

Developing countries' Advancement Through STEM Education is a Remote Fantasy

outline

● Introduction:

Thesis statement: The notion that developing countries can advance through STEM education is a notion that has been widely debated and contested. But it has been established that just STEM education for developing countries advancement is a remote fantasy as developing countries are facing multifaceted challenges that can not only be encountered by STEM education imposition on a large scale.

- STEM Education driven by external factors rather than internal needs.
- Lack of infrastructure and resources.
- Cultural and social factors.
- Neglect of other important areas of education
- Lack of Favourable business environment
- Limited Access to Quality Education.

- Brain Drain and Talent Flight.
- Conclusion.

The Essay

STEM education is extremely popular in developing countries and is often thought of as an escape from poverty and a path to a cutting-edge science role in famous scientific companies and organizations. Developing countries have been producing an immense number of STEM graduates and giving importance for establishment of STEM departments and STEM universities considering the notion that it will bailout them from economic poverty. But quite the contrary is true for these developing countries as it is just a remote fantasy of these countries. There are multiple factors that hamper developing countries' advancement despite a large number of STEM graduates.

The first factor

is that STEM education in developing countries is more of an external factor driven rather than internal factors.

Universities push a large chunk of students to STEM fields to secure budget from international organizations because international organizations need STEM talent to escalate their organization's objectives. For instance, the latest boom of Artificial Intelligence in developed nations deriving the youngsters to join more and more artificial intelligence courses and computer science degree ignoring the fact that artificial intelligence and technology are mostly happening in developed nations i.e. United States of America at large.

The second factor is the lack of infrastructure and resources for STEM fields. Take the example of most common STEM field physics in which research and learning is solely based on state-of-the-art equipments and insanely

large budgets are required for delivering the proper knowledge of STEM. The machinery and tools needed for learning engineering and physical science cost a huge amount of budgets which developing countries cannot afford.

The third factor is social and cultural. Despite getting higher education in STEM fields the innovation capability of students is greatly hindered by culture and social setup. The religious superstitions, for example, greatly influence the innovative capability of STEM graduates. The social setup is not scientific in which scientific ideas cannot nurture and despite graduating in STEM, graduates still occupied by social belief system and cultural norms which hinders them to excel in STEM fields because they have been trained socially and culturally not to think out of the box.

The fourth factor which makes developing countries' advancement a remote fantasy is the neglect of other important areas of education like humanities and social sciences. These areas of education are critically important for a country's development as this type of education brings ethics and moral values in a society. The experts of these areas of education are much needed as that of STEM education.

The reason is that STEM education mostly equip students with technical and scientific knowledge and skills but social and moral values are not taught to STEM students.

Therefore, neglect of humanities and other social sciences make a society vulnerable to unethical behaviours and moral lackage.

The fifth factor responsible for making STEM education a developing country's remote

fantasy in advancement is the lack of business environment. STEM education is of no use if cannot bring revenue and business after getting the education. Therefore, the development of business environment to engage STEM graduates to generate income and wealth creation. otherwise, the potential of STEM graduates will remain untouched and instead of prosperity STEM students will become liability for the society. Take for example, the biggest tech companies in the world rely on staunch business models which help them to create more jobs and more engagement of STEM graduates and availability of internships for STEM fresh graduates.

The sixth factor which makes a developing country's remote fantasy in advancement is the limited access of quality education. some critics of STEM p

Education also say that there are two modes of education: one for rich people and other for poor masses. The STEM education taught is of inadequate quality to the poor students especially in universities of backward areas. This produces less knowledgeable and less skillful STEM graduates which produces gap between industry and STEM graduates. On the other hand, the students who get quality education which is obviously expensive are more likely to outperform the other graduates in getting job and performance. Most of the top ranked universities are in developed countries and the students with affordability tend to move these countries and universities.

The seventh factor in this regard is the demand and supply gap. Developing countries are producing too much STEM graduates

and there is far less opportunities as there is no industry or very few industrial units for the engagement of STEM graduates. The major example of such countries can be found such as India, Pakistan, China and mostly Africa. Huge industrialization of these countries is needed to engage more and more graduates. But these countries either due to lack of economic resources or due to huge population are unable to provide jobs to STEM graduates. The result is that the most jobless students are now STEM graduates.

In conclusion to make advancement rather than making it remote fantasy the developing countries should focus on less production of STEM graduates are more vocational trainings for their youth. They have to develop infrastructure, make STEM education more quality driven rather than quantity driven to cope with demand and supply gap and to achieve economic benefits.