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A time of reckoning:
Road logistics in India

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A time of reckoning: Road logistics in India

Emerging tech-driven disruption and the path to create value for commercial vehicle manufacturers, automotive original equipment manufacturers (OEMs), non-banking financial companies (NBFCs), and other incumbents in the ecosystem

Nearly a quarter[1] of the jobs in India are linked to the logistics industry, with road logistics occupying the majority share. Yet, the sector has historically been plagued by entrenched interests of a network of middlemen and small operators, limiting free exchange of information for other participants (e.g., truck owners/operators). Almost all parties, including truckers, transporters, retailers, and mechanics, complain of a 'fickle ecosystem', leading to an inherent trust deficit in the sector. This results in inefficiencies in the way shippers' demand for trucks is matched with supply. Making matters worse is the negative perception about the truck driving job. Driving a truck is considered one of the worst jobs in the country, featuring a low pay, a high fatality risk, and no respect in the society. Any solution that aims to improve the wellbeing of truckers' community can have a big impact on driver's efficiency for the industry at large.[2]

Enter disruptors. A host of start-ups are taking on the challenge of organising this largely unorganised sector. In the process, they are carving new channels, and meeting both existing and new needs of the historically under-served truck owner community. This has ramifications for anyone associated with this space – be it commercial vehicle manufacturers, auto ancillary manufacturers, oil majors, non-banking finance companies (NBFCs), or others. Given the significant disruptions threatening traditional business models, how do incumbent players continue to survive and thrive in this fast-evolving business environment?

Ripe for disruption

Major inefficiencies mentioned below plague the core road logistics business.

Fragmentation
High fragmentation levels on both the demand and supply of vehicles lead to inefficiencies in the industry. About 75% of the truck supply is done by small owners (with five or fewer trucks).[3] Similarly, the vast majority of transporter population in India comprises small and mid-sized transporters. Both transporters and truckers have to rely on a network of brokers to gain access to shippers. This results in low asset utilisation as finding adequate loads can be difficult for a trucker. Some estimates suggest that trucks can be idle for 25–30%[4] of the time due to inefficient demand/supply matching.

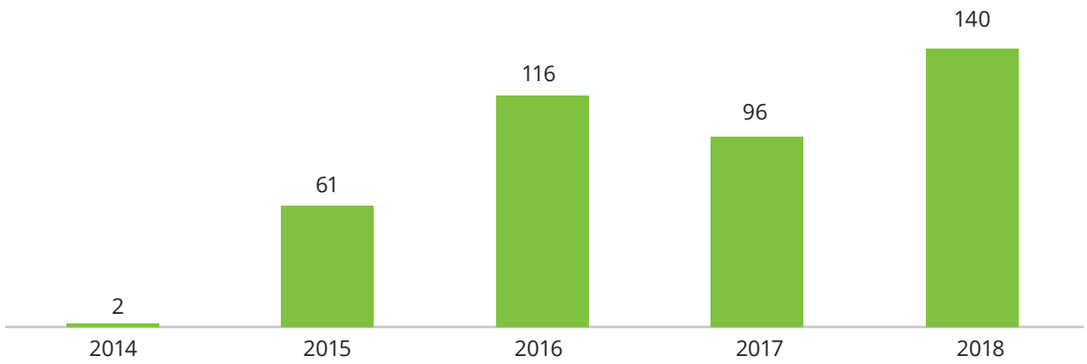
High cost
In addition to slowing down the business, these layers of intermediaries eat into truckers' margins and add to their operating costs. In our estimate, for every INR 100 a shipper is willing to pay for a shipment, only INR 80 reaches the trucker making the delivery. The remaining amount is absorbed as a commission by brokers and agents.

Lack of information
A healthy flow of information is critical for establishing trust in the ecosystem. For instance, to ply on a new route, truckers need to know where they can find reliable transporters, brokers, mechanics, and retailers on the way. Lack of such information prevents truckers from exploring new routes, limiting asset utilisation and decreasing their efficiency.

Limited digital capabilities
As the ground logistics industry has remained largely unorganised, it has lagged behind in terms of technology-driven service enhancements, such as live tracking, security features, analytics, and logistics management software. Adopting these elements should help reduce inefficiencies and unlock value for users across the ecosystem. The majority of transporters lack an enterprise resource planning (ERP) system, and instead rely on phone calls and manual processes.

