Raja Rasiah

Distinguished Professor, Asia Europe Institute, University of Malaya- Malaysia

I shall address a few points in relation to the knowledge economy, and I am sure having been to Kerala many times, a state popularly referred to as Gods own Country, and, of course, having read Amartya Sen's very articulate book, the Argumentative Indian where he glorifies Kerala, I believe that the structures are there. Quoting what Deepu Zacharia mentioned in the earlier session, 'that 30% of the skilled personnel working in IndianIT firms are actually are from Kerala. Hence, the latent potential is there for hiring, provided you can offer the ecosystem that Vijayaraghavan mentioned just now. Now I think even that can be created, but let me just put it in the context of how I have done my research on this topic.

Looking at the proliferation of IR 4.0 technologies, the digital infrastructure required, especially broadband infrastructure, along with the other important instruments like cloud computing and a range of other things that are done in Malaysia, I believe adapting what countries are doing higher in the technology trajectory will help Kerala cheapen and quicken catch up. Malaysia started early in 1999 with smart schools but was overtaken in this area by latecomers, such as Taiwan, Korea and Singapore.

Taiwan and Korea did not just lay broadband digital infrastructure and provided computers with internet support as in Malaysia, but importantly connected and enabled the members of society, including school children with the knowledge nodes in their countries. Listening to Dr. Hemalatha, I see that she has a good idea as to how that can be done in Kerala. I am speaking from meeting hundreds of design engineers I met while giving a public lecture at IIM Bangalore in 2005. Kerala very much has the capability for appropriating synergy from that experience and provide the initial incentives to attract a critical mass of such engineers, which should then snowball into a viable IT supporting community. Connections and coordination between firms, intermediary organizations and related government instruments are very important.

The transformation of Taiwan to embrace robots and drones began intensively since 2017, which even extended to agriculture. They intensified self-sufficiency strategies aggressively from 2017 when Trump declared trade war with China. Similarly, in manufacturing Trump's trade war literally forced Taiwanese from selling microchips to Chinese firms, including Huawei. Hence, Taiwan re-shored food-based agriculture and manufacturing well before the COVID-19 pandemic struck. While drones and robots are extensively deployed in farming, manufacturing is increasingly driven by robots in Taiwan. I think you will need to look at why and how they were able to have robots milking cows, ploughing fields, and drones playing a key role in farming. Small farmers and small firms engaged in farming and agriculture in Taiwan remind me of the organization of industrial districts in Italy, though the structures and players are different.

My kind of research requires me to visit the place, I go into the firms and farms, and also map the links between all the components of the ecosystem in which they operate in, including the incubators in science parks. Instead of completely reinventing the wheel, something we members of the Globelics advocate, we can shorten, cheapen, and simplify the catching up process by looking at successful organizations higher in the development trajectory. Keralites can and will of course create new stocks of knowledge but in a manner where they evolve collectively with adapted knowledge from abroad.

I am confident that this God own loving country will do well to achieve IT integration with positive synergies in the space of little time. I encourage the intelligent leaders of Kerala to visit both successful (e.g. Taiwan and Korea), and not very successful (e.g., Malaysia) countries to develop a profound understanding of how effective ecosystems can be planned to support the development of digital infrastructure to appropriate IR4.0 synergies.

Thank you.