

The Negative Effects of Sectoral and Geographical Concentration of Startups: A Socio- Economic Perspective

Author Details:

Dr. Ambuj Gupta

Professor

Kirloskar Institute of Advanced Management Studies, Pune.

gupta.ambuj@gmail.com, ambuj.gupta@kiams.ac.in



THE NEGATIVE EFFECTS OF SECTORAL AND GEOGRAPHICAL CONCENTRATION OF STARTUPS: A SOCIO-ECONOMIC PERSPECTIVE

Abstract:

With the government of India 'Startup India, Standup India' plan of action initiated in 2016, startups have been mushroomed in large quantities. However, an investigation into the data of startups funding reflects that startups have been concentrated in select few sectors like, software and internet services, consumer products and services, internet marketplace and ecommerce, etc. and select few geographies like Bengaluru, Delhi (NCR) and Mumbai only. This 'concentration effect' has placed negative effects over the basic infrastructure and civic amenities over these geographical regions while neglecting the promise of all round development of all geographies and sectors of the economy. This research paper has lessons for policy makers to come in action and take necessary steps before it is too late.

Keywords: startups, funding; geographical concentration; sectoral concentration; India; development agenda; urban agglomeration effect; socio-economic perspective; government action

THE NEGATIVE EFFECTS OF SECTORAL AND GEOGRAPHICAL CONCENTRATION OF STARTUPS: A SOCIO-ECONOMIC PERSPECTIVE

None of the child can grow unless the child is given hand-holding by parents. Similar is the case with startups. Startups need regular source of funding to continue, walk, move forward as well as grow through those bumpy roads of the startup landscape. After the initial and first round of funding, startups need second round, third round of funding and so on. As the Darwin's principle of the 'Survival of the Fittest' holds true, when startups get multiple rounds of funding, it validates that fitness element and also, potential for further growth. On the other side, startups do make it to headlines and grab attention of masses when they receive the next round of funding. There has been a rat race among start-ups to achieve the 'Unicorn' tag by crossing 1 billion \$ of valuation in shortest possible time. Truly, 'Start-up' has become a buzzword and a talk of the town.

Startups came to limelight in India in 2016 when the then Prime Minister Narendra Modi launched the 'Startup India, Standup India' movement to build a strong startup ecosystem in the country that is conducive for the growth of startup businesses which generate large scale employment opportunities and drives sustainable economic growth. The 19-point startup India action plan envisaged empowering startups to grow through innovation and design, funding support and launching of various schemes related to setting-up incubation centres, easier patent filing, tax exemptions, ease of doing business, etc. With more than 14,000 startups registered with Department of Industrial Policy and Promotion (DIPP) to-date, Indian startup ecosystem is placed third across the world. Looking into India's demographic dividend, there lies a huge potential for growth and development of startups in India. With large consumer markets and more young Population, India promises tremendous opportunities for startups. On the other side, startups are also expected to find innovative solutions to address many economic and social problems like poor infrastructure, inadequate healthcare and outdated education system, etc.

Startups can help India grow leaps and bounds across all sectors and all geographies through enhanced use of technology. However, what has been found by the author, with initial observation, is that start-ups are concentrated in specific sectors and specific geographies only. This 'concentration effect' is of course, a challenge for the development agenda of the country as private investment should flow across all sectors and all geographies. To further investigate the issue, author carried out a literature review presented in the next section.