Riding the funding wave

Chart 1: Investment in freight trucking start-ups (US$ M)



Source: Tracxn data

The promise of profits from dis-intermediation of the logistics value chain has led to a rapid increase in funding by venture capital and large private investors.

Rise in start-up funding: The Indian freight trucking sector has seen a substantial increase in investments over the past five years. The sector has seen investments of more than US$ 500 million since 2014; investment is increasing at a compound annual growth rate (CAGR) of 190% (disclosed funding amount).[5]

Though investment has been seen across the three key areas - long-haul transport, short-haul delivery, and logistics software solutions – with long-haul garnering greatest interest. Established players, such as Rivigo and Blackbuck, have continued to be in the forefront of the investment wave. These two players alone had raised a total funding of more than US$ 350 million by 2018.[5]

Even the short-haul intra-city space has captured investors' interest. For instance, a Bangalore-based intra-city logistics start-up has raised nearly US$ 33 million[5] since its foundation in 2015. OEMs have also shown their interest in this sector. In 2018, Tata Motors acquired a 26%[6] stake in intra-city start-up 'TruckEasy' for an undisclosed amount.

The software solutions space for the India logistics industry is still in its nascent stage. The space covers players providing logistics technology solutions, such as fleet management, global positioning system (GPS) tracking, and internet of things (IoT) based solutions. While disclosed funding to date has been limited to approximately US$ 20 million[5], significant players are emerging and beginning to scale. A Delhi-based start-up, which began operations in 2015, has already raised close to US$ 5 million in three rounds of funding.[5]

Drivers of funding: Investors' increasing confidence in Indian logistics players can be primarily attributed to the following:

- **Data affordability:** In the past few years, mobile data prices in India have fallen drastically. These prices are the lowest in the world[7] and have paved the way for mobile-first solutions in this space.
- **Unified tax regime:** The introduction of the GST regime (accompanied by the abolition of Octroi) has brought all Indian states under a single tax framework. The move has resulted in a smoother flow of freight across states.
- **Digital payments:** The introduction of a unified payments interface (UPI) and accompanying payment apps has enabled a greater level of safety and traceability of payments in the logistics space. The move has led to an increase in investors' confidence in firms' decision to adopt digital payments.

Rapid pace of change

Emerging solutions are creating platform-based ecosystems to disrupt traditional means of doing business.

Solving problems for the core business: Digital freight-matching start-ups are disrupting how shippers find truckers, both for long-haul and last-mile deliveries.

We compiled a list of more than 40 start-ups operating in the digital freight matching space, including a few that are rapidly approaching "unicorn" status.

For instance, Blackbuck, an inter-city trucking and supply chain start-up, has rapidly scaled to have more than 250,000[8] trucks on its platform. Per the company's mission statement, Blackbuck is "committed to making it easier for millions of truckers to get access to load and move at capacity, and enable shippers of all sizes to have access to the right truck, at the right time for the right price – all at the click of a button."[8]

At a macro level, we identified three key models that start-ups use to solve their core business problems, with key distinctions across models on who owns the productive asset (i.e., trucks) and who bears the working capital risk (as payments from shippers can take 30–90 days):

01 Asset heavy + working capital heavy.

These start-ups own and control their own fleets and directly contract with shippers, creating need to fund working capital. This model allows the most control in meeting stringent service levels and turnaround times. For example, Rivigo's core logistics offerings.

02 Asset light + working capital heavy

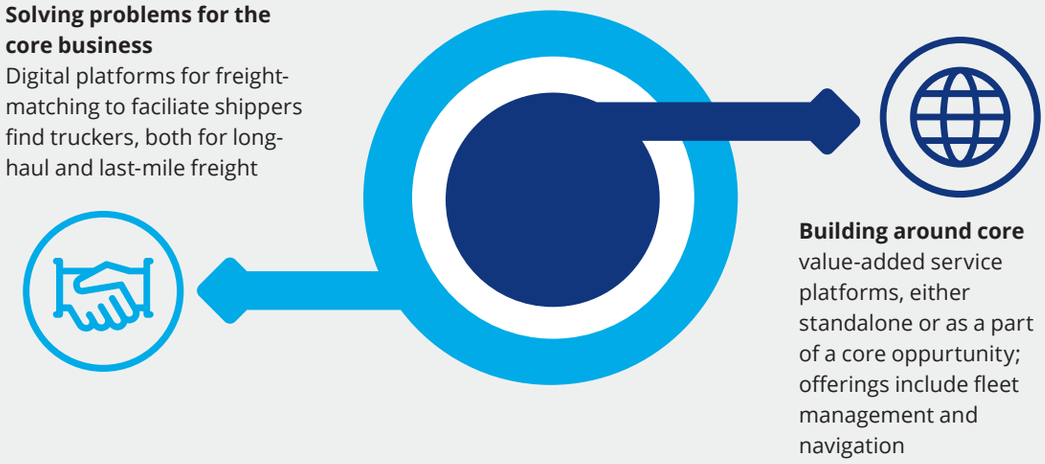
These start-ups do not own trucks but contract directly with shippers to fulfil shipments. This model may need a level of quasi-ownership – trucks that are exclusive to the platform in exchange for minimum payment guarantees. For example, the Blackbuck freight platform and Rivigo Freight.

03 Asset light + working capital light

These start-ups neither own trucks nor take working capital risks. They are 'digital brokers', doing the same function that traditional middlemen perform, but with technology and at scale.

Besides enhancing overall efficiency, these business models offer sustainability benefits (i.e., fewer empty runs for trucks equal lower emission levels). According to a recent survey by the World Health Organization (WHO), 15 of the top 20 most polluted cities were in India[9]. While the government looks to pass the necessary regulations and make investments to support the shift towards a greener economy, adoption of innovative business models by the private sector will be equally important for supporting the country in this transition.

Figure 1: Key focus areas for logistics start-ups



Going beyond the core: Value-added service platforms are emerging, either as a standalone offer or part of the freight-matching marketplaces.

Owners of freight-matching platforms have access to granular user data that covers vehicle use, maintenance patterns, and behavioural data (such as where truckers like to eat and rest). This data becomes a powerful foundation for launching value-added services targeted at truckers. Based on market transactions, start-ups have been applying machine learning and predictive analytics on truck usage and maintenance records to predict when a part is likely to break down. This enables preventive maintenance, saving truckers' time and money.

Shippers benefit from real-time tracking, and increased predictability in delivery times. This in turn has the potential to optimise warehouse operations and reduce inventory levels. Using technology, shipments can also be made more secure. For example, GoBolt, a next-generation logistics start-up, uses digital locks on its container trucks that can only be opened when vehicles are geo-fenced to the destination address[10].

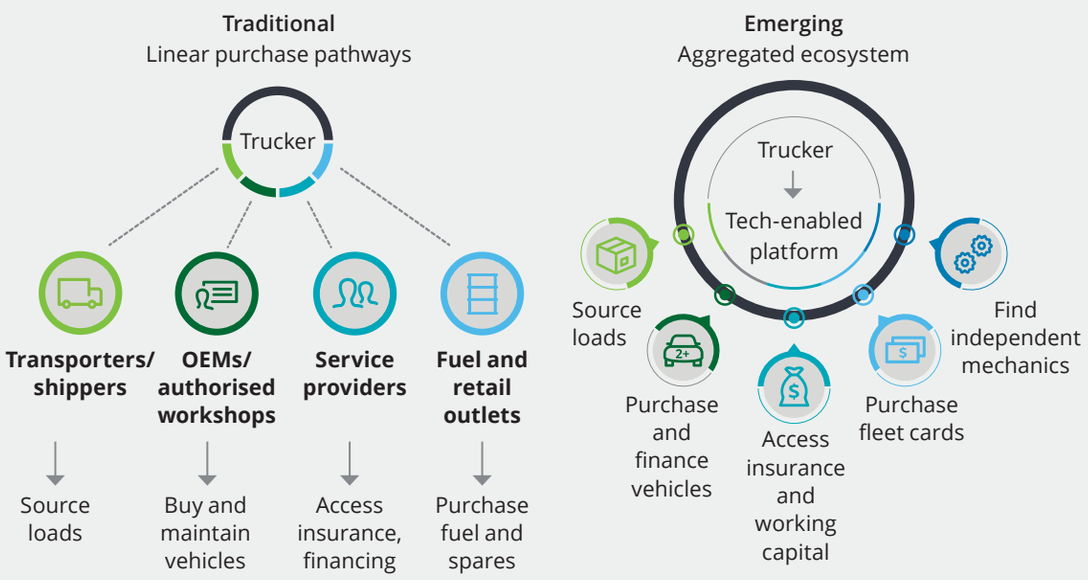
As start-ups scale, and add thousands of trucks and shippers on their platforms, the power of these platforms will become even more apparent. Blackbuck has aggregated its increasing user base to offer them a bouquet of products and services. These include fuel cards, tyres from multiple manufacturers, toll tags from FastTag, and commercial vehicle insurance through multiple partnerships.[11] Future extensions may solve other challenges. For instance, a data-driven fin-tech lending offer could help address the pervasive lack of credit for truckers.

