Drones Usage Opportunities For Entrepreneurs Contributing Towards Aatmanirbar Bharat

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Abstract

The year 2020 witnessed a significant turning point for the world economy with the discovery of a dreadful virus named 'CORONA VIRUS' originating from the world's largest manufacturing hub – China, and still the world is fighting with it. Within a few days it covered almost all the nations across the globe. To put a check on the speedy spread of the virus and break the chain, the GOI announced nationwide lockdown on 24th March 2020.As a result all the manufacturing units, service sectors and other industries stopped their production except medical related emergencies. The whole nation went into full lockdown. The financial health of the nation was badly affected by the virus. After about 2.5 months, country's growth engine was restarted with unlock -01. The union government at that juncture gave a big push to the economy with 20 lakh crores of rupees to help the nation to survive and become AatmaNirbhar / self-reliant. It is the new version of "Make in India" campaign declared by Honourable Prime Minister Narendra Modi on 25thSeptember 2014. The drone market reflects advanced technology. As a result, new opportunities for the usage of drones in numerous industries are arising. Therefore, as new possibilities arise, so do fresh dangers to people's lives and the safety of enterprises. Different organizations have already incorporated drones into their operations, providing a source to study and learn. As a result, authors has attempt to address fundamental inquiries including the benefits that the usage of drones can offer to businesses, potential risks, practical restrictions, and entrepreneurial opportunities for drone industries.

Keywords: Covid-19, AatmaNirbhar Bharat, Drone technology, Entrepreneurship, Development.

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Introduction:

AatmaNirbhar Bharat / Self Reliant India is the new version of Make in India programme declared by Shri Narendra Modi on 25th Sep 2014.The detailed announcement was made by theF.MSmt Nirmala Sitaraman, to fight with the COVID-19 pandemic effectively. She added that AatmaNirbhar Bharat does not intend to practice protectionism toward other nations. The industries that required FDIcan function accordingly and are not restricted / affected by AatmaNirbhar Bharat Abhiyan.

India exported PPE kits and other medical and health-related equipment during a pandemic, when the transportation of products and services internationally was hampered. Indigenous growth and skills in these sectors indicate the capacity of AatmaNirbhar Bharat. India can bank upon its young skilled manpower to become the next super power. Here, a question arises, is Indian economy ready to take another shock which can arise from the pandemic, as the backbone of our economy is MSME (Micro Small and Medium Enterprises)? Due to the adverse effect of pandemic many firms were permanently shut down and many of them incurred heavy losses.Theyare still struggling to find their customers again.So,what can AatmaNirbhar Bharat do for our economy? As we all know, India imports more than it exports, which leads the way to the requirement of 'AatmaNirbhar Bharat'. “Make In India” programme aims to make India a leading manufacturing hub, which means the product will be designed and developed within India. According to the government, 12 industries have been singled out for increased focus in order to become global suppliers because it is believed that domestic production of these goods results in lower costs. These industries include auto components, textiles, food processing, organic farming, iron, aluminium, and copper, agro-chemicals, electronics, leather and shoes, masks, sanitizers, and ventilators. Agrochemicals, pharmaceuticals, and APIs are all exported from India (Active Pharma Ingredients). "The concept of self-sufficiency or AtmaNirbhar Bharat is not to get globally isolated but rather to enable India to become a worldwide centre for today's complicated multinational supply chains," stated Foreign Secretary Sringala.

India now has a chance to show the world what a world-class country it can be by localizing its products to satisfy home demand and enhancing its supply chain. India can now diversify its international supply chain. Today's world is changing constantly be it social or technological. The technological inventions & innovations are emerging markets and the Drones are the latest one referred as UAVs(Butcher, 2019).

