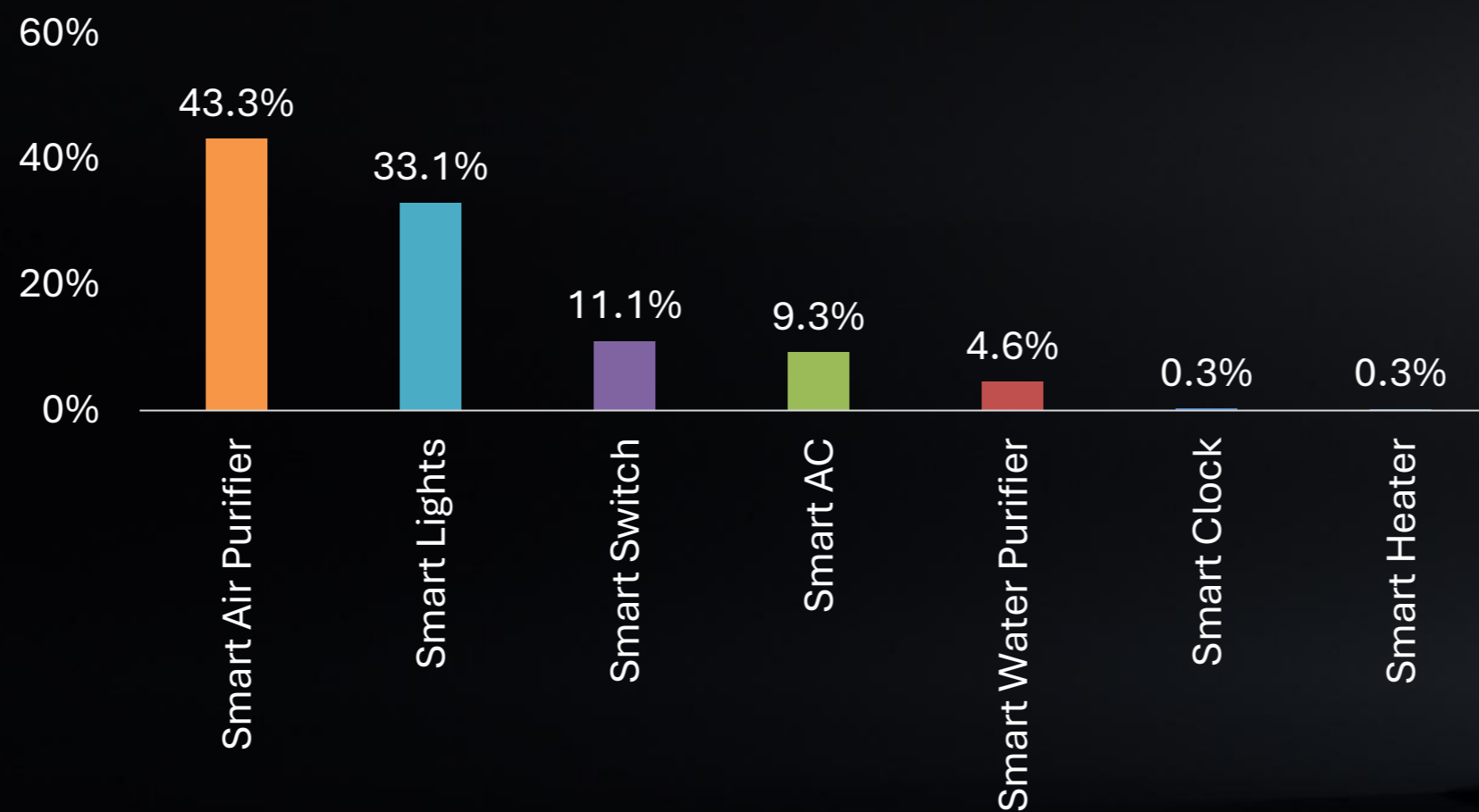


- Router emerges as the default gadget of infrastructure for connected consumers. However, the quality of router offered by the telecom service providers with the broadband connections is not meeting the expectations of consumers. More than 68% of the respondents expressed dissatisfaction with the performance of their present router provided by the operator. 31% of the respondents also felt that the operator must also be now offering Wi-Fi 6 enabled routers.
- Fixed Wireless Access through 5G is emerging as a preferred alternative as well as backup for high-speed broadband connectivity in homes. Though in its very early stage, the connected consumers have started experiencing or exploring it as a connectivity option. 58% of the respondents using a 5G FWA were satisfied with the services. 28% of the other respondents said they would want to consider 5G FWA connectivity actively in next 6-9 months.
- IR Blaster and Thermostat are the two elements of smart gadgets ecosystem that are increasingly losing their relevance. 75% and 91% of the IR Blaster and Thermostat users respectively shared that they are no longer using these devices.

# Smart Comfort & Convenience

Air pollution especially in metro cities adding to the importance of Air Purifiers; adoption in other consumer electronics also on the rise.

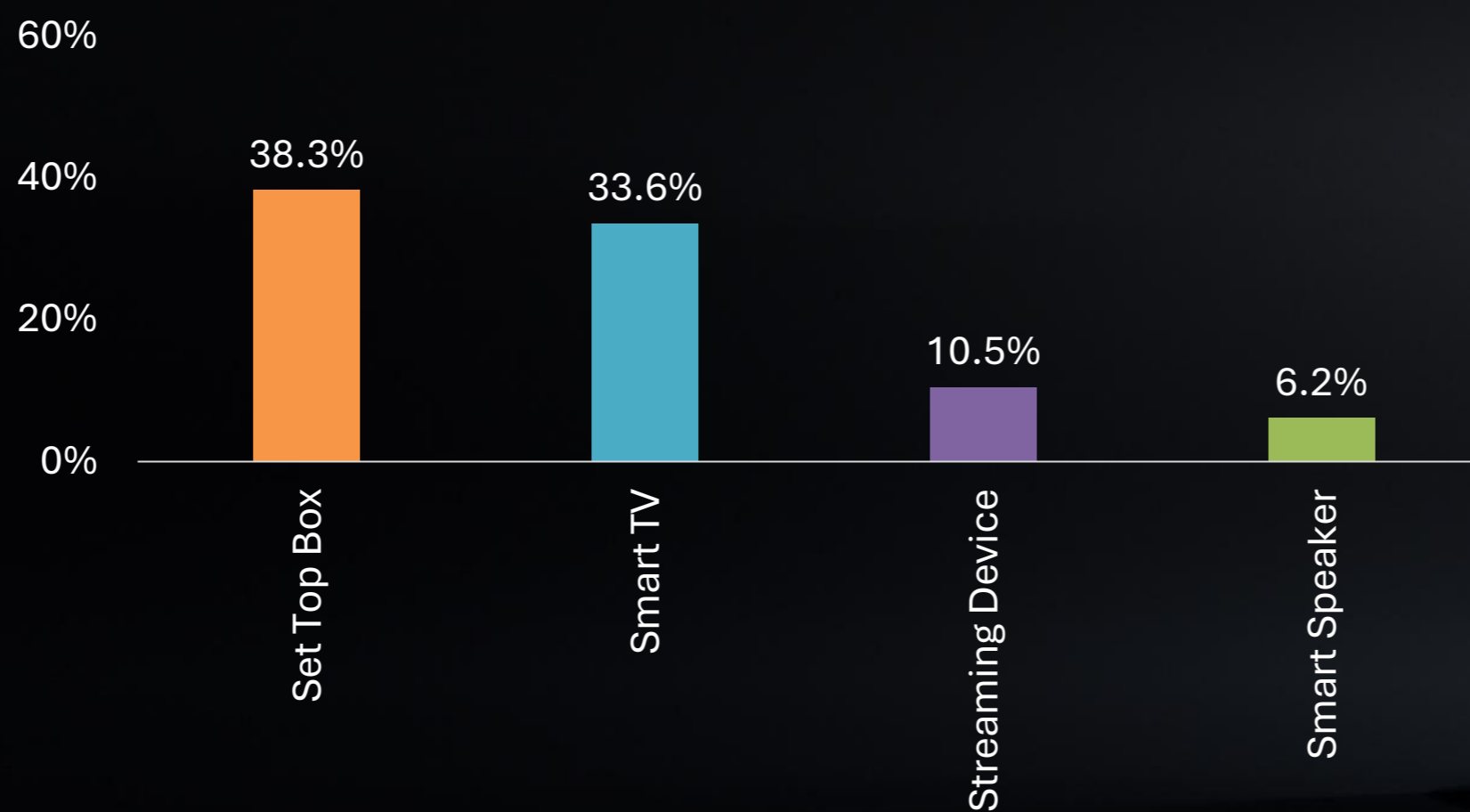
Smart Comfort & Convenience Devices owned by Connected Consumers in India



- The rising air pollution levels especially in metro cities has made air purifiers as an essential smart gadget to own. 96% of the respondents confirmed using their smart air purifier every year during deteriorating AQI levels.
- 43% of the smart light users find the automation of lighting a useful feature. 61% of the respondents feel smart lights controlling could be more user friendly to increase their usage and effectiveness.
- Just 19% of the smart switch users said that they are still using them regularly. Like smart lights, respondents don't find their operations very user friendly. As many as 83% of the respondents felt that smart switch usage and operations can be made user friendly.
- In case of Smart AC and Smart Water Purifiers, though connected consumers have purchased them, they are still unsure how the smart version of these gadgets significantly helps them or makes their usage effective. 44% of the Smart AC users have never used any smart feature since their purchase.
- Consumers are extremely unsure about the relevance of Smart Clock and Smart Heaters. Some respondents (15%) also find smart speakers more interactive than a Smart Clock with same functions.

Desire for personalised entertainment with immersive experiences driving growth in this category of smart devices.

