# The Rise of Urban Tech Start-Ups in India Spearheading Urban Transformation

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[**Abstract**: *Urbanisation is growing in the world, including in India, at a rapid pace. Through smart technologies, the challenges of growing population, traffic congestion, and increasing limitations on scare resources like water, energy, and housing are being addressed. "Urban tech" refers to a set of technologies being developed and used to make cities more liveable, interconnected, and efficient. Urban tech start-ups have provided long-term returns to the investors. Presently, the urban-tech start-ups are drawing venture capital investments far in excess of the start-ups working in Pharma and Artificial Intelligence, thus reflecting the growing role of cities in the world economy. India ranks no. 3 in drawing investments for start-ups working in the urban tech ecosystem. The Startup India programme of the government has addressed many issues surrounding the start-up ecosystem, reaching the marketplace and consumers. Cities have become the basic platforms for innovation and economic growth; however, they remain inefficient. Their assets like offices, cars, and houses are underutilised, and yet there is congestion on the roads. Urban tech applications would make cities address the needs of the city dwellers, thereby creating prosperity for all.*]

Already, 54 per cent of the world's population lives in urban areas, and this is expected to go up to 75 per cent by 2050. Combined with population growth, urbanisation would add another 2.5 billion to urban populations by 2050. The world is witnessing an increasing number of megacities with populations over 10 million. While Tokyo remains the world's largest city with 38 million inhabitants, Delhi is not far behind with 25 million residents.

With a population of 1.3 billion, India's economic activities are centred primarily on half a dozen large and some 10 mid-sized cities. Every minute, nearly 25 to 30 people migrate to major Indian cities. With this momentum, about 843 million people in India will be living in cities by 2050.[1] Thus, India is set to become the largest contributor to the world's urban population, and also a land of cities. But, 75 per cent of the infrastructure required to serve urban India is yet to be built. Municipal finances and resource allocation are seriously constrained, presenting deep concerns about infrastructure and utility provisioning to meet water, housing, energy, and transport

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1 YourStory (2017), "The Future of Mobility: Tech and The City of Tomorrow," September 20.

requirements for the growing urban population.[2] Through smart technologies and accompanying talent, the challenges of growing population, traffic congestion, and increasing limitation on scarce resources like water, energy, and housing are being addressed.[3]

Urban tech is a sector of innovation that encompasses products that not only make cities and urban spaces more connected, liveable, and efficient, but also tend to improve the environment within the cities. Urban tech start-ups enable venture investors to earn high returns while improving the lives of the people in cities, large or small. The investors achieve long-term financial success and help bring about positive social, environmental, and economic changes for local communities. Start-ups that fall in the urban-tech category almost always have some positive externality for society in addition to the core mission of alluring users to buy their products. They are able to solve pressing problems involving urbanisation.[4]

Contrary to the commonly believed sectors of artificial intelligence and cryptocurrency, cities and urbanisation represent the biggest new tech sector, i.e. the urban tech. Some of the most important tech companies of the past decade essentially work on and in cities. Uber and Airbank are perhaps the best known tech companies and may join or compete with the "Big Four" at the upper reaches of the tech stratosphere, i.e. Apple, Amazon, Google, and Facebook. But, at present, both Uber and Airbank are far from the whole spectrum of the urban tech.[5]

Urban tech start-ups are some of the very large venture-capital investments. Uber alone has attracted some $16 billion in venture capital. Urban tech investments totalled more than $75 billion over the period 2016–18, representing roughly 17 per cent of all global venture-capital investments. Urban tech was the largest sector for venture capital investment at $44 billion in 2017, attracting considerably more funding than pharma and biotech ($16 billion in 2017) or artificial intelligence ($12 billion in 2017).[6]

The largest sector of urban tech is mobile tech which generated more than $40 billion in venture investment between 2016 and 2018, i.e. more than 60 per cent of all urban tech investment. Other leading sectors of urban tech during the 2016 to 2018 period were: Food delivery (19 per cent), Co-living & Co-working (8.3 per cent), Bikes & Scooters (8.3 per cent), Smart Cities (7.3 per cent), Real Estate (4.2 per cent), and

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[2]  Dhindaw, Jaya and Aarathi Kumar (2019), "What It Will Take for Startups to Spearhead Innovation to Transform Urban India," Architexturez, January 24.

[3]  Okyay, Zeynep Bodur (2018), "This is What a Smart City Should Do for Its People," World Economic Forum, October 18.

[4]  LaCalle, Charles (2017), "What is Urban Tech?" Quora, June 20.

[5]  Florida, Richard (2018), "The Rise of 'Urban Tech'," Citylab, July 10.

[6]  *Ibid*.

Construction (3.2 per cent). In the same time frame, 1342 start-ups were working across the world in the urban tech sector, of which nearly 50 per cent were in Mobility (250) and Food Delivery (410).

The US, with 799 start-ups, is the dominant player in the urban tech sector, accounting for more than 45 per cent of all venture-capital investments. Next comes China (15 per cent investment), followed by Singapore (6 per cent), and India (4 per cent) with the total number of start-ups in urban tech in these three countries standing at 200, 28, and 144. Thus, India holds the third position in respect of start-ups in urban tech. In India, 75 urban-tech start-ups are located in Bangalore with venture capital investment of $3.1 billion dollar (4 per cent of the world's total investment). The rise of urban tech reflects the growing roles of cities and urbanisation in the global economy.[7]

India ranks third in the world in respect of the urban tech ecosystem. A growing body of domestic enterprises in the country are developing solutions aimed at managing and overcoming urban challenges. Keeping in line with international trends, majority of these enterprises focus on ecommerce consumer products and services; the year 2018 was touted as the year of food start-ups.[8]

Start-ups aimed at easing public delivery and driving efficiencies, whether in waste, water or energy, are slowly emerging. The solutions offered by these start-ups range from supply-side efficiencies such as better materials or efficient equipment to demand-side management like monitoring and IT enabled solutions. Solutions that are driven by Internet of Things (IOT), Software as a Service (SaaS), and Artificial Intelligence (AI) in this space are finding growing traction.[9] For any of these innovations to have a catalysing impact on the economy, it is necessary that these become successfully commercialised. Presently in India, the main hurdles for the start-ups in reaching the marketplace are in the form of access to finance and access to government. Small start-ups lack know-how on leveraging government schemes to their advantage and are unable to solicit an RFP (Request for Proposal). There are limited financial products and risk mitigation instruments, making the investments in start-ups risky. Investors, on the other side, seek to gain quick returns. All these factors make investments in early stages hard to come by. Besides, due to lack of awareness and limited data, investors are inclined to adopt solutions that involve major investments. This necessitates self-financed research & development to pursue low-cost products in the initial stages.[10]

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[7]  Dhindaw and Kumar (2019), *op. cit.*

[8]  Florida (2018), *op. cit.*

[9]  Sardana, M.M.K. (2016), "Action Plan for Startup India," ISID Discussion Note DN2016/03, April.

[10] Dhindaw and Kumar (2019), *op. cit.*

On its part, the government has been promoting the growth of the start-up ecosystem through its Startup India programme. It includes measures in the form of financial assistance, releasing of norms and procedures for setting up and dissolving a businesses, applying for patents, and public procurement, as well as tax exemptions and easing of flow of foreign investment. The Startup India programme, launched in 2016, envisages active participation from all stakeholders including businesses, investors, start-ups, government, and research community.[11]

The rise of urban technologies and their application in India and abroad would encourage the Indian start-up ecosystem to overcome the barriers to scale.

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[11] *Ibid*.