The issue of 'Concentration' in Startups funding: Literature Review

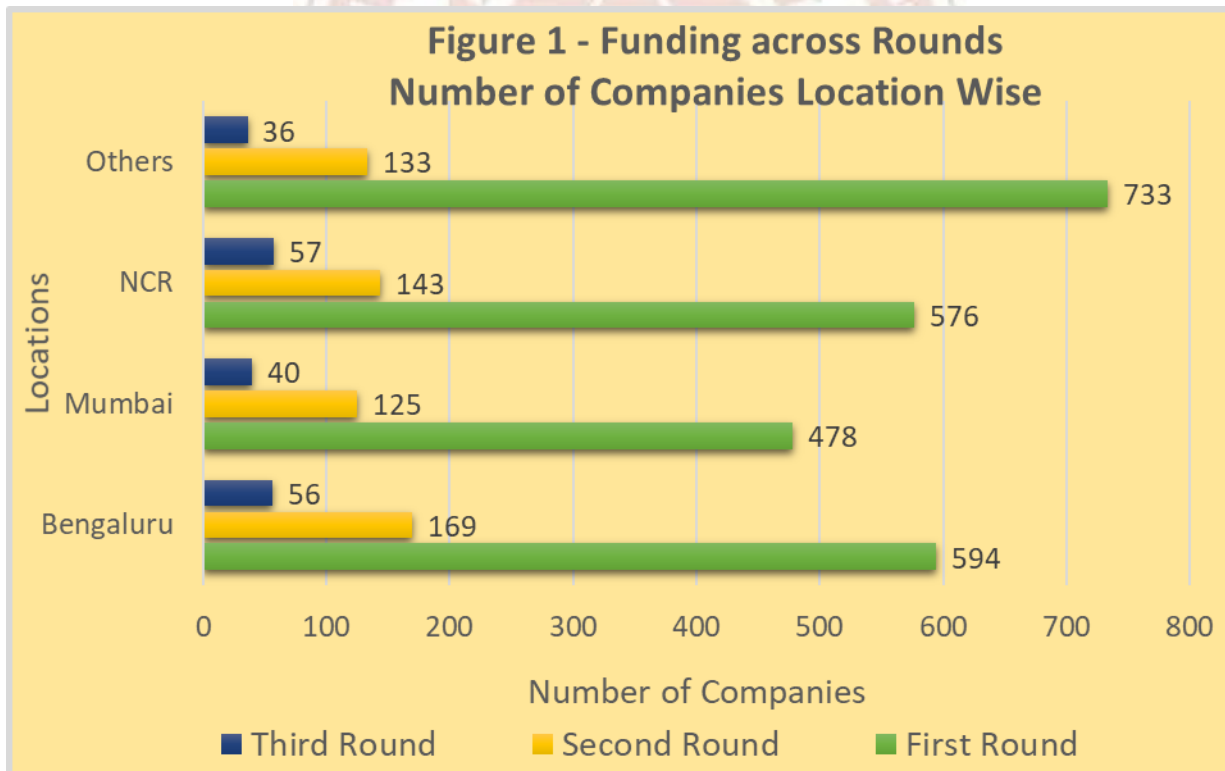
There is enough literature which supports the promotion of entrepreneurship for economic growth and development. (Hart 2003, Schramm 2004, Baumol et al. 2007). Reynolds (1993) and Reynolds and Story (1993) in their study found six main factors for growth of start-ups in a particular geography, i.e. demand (measured by the size of the population and the size of the economy), urbanization (agglomeration), unemployment, personal household wealth, specialization (industry-level differentiation) and government spending on infrastructure, education and health. Out of the above six factors, Reynolds pointed out that urban agglomeration effect is much significant as start-up rates tend to be higher in urban areas than elsewhere. As more startups lead to higher employment generation, this may further lead to higher regional disparities across regions. (Naude et al. 2008).

If we take the case of China, we find significant geographical concentration of startups in Beijing, Shanghai, and Shenzhen (Guo et al. 2016). In the USA, San Francisco, Boston, and New York appear more attractive for entrepreneurial activities than other cities (Florida and Mellander 2014). According to a study, more than 49% of the US based companies financed by venture capital firms are located in these same three cities. The geographic concentration of startups can be attributed to the availability of required financial, political and technological resources in these regions (Stam 2010). Many studies have demonstrated that demographic structure, institutional environment, and agglomeration economies are the major factors influencing the location choice of startups (Kerr 2010; Lu and Tao 2010; Delfmann and Koster 2012). Further, urban agglomeration offers economies of scale to startups which is much sought after by them for their survival and scaling up in the future. There has been dearth of literature which addresses the issues of concentration of startups in few sectors only, as author couldn't find any significant study related to it.