By bringing efficiency and prosperity back to the profession, these start-ups are addressing a serious problem of a shortage of drivers in the country. In 1991, there was one driver per truck in India. At present, about 27% of the trucks lay idle due to lack of drivers. Driver shortage is expected to reach 50% by 2022.[12] Tech-enabled platform solutions are essential if India wants to address this shortage effectively.

With point solutions (such as load board, online shopping, and access to finance) converging and start-ups expanding their core platforms, a road logistics ecosystem is emerging in India; this poses challenges for incumbents in the ecosystem.

Rise of ecosystems

Figure 2: Shifts in the truck owner's engagement pathway



The changing industry dynamics have the potential to create significant shifts in the way different players interact with each other:

- How shippers manage warehouses and other parts of their supply chain?
- How auto OEMs access their customers?
- How service providers, such as insurers and financiers, access customers and data?
- How truckers pay for products and services?

How innovation can help incumbents navigate their way through disruption

If the current pace of change continues, traditional intermediaries, such as transporters, retailers, and mechanics, will need to adapt quickly or face the risk of obsolescence. OEMs will need to re-think their go-to-market strategies and interact differently with their channel partners.

We strongly believe that the rise of ecosystem platforms poses the following fundamental questions for incumbents operating in this space:

- How might we participate in the changing landscape and tech-enabled disruption? Is it best to build, buy, or partner to accelerate innovation?
- How might we develop a differentiated offering for our customers?
- How do we future-proof our organisations from inevitable disruption?

01. Participating in the changing landscape: Evaluating build/buy/partner decisions while making a decision regarding build/buy/partner, the internal and external environments should be assessed to determine the best springboard for success.

Internal considerations are mentioned below:

- How strategically important is it for us to have operational control or intellectual property rights over innovation?
- How much time would it take us to build a solution in-house, and do we have the capabilities to do so?
- Do we have funds that are protected for innovation-related acquisitions, and will we secure necessary leadership approvals?

External considerations are mentioned below:

- How important is speed to market from a competitive perspective?
- Are there solutions/start-ups that fit well with our innovation objectives and may be interested in collaborating with us?

02. Developing differentiated offerings: Start with in-depth, unconventional insights about users and challenge orthodoxies

Due to a rapid change in the market, companies are facing increasing pressure to innovate. To achieve quick wins, they often resort to traditional methods of innovation (such as adding a new feature or improve the performance of existing products). However, these initiatives are usually iterative in nature and often disconnected from genuine user needs.

Immersive ethnographic research goes deep into customers' lives to identify their real unmet needs. For instance, when we interacted with transporters on the ground, we found several instances of two family members making a base at the opposite ends of a freight route. Struggling with an unreliable ecosystem, they were responding with an age old solution for lack of trust – one brother relying on another.

Solving trust issues through reviews, ratings, and escrow mechanisms is at the heart of many tech platforms emerging in the marketplace. Successful platforms are those that understand the basis for trust and bridge the prevailing deficit, rather than simply building a tool to transact on.

Challenge orthodoxies

Industries and companies tend to develop a set of habits and rules that shape widely held conventional wisdom over time. We call these rules orthodoxies. Orthodoxies are pervasive beliefs about "how things are" that often go unstated and unchallenged. They exist at both the organisational and industry levels.

If made explicit and challenged, orthodoxies can be a powerful source of innovation insight.

For example, an orthodoxy in fuel retail could be "I refill my car at the gas station". Several businesses in the US and an oil and gas company in India have flipped this orthodoxy by providing customers fuel delivery to their locations.[16] Deliberately challenging these (often unspoken) conventions can help generate opportunities for companies.