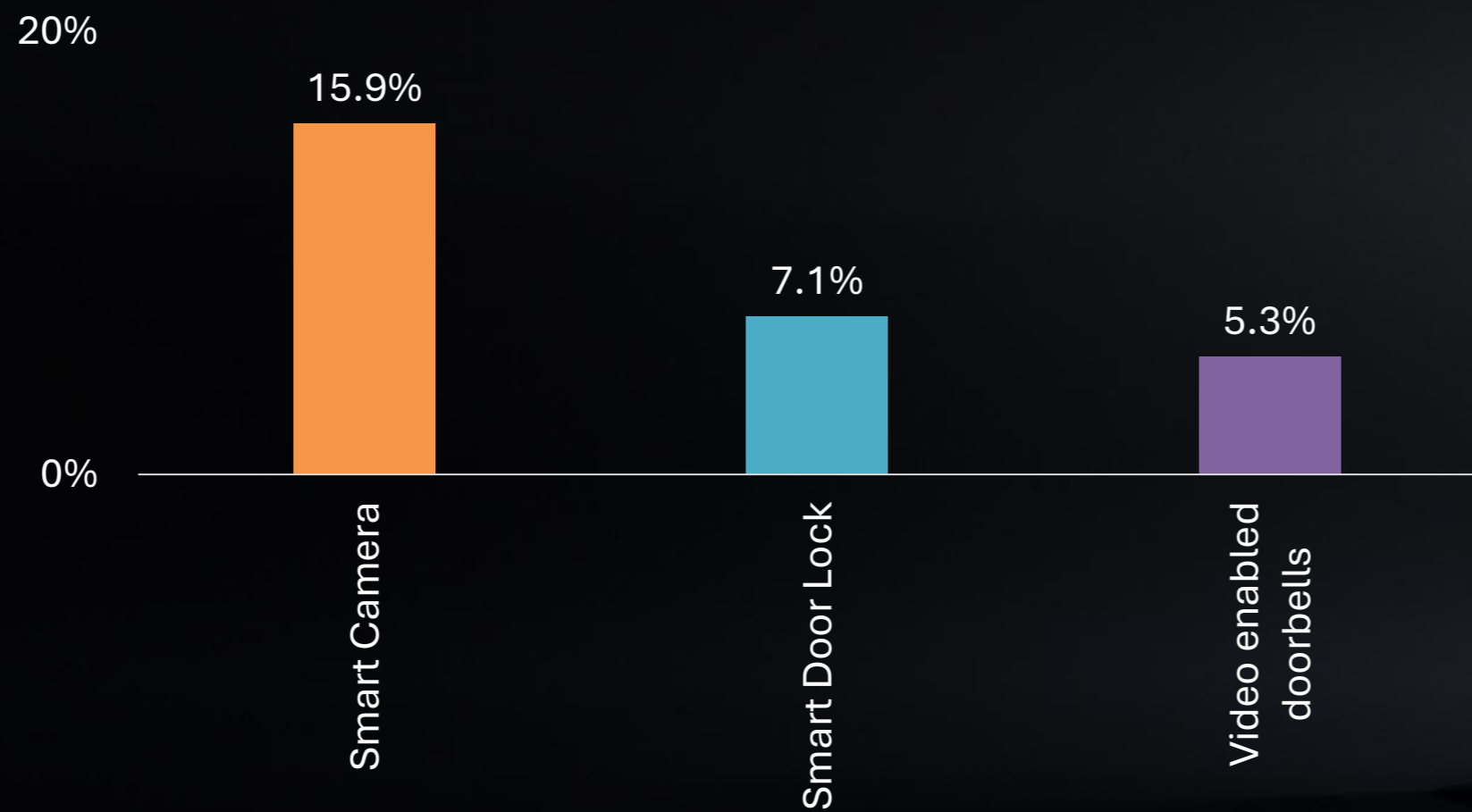
**Smart Entertainment Devices owned by Connected Consumers in India**



- The widespread growth of fibre broadband after Reliance Jio's launch of JioFiber across the country has helped millions of homes own a high-speed broadband connection. With Jio offering smart STB along with the fibre connection, the penetration of this device has grown across the metro and non-metro cities and towns. 48% of the smart STB users feel the need to buy a Smart TV or a streaming device has been deferred by these STBs.
- Smart TV is one of the elements of smart devices that is consistently witnessing increase in adoption. Connected consumers are upgrading their entertainment experience by replacing their legacy TVs giving them access to internet enabled content like OTT services. 16% of the respondents have upgraded to a large screen (45 inches or above) Smart TV in the past 1 year.
- Streaming devices are witnessing a decline in adoption as the consumers are now preferring buying a Smart TV or the smart STB provided by their operator is also servicing their need. 63% of the streaming devices owners said that they are no longer using the device for streaming the content.
- Smart Speakers are seeing a static adoption. The existing users place it in a 'nice to have' category with 51% of the respondents confirming still using the same but a decline in engagement with the intelligent speaker. Also, consumers feel that their other devices also now have a good conversational capability.

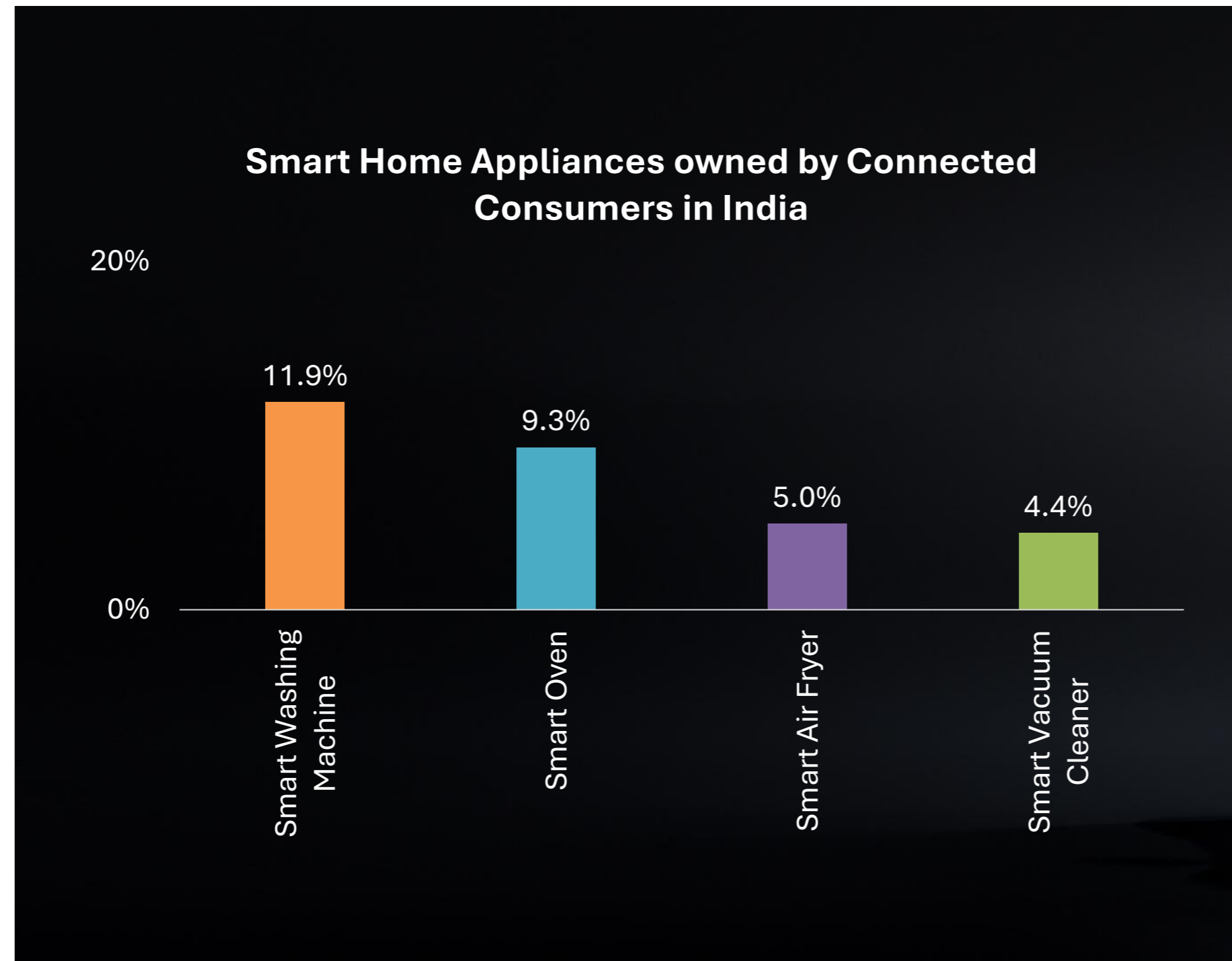
While the importance of surveillance systems continues to be very high, many consumers do not purchase these equipment by themselves.

Smart Security Devices owned by Connected Consumers in India



- Consumer owned smart cameras are still relatively lesser than the significance attached to safety and security. The homes and residential apartments are mostly covered by surveillance network laid by the residential welfare associations or societies managing the compounded areas. Some respondents have purchased a Smart Camera but for using it at their place of work like a shop or personal office. 53% of the respondents do not find all the features and functions of their Smart Cameras working as per listed features and functions. Privacy of the data is another concern that users have.
- Connected consumers have two main concerns about the Smart Door Locks. 43% of the non-users feel they will have to undergo several changes to retrofit a Smart Door Lock in their existing doors. 21% respondents are also unsure about how it will work without connectivity.
- There is a very high cannibalisation of non-smart Video enabled Doorbells especially in non-metro cities and towns where people are preferring installing the non-smart Video Doorbells. Also, 37% of the respondents find it a redundant device since they already have a surveillance camera installed to keep an eye on the main doors.

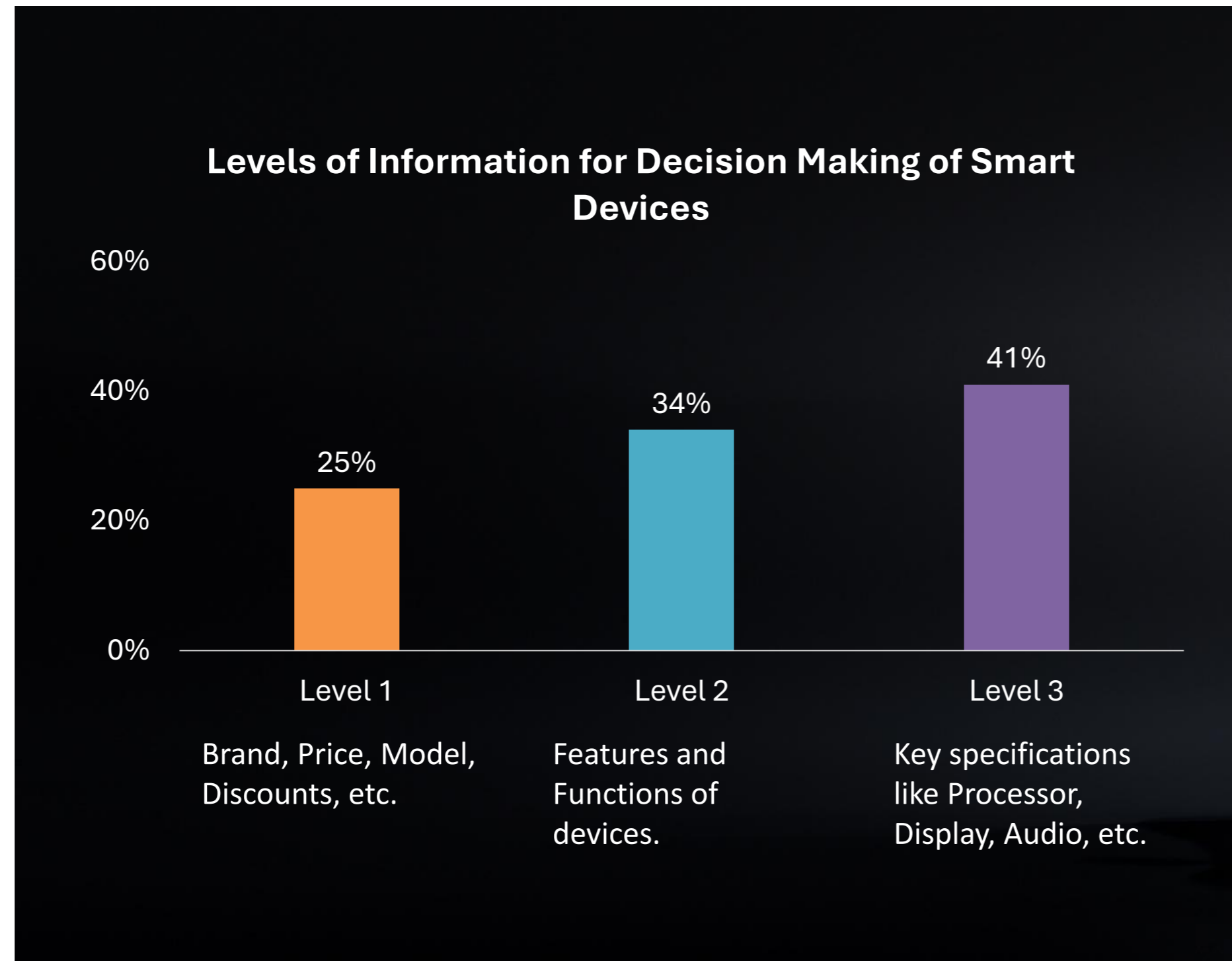
Consumers do prefer purchasing the smart version of the appliances but rarely use them.



- Consumers, especially in metros are buying 8Kgs and more capacity of washing machines. Many of these come with some smart features like Wi-Fi connectivity. However, these are rarely used by the consumers. 68% of the consumers said they never have explored any of the smart features of their washing machine since purchase.
- Like Smart Washing Machine, consumers do not keenly use the smart features of Smart Oven or Smart Air Fryer. Consumers would love to use these features if it could help them while they are returning to home from their job every evening. But the challenge here is that the food is in fridge, and they cannot seamlessly manage it remotely. 59% of the respondents having such smart devices said that they seek services of a professional cook thus reducing need to use the smart features of these gadgets.
- Many connected consumers purchased Smart Vacuum cleaner during the Covid-19 lockdown and continue to use the same. However, 46% of these respondents feel it's not a very effective gadget and they look towards it only as a backup gadget.

As Smart Devices get loaded with very advanced and complex technologies like GenAI, consumers continue to dig deeper to satiate their information needs to decide what to buy.

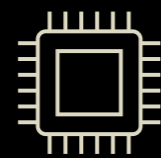
# Levels of Decision



- Consumers are increasingly wanting to learn in-depth about advanced components and specifications of smart devices as they understand that these components define the capabilities as well as influence the experiences they can deliver. Compared to 32% last year, this year 41% of the respondents go to the 3<sup>rd</sup> level of seeking information that includes knowing about the processor, memory type, display quality, refresh rate, etc., depending on the type of device being explored.
- By understanding and learning more about these components and specifications, consumers also feel confident in making decisions about purchase. 74% of the respondents opined that they are more likely to go with a device that gives them information about these important components including the suppliers of such key components.
- As advanced and complex technologies like GenAI, edge computing, etc., powers smart gadgets, consumers would want to know more about the devices they are considering to purchase.

Chipset / Processor awareness is increasing among connected consumers in India. Factors like emergence of GenAI makes the chipset knowledge important for consumers.

Chipset Awareness



73%

MediaTek

38%

Qualcomm

24%

Intel

7%

Others / Unknown

31%

- The overall chipset awareness has increased by 6 percent points to 73% comparing previous year. This is because of increased conversation by smartphone makers, tablet manufacturers, and laptop OEMs who nowadays make exclusive reference to chipset / processor while highlighting the salient features of their product launches.
- In terms of knowledge about chip making companies, MediaTek leads the awareness owing to its presence in several smart categories as well as strong recall in Smart TVs. 89% of the respondents who knew the processor inside their Smart TV identified it as a MediaTek processor. Qualcomm followed with 24% respondents identifying it as the chipset provider of their devices. Qualcomm's presence was mainly registered in Smartphones and Tablets. Intel was strongly seen as the processor brand in case of Laptops. 31% respondents named other brands primarily the proprietary chipset brands of Apple (A series), Samsung (Exynos), Google (Tensor), UNISOC, among others.

# Smart / Connected Cars



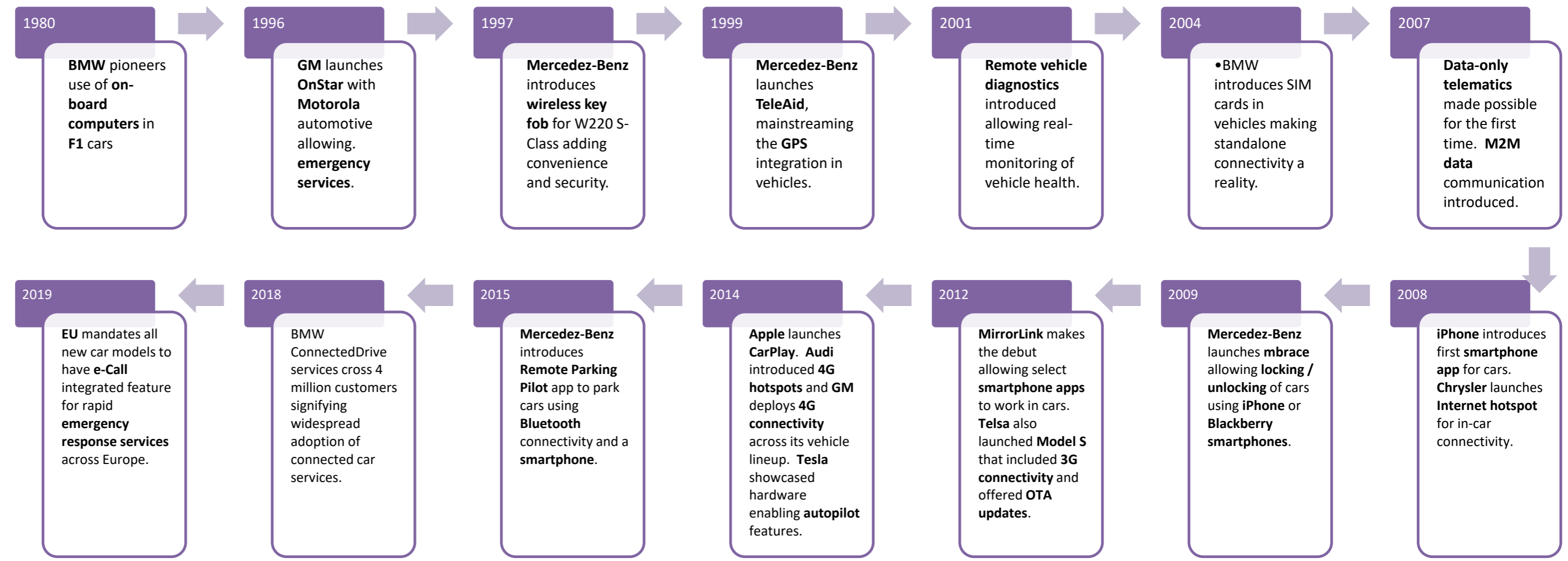
## Dieter Zetsche Automotive Industry Veteran, Ex-Daimler Executive

*“I think we see the merging of several worlds, the tech industry, the internet, and the automotive industry. These two worlds merging is like a smartphone on wheels, or you can say it’s a car that has many of the capabilities of smartphones and computers and so on.”*



The seeds of connected / smart cars were sown over 4 decades back when BMW pioneered introduction of on-board computers in Formula 1 cars in 1980.

# Significant Global Milestones



Smart Cars will holistically redefine the **driver** and **passenger** experience.



# Generations of Smart Cars

Bringing **connectivity** to the cars is making it a **platform** that allows the ecosystem to **collaborate** and create **value** for the society.

## 1<sup>st</sup> Generation



- Introduction of sensors including camera with basic display for notifications, viewing and alarms.
- Standalone sensors with no connectivity or compute capabilities.
- Decision making with the driver.

## 2<sup>nd</sup> Generation



- Shared connectivity and compute through smartphones.
- Bigger, richer and interactive display.
- Real-time navigation.
- Music streaming.
- App notifications.
- Decision making with the driver.

## 3<sup>rd</sup> Generation



- Standalone connectivity (**M2M sim**) and compute (**processor**).
- Limited interactivity with other vehicles, infrastructure and other road elements.
- Driver assistance requiring less human intervention.

## 4<sup>th</sup> Generation



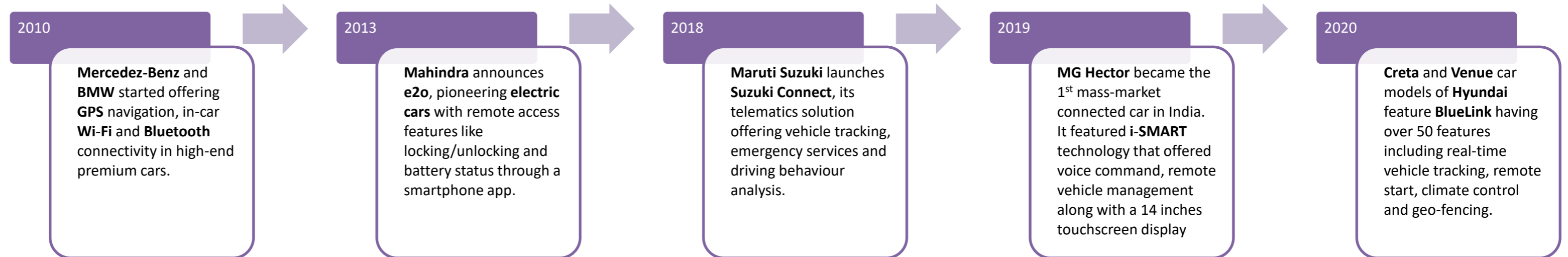
- Intelligent vehicle with on-board and cloud computing.
- Automated decision making.
- Self-driven.
- Redefined experiences with fundamental changes in the design of cars.



2025 onwards in India

# Major Milestones in India

In just a decade India has seen phenomenal growth in smart / connected car that has led to introduction of all latest features for the mass market paving way for widespread adoption.



Indian auto sector is defining its own roadmap for smart / connected cars through proactive strategies and not necessarily following the global trends.

- Globally, technology providers like chipset industry foresees automotive connectivity having opportunity of equal to mobile business. The cumulative revenues of chipset companies like Qualcomm and MediaTek have already crossed US\$1.5 billion from the automotive sector and is registering a healthy double-digit growth in revenues year on year.
- Despite auto sector in India witnessing inventory build-up especially in the mid segments, the journey to innovation and introduction of technology features is on with complete zeal. All the car OEMs have connected cars as a core strategy area being pursued irrespective of the segments they focus on.
- In-car computing & intelligence (GenAI) and cloud applications will become integral to cars helping real-time processing of data to assist drivers.
- OEMs and technology providers are very closely collaborating to explore how best the available technology blocks be used and localised in the Indian context. The entire ecosystem agrees that mere 'importing' of technology will not yield results as consumers will prioritise technology and connected features through their own relevancy benchmarking that is defined by very localised and personalised use cases.
- Telematics and infotainment are the two areas which technology providers see as early use cases for passenger vehicles. The consumers will also be able to enjoy an enriched comfort while in the vehicle as drivers or passengers.
- Cars will increasingly have multiple displays for the cockpit as well as the cabin serving different needs of driver and passengers.

Unlike smartphones where everything in the beginning had to be imported, connected / smart cars throw open a very promising opportunity to localise from inception.

- Automotive sector will skip the 4G connectivity and straight away enable connectivity using the latest 5G cellular technology. This has the potential of India becoming the largest 5G M2M market in the world in next 2-3 years.
- There are already 22 automobile OEMs that are manufacturing their cars in India across different segments. Cumulatively they produce close to 5 million passenger vehicles annually.
- From domestic ecosystem, Reliance, through Jio Platforms is holistically focusing on this evolving opportunity and has already developed several blocks of the tech stack that will substantially make India ready use indigenously developed ready to deploy technology for OEMs.
- While aligning with the global trends where telematics and infotainment are two early application areas of connected cars, in Indian context other areas such as safety and security are also going to be very relevant. As per the 'Road accidents in India 2022' report of Ministry of Road Transport and Highways, there were 461,312 road accidents reported by different state and UT Police departments. These accidents resulted in 168,491 deaths and 443,366 injuries. With V2X capabilities connected cars can significantly help in avoiding road collisions.
- Auto tech enablers have created holistic solutions addressing concerns including balancing the driver-vehicle decision making, cyber security challenges and data encryption & privacy for responsible use of connected cars.
- Some of the familiar applications that consumers will be able to use while driving include communication apps for audio/video conferencing, OTT entertainment apps, music streaming, podcasts, online shopping, vehicle maintenance and servicing, etc.

## Mohan Raju

Vice President & Vertical Head, IOT, Jio Platforms Ltd.

*“Connected cars are increasingly being seen as a platform with tremendous opportunity to collaborate for bringing greater value to consumers. At the same time, it gives immense opportunity to sharply localise meeting diverse needs and requirements of consumers in India.”*



## Anku Jain Managing Director, MediaTek India

*“India is one of the world’s leading automotive growth hubs and a key focus market for MediaTek. New-age technologies like intelligent automotive systems, ADAS, connectivity, Generative AI-powered cabins, and cloud computing are transforming automotive solutions with the latest advancements and delivering incredible in-vehicle experiences. With our MediaTek Dimensity Auto Portfolio, we’re focusing on driving the future of intelligent, always-connected vehicles and leveraging technologies such as high-performance computing, impressive Generative AI, extensive feature integration, and innate energy efficiency. In collaboration with OEMs, we focus on delivering immersive, advanced in-vehicle user experiences with cybersecurity capabilities and enhanced connectivity.”*



## Uday Dodla

Sr. Director, Business Development, Qualcomm India Pvt. Ltd.

*“We have been working with Auto OEMs in India to integrate 5G connectivity and Advanced Compute capabilities, bringing more immersive automotive experiences to vehicles. In the era of software-defined vehicles (SDV), we are empowering automakers to redefine their electronics architecture and introduce advanced features that enable highly personalized, contextually aware GenAI powered use cases on our latest automotive platforms.”*



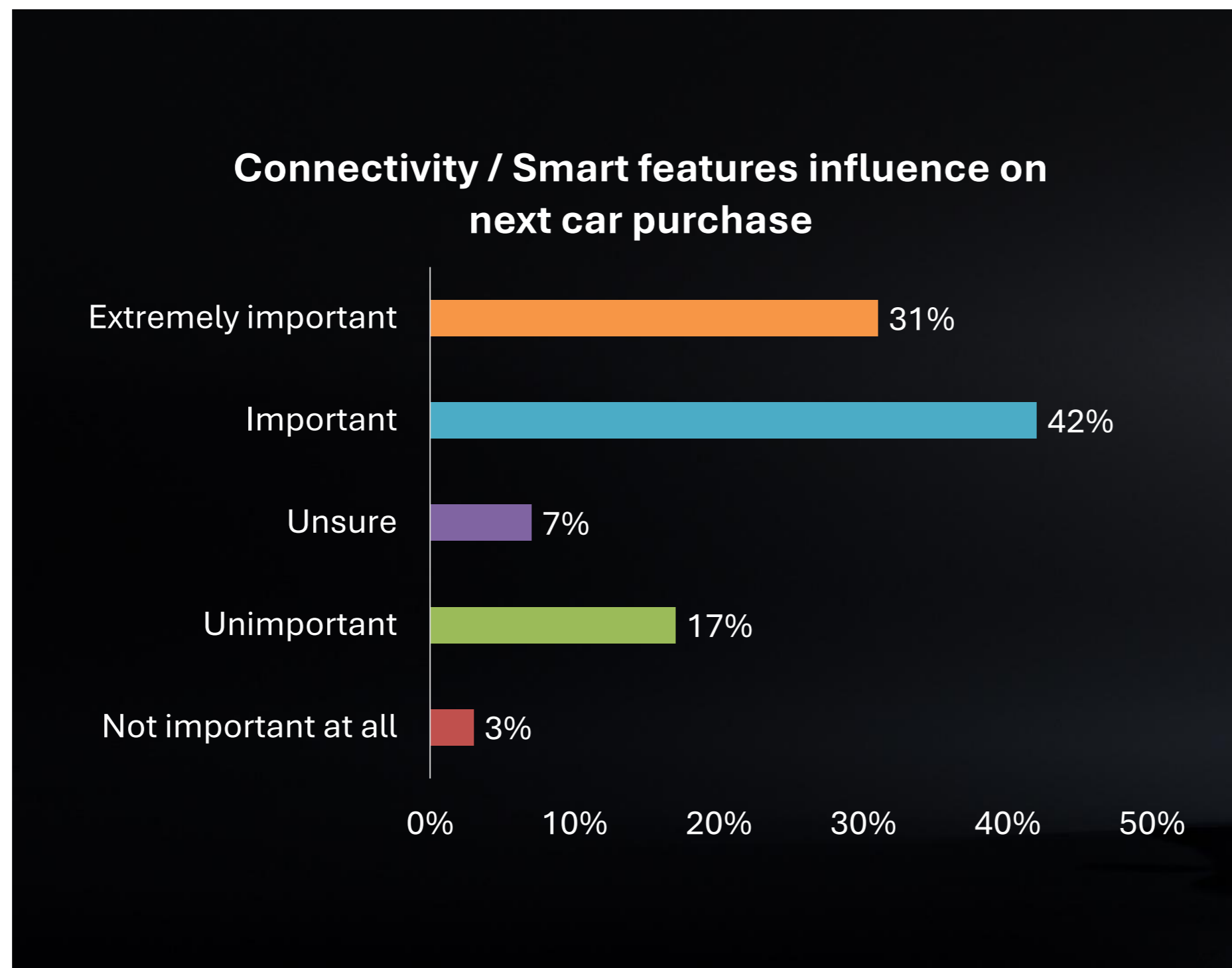
## Dolby India Company viewpoint

*“The audio-visual landscape has been on a consistent evolution trajectory, and a few years back, no one anticipated immersive in-car entertainment experiences either. Following a similar upward trend, the future of connected car audio-visual technology looks promising and lies in creating immersive experiences people love.*

*This immersive experience transforms every journey into a ‘concert on wheels’, defining a new era of auditory experience on the road.”*

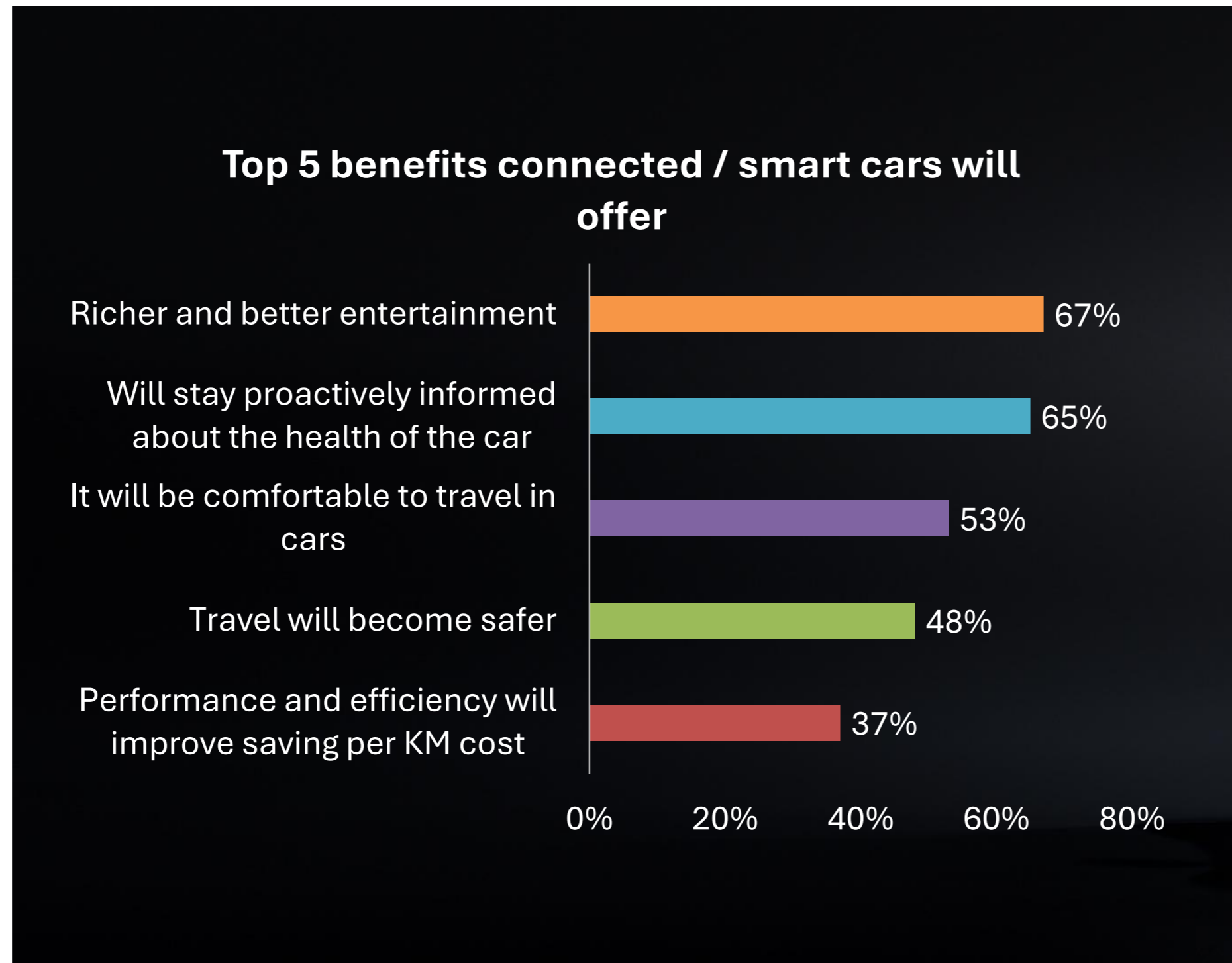


73% consider connectivity / smart features as an important factor influencing their decision about purchasing the next car.



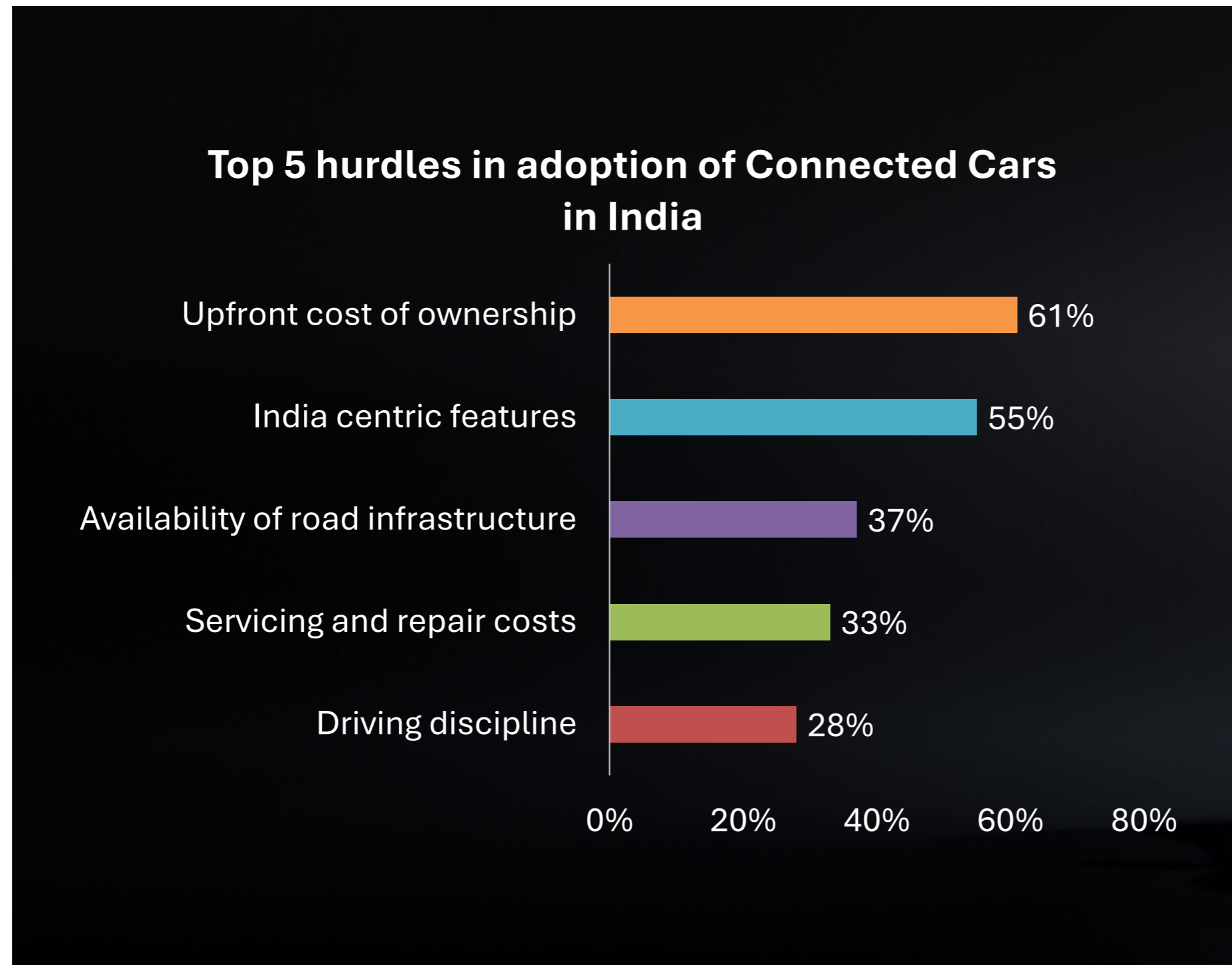
Car OEMs will need to enable connectivity as well as smart features powered by tech in their cars to align with the buyers' expectations.

67% respondents opine that richer on-board entertainment experience will be the main benefit of connected / smart cars.



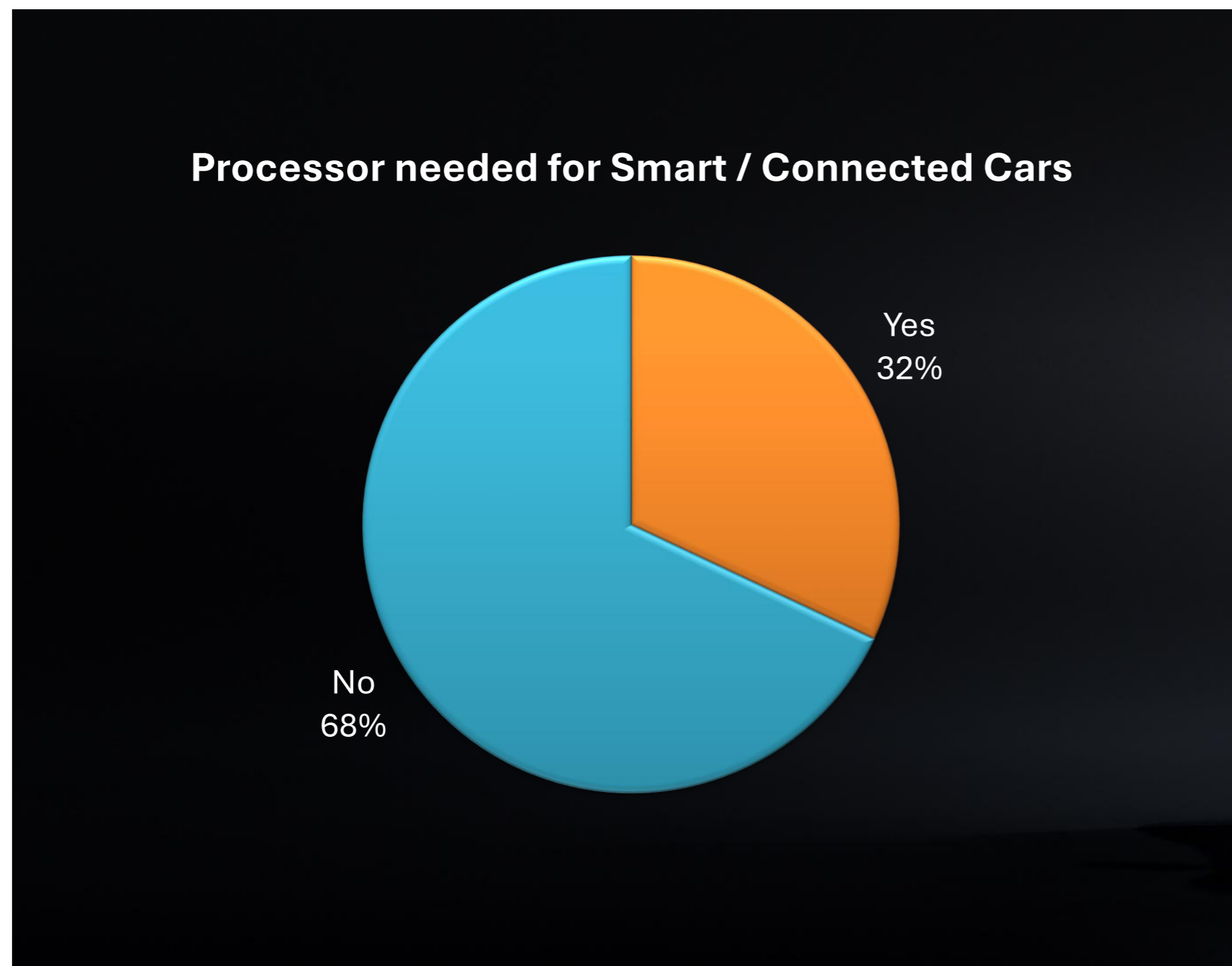
Initially consumers feel the connectivity / smart features will enrich the experience besides keeping them proactively updated about the health of the vehicle.

For **61%** of respondents the upfront cost of the vehicle remains the top challenge in owning a connected / smart car.



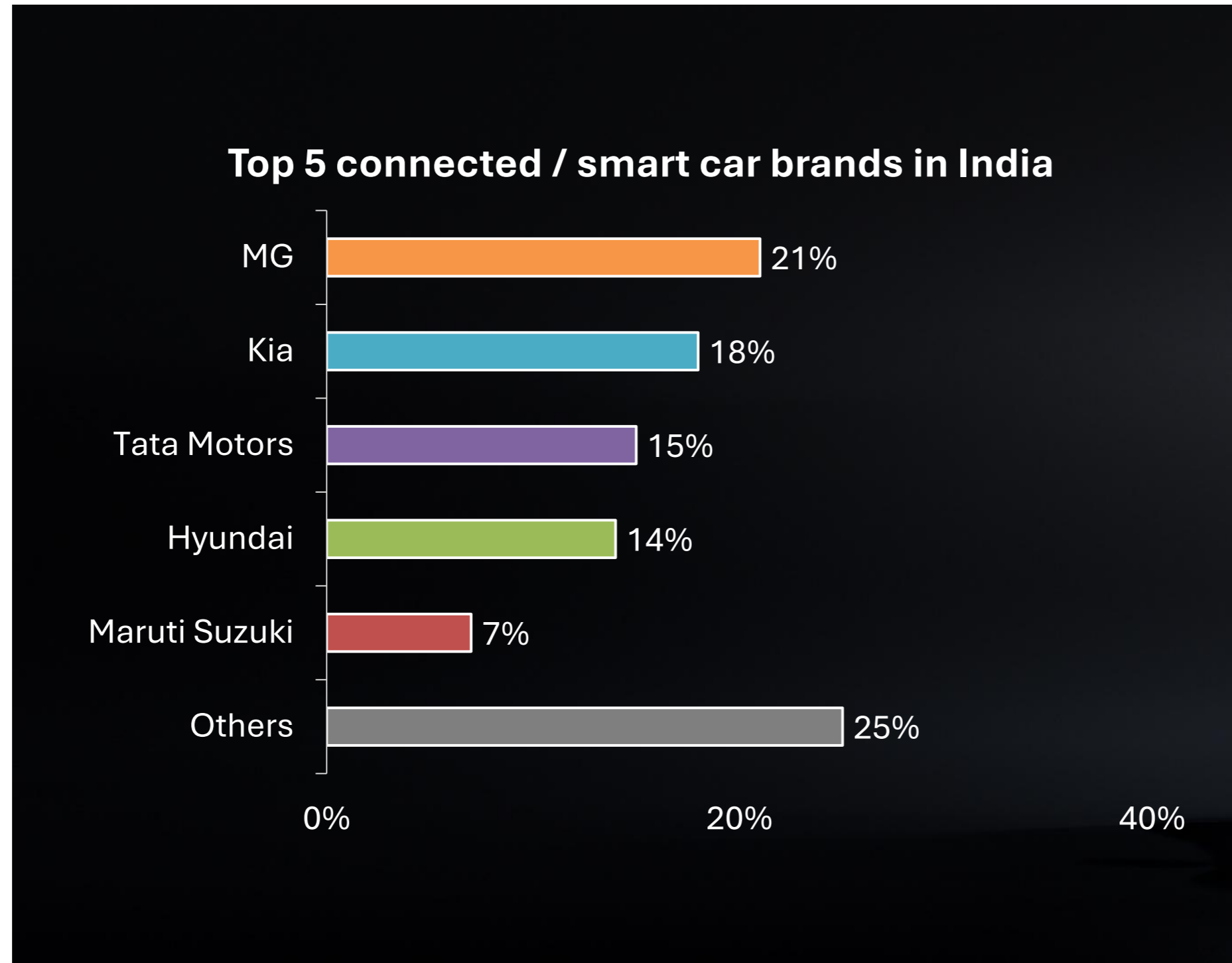
Besides educating consumers about the RoI and TCO of connected / smart cars, the car OEMs will also need to localise the features to increase their relevancy.

68% respondents unaware that a processor / chipset is required in a smart / connected car to power it with compute.



Chipset providers will need to educate consumers about the role of a processor in smart cars and how it provides the requisite compute power.

Pioneer brands like **MG** and **Kia** in mass to mid-premium markets are leading on the perception mapping of connected / smart cars in India.



The early positioning by few car brands has helped them emerge top on the perception mapping of connected / smart car brands. Other OEMs also need to effectively communicate and showcase to consumers.

For this report purposes, smart car and connected car are used interchangeably.

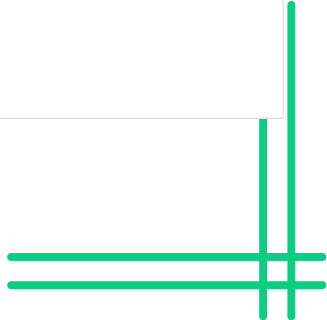
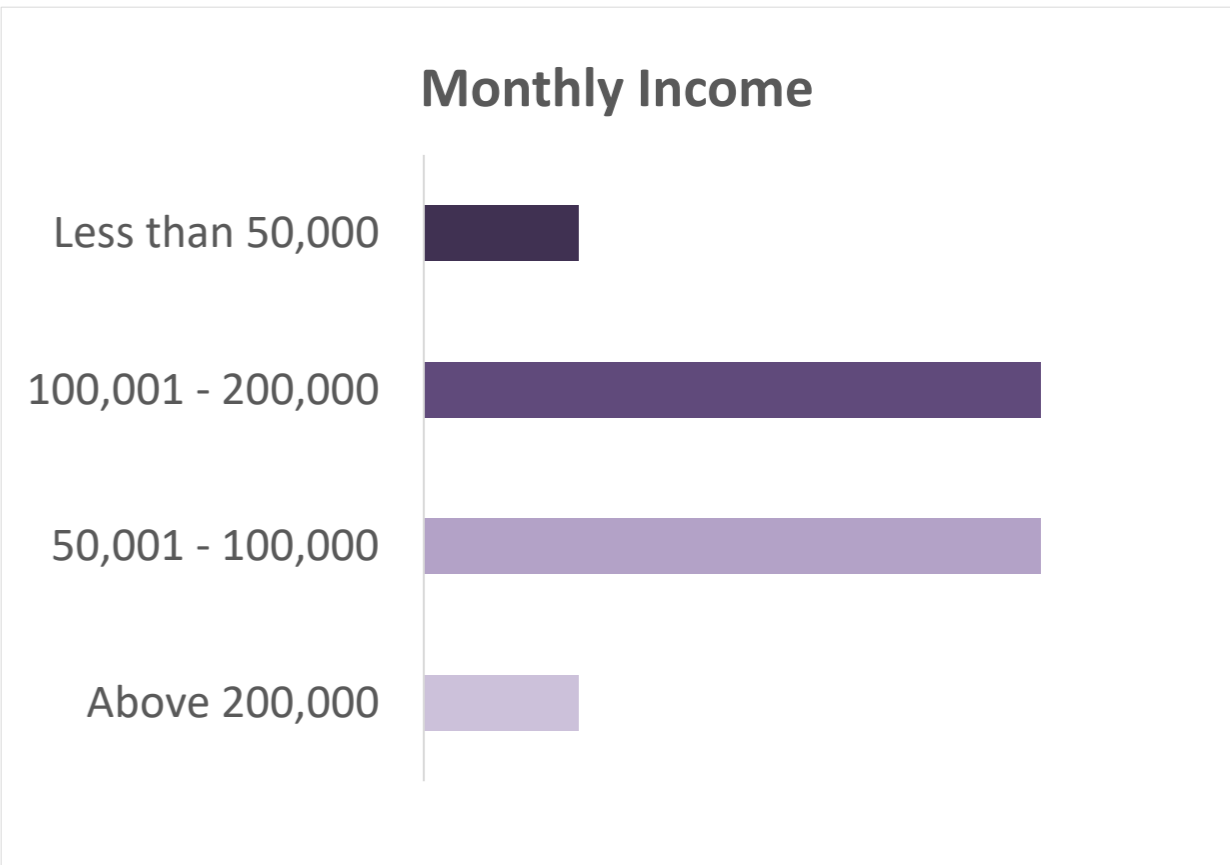
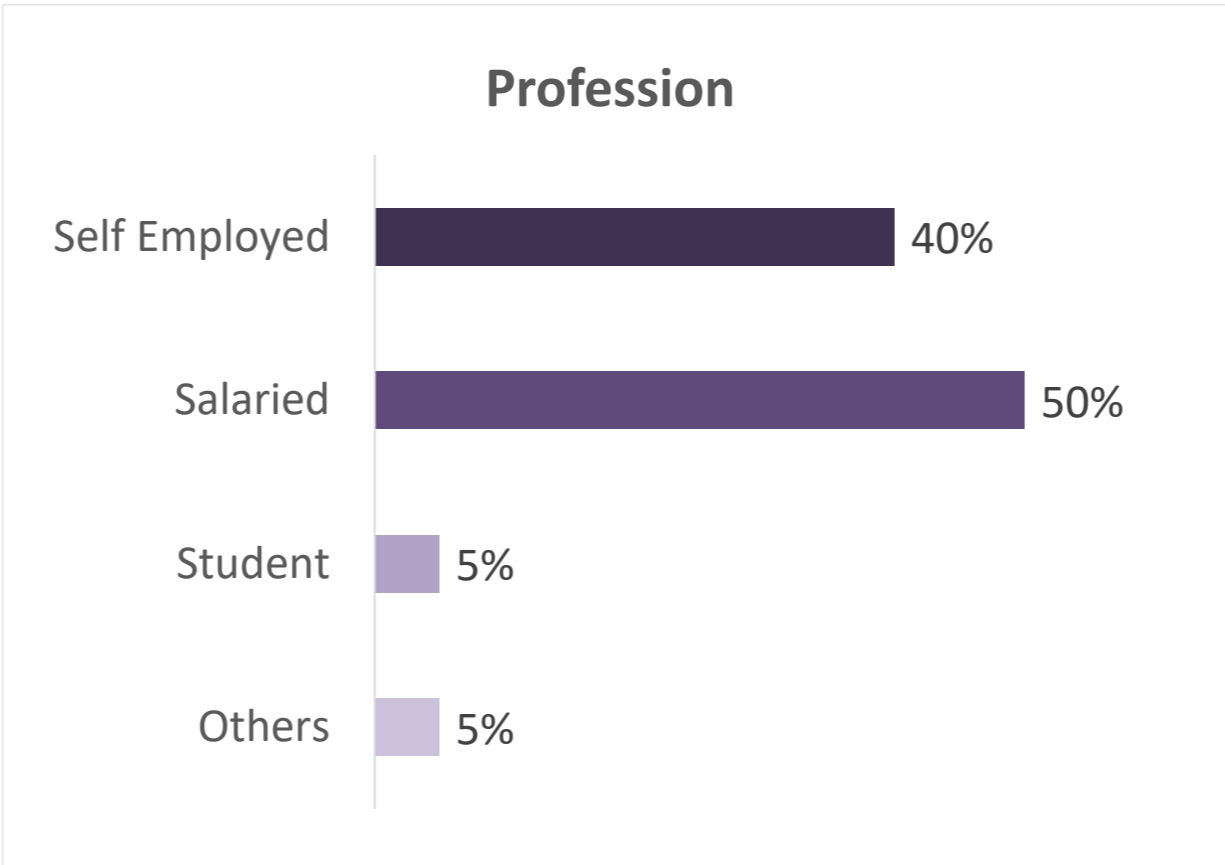
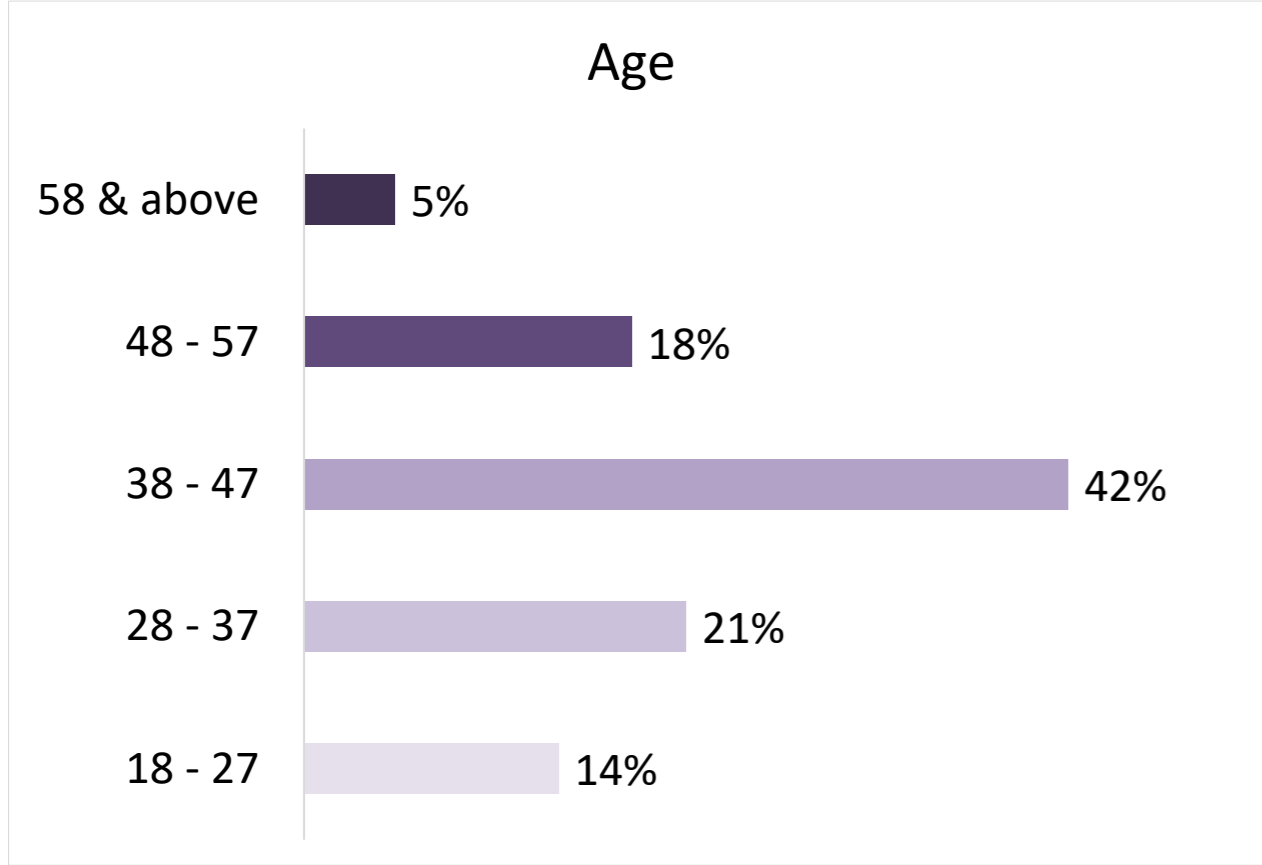
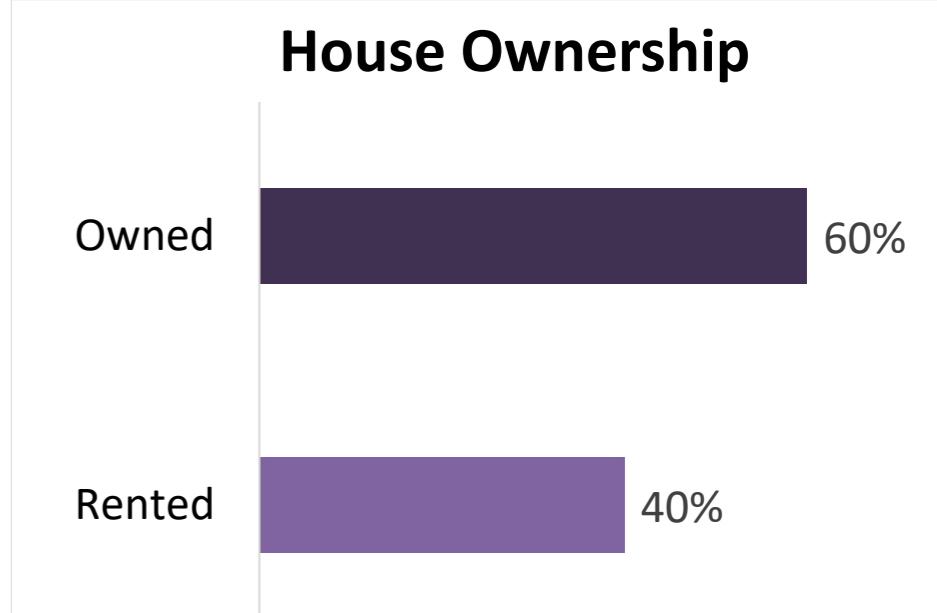
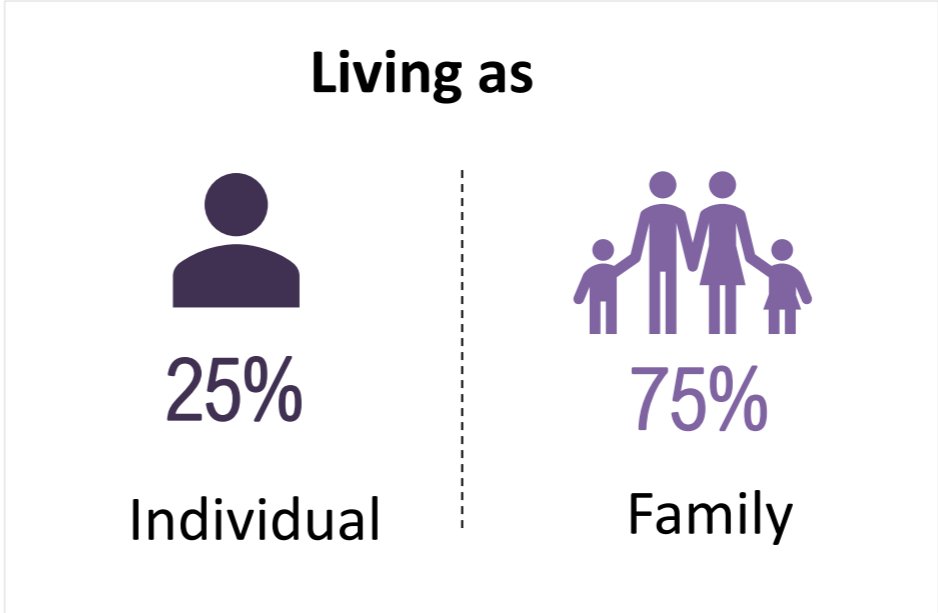
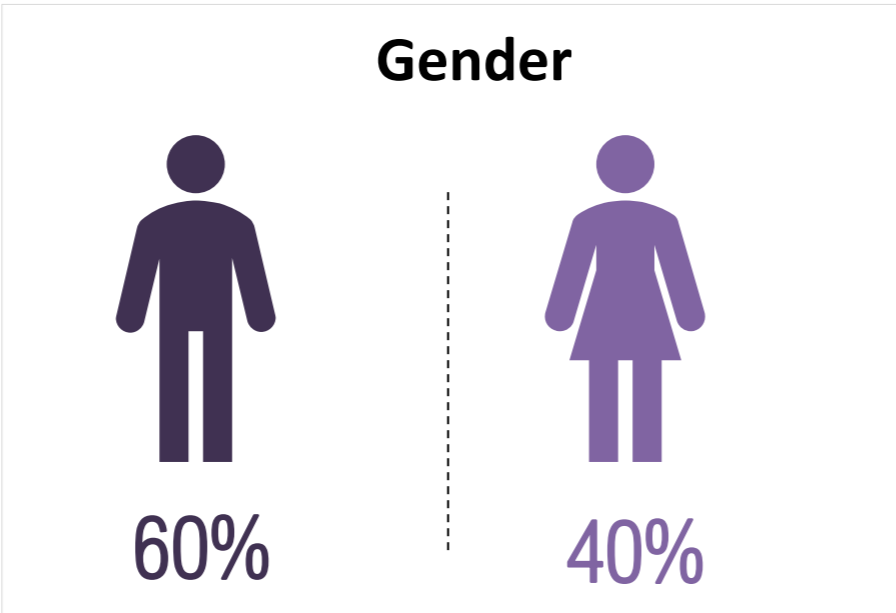
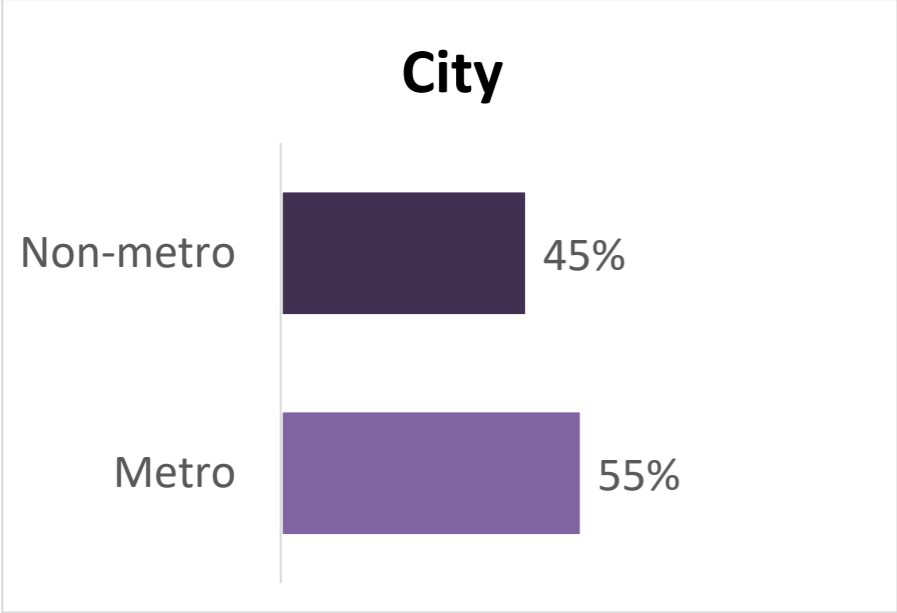
- The report considers smart and connected cars as same, which essentially have sensors, applications and connectivity. Though in essence connected car refers to the cars that could connect to Internet through an embedded SIM; cars that have a localised network connecting sensors and other elements can be considered as the earlier generations of smart / connected cars. In this report all cars having any type of localised connectivity, assisted connectivity through a smartphone as well as cars that have a standalone SIM to connect to Internet are considered as smart / connected cars.
- The definition also includes cars that have been retrofitted with connectivity elements and other hardware that make it a smart / connected car. It does not only include cars that have these elements fitted right from the factory.
- Cars only having Bluetooth connectivity for the purpose of connecting a mobile phone for handsfree calling are not included as smart / connected cars.



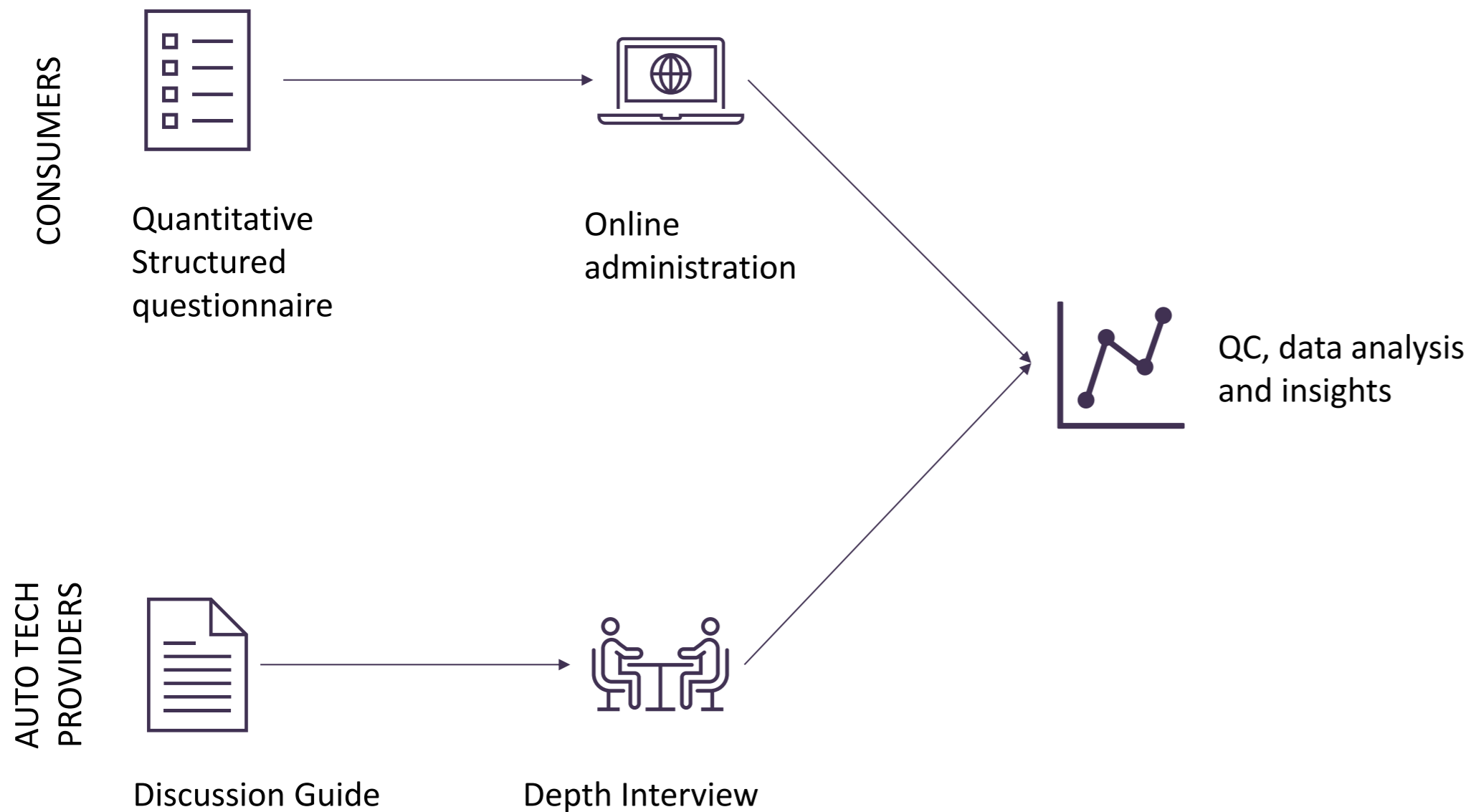
# META STATS

Profile of the respondents and research methodology

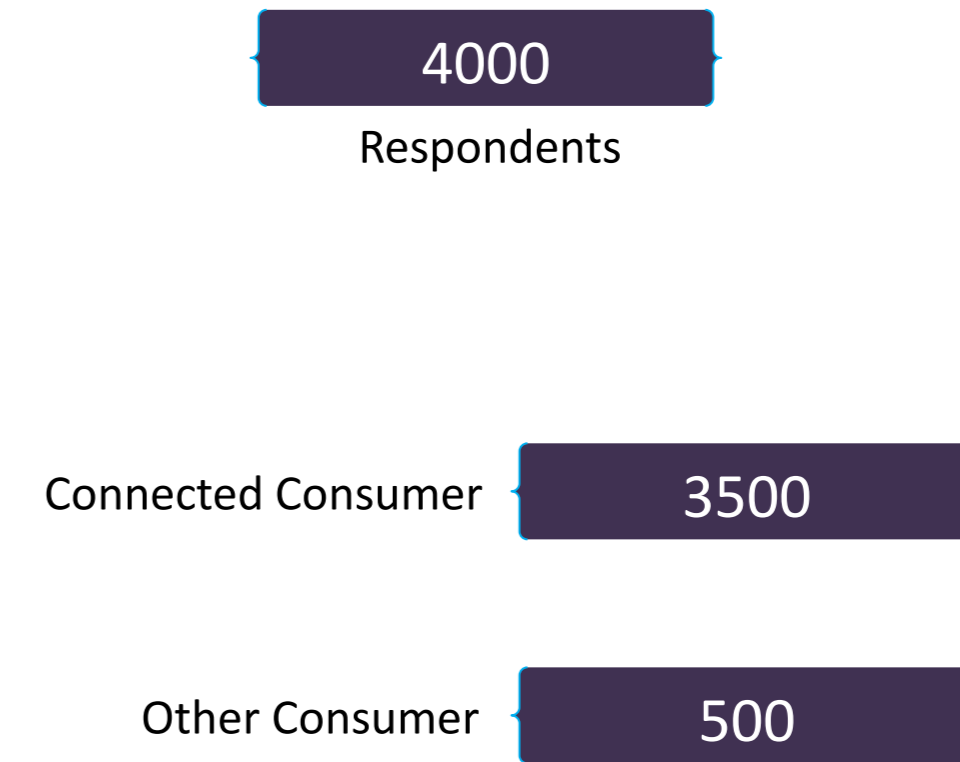
# Respondents' Profile



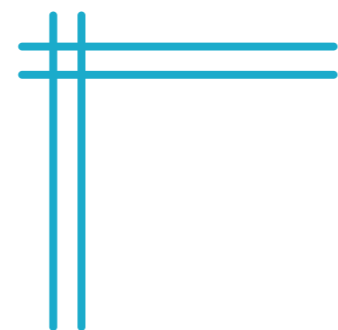
# Methodology & Sample



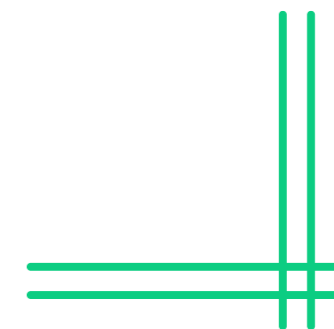
- Auto Tech providers that participated in the depth interviews included Dolby, Jio, MediaTek and Qualcomm (ordered alphabetically).



- Connected Consumer for this study was considered a respondent owning a smartphone and at least 3 more smart devices.
- Other consumers owned a smartphone but less than 3 other smart devices, or none of them.
- The findings may have a margin of error of +/-5% at 95% of confidence levels.



THANK YOU!



For any queries regarding this report or our research offerings in Connected Consumer space, please write to [info@techarc.net](mailto:info@techarc.net).