Drones' commercialization can be observed in several sectors as agriculture, defence, logistics, photography, cinematography, delivery and the like. But the limitations of drones are also present. According to(Chiang et al., 2019)drones may lead to lower energy use and greenhouse gas emissions, hence reducing carbon footprints and supporting sustainable friendliness. Different areas, like filmmaking, tourism, crisis management, naval or underwater applications, etc., have already started use of drones or have a lot of potential for doing so. (Yaacoub et al., 2020) . In next five years, it is projected that about 10,000 drones will be in use for business, mostly due to their benefits over business helicopters in terms of pricing and budget.(Yaacoub et al., 2020).According to predictions, the global drone market's income would increase from its current level of 26 billion dollars (2021) to 43 trillion USD until 2025. (https://www.statista.com/). No doubt drone will create an ocean of opportunities for entrepreneurs as well as investors in near future.

Literature Study:

The incorporation of drone technology into a variety of industries has garnered a large amount of interest across the globe. This has created exceptional chances for business owners to contribute to India's goal of achieving economic self-sufficiency, as envisioned by the Aatmanirbhar Bharat movement. In the context of Aatmanirbhar Bharat, the purpose of this literature study is to synthesize the existing knowledge on the opportunities and problems related with the utilization of drones by business owners.

(Park et. al., 2016) Drone application research has been ripe with possibilities and obstacles since their widespread use. Building an ad hoc network with drones and using each one as an access point (AP) to create a temporary network infrastructure is a hot issue in the drone world. However, there has been no investigation into how the appropriate placement of drones might enhance the quality of network services for end users. We do a capacity analysis of the drone-based network infrastructure and present a drone formation algorithm to detect the three-dimensional spatial location of each drone. Since each drone is in flight while serving as and AP, its altitude is a crucial factor in the quality and range of wireless connections. We define the relationship between the drone's height and its coverage area by assuming that the drone's signal propagation model takes the form of a sphere. Our program uses this feature to pinpoint the precise locations of individual drones. Mathematical evaluation demonstrates that the suggested algorithm may ensure that drone-based network architecture consistently delivers high-quality service that users appreciate.

(Giones et. al., 2017) Drones and their potential uses in the public and business sectors have generated considerable excitement. Based on a brief outline of the growth of the drone business in recent years, this essay investigates the co-evolution of drone technology and the entrepreneurial activity associated to it. In their findings provide insight on the idea validation of a whole sector, from product development to market expansion over several technical meaning-shifting periods. In their paper contend that additional development is required to transform drones from fun toys to useful instruments for anything from aerial photography and filmmaking to building inspections and heavy-load transportation. The description of what causes the creation of a technology and what sorts of players are drawn to it is intended to help innovation managers and business owners realize the revolutionary potential of new technologies.

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(Chowdhery et. al., 2018) Drones will be used more frequently in isolated places, disaster zones, and other monitoring contexts. Drone camera footage can be used for a variety of purposes, including site assessments, summaries, and the

detection and tracking of multiple targets. After a drone flight, such videos are processed in the offline era. While real-time processing presents many benefits, it also presents two major difficulties: first, the computational capabilities of the drone processor is limited when it comes to using machine vision in real-time; and second, the network bandwidth on the drone-to-server link is limited. In order to enhance the utility of the application while limiting the network bandwidth it consumes, we present a model predictive compression technique that uses the anticipated drone trajectory to choose and send the most critical image frames to the ground station. Since the suggested compression approach only requires an estimate of background motion rather than the actual computation of picture characteristics, it can be implemented in real time on the drone's processor. The drone receives real-time data from a ground station equipped to compute picture features, allowing it to repair any errors in the model. The evaluation results show that the suggested compression method guarantees high-quality mosaics in the drone mosaicing application while reducing network bandwidth overheads by 50-72%.

(Sham, 2022) Access to medicine and vaccines is often problematic in rural locations. This study examined rural health care providers' views on drone medicine and vaccination delivery and its factors. Healthcare personnel from four rural facilities were sampled. Participants self-reported personal information, attitude toward drone-delivered medicine and vaccines, perceived benefits and dangers, and leadership innovativeness using online or pen-and-paper questionnaires.