03. Prepare for disruption: Look beyond product innovation to transform other elements of your business system

Build + Buy

In February 2018, Mahindra agreed to acquire Porter, a digital logistics start-up focused on last-mile services. At the time of acquisition, Porter had more than 10,000 vehicles on its platform and completed 1.5 million deliveries in the past three years. During the acquisition, Mahindra clarified that it was "keen to grow its presence in the shared mobility logistics solutions space, which was an area of strategic interest". Porter was to be merged into Mahindra's own in-house digital mobility start-up, SmartShift, which was built/incubated under the aegis of the Mahindra Group.[13]

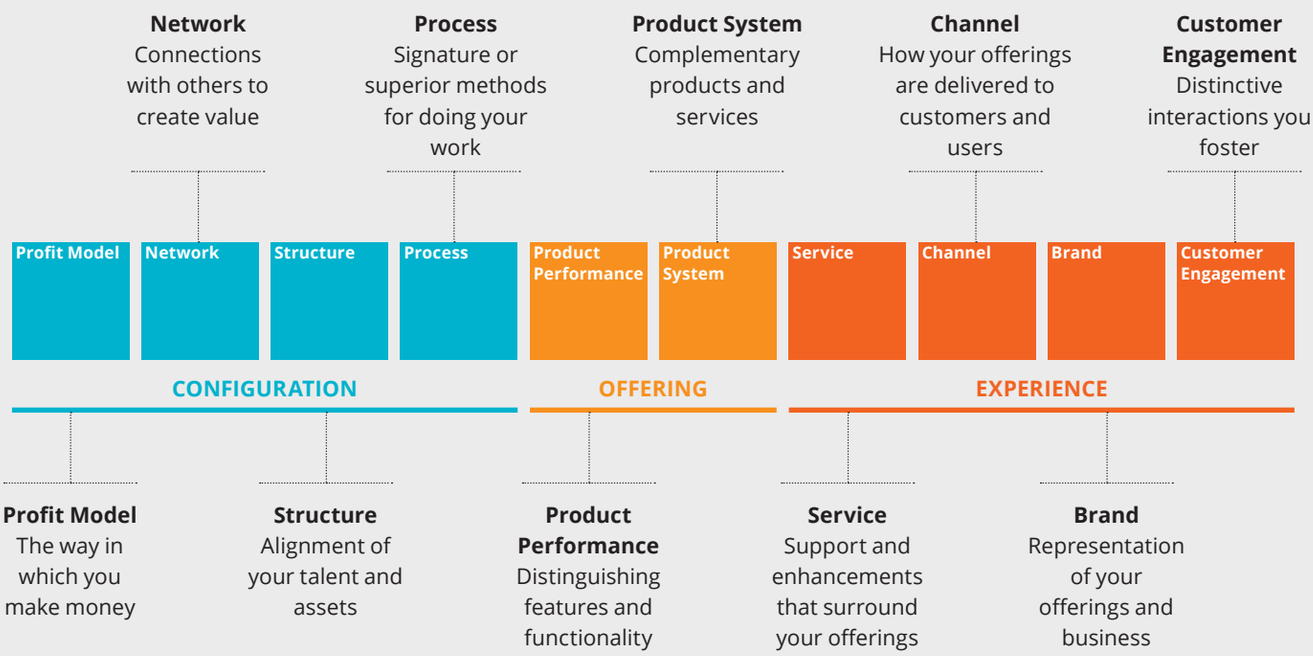
In July 2018, TATA Motors, via its subsidiary, bought a 26% equity stake in TruckEasy, a tech-based freight aggregator. Through this investment, TATA announced its intention to "gain insights into the rapidly growing technology-driven transformation in the freight logistics space."[6]

Build

In May 2018, BPCL launched FleetGenie, an in-house built platform that focuses on providing truckers return loads, and access to telematics, cash management, roadside assistance, collateral-free working capital, telemedicine, among other services.[14]

In May 2018, DHL launched SmarTrucking, a tech-led operation model, to provide reliable long-haul transportation solutions. The venture already has more than 700 trucks and 21 SmartHubs across India.[15]

Figure 3: Doblin's 'Ten Types of Innovation' framework



Source: Doblin, "Ten types of Innovavation," www.doblin.com/ten-types, accessed April 3, 2019.

Many organisations still think of innovation as new products, new features, or dramatic advances in new technologies. However, for us, these represent a small part of the innovation compendium.

