An Analysis of India's Dynamism in AI growth

Dr. Rekha Pasumarthy, Sr.Asst. Professor, H&M Dept, GNITS, Hyderabad, India.

Abstract - The initiatives taken by the public sector and the private sector attribute to the success of any new technology. AI is no exception. Artificial Intelligence (AI) is one of the fields that is spoken of in every sector and in every phase of the society. Dynamism of the government contributed significantly to the boost of AI in India. It is generally opined that the private sector is proactive in these initiatives of adoption of AI. But the public sector is no way far behind. The paper makes an attempt to explore the initiatives and measures taken by the government of India in the public sector and the contributions made thereby. An attempt is made to understand the dynamism in the Employment, public sector enterprises and in the research organizations in India.

Keywords - Artificial Intelligence, Public sector, Employment, Research organizations.

I. INTRODUCTION

India is one of the major economies in Asia and globally looked up for the significant developments reported significantly in various sectors. India is looked up to in adapting new technological advancements. One of the trends that is redefining the way things need to be executed is Artificial Intelligence (AI). There are various initiatives taken by the government to adapt AI effectively so that it contributes to the growth of the economy. As in other initiatives the government is supporting and encouraging the efforts of the private sector even in this. Taking the support for the government, the Private sector is playing a predominant and significant role in adoption of AI in India. The government has duly extended its support through timely planning, by allocating resources and by making necessary legislative amendments to the laws prevailing. These measures have well contributed to significant positioning of India globally in the growth path. The Government of India's initiatives to combat the traditional methodologies and adapt to the technological advances in all areas is notable.

Some of the major sectors that have adapted to the AI are

- ❖ Software & Hardware, IT services
- ❖ Chip and Semiconductors
- ❖ Engineering and Industrials
- ❖ Captive firms across BFSI and Healthcare
- ❖ Setting up Research & Development and
- ❖ AI Centers of Excellence.

The paper makes an attempt to analyse some of the major measures initiated in the public sector and by the Government.

II. AI INITIATIVES IN EMPLOYMENT

In the pre LPG (Liberalization Privatization and Globalization) scenario, employment exchanges played a significant role in mapping the demand factors of HR with the supply factors of HR in government recruitments. with Privatization, the charm for government jobs changed. Globalization has further revolutionized the employment opportunities of job seekers. The pay package offered by the global firms attracted the local talent to technological based jobs of multinational companies. These employment exchanges have hardly played any role post LPG and have vanished. the current COVID19 has a significant impact on employment. The skilled workforce have lost their jobs in the current pandemic.

The loss of jobs has a significant impact on the skilled workforce leading to temporary unemployment for a significant number of skilled workforce. To ensure that they find re- employment the Government of India has launched ASEEM[1], which is an AI based platform. The Ministry of Skill development and Entrepreneurship launched Aatmanirbhar Skilled Employee Employer Mapping (ASEEM). Launched in July 2020[2], this AI based initiative acts as a blue collar employment management. The main objective of the AI platform is "huge impetus to our persistent efforts to bridge the demand-supply gap for skilled workforce across sectors, bringing limitless and infinite opportunities for the nation's youth."

AI Initiatives in Public sector Undertakings

DRDO has taken initiative in incorporating their research activities through CAIR (Center for Artificial Intelligence and Robotics) in 1986. CAIR developed various multipurpose robots including industrial grade capability robots and futuristic research oriented robotic platforms[4]. In the current pandemic scenario, DRDO developed AI based Attendance Application (AINA)[5] where it captures attendance of the employees through facial recognition. It replaces the biometric attendance with the facial features of the employee being saved in encoded form.

Another major development is in space research. ISRO is developing a female humanoid robot[6] named Vyommitra which is expected to handle the Navigation, pre-programmed

experiments, complement the efforts of an astronaut, and provide essential crew support, giving more time for astronauts to focus on crucial tasks.

Another major area of AI is in the defence sector. Some of the developments[7] in India in security and defense sectors are:

- ❖ Unmanned Ground Vehicles (UGV) for low intensity conflicts and surveillance in urban areas

- ❖ Robosen - mobile robot system targeted at patrolling, reconnaissance and surveillance

- ❖ Network Traffic Analysis (NETRA) - monitors internet traffic and analyses voice traffic passing through software such as Skype, Google Talk and intercept messages which pose a threat for security or for attack.

III.   AI IN RESEARCH ORGANIZATIONS

The Indian government has taken robust initiatives through NITI Aayog. The initiative is to create a cloud computing platform AIRAWAT[8] (Artificial Intelligence Research, Analytics and knowledge Assimilation plaTform) for adoption and deployment of AI through an institutional framework in India.The initiative has identified sectors of

- ❖ Education

- ❖ Healthcare

- ❖ Agriculture

- ❖ Smart cities and Infrastructure and

- ❖ Smart mobility and transportation.

With these initiatives,it is expected for India to evolve as a leader in the use of technology using artificial intelligence. The platform is expected to be developed by an investment of over Rs.7500[9] crores over three years by investing in 5 Centers of Research Excellence (CORE) and 20 International Centers for Transformational AI (ICTAI).

IV.   CONCLUSION

The Indian Artificial Intelligence market is valued at $6.4 Bn as of July – August 2020[10]. The current market itself reflects the scope for exploring the AI market. The future is expected to be more promising. In one of the forecasts it is expected that India's Artificial Intelligence spending will grow from $300.7 million in 2019[11] to $880.5 million in 2023 at a compound annual growth rate (CAGR) of 30.8 per cent. It is for the government to ensure that there is a smooth transition so that the quality of life for the people is enhanced. More initiatives have to be extended so that the public sector adapts in every field of the society. Adapting AI and supporting the private sector contributions through necessary legislative changes timely would enhance the dynamism and give an economic boost for India.

REFERENCES

[1]https://www.indiatoday.in/education-today/news/story/skill-india-launches-ai-based-aseem-digital-platform-to-bridge-demand-supply-gap-of-skilled-workforce-1700037-2020-07-13

[2] https://aseemportal.com/

[3] Ibid

[4]https://www.drdo.gov.in/labs-establishment/technologies/centre-artificial-intelligence-robotics-cair

[5] https://drdo.gov.in/ai-based-attendance-application-aina

[6]https://www.financialexpress.com/lifestyle/science/isro-gaganyaan-vyomamitra-vyomnauts-lady-robot-space-mission/1832947/

[7]http://www.indiandefencereview.com/news/artificial-intelligence-and-its-impact-on-the-indian-armed-forces/

[8]   https://www.dqindia.com/make-way-comes-indias-airawat/

[9] Ibid

[10] https://analyticsindiamag.com/report-state-of-artificial-intelligence-in-india-2020/

[11]https://www.aitrends.com/ai-national-initiatives/india-engages-in-a-national-initiative-to-support-its-ai-industry/