The concentration of startups in particular sectors as well as particular regions has major socio-economic ramifications because other sectors and other regions may be left out and ignored from the point of view of development. That is where the role of government, particularly in the context of country like India which follows a mixed economy framework, becomes more important to ensure the balanced development of all sectors and all regions of the economy.

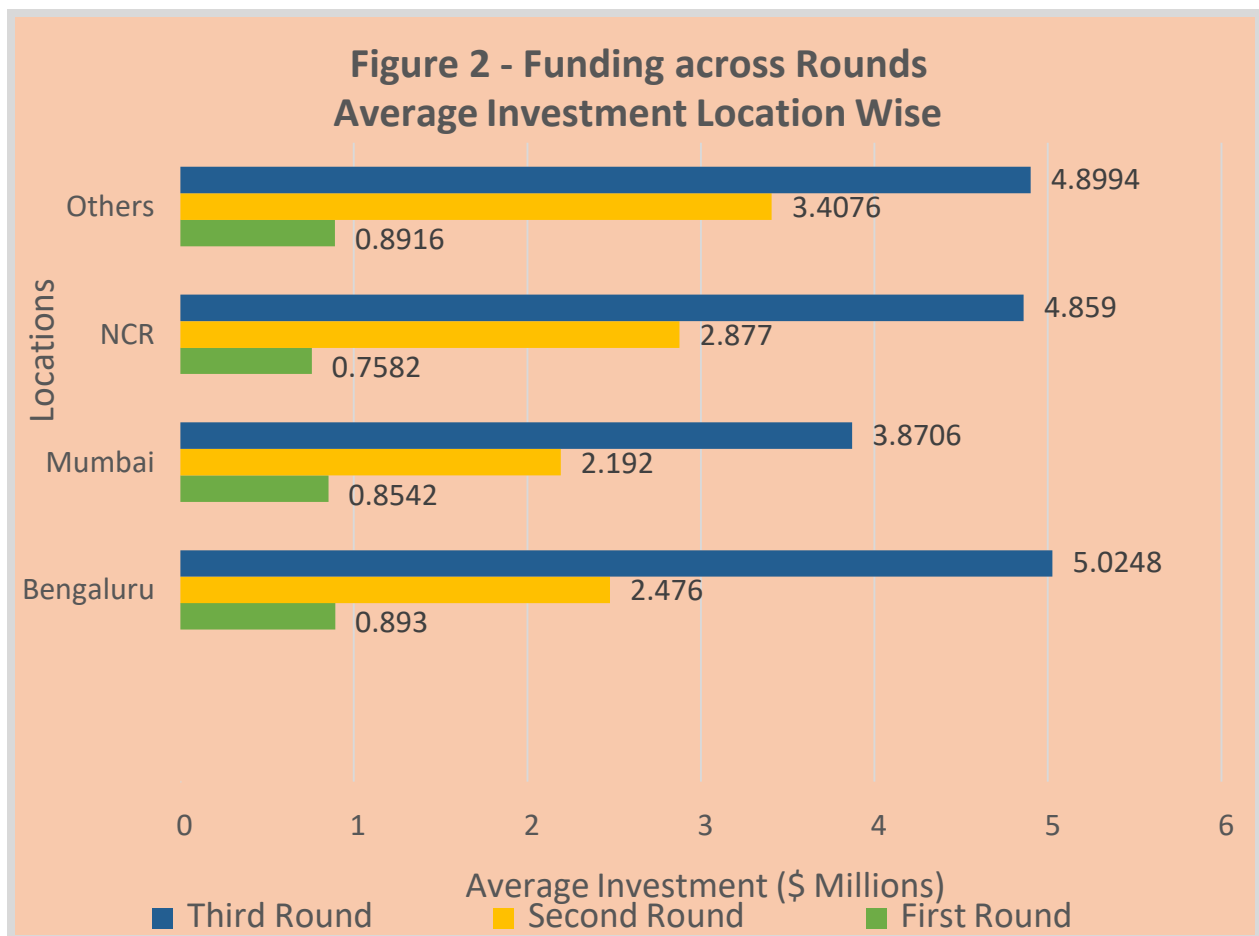
Sectoral and Geographical Concentration of Startups funding in India