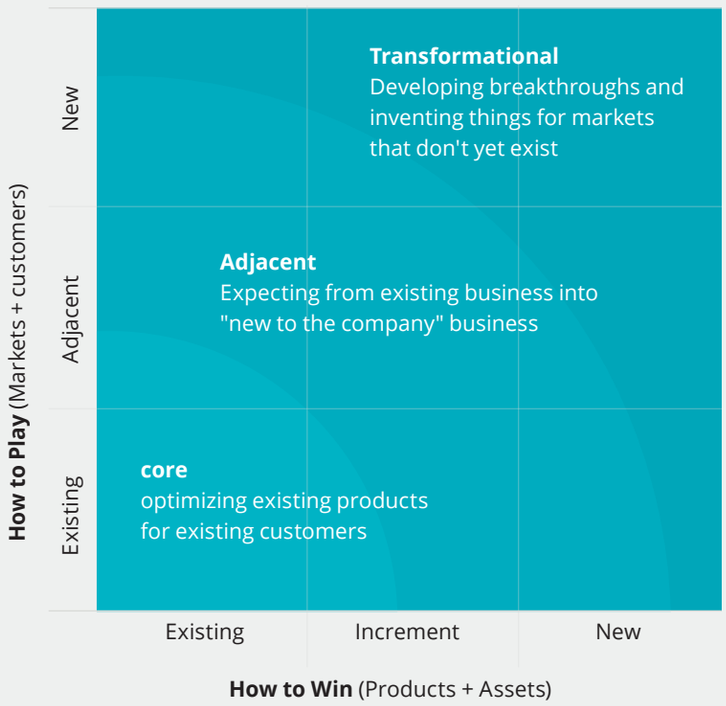
At the innovation practice of Deloitte called Doblin, we have identified ten distinct types of innovations across the ecosystem. These innovations can be categorised into three parts:

- **Configuration** innovations apply to profit models, networks, structures, and processes. This comprises back-of-the-house activities needed to develop an offering.
- **Offering** innovations apply to product performance and product systems – essentially what companies produce.
- **Experience** innovations apply to services, channels, brands, and stakeholders. This is how an offering is delivered to customers and stakeholders are engaged as a company performs its business activities.

Be explicit about innovation ambition, and then organise and execute accordingly.
At Doblin, researchers studied how effective innovators approach industry challenges and risks. They discovered that companies with the strongest innovation track records articulate their innovation ambitions and maintain a strategically relevant portfolio of initiatives across ambition levels. Some efforts will focus on core innovation that optimises existing products for existing customers. Others are around adjacent innovation that can help expand existing markets or develop new products working from their existing bases. Others still target transformational innovation, i.e., deploying capital to develop solutions for markets that do not yet exist or for needs that customers may not even recognise that they have.

Doblin's 'Ambition Matrix' provides a framework for understanding where a company stands in terms of its commitment to innovation. The optimum balance of capital allocation across different types of innovation will vary by company.

Figure 4: Ambition matrix



Source: Geoff Tuff and Bansi Nagji, "Managing your innovation portfolio," Harvard Business Review, May 8, 2018, https://hbr.org/2012/05/managing-your-innovation-portfolio

Conclusion

In times of exponential change, organisations with a narrow approach to innovation can lag behind, while more proactive start-ups leap forward.

A comprehensive approach to innovation matters because it directly correlates to performance. The research conducted at Doblin shows that top innovators across all industries outperform the market in terms of how many different types of innovation they pursue. The research also found that the maximum shareholder value accrues not from product-related innovations, but from a series of innovative initiatives across the value chain.

As the logistics industry in India gears up for exponential change, legacy profit pools are up for grabs. If incumbents may not respond on time, newcomers focused on innovating and solving the fundamental issues plaguing customers will eat into their profits.

In our experience, incumbent companies must:

- Foster a portfolio mindset for innovation
- Include investments that proactively create value in growth areas that are new to companies
- Use multiple types of innovation (not just a new product) to create new experiences and businesses

Endnotes

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Contacts

Joe Vitale
Global Automotive Leader
jvitale@deloitte.com

Rajeev Singh
Partner, Leader, Automotive
rpsingh@deloitte.com

Harsh Kapoor
Director
harshkapoor@deloitte.com

Avinash Nayak
Associate Director
avnayak@deloitte.com

Deloitte.