(Kusa et. al., 2021) Entrepreneurship philosophy emphasizes entrepreneurs, opportunity, and behaviours. We know little about these elements' associations. Therefore, our study examines these interactions. The study seeks to discover entrepreneurship traits, motivation, and opportunity perception that boost business success. This study focuses on SMEs, where entrepreneurship is prevalent. The sample includes 61 SMEs in Lesser Poland, Poland. Fuzzy-set qualitative comparison analysis identifies factor combinations. The analysis shows previously undiscovered combinations of factors affecting SME performance, with roles shifting by accompanying factors. This study shows that opportunity openness, variability of motivation, innovativeness, and risk-taking affect firm success. These findings show that combining circumstances improves performance. This study's findings contribute to entrepreneurship and SME literature by describing how diverse combinations of factors (including entrepreneur motivations and opportunity perception) affect company success. It also shows entrepreneurs and managers which elements boost firm success, how diversification of options matters, and how motivation distinction matters.

(Kim et. al., 2018) This article looks at the past decade (from 2006 to 2016) of drone entertainment using the cutting-edge AVR (Augmented and Virtual Reality) technology. Drones, also known as Unmanned Aerial Vehicles (UAVs) or Unmanned Aircraft Systems (UASs), are aircraft that do not have a pilot or any human on board. This study focuses on quad copters, or drones with four rotors, and how they are used in the entertainment and AVR industries, as both applications are rapidly growing. Aerial immersive mixed reality is developing as more businesses and individuals recognize the potential of drone technology. This paper provides a high-level introduction to drones and describes the qualities that make them ideal for use in the AVR and entertainment industries.

(Kitjacharoenchai et. al., 2019) E-commerce and retail enterprises are actively pursuing strategies to

reduce delivery durations and expenses through the exploration of utilizing unmanned aerial vehicles (UAVs), also known as drones, for the purpose of executing last mile deliveries. This study examines the concept of integrating a truck-drone combination for delivery purposes, as well as the proposition of enabling autonomous drones to operate from delivery vehicles, execute deliveries, and then navigate to nearby available delivery trucks. In this study, we propose a formulation based on mixed integer programming (MIP) to effectively represent the given scenario. The primary aim of our formulation is to minimize the arrival time of both trucks and drones in the depot upon completion of their respective deliveries. A novel approach utilizing insertion heuristics has been devised to address the challenges posed by large-scale problems encompassing up to one hundred sites. Experiments are undertaken to compare the solutions obtained from the Mixed Integer Programming (MIP) approach with those derived from various models involving single truck, multiple trucks, and a combined truck and drone system. Additionally, the performance of the proposed technique is evaluated. The numerical findings illustrate the potential operational advantages associated with the implementation of the proposed drone delivery system in comparison to the use of only conventional trucks or a system that combines trucks and drones for delivery.

(Das et. al., 2021) This note critically evaluates and interprets the provisions and actions established for migrant workers as an urgent safeguard of Covid19 under the Aatmanirbhar Bharat Abhiyaan (ABA) policy via the perspective of gender. The policy attempted to mobilize the economy, enhance infrastructure, and expand capacity, but it failed to include migratory women workers. Under the trench of 'Aatmanirbhar Bharat', the government's initiatives towards migrant workers may be a welcome step towards quick relief, but it has nearly missed the narrative of gender and the ethical focus of self-reliance, or 'self', of women workers. At the start of 2020, Covid-19 killed people and devastated India's economy. India had 410,353 active Covid-19 cases and 425,757 deaths as of August 4, 2021 (Ministry of Health and Family Welfare, 2020). Informal sector migrant workers were among the most vulnerable to a nationwide lockdown from 24 March 2020 that restricted mass mobilization and transit overnight. Unemployed, homeless, and hungry. India has had many lockdowns. Migration and migrants were often debated, with some calling the suffering of the poor a "migrant exodus."

Research Gap:

Exploring the Commercial and Recreational Possibilities of Drone Technology.

While the use of drones opens up many ways for entrepreneurs to make a big difference in achieving the goals of "Aatmanirbhar Bharat," there is a big study gap that needs to be carefully filled. This knowledge gap is about having a full picture of the complex ways that drone use and business activities can affect each other, including the problems, chances, and rules that govern this new world.

Research Objectives:

- To identify Usage and Opportunities of Drone for entrepreneurs contributing towards Aatmanirbar Bharat”
- To Study Entrepreneurial Ecosystem

Research Methodology:

The present study is based on secondary data collected from different journals, magazines, various books and Government websites which are clearly mentioned in the bibliography**.**

Analysis and Discussion

Spirit of Atmanirbharta:

In Oct 2019, Indian government had stated its goal of making the country's economy $5 trillion by 2024–2025. Even if this objective is difficult, it is undoubtedly attainable. Being independent, which entails a greater sense of Atmanirbharta in its population, is a crucial first step towards achieving this. As opposed to being net employment consumers, we could consider becoming net employment suppliers. The government has developed a number of projects to help achieve this aim, each of which supports self-reliance in a different way. The Make in India programme, launched in 2014, can be said to support the entrepreneurial spirit at a macro level. Another initiative is the Digital India's campaign, launched in 2015. It can be seen as a platform through which the foundation of AtmaNirbhar Bharat can be laid down.

Pillars of Aatmanirbhar Bharat Abhiyan:

The Hon. Prime Minister stated that in order to become self-sufficient, the "Atmanirbhar Bharat Abhiyan" was established, and a package of Rs. 20 lakh crore rupees was released in order to inspire MSME, street sellers, cottage industries, farmers, etc. This package was unveiled with consideration for the five pillars of the economy, technology-driven systems, demography, and demand& infrastructure.

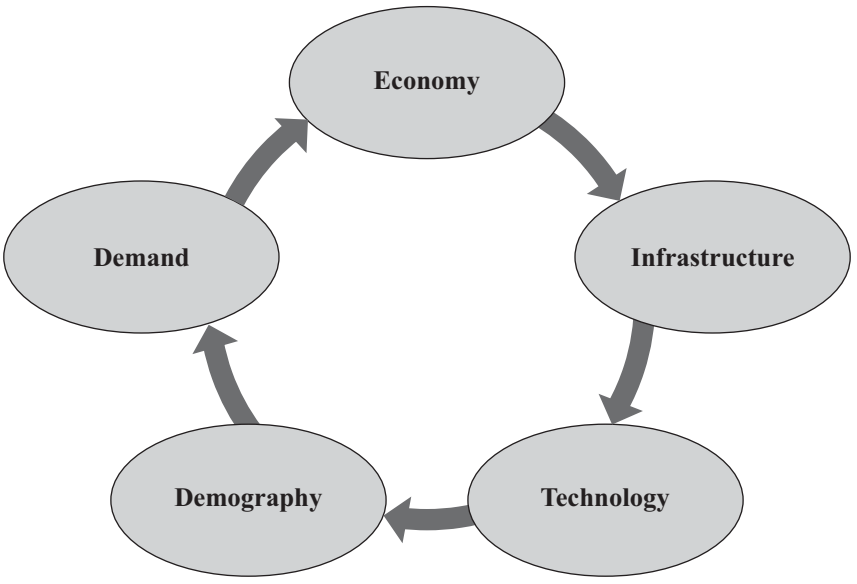

Fig 1. The Interdependency of 5 Pillars of Aatmanirbhar Bharat Abiyan.

Let us discuss the 5 pillars of Atmanirbhar Bharat Abhiyan:

Economy:

It includes all the activities associated with production, consumption of goods and services in a country. It is careful use of money, resources and means of production. Economy of a country depends upon its individuals and their culture; laws, history and geography of the region. According to Atmanirbhar Bharat Abhiyan, economic progress in any nation is significant and takes the shape of a quantum leap rather than a linear increase through time. Quantum growth, defined as an increase in growth percentage from 2

to 4 to 6 to 8, is an example. Incremental growth, defined as an increase in growth percentage from 2.5 to 2.6 to 2.8, is an example.

Infrastructure:

Social infrastructure, which includes buildings like schools, colleges, technical institutes, hospitals, housing infrastructure, etc., and economic infrastructure, which includes roads, bridges, trains, airways, thermal power plants, etc., are the two main categories of infrastructure. The "Atmanirbhar Bharat Abhiyan" strives to have top-notch infrastructure in order to give its stakeholders all the amenities. Infrastructure and the economy are intertwined; hence they are intimately related to one another.

Technology Driven System

It has a significant contribution in the growth& development of any country. Through the help of a modern and innovative technology we can achieve faster growth. It accelerates the growth and also increases transparency and quality. Only a system that is driven by technology can make the aspiration of becoming a super power in the twenty-first century a reality. For example, in recent times the various schemes run by the government for the poor and farmers are technology driven. Instead of being distributed through many intermediary channels, the benefits of the subsidies are transmitted directly to the recipients. The approach is frequently referred to as DBT. The technology-driven system, which serves as the third pillar of the Atmanirbhar Bharat Abhiyan, strengthens and supports the first two pillars.

Demography:

We are rich in youth population, which is a major strength of our country. Therefore we need to nurture our youth for the growth of our nation by providing them a skilled education and a platform where they can be self reliant rather depending others. If we can utilize the full potential of our youth, then there is no doubt that we can be self reliant and a developed nation. Atmanirbhar Bharat Abhiyan announced various upcoming projects which can generate employability were also announced.

Demand:

The primary driver of output, employment, and income in an economy is demand. Demand and supply are the lifeblood of an economy. Due to their mutually beneficial relationship, demand and supply should both be increased for an economy to function properly.

Drone Production and Atmanirbhar Bharat

The mission of the Honourable P.M. of India is to build an Atmanirbhar Bharat with the goal of making India a greater and more significant part of the worldwide economy. The Atmanirbhar Bharat Abhiyan focuses on import substitution to reduce import dependency while raising the quality and safety requirements of manufactured products in India so that they may participate in the global value chain. It is an initiative to position India prominently in the international market. Instead of incremental changes, the honourable prime minister envisions quantum leaps in the economy. (Alkobi, n.d.)

Drone Market potential:

According to analyst expectations, India has the opportunity to realize almost INR 1.8 lakh crore of local manufacturing potential by implementing targeted drone indigenization projects across defence, commercial, and homeland sectors. Security and anti-UAV industries Analysts

anticipate a CAGR of 80% from 2020 to 25 and a CAGR of 35% from 2025 to 30.(Wal-Mart Gets Drone Patent For In-Store Delivery | Fortune, n.d.). In 2022, the Indian drone market produced $19.93 Mn in revenue, according to Statista. From 2022 and 2027, this amount is projected to increase yearly at a compound annual growth rate (CAGR) of 10.12%.

Role of Government is Crucial and has to be Supportive:

The Indian government wants to establish India as a global leader in drone technology after seeing the great potential growth of drones. The high cost of drones, especially for software applications, is mostly due to patents. India can create more sophisticated drone features by utilizing its enormous skill pool of excellent software and electronics experts. Customized drones can be utilized for activities involving domain-specific applications in a variety of industries. In addition to loosening drone regulations in 2021, with its PLI initiative, the government has just started aiding the drone business.

To position India as a drone leader, the government has undertaken the following steps:

Government regulations aim for sustained and rapid growth in the drone industry by boosting both supply and demand in the ecosystem. They are intended to develop an environment that is suitable for manufacturing and drone use. The following are some government programs designed to promote the development of the drone industry:

The Drone Policy- 2021

The rule made a significant portion of Indian airspace accessible to drones. Everybody may own a drone and use it for personal, non-commercial reasons under the law. To fly a nano-drone, a drone pilot no longer needs a certificate of instruction. Drones can be flown anywhere that is not in a restricted area near an airport.

Drone policy2022

The "Drone Shatki scheme" was unveiled by F.M Mrs Sitaraman in the budget for 2022 in an effort to support entrepreneurs and use them to spur the development of the drone industry. Drone-as-a-Service is promoted for start-ups. Anyone can hire drones and utilize them for a variety of purposes, including taking pictures and films.

Kisan Drones

The use of technology is essential for empowering farmers and increasing the profitability of agriculture. Many farmers may use drone technology to boost farming output, increasing their income in the process. Drones can be used by farmers to monitor their crops and evenly apply the right dosages of pesticides and fertilizers. They need less labour to grow crops of export quality as a result. Also, farmers are not often exposed to harmful pesticides.

PLI Scheme

To encourage drone manufacturing companies to locate in India, the government of that nation has banned the import of drones. Start-ups can create their own components or build drones using imported components to satisfy domestic demand. The government will also launch the Production-Linked Incentive (PLI) program for drones and drone parts in September 2021. Under the plan, the government will provide incentives to around 12 drone manufacturers and 11 drone component producers for three years in a row. Indian start-ups will produce sophisticated drones in the near future and export them to other nations.

Set up more DGCA-approved UAV straining institutes.

The air transport sector includes the drones sector. Drone training has been standardized across the nation because the DGCA is in charge of regulating the industry. To meet the growing demand for drone pilot training, many more trainers of drone pilots have recently received certification.

SVAMITVA scheme

On National Panchayati Raj Day, April 24, 2021, the Hon. Prime Minister introduced Svamitva, a Centrally Sponsored Program of the Panchayati Raj Ministry. Nine states have already successfully completed the scheme's pilot phase. Under the plan, drone technology is being used to map rural areas. Hence, the government issues legal ownership cards and a "Record of Rights" to the proper owners.

Bharat Drone Mahotsav

The largest drone festival in India, Bharat Drone Mahotsav, was launched by Prime Minister Shri Narendra Modi in May 2022. Drones of all shapes, sizes, and technical prowess were on exhibit at the festival site in Delhi's Pragati Maidan. During the ceremony, In order to highlight the widespread use of drones and the enormous employment opportunities the sector may create, the prime minister officially awarded 150 drone pilot certificates.

Training & Skill Development in Drone Technology

Drone-related courses for skilling at select Industrial Training Institutes (ITIs) in all states will be helpful to spread the know-how about drones.

Drone Technology in Indian Defence

- Defense Testing Infrastructure Scheme(DTIS) with an outlay of INR400crore(USD53.55million) was launched for enhancement of domestic defense and manufacturing of aerospace, the Ministry of Defence(MoD) has launched this to create infrastructure for testing all these developments in partnership with private sector.

- This scheme was launched on 8thMay2020 for five years setting up 6 to 8 GDTIF (Greenfield Defense Testing Infrastructure) facilities required for Defense & aerospace-related production.

- DRDO developed NADS (Naval Anti Drone System) which was manufactured by BEL (Bharat Electronics Ltd.) and it was the 1st indigenously developed Anti-Drone system which was inducted in Indian Armed Forces. Two versions i.e. static & mobile versions of anti-drone system are to be developed for the Indian Navy. The BEL is to sign similar contracts with Army and Air Force.

Use Cases of Drone:

Drones are rapidly being considered for usage in a variety of applications in the infrastructure, retail, agricultural, homeland security, and other industries. Entrepreneurs can make significant strides toward realizing the "Aatmanirbhar Bharat" (Self-Reliant India) vision through the widespread adoption of drone technology. Here are a few of the most important ways in which entrepreneurs might use drones to advance self-sufficiency:

The list below provides a quick overview of the expanding application cases for drones.

S No	Sectors	Drone Application
1	Agriculture and Farmer Welfare	a. Soil health scan , filed water needs estimation
		b. Irrigation,fertilizer,pesticide spray
		c. River erosion/ restoration tracking
		d. Agri database
2	Health	a. Delivery of medicine and other medical equipments
		b.Pathology test-sample collection from remote or epidemic affected area.
3	PanchayatiRaj	Land records / Property rights (SWAMITVA)
4.	Defence	a. Combat
		b. Surveillance
		c. Communication
		d. Swarm attacks
		e. Counter drone
5.	Home Affairs	a. Key technology for disaster management
		b.Patrolling in remote areas
		c.Surveillance at International Borders
6.	Housing and Urban affairs	a. Construction Monitoring
		b.Planning/ Digital elevation model
		c.Incidentreporting and many more uses of drones

Benefits to the CAGS (Corporate, Academia, Government and Society).

The utilization of drones provides multiple options for business owners to contribute to the real purpose of Aatmanirbhar Bharat, which is to achieve self-sufficiency in India, across a variety of industries. The following are some of the ways in which research and development in this area may be beneficial to corporate companies, academic institutions, society, and the government:

Corporate Sector:

Innovation and Product Development:

Agricultural, logistical, surveillance, and infrastructure monitoring are among of the applications that might benefit from the development of drone technology, which corporations could invest in.

Commercial Services:

Business owners have the ability to build drone-based services, which may be utilized in a variety of industries, including real estate, construction, and tourism. These services include aerial photography, surveying, and mapping activities.

Academia:

Research and Development:

Universities and colleges can help by doing study on drone technologies, motor systems, sensor integration, and self-navigation.

Skill Development:

Students can be taught drone technology in schools, which will help the business get more skilled workers to meet the growing demand.

Society:

Job Creation:

The drone business is growing, which means more jobs in fields like production, repair, flying, and data analysis.

Environmental Impact:

Environmental monitoring and conservation activities may be carried out with the assistance of drones, which can contribute to the development of sustainable practices.

Government:

Regulatory Framework:

The establishment of regulations that are both specific and supportive for drone operations is very necessary in order to guarantee safe and responsible use. The government has the ability to strive toward the creation of a regulatory framework that addresses concerns regarding safety and security while also encouraging innovation.

Infrastructure Development:

It would be feasible for governments to make investments in infrastructure linked to drones, such as landing pads, charging stations, and communication networks, in order to assist the broad adoption of drones.

Entrepreneurs have the potential to make substantial contributions to Aatmanirbhar Bharat by capitalizing on the opportunities given by drone technology. This might result in economic expansion, the creation of new jobs, and breakthroughs in a variety of fields among other things. In addition, a collaborative strategy that includes stakeholders from the corporate sector, academic institutions, and the government may guarantee a development environment that is both comprehensive and sustainable.

Conclusion

Especially in India's rural and inaccessible regions, drones' reach, variety, and ease of use will make them key generators of jobs, enterprises, and economic progress. In order to enable public and commercial stakeholders to quickly embrace drone technology and support the development of a healthy drone sector in India; the government is pushing various applications of drone technology. As part of "Atmanirbhar Bharat," the Indian government has been promoting entrepreneurship in the drone business. The government has provided a variety of liberal policy benefits and incentives to make it easier for businesses to develop sophisticated drones for a variety of uses. As mentioned, the government's ambitious objectives will undoubtedly make our nation the world leader in drone technology very soon.

Furthermore, as business owners use drones to solve societal problems in novel and inclusive ways, they contribute to the development of a nation that is better able to fend for itself. The dedication to Aatmanirbhar Bharat through drone technology is about more than making money; it's about fostering long-term growth, bolstering the economy, and improving people's lives.

The fact that business owners have taken to using drones as a tool demonstrates the revolutionary potential of technology to foster economic independence. Further progress toward Aatmanirbhar Bharat's goal of fully realizing the potential of this nascent technology will depend on building a favourable legislative framework, boosting research and development, and promoting skill development in the drone sector.

Future Scope:

Drone research and business possibilities for "Aatmanirbhar Bharat" have a lot to grow in the future. In the future, more study could be done on how drones can be used in new areas like Healthcare Delivery, Humanitarian and Disaster Response, Urban Air Mobility, Integration with Emerging Technologies. In this age of drone technology, we can work together to find long-lasting, inclusive, and cutting-edge solutions that will help India become self-sufficient.

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