

A study on “The Role of Government in Enhancing Technopreneurship for national development”.

Mr. A. Stephen Jeyaraj

Assistant Professor, Department of Commerce, Arul Anandar College, Karumathur.
Corresponding Author Email: asjeyaraj05@gmail.com

Abstract

This paper observe Technopreneurship an overview on how it can offer solutions to real life national problems affecting national development and the role of the government in enhancing techno preneurship in India. There are a large number of challenges and problems face with the growth and development of India, with its endless list cannot be numbered. these issues have troubled the economy of the nation like a disease whose cure is not yet found, moving from corruption, unemployment, financial crimes. These issues are real life situations and they require real life strategies, perfect and technologies to diminish and terminate them. The of advanced Technologies and innovation has made it possible to render solutions to these national issues. Technopreneurship is the process of combining entrepreneurship with high technology to create innovative, tech – based companies, products or services that solve problems or meet market needs. Technopreneurs are who undertake various innovative business efforts by leveraging practices or knowledge in the field of technology for national development. Therefore, I suggest in this paper that the Government of India should pay more attention on thchnopreneurship and make policies for its favour, which in turn will yield extremely to national development.

Keywords: Technology, Technopreneurship, development Government innovation.

Introduction

The rapid advancement of technology has reshaped global economies, with technopreneurship emerging as a central force in driving innovation, competitiveness, and socio-economic development. Technopreneurs create value through the application of scientific knowledge and technological innovation (Ndemo & Weiss, 2017). Technopreneurship—the fusion of technology and entrepreneurship—has become a major driver of economic growth, global competitiveness, and social transformation. For

Technopreneurship to thrive, government support is crucial. Through policies, infrastructure, funding, and institutional reforms, government can create an enabling ecosystem that stimulates innovation and accelerates national development. However, the growth of Technopreneurship depends significantly on an enabling environment—one that is shaped largely by government policies, institutions, and investments. Thus, understanding the role of government in enhancing Technopreneurship is vital for nations seeking growth in the digital age.

Policy and Regulatory Framework

Government policy is one of the strongest determinants of a nation's innovation capacity. Clear and supportive policies help reduce barriers and uncertainties for Technopreneurs. Government plays a central role in establishing policies that encourage innovation and technological entrepreneurship. These include:

- **Pro-innovation laws** that make it easier to start and register tech-based businesses.
- **Intellectual Property Rights (IPR) protection** to ensure innovators can profit from their inventions.
- **Tax incentives and rebates** for startups, research activities, and technology-based exports.
- **Digital economy policies** that support fintech, e-commerce, AI, biotechnology, and other emerging sectors.

A favorable regulatory climate reduces barriers to entry and gives technopreneurs confidence to invest.

Funding, Grants, and Financial Incentives

Access to finance is a major challenge for technopreneurs, especially in developing economies. To secure capital due to high risk and limited collateral, the Governments can bridge this gap by providing startup grants, seed funding, venture capital programs, and credit guarantees. Public-private funding partnerships have also proven effective. These mechanisms reduce financial constraints and encourage more technology-driven ventures.

Technology and Digital Infrastructure Development

Efficient digital and physical infrastructure is fundamental to the growth of technopreneurship. A country cannot build a digital economy without solid infrastructure.

Governments must invest in broadband internet, Reliable electricity, High-speed broadband and 5G connectivity, incubation centers and innovation hubs, Laboratories and research facilities in universities research laboratories, and technology parks. Infrastructure development enables the creation, testing, and deployment of new technologies. Such infrastructure enables experimentation, prototyping, and high-quality digital services.

Human Capital Development

Education and skills development are essential to building a robust Technopreneurial workforce. Technopreneurship thrives where there is a skilled workforce. Governments influence human capital development through educational policies, Integrating STEM (Science, Technology, Engineering, and Mathematics) into school education is particularly important in building the technical capacity of future innovators. Providing scholarships for tech-related fields, Supporting coding programs, digital literacy and technical training, Facilitating partnerships between universities and industry for hands-on learning. Skilled manpower is the backbone of Technopreneurship.

Research and Development (R&D) Support

Government investment in research and development is essential for creating new knowledge and technologies. It drives innovation by Funding University and industry research projects, Creating national innovation agencies or councils, Offering tax incentives for private-sector Research and Development, Tax incentives for private sector Research & Development spending also stimulate innovation and technological breakthroughs, Establishing technology missions (e.g., in AI, robotics, space tech, biotechnology). Enhanced Research & Development ensures continuous invention and technological progress.

Market Access and International Collaboration

Governments play a key role in promoting domestic technopreneurs in global markets through trade policies, export promotion initiatives, and international cooperation agreements. Participation in global technology networks encourages knowledge exchange and enhances competitiveness. International partnerships also help local startups gain access to advanced technologies and investment opportunities (OECD, 2019). Global collaboration accelerates knowledge transfer and competitiveness.

Support through Innovation Hubs, Incubators, and Accelerators

Governments can establish or support the Incubation centers and innovation hubs to provide mentorship, workspace, networking, and technical support to technopreneurs. Government-backed hubs reduce startup failure rates by offering structured support systems. Accelerators for scaling tech businesses, Innovation hubs where entrepreneurs can access mentorship, workspace, and networking opportunities. These platforms reduce startup failure rates and strengthen innovation culture.

E-Governance and Digital Transformation

When government institutions adopt digital solutions, they Increase efficiency and transparency, Boost demand for local tech solutions, Demonstrate trust in homegrown technopreneurs, It promotes Job creation and economic diversification, Increased productivity and global competitiveness, Innovation-driven economic growth, Digital transformation of public and private sectors. Digital public services (mobile IDs, e-tax systems, digital payments, etc.) stimulate growth of the tech ecosystem.

Conclusion

The role of government in enhancing technopreneurship is multifaceted, ranging from policy formulation and infrastructure development to funding, education, and global partnerships. When governments create a conducive environment for innovation, technopreneurs are empowered to develop solutions that drive national development. When governments prioritize technology-driven entrepreneurship, they establish a solid foundation for long-term economic growth and societal progress.

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