Further, to verify and consolidate the viewpoint related to sectoral and geographical concentration of startups, the data of 2381 companies in India which raised their first round of funding within first 5 years of their date of incorporation, have been collected from Venture Intelligence Database in India. Out of 2381 companies, 570 companies were able to receive second round of funding and 189 companies received their third round of funding. Firms were categorized based on their sectors, and their headquarters' location is taken as their base location. The results of the study have been presented in Figure 1 to 4



The highest number of companies which got funding are from Bengaluru. Bengaluru is also known as the 'Startup Capital of India'. The second important location is NCR (National Capital Region which consists of Delhi, Noida, Gurgaon, Faridabad, Noida, Ghaziabad etc.) and third, being Mumbai. (Figure 1)

If we see the trends in funding startups across these regions in Figure 2, Bengaluru got highest funding in the first (\$ 0.893 million) and third round (\$ 5.0248 million). However, in second round (\$ 2.877 million), NCR region is ahead of others.

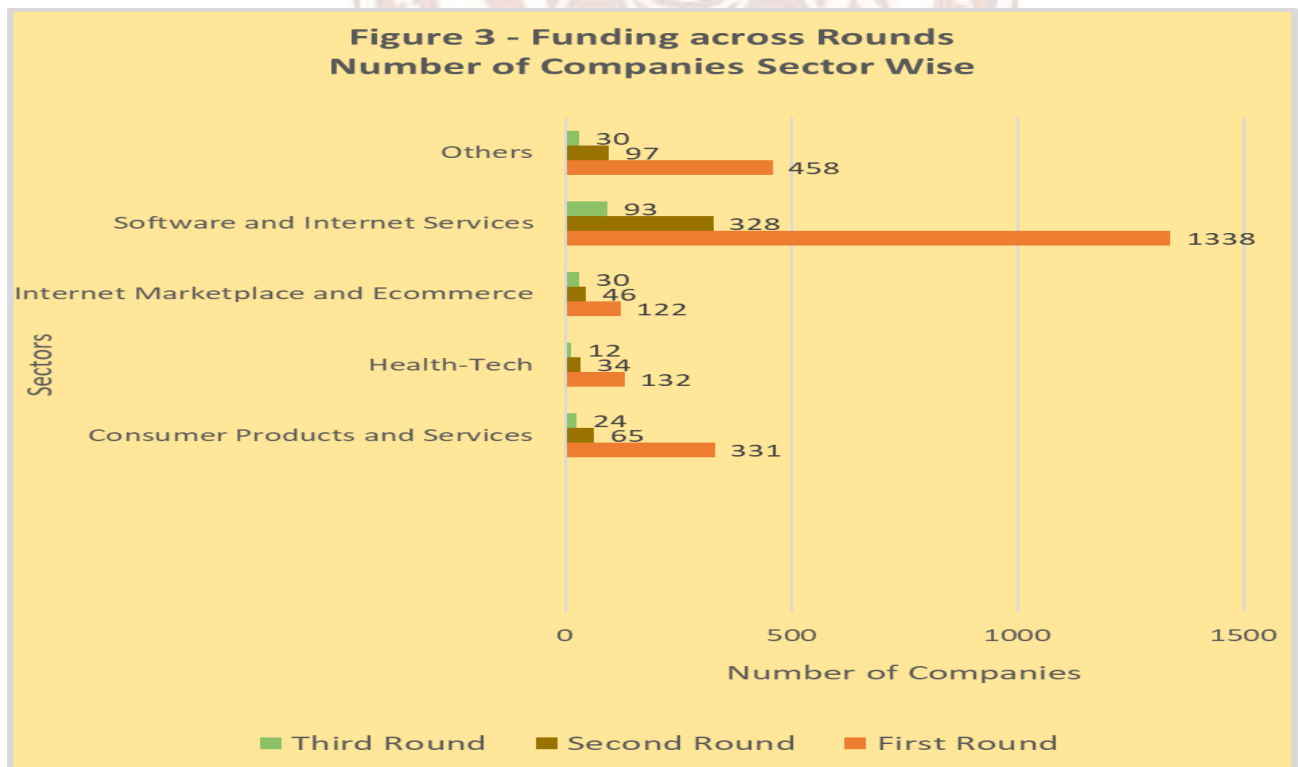


In Figure 3, the number of companies getting funding under different sectors, have been presented.

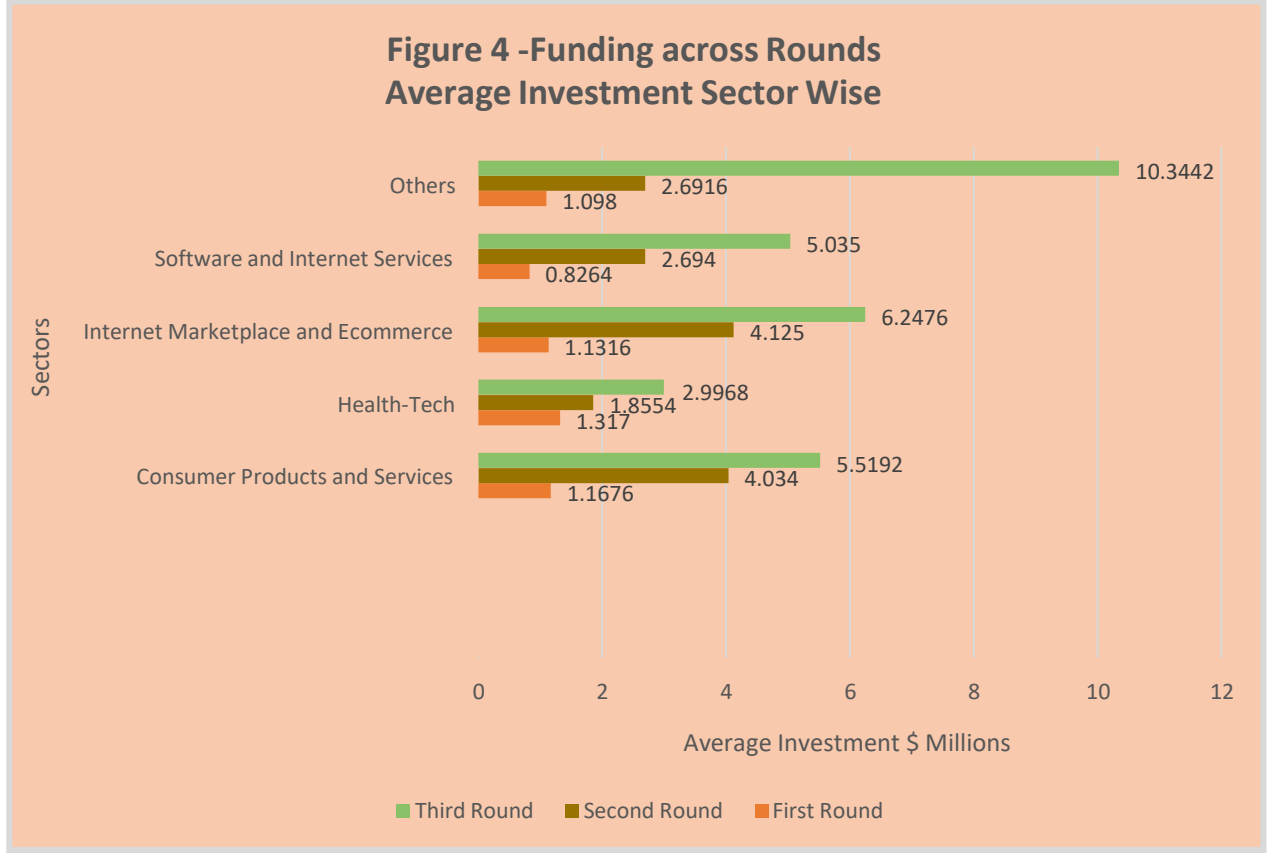
The companies in software and internet services received highest amount of funding. This reflects the speed of automation being carried out in Indian companies. On the other side, consumerism is At peak in India. The huge population of the country presents good opportunity for various consumer products and services.

