

STREAMLINING E-OFFICE SYSTEM

The transition to an e-Office system marks a significant step towards transparent, efficient and accountable governance. Conceived to replace cumbersome paper-based processes with digital workflows, the e-Office platform has the potential to transform public administration by ensuring faster decision-making, better record management and enhanced inter-departmental coordination. However, to fully realize these benefits, streamlining the e-Office system has become an urgent necessity.

At its core, e-Office aims to bring speed and clarity to governance. Digital file movement reduces delays caused by physical handling, while real-time tracking promotes accountability at every level. Decisions can be recorded, retrieved and audited with ease, minimizing ambiguity and scope for manipulation. For citizens, this translates into quicker service delivery and greater trust in institutions. Yet, despite these advantages, uneven implementation and operational bottlenecks continue to dilute the system's impact.

One of the foremost challenges is the lack of uniform adoption across departments. While some offices have embraced digital workflows wholeheartedly, others continue to rely on parallel manual processes, defeating the very purpose of e-Office. Resistance to change, limited digital literacy and inadequate training of staff often slow down adoption. Streamlining therefore demands sustained capacity building, regular hands-on training and a clear mandate discouraging parallel paper-based functioning.

Technical robustness is another critical factor. Frequent system slowdowns, login issues and limited integration with other digital platforms hamper productivity and frustrate users. Strengthening server capacity, ensuring uninterrupted connectivity and upgrading cybersecurity measures are essential to build confidence among employees. A streamlined e-Office must be reliable, user-friendly and responsive to the needs of a large and diverse administrative workforce. Equally important is process re-engineering. Digitizing inefficient or outdated procedures merely replicates old problems in a new format. Departments must simplify rules, standardize formats and rationalize approval hierarchies to ensure that digital workflows are truly efficient. Clear timelines for file disposal and automated reminders can further reduce pendency and promote timely decision-making.

Building Bharat: India's Startup Ecosystem as a Foundation of Nation Building

India's startup revolution is no longer merely an economic phenomenon; it has become a nation-building instrument, reshaping how the India creates capability, opportunity, and confidence for the next century.

The transition from a global "back-office" to an "innovation architect" is not just about sovereignty in defense or technology. It is about reconstructing national institutions, decentralizing opportunity, and embedding innovation into the everyday functioning of India. Under the Modi Government, what began as ease-of-doing-business reforms has evolved into a capability-building architecture for Viksit Bharat 2047.

Building the National Shield (Defense & Drones)

Defense startups are often viewed through the lens of security, but their deeper contribution is to institutional resilience and industrial depth.

Through iDEX, startups have been integrated into the Armed Forces' procurement and problem-solving processes, something unprecedented in India's post-independence history. This has transformed defense from a closed, import-oriented sector into a distributed national manufacturing ecosystem.

The impact is visible and measurable. Defense production has surged, exports are at record highs, and private innovation is finally translating into real orders. Over 788 industrial licenses have been issued to 462 companies, dramatically increasing private sector participation.

Today, the private sector contributes nearly 23% of India's total defence produc-

tion, with more than 16,000 MSMEs integrated into the defence ecosystem. What was once a slogan, Atmanirbharta, has become a nationwide movement.

Before 2014, defence startups in India were virtually non-existent. Today, over 1,000 defence startups operate across the country. These startups are not peripheral players; they are developing mission-critical technologies once sourced from abroad.

In a move to end dependency on foreign GPS, India is developing an indigenous Quantum Positioning System (QPS) with the help of startup for the Indian Navy. Indian quantum deeptechstartupQuBