

Epidemic Prevention and Response to COVID-19 in the Automobile Industry

Series Issue 3 —

The “humanistic era” of China Automotive Industry

The epidemic has prompted many practitioners and managers in the industry to re-examine and plan for the medium-and long-term development of auto industry, accelerating industry transformation and upgrade. In this article, we mainly focus on the “humanistic era” of China Automotive Industry, hoping to give some inspirational idea to the practitioners in the industry.

Great Post-Epidemic Change

Arrival of the Humanistic Era in China Automotive Industry

After the cold winter of the auto market, the darkest moment of the novel coronavirus "Black Swan" is ushered in the beginning of 2020. Such turmoil will surely inflict collateral consequences on the auto industry in China. Such extreme pressure will also force a breakthrough and bring a change of era. Business as usual will NOT be accepted.

Background of post-epidemic changes: China's health system has now become a new critical national infrastructure; the business application of AI will be greatly popularized, and humanistic care and thinking will also go deep into national governance and stimulate changes in all walks of life. In this epidemic outbreak, auto-makers' exemplary behaviors such as donations, production switch for ambulances and customer care made consumers pay more attention to their “business humanism” than traditional brand image.

Deep reflection after the epidemic

Arrival of “humanism era”

New theme in auto industry





The epidemic has further stimulated the historic change in the concept of life and consumption, and has even revived a deeper sense of “humanity” for the third space represented by automobiles.

Due to constraints on natural resources, the Japanese economy is highly dependent on oil imports and was devastated during the two global oil crises. However, the changes brought about by the crisis led Japan to launch a new era of oil strategy. The unremitting pursuit of the Japanese OEM in fuel economy created the global rise of fuel-efficient cars.

After this unprecedented humanitarian disaster, a revival of humanism demanded by Chinese people will force OEM to further transform its products, services and marketing strategy. China's auto industry will enter a new “Humanistic Era”.

New demand for post-epidemic consumption: Affected by post-epidemic risk aversion, people have new requirements for private space, health care, intelligent software and hardware, and emergency assistance. Under the influence of risk globalization, new business needs will emerge and flourish, such as:

- **Product: car as a third space that flexibly meets different needs** – through optional accessories and kit collections, a car is easily transformed into a personalized resting, office, wellness, and even refuge space;
- **Service: OEM to step up and lead “humanity-oriented” services** – build a universal online-service platform to unlock big data on user behaviors, personalize services, and transform 4S stores into “car life” community center;

Marketing: provide a more convenient “non-contact” experience – through online full-function channels, break through the space constraint with immersive VR experience and “people-centered” marketing

Humanism as the new wave: insights into the deep changes in consumer psychology has prompted OEM to reconsider their strategies. In the near future, OEMs will likely pursue a new path of “Product Humanization” + “Marketing Humanization”. The auto industry has long been undergoing a transformation from “product-centric” to “customer-centric.” Despite many efforts, major OEMs have encountered a series of problems:

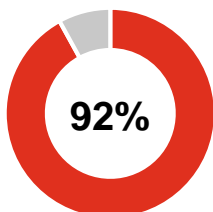
- How to consider “humanism” in an enterprise strategy and its rationality in terms of ROI is key to the humanistic transformation. Whether it is from a short-term efficiency perspective (such as more leads conversion) or long-term business model innovation perspective, are topics worth exploring.
- The level of detail in “humanism” understanding is also a key success factor. For example, in recent years, major OEMs have introduced new AI applications such as customer service robots. However, many robots have too strong mechanical sense and weak humanistic sense, which resulted in poor user experience, and inversely impacted customer acceptance of new technology.
- Compared with the mature technology such as traditional powertrain & chassis, the OEM's understanding and application of the TMT field still needs to be improved. The integration of new applications with the traditional IT system around security and compliance in OEM remains a key issue.

Therefore, OEM's humanization efforts need to consider business model calculation, user experience innovation, and understanding of technology applications. PwC's point of view is that the OEM must fully consider the three major dimensions of B (commercial) -X (experience) -T (technology) during the humanization process

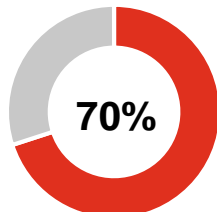
OEM must coordinate and take into account insightful business models (feasibility and profitability), creative user experience (product and experience design), flexible and agile emerging technologies (internet of vehicles, electrification, big data). And thus, PwC's BXT methodology (Business, Experience, Technology) would sit at the heart of this coordination.

Epidemic will stimulate consumers' lasting demand for humanization

Product Humanization (More Healthy and Intelligent)



92% of respondents believe that **air purification systems** in cars will be more necessary in the future



70% of respondents believe that OEM should equip their vehicles with **first aid kits, including anti-bacterial masks**

Epidemic stimulates private car consumption

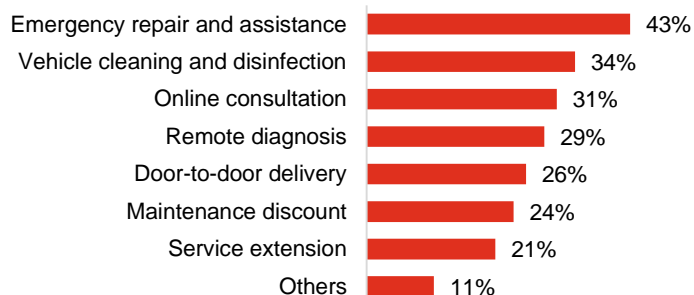
84.6% of respondents believe buying a private car becomes more necessary after the epidemic, because of **safe mobile space** for family. More than **80** of respondents believe that **private cars can provide effective isolation for epidemic**.

Health & Care concepts strengthened

The epidemic has raised consumer awareness and willingness to pay for humanized needs such as **medical health, intelligent monitoring and security**.

Service Humanization (More Comprehensive and Innovative)

What 4S store services are concerned during the epidemic?



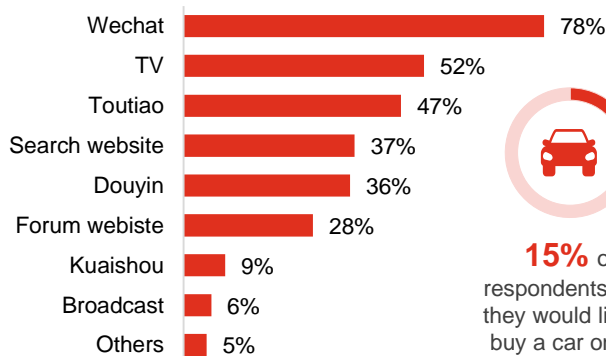
The need for contactless services is rising

The epidemic has driven consumers to shift to **online car purchase, online maintenance, and remote update**.

The survey found that consumers pay more attention to **contactless services such as vehicle cleaning and disinfection, online consultation, remote diagnosis, and door-to-door delivery**.

Marketing Humanization (Smarter and Easier Access)

What channels were used to obtain information during the epidemic?



15% of respondents said they would like to buy a car online

New ideas for online marketing

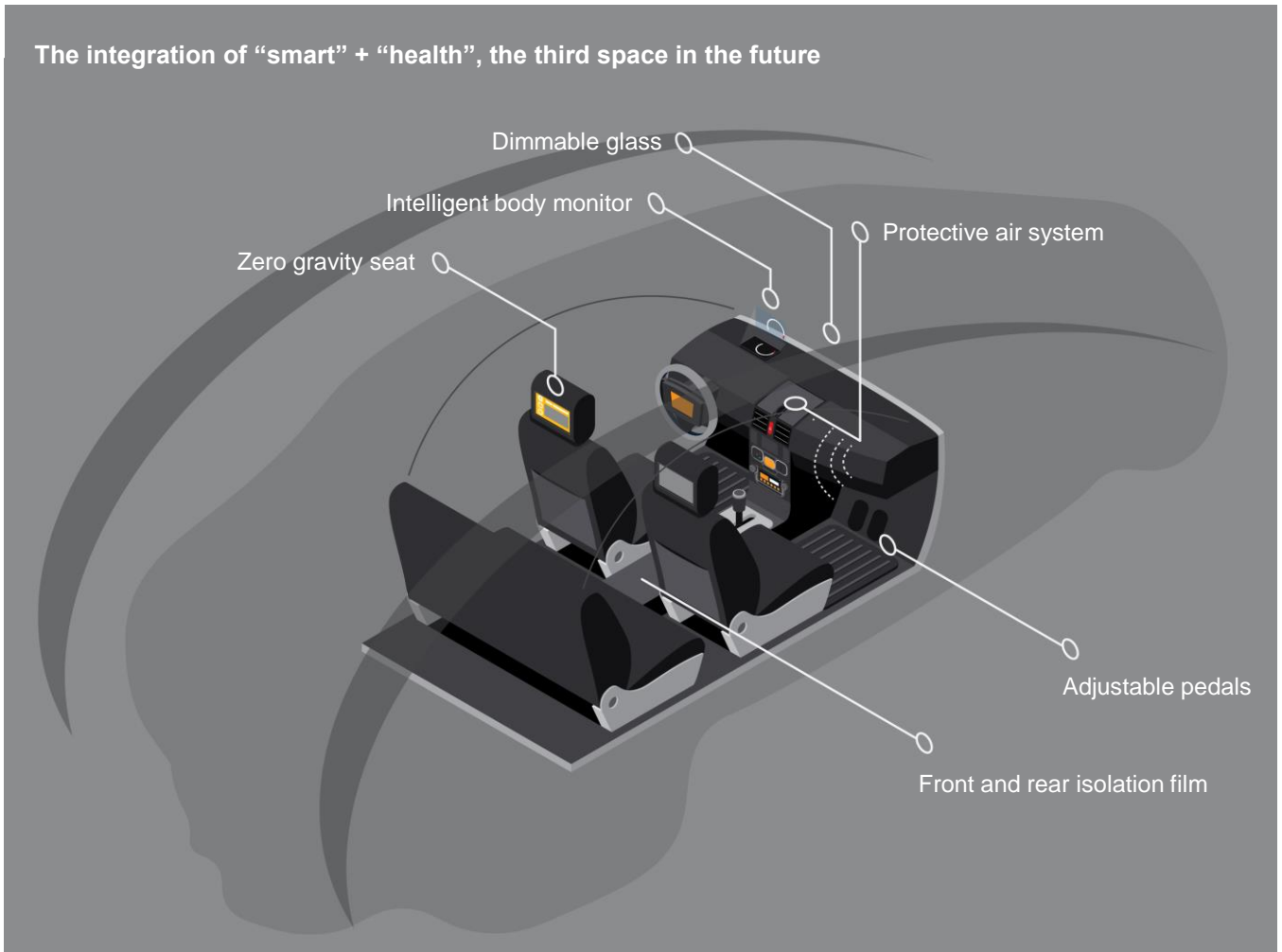
During epidemic, main channel for car owners to obtain information was **WeChat**. Another **36%** of vehicle owners watch **Douyin**; **16%** of vehicle owners watch **online live car sales**; **12%** of vehicle owners interested in **online VR showroom**.

Data sources: PwC, Economic Observer & Sina Automotive Joint Survey, CADA

Part One: Product Humanization

1. Health: fully integrated elements of health and care

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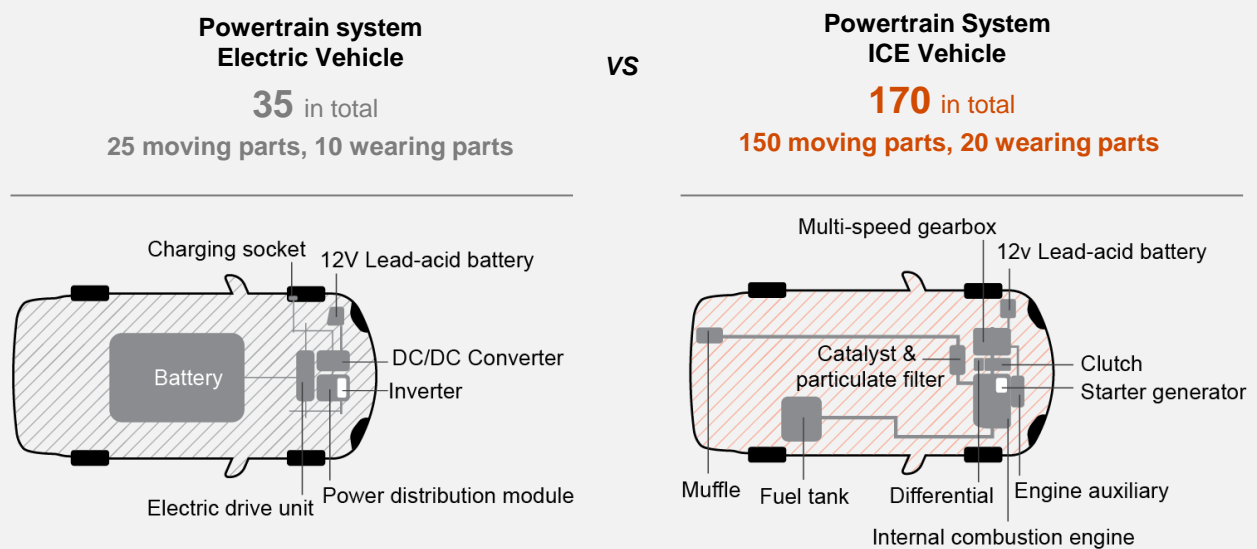
- **More personalized private space:** the epidemic outbreak has stimulated new demand for personal space. The design concept of RVs can be leveraged for intimate humanized design such as dimmable glass and zero-gravity seats to fit in a limited space, which can provide a comfortable space for office workers to rest during the day.
- **2B/2C flexible car options to meet different needs:** Product definitions will be differentiated by 2B or 2C needs. For example, 2B will mainly focus on mobility service including ride-hailing and rental cars. After the epidemic, passengers have higher demands and quality requirements for sanitary standards for public travel, such as protective air systems, disinfection equipment, and intelligent body monitor. Therefore, under the premise of cost-efficiency and solid consumer demand, OEM can manage front-end assembly modification. In terms of 2C, customized options can be made, such as the front and rear isolation film, adjustable pedals, and special purpose trailers.
- **Robotic car roll out will speed up:** In order to reduce contact between drivers and passengers, unmanned driving and remote control technology equipped with 5G technology will accelerate pilot. Unmanned vehicles will likely deliver goods, move people, and act as pick up or test-driving vehicles earlier than expected.

2. Electrification: new energy vehicles and technology transformation will accelerate

Electric vehicle consumption had faced many concerns due to issues such as battery life and charging problems. But after this epidemic, in addition to government incentives, the following aspects will become factors that consumers seriously consider when they make a purchase decision. This will accelerate the electrification transformation of the automotive industry.

- More stable energy supply, more comfortable interior space, and more streamlined parts supply: In this epidemic outbreak, charging posts actually provide a more secure and stable energy supply than gas stations. Electric vehicles provide a quieter interior space with better temperature control as well as acceleration and towing power. In addition, electric vehicles have low mechanical complexity, and the number of parts is significantly streamlined compared to ICE cars. With higher and higher localization, the maintenance and supply of parts become more reliable.

Number of Parts Comparison of Powertrain System – EV vs. ICE Vehicle



Electric vehicle parts are more simplified and easier to maintain

- The mechanical complexity of electric vehicles is low: changes in the powertrain system have made the “engine + gearbox” marginal, and replaced them with a “three-electric system”. This has greatly simplified the structure of electric vehicles, **reducing total number of parts and components of traditional vehicles by at least 30%.**

Source: UBS, PwC analysis

3. Networking – The technology and application of the Internet of Everything are accelerating

- In-depth interpretation and application of network data: Starting from January 1, 2017, the National Monitoring and Management Center of NEV requires data collection of 61 indicators for NEV to test the safety of vehicles. If OEMs can interpret mass data such as vehicle trajectories, charging heat maps and energy consumption, then they can optimize and improve their competence in vehicle body safety, path insights alert and emergency assistance to give consumers a more reliable car usage experience.

B-X-T Tips:

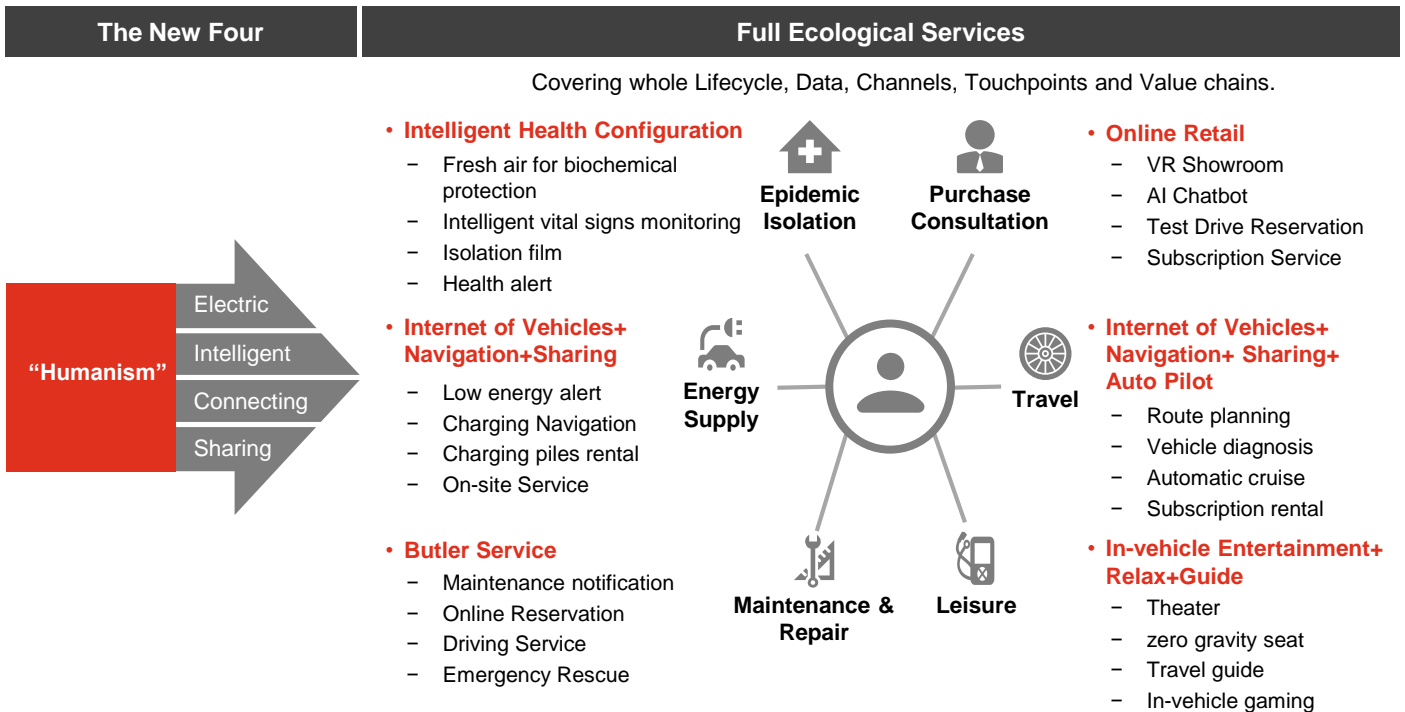
B(Business); X(Experience); T(Technology)

Taking the 2B car-sharing platform as an example, OEMs must consider the cost efficiency of the new features from the perspectives of B (Business), grasping the subtle new needs of passengers and drivers (For example, the impact of pet hair on the hygiene of the car can be solved by vacuuming equipment), and create engaging and valuable X (Experience). In addition, new T (Technology) beyond the traditional OEM comfort zone must be fully applied.

Part Two: Service Humanization

The integration of CASE (the four change) of automobiles with "humanism" will help reach consumers deeper and wider. The target group should include potential customers, car owners, and their circles. The service should cover the full lifecycle, data, channels, touchpoints, and access chains.

Integration of Auto CASE with Humanism, In-depth Reach of " Full Ecology Services"



Auto OEMs must take center stage to layout an ecosystem for new services: auto service quality varies due to OEM's traditional backstage role and factors such as regional management, competence, and culture of dealers. In view of the greater complexity of services, OEM should move ahead of dealers, build a universal digital platform, foster new services and create a "humanistic" ecology for car life. At the same time, with more diversified, meticulous and innovative services, OEM directly accesses consumers' touchpoints, accumulates big data assets, and creates data competitiveness.

1. New Rental Service:

New Rental under Travel Platform: As the economic downturn is inevitable, there will be uncertainty about the employment of many people. The first-time-buyers may not be able to secure a car loan. But their demand is solid and many of them can provide car-sharing services in their spare time. So the ride-hailing company, backed by captive finance, can provide rental solutions similar to a mobile phone plan. Customers pay a certain rent each month to buy a car while also earning additional income.

2. New Community Service:

Community Half-hour Chauffeur Service: Learning from incidents during the epidemic, when the elderly and children are left alone and inconvenienced for their mobility needs, the 4S store can carry out a

community-centered chauffeur service. Pick up and drop off customers within a half-hour service radius. It would make value-added services to the fullest to enhance customer loyalty. In addition, when the electric vehicle owner has difficulty charging or parking in their crowded compound, 4S stores can also use their own resources to pick up and drop off cars in the community for parking and charging services.

3. New Subscription Service

Due to the decline in overall consumption, consumers will pay more attention to pricing schemes and price-quality ratio. It will bring opportunities for subscription services. For example, OEM and dealers can provide customers with multiple-choice bundles of subscribed services. The annual maintenance can be charged for a monthly subscription and packaged with accessories and software subscriptions and annual membership fees.

- **Vehicle Annual Subscription:** With a more established credit bureau system, auto companies in Europe and the US, such as Porsche, Volvo and Cadillac, have already popularized vehicle subscription services (annual fees, monthly replacement/upgrade, or direct buyout during usage period). With the continuous improvement of China's personal credit system, subscription services may become a new area that many car companies will explore.

Part Three: Marketing Humanization

Affected by the current market situation, China February auto sales plummeted about 80% year-on-year, the largest drop in history. In addition, the high cost of leads acquisition (1200-1500 RMB / valid lead), the long conversion cycle and low conversion rate (effective leads conversion rate of 2-4%) are the long-standing pain points of automobile retail. Under the impact of this epidemic, the traditional offline model will be further forced to transform.

Offline channels are still mainstream but online

channels accelerate fast: The epidemic has inspired new thinking about the automobile marketing model. The future industry giants must integrate online and offline smoothly. SARS contributed to the rise of China's e-commerce, and this epidemic pushed new media to deeply integrate into auto marketing. Under current pressure, many OEM and dealers started using online channels such as short video and live streaming platforms. Moreover, great convenience will be brought to consumers through robotic and intelligent technology. For example, new business models such as unmanned marketing, virtual car shows, and online remote-controlled racing will all get popular in the future.

1. New thinking on the construction of online channels

- **Omnidirectional online traffic attraction:** Under the outbreak of the epidemic, the traditional distribution model that relies on offline experience was hit hard, while online channels, such as auto media, self-media, and live broadcast platforms, have brought significantly more traffic. Per the CADA survey, 16% of car owners said they would pay attention to live car broadcasts. Depending on the duration of the epidemic, if it is over in the short-run, live broadcast for cars may become a transient phenomenon. However, if there is a continuous epidemic, car companies and dealers will invest more to create online content to gather momentum and create solid leads. The live broadcast will gradually be formed into a new way of auto marketing and it is unlikely to trail away after the epidemic given its audience. Live broadcast may become a new window of opportunity for future auto marketing.
- **Intelligent One-stop platform:** In the future, online applications such as WeChat Mini Program, official online store, and mobile APP will receive more attention and be fully developed. Using big data, artificial intelligence, etc. to provide VR showroom, intelligent query, product subscription, feedback, etc. to form a one-stop platform. With the continuous development of virtual technology, users can participate in online virtual car shows through various head-mounted and sensory devices, breaking time and space restrictions, and enjoying immersive test driving experience.

2. New ideas for changing offline experience

- **Unmanned Experience:** Within 3-5 years, the 5G remote driving will commercialize earlier than a complete autopilot. Test driving service then can be supported with remote control. Customers can easily "hail" multiple models to any place for a test drive, and can enjoy an in-depth test drive experience under the remote guidance of a consultant. After a test drive, customers can choose to return to the store, get instant financing and drive a new car home. This will ultimately enable the virtualization of 4S stores. The unmanned model is promising, and is well driven by the epidemic to come true sooner.

B-X-T Tips:

B(Business); X(Experience); T(Technology)

From the perspective of B (Business), OEMs need to fully consider whether the recent online car selling momentum is sustainable and long-term; whether the sales process from customer gathering to final delivery can be partially or completely replaced by online activity. For X (Experience), online car sales need to fully reflect the consumer's in-depth experience of automotive products, that is, how to use the online features to best showcase the car's exterior, interior, driving and feel. The buying of a car is a significant decision, and as we move further towards a more online model, we risk taking away touchpoints of the customer journey that provide the most value to customers. From the perspective of T (Technology), it is necessary to pay full attention to the cutting-edge display technology and data transmission stability to support the immersive and consistent experience.

Part Four: Conclusion

It is expected that with short-term incentive policy, automobile consumption, especially the first-time-buyer and EV market will rebound. But after the short-term recovery, can “humanism” become a lever and a new brand for Made-in-China cars just like “fuel economy” for Japanese cars? Can OEMs align with leading internet companies and achieve full ecology services? Will owner APP become the first choice of contact and 4S stores be the community harbor for car life? Can the mass data generated from the car be truly insightful and empower all parties to generate new income? The answers to these questions will determine whether China auto industry can catch up and even lead the industry's transformation.

In the wave of change, OEMs that pursue the “humanistic” transformation will stand at the tip of the wave. In this process, OEMs and dealers need to fully consider the capacity building of the B-X-T, and their own advantages/disadvantages in corporate culture, organization structure, etc. to promote the integration of the B-X-T capabilities at all levels in the enterprise.

China's unprecedented disaster has inspired collective awareness of humanistic concepts and created brand-new needs and opportunities, while its manufacturing capacity and the China market have provided the necessary scenes, allowing technology and application innovation to be widely implemented. PwC Consulting will also provide a more detailed perspective on products, services, mobility and other fields from a human perspective and the BXT dimension.





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