The vast population of the country with growing needs of healthcare seems to have been well addressed with increasing proportion of companies getting funding in Health-Tech. In Health-Tech, growing concerns for well-being, l i f e s t y l e and digital solutions for healthcare needs are some of the possible answers to growing proportion of companies receiving funding in subsequent rounds.

The possible reasons for growth in the proportion of companies receiving funding in subsequent rounds in Internet Marketplace and Ecommerce are, growing internet penetration & smartphones in India, rising middle class population with higher disposable income, lack of infrastructure development and mobility issues, development of payment gateways and logistics (like fast delivery, etc.) and growing user experience in the form of ease of convenience, wider choices available and of course, growing trust with ecommerce websites in India.



It can be observed that higher proportion of companies belonging to Internet Marketplace and Ecommerce received subsequent rounds of funding (38% second round and 65% third round of funding in comparison to earlier round, respectively). The proportion of companies of Software And Internet Services and Health Tech which received second round of funding is almost same (25% of their first round), however, in third round Health Tech gets comparatively higher proportion (35%) to Software and Internet Services (28%) of their earlier rounds, respectively. The Consumer Products and Services received lowest second round of funding (20%), however, in third round (37%) of its earlier round, making it proportionally, at second place after Internet Marketplace and Services to receive third round of funding.



An observation regarding quantum of funding based on Figure 4 is the average investment amount received by the companies in the second round and third round, which is higher than the first round. Across all sectors, the average funding received is found to be increasing as the rounds progresses.

SOCIO-ECONOMIC RAMIFICATIONS OF CONCENTRATION IN STARTUPS FUNDING

The urban societies particularly in big cities of India have been transformed rapidly in the last decade. One of the most significant reasons for this transformation lies with the emergence and growth of start-ups which are heavily loaded with the recent technological advancements like mobile technology, e-commerce, artificial intelligence, machine learning, and block chain and so on.

The result is that an individual customer has become so powerful that one can fulfil any of the wishes at a touch of a button or a click. Maybe it ordering food and groceries online with payments made online and getting deliveries of the same at your doorstep or wearing electronic devices which can tell you everything about the fitness of your body from sugar level, weight, pulse rate, etc.

You can work online, earn online, invest money online and do all your financial transactions at your comfort level wherever and whenever you want to. The list is of course, endless. The contribution of start-ups to the transformation of urban economies and societies is noticeable. Start-ups have been mushroomed up in big cities and urban areas because of the economies of agglomeration or agglomeration effects. They are benefitted through economies of scale as well as network effects, the result is more and more start-ups. This had led to the development of such entrepreneurial ecosystem which is conducive to start-ups in these big cities only.

It is either availability of funding in the form of risk capital like venture capital or growth capital in the form of private equity, both are abundantly available in these places. Then comes the development of commerce and support services, availability of raw material, suppliers and of course, customers, out of which nothing falls short. In turn, start-ups generate employment and support the local economy. As demand boosts-up in the markets, the pace of local development multiplies many times.

DEVELOPMENT ISSUES AND PRIORITIES FOR INDIA

That is where the difference lies between private investment and public investment. In a mixed economy framework like India, the idea of public investment was well rooted, after the independence, as a state responsibility to ensure the development of all sectors in a balanced manner, therefore, there is a list of priority sectors and agendas for all round development of the country.

However, with the wings of policy paralysis, corruption and ineffective implementation of government plans swept away and marred the fruits of all round development of all sectors in the economy. As private investment flows into, routing equal distribution of funding to all sectors and ensuring well all round development seems to be a distant dream in the hands of capitalists. Private investment in startups too, is not equally distributed.

The majority of funding to startups is skewed towards platform business models. Not only this, the effects of urban agglomeration also resulting from 'concentration' of funding in a few big cities (so called, startups hubs) has generates a wider gap into the rural and urban economy. The result is metamorphosis pace of migration showing its dire consequences in the form of increased pressures over these big cities and urban areas leading to tremendous strain over public services, infrastructure and the quality of life. A much close observation reflects that traffic Jams are regular in Bengaluru (The Startup Capital of India) in Appendix 1, worsening air-quality in Delhi (NCR Region) in Appendix 2 and Mumbai deluges in every monsoon season in Appendix 3.

This is a wake-up call for policy makers and government to get-up and take quick actions to deal with this 'concentration effect' of development in particular sectors and geographies. The big promises of the government (like making India a \$ 5 trillion economy by 2023) are only meaningful if India develop across all sectors and geographies.

References

- I. Acs, Z. and Varga, A., 2004. Entrepreneurship, agglomeration and technological change. Discussion Paper 6/ 2004. Jena: Max Planck Institute for Research into Economic Systems.
- II. Baumol, W.J., Litan, R.E., and Schramm, C.J., 2007. Good capitalism, bad capitalism and the economics of growth and prosperity. New Haven, CT: Yale University Press.
- III. Chen, Henry, Gompers, Paul, Kovner, Anna & Lerner, Josh (2010). Buy local? The geography of venture capital *Journal of Urban Economics* 67 (2010) 90-102
- IV. Delfmann, H., & Koster, S. (2012). Population change and new firm formation in urban and rural regions. *Regional Studies*, 48(6), 1034-1050. <https://doi.org/10.1080/00343404.2013.867430>.
- V. Fenghua Pan & Bofei Yang (2019) Financial development and the geographies of startup cities: evidence from China *Small Bus Econ* 52:743-758 Retrieved from
- VI. Florida, R., & Mellander, C. (2014). Rise of the startup city: the changing geography of the venture capital financed innovation. Working Paper. formation: a cross-national comparison. Paris: OECD.
- VII. Guo, Q., He, C. F., & Li, D. Y. (2016). Entrepreneurship in China: the role of localisation and urbanisation economies. *Urban Studies*, 53(12), 2584-2606. <https://doi.org/10.1177/0042098015595598>.
- VIII. Hart, D.M., 2003. Entrepreneurship policy: what it is and where it came from. In: D.M. Hart, ed. *The emergence of entrepreneurship policy: governance, start-ups and growth in the US knowledge economy*. Cambridge: Cambridge University Press, 319.
- IX. Henderson, J.V., 2000. The effects of urban concentration on economic growth. NBER Working Paper no. 7503. Cambridge, MA: National Bureau of Economic Research.

<https://doi.org/10.1007/s11187-017-9983-2>

- X. Kerr, W. (2010) Clusters and startup location choice. In Lecture at the Harvard Business School Faculty Research Symposium.
- XI. Lu, J., & Tao, Z. (2010). Determinants of entrepreneurial activities in China. *Journal of Business Venturing*, 25(3), 261-273. <https://doi.org/10.1016/j.jbusvent.2008.10.00>.
- XII. Naude', W.A., Gries, T., Wood, E., and Meintjes, A., 2008. Regional determinants of entrepreneurial start-ups in a developing country. *Entrepreneurship and regional development*, 20 (2), 111-124.
- XIII. Reynolds, P.D. and Storey, D.J., 1993. Local and regional characteristics affecting small business
- XIV. Schramm, C. J., 2004. Building entrepreneurial economies. *Foreign affairs*, 83 (4), 104-115.
- XV. Stam, E. (2010). Entrepreneurship, evolution and geography. In: Boschma R and Martin
i. R. *The handbook of evolutionary economic geography*, 307-348
- XVI. Thomas Gries & Wim Naudé (2009) Entrepreneurship and regional economic growth: towards a general theory of start-ups, *Innovation – The European Journal of Social Science Research*, 22:3, 309-328, Retrieved from <https://doi.org/10.1080/13511610903354877>
- XVII. India Venture Capital and Private Equity Report, 2018 published by Indian Institute of
i. Technology, Madras
- XVIII. The Startup Ecosystem Rankings 2019 Report, retrieved from
<https://startupgenome.com/reports>
- XIX. Venture Intelligence Database

Appendix 1



Traffic Jams are regular in Bengaluru (The Startup Capital of India)

Appendix 2



Worsening air-quality in Delhi (NCR Region)

Appendix 3



Mumbai deluges in every monsoon season

