

Role of State in creating Startup Ecosystem

Tom Thomas – Project Director, Kerala Startup Mission

Kerala State has adopted a unique model to develop the startup ecosystem in the State. While the startup industry is considered to be a chaotic and unpredictable, the Kerala model was formulated after carefully considering the challenges faced by the State's economy, the inherent strengths and advantages available within the State, and a firm understanding of how technology would disrupt the existing industries.

The most important question for any State Government while formulating any policy is the need and relevance of the intervention. Why should the State invest to create a startup ecosystem?

Why?

Kerala, accounts for 2.8% of India's population, but its economy contributes nearly 4% to the Indian economy, making the state's per capita income 60% higher than India's average. This has fueled internal migration to Kerala for low-end jobs, even as Keralites have emigrated—mostly to the Gulf countries—in search of better-paying jobs.

Kerala is the single largest source of the Gulf Cooperation Council (GCC) countries' expatriate base. Out of the estimated 7 million emigrant Indians in the GCC, nonresident Keralites (NoRK) represent more than 40%. This 2.5 million NoRK send as much as \$17 billion annually back to Kerala. This remittance forms 31% of Kerala's Gross Domestic Product. These remittances have actually strengthened their household earnings, food consumption, health care, housing, education etc. Remittances also helped bridge the widening gap in the budget totals with the current account deficit of the state growing over years.

The emerging economic scenario of Kerala is, however, likely to be the one caught between several paradoxes and vulnerabilities. The economy has already experienced a slowdown in revenue growth, an unprecedented fall in commodity prices, a decline in revenue from tourism etc. Added to the list of woes is the likely fall in foreign remittances from the Gulf with the unexpected, yet dramatic fluctuations in crude oil prices. All the GCC countries are in the midst of a crisis in the wake of a series of unfolding events and developments—from the world recession to the Arab Spring, from the oil price fluctuations to localization of labor, albeit all of them are inter-related in many ways. The Kerala State Planning Board (KSPB) had acknowledged in its previous reports that the external environment that continued to stimulate Kerala's economy for over two decades “has turned distinctly negative.” Though remittances still remain as it were, “threats loom large on the

horizon” as the employment situation in the Gulf region “has been stressed with the drastic fall in the prices of crude oil”, says KSPB.

Technological Disruptions

Studies suggest that automation and advanced digital technologies are eliminating the need for people in a growing number of jobs. Advanced technologies have created an uncertain future of dismal job opportunities, stagnant income, and worsening inequality. Experts argue that such advancements in computer technology, ranging from improved industrial robotics to automated translation services have resulted in sluggish employment growth over a long period of time. Academic experts from MIT foresee dismal prospects for many types of jobs as these powerful new technologies are increasingly adopted in manufacturing, clerical, and retail work, along with professions such as law, financial services, education, and medicine. Experts believe that rapid technological change has been destroying jobs faster than it is creating them, contributing to the stagnation of median income and the growth of inequality across the world. Some of the technologies leading this negative trend on job creation are:

- Customer Self-Service
- AI-Assisted Robotic Process Automation
- Industrial Robots
- Retail and Warehouse Robots
- Virtual Assistants
- Sensory AI

The ratio of robots to workers are rapidly rising in factories around the world. South Korea is leading this wave of robotic automation with 4.78 robots for every 100 workers. Both Japan and Germany have close to 3 robots for every 100 workers. The global average stands at 0.66 robots for every 100 workers and is expected to increase significantly in the coming years. Studies conducted by futurism.com suggest that 57% of jobs are at risk globally and goes on to predict that 69% of jobs in India are at risk.

From Job Creation to Income Generation

As the number of robots increase, the cost of implementation shrinks, leading to shorter payback period for robot systems over time. This spells danger for developing countries. Kerala could see a significant increase in returning migrants from GCC. As the inbound migrants from other states will be taking up labor intensive jobs at cheaper wages, the resident Keralites will find it difficult to enter gainful employment.

Experts suggest that it might be time to think beyond the traditional job creation strategies and think about wealth creation strategies through promotion of new

ventures and startups in select industries. Wealth creation has been adopted by different countries in the past as a mechanism to increase the spending power of the people, which results in more spending, better standard of living, more jobs and increase in taxes collected by the Government.

Historically, Kerala has not been successful in large scale industrial development. This has been attributed to a variety of reasons which includes lack of large tracts of land, high and equivalent population density, low urban-rural divide etc. This means, industries must be in human settlements area with other sectors like Agriculture, Service etc. Every industry must be placed in a very thickly populated neighborhood which causes issues and problems. This leaves Kerala with limited options.

It is in this context that the digital industry clusters of smaller technology-based ventures which try to leverage emerging technologies become an attractive alternative to large scale industries. Since our socio-economic growth could depend on the success of such digital clusters, Kerala Startup Mission work becomes very important in the future of the State realizing that our strength lies in the intellectual capabilities of our people, The Govt of Kerala and its nodal agencies have been committed towards creating structures which can enable creation of jobs and wealth in the society.

State Sponsored Incubation

As part of this vision, Kerala Startup Mission has added 2 Lakh square feet of incubation space in the last two years by setting up and promoting sector specific incubators to support startups with specialized needs. Hardware was identified as one of the key sectors to promote. An exclusive space was given to Maker Village which is an electronics and hardware incubator supported by MeitY and KSUM and this incubator has grown into one of the largest hubs of hardware startups in the country with close to 70 startups incubated under its program. Maker Village has also started offering SMT line facilities to the startups to help get to the finished product faster.

BioNest which was set up by KSUM in partnership with Rajiv Gandhi Institute of BioTechnology, provides office space, lab infrastructure and technical support and has incubated 14 startups. BioNest has also started running Bio Academy program to create skilled resources in the biotechnology and bio fabrication sector. In addition to this, KSUM has partnered with Indian Mobile and Internet Association of India to set up a Mobile10X Hub in Calicut.

Growth Capital

Apart from incubation, Kerala Government has also identified and provided prototyping and scale-up grants to over 100 startups in the last one year. To address the further needs of these startups to attract investments, KSUM has organized three Seeding Kerala events in partnership with Let's Venture to drive the culture of startup investment in the State. This initiative has resulted in various HNI's coming together and creating Angel funds and networks like the Malabar Angels group to invest in the local startups and businesses.

In addition to this, we have also been able to attract VC's to invest in Kerala based startups through our Fund of Funds scheme. Govt. of Kerala selected and invested in 2 VC's who have in turn committed to invest double the amount invested by Govt. of Kerala, in Kerala based startups. Already these VC firms have made close to 7Cr INR investment in Kerala based startups.

Positive Signs

These initiatives have in fact given rise to an interesting phenomenon of experienced founders coming back to Kerala from other cities to set up their next venture. These experienced founders will further galvanize the State's startup ecosystem by infusing knowledge and experience. We expect this trend to grow and complement the efforts of the IT department to promote skills in emerging technologies and attract more startups and jobs to the State.

The state of Kerala got a shot in the arm for its efforts in nurturing the startup ecosystem of innovators and entrepreneurs, with the Government of India lauding its initiatives in a nationwide ranking of states' performance in the field. Kerala was also recognized as a leader for startup policy implementation, incubation hubs, seeding and scaling innovation, as well as awareness and outreach in the field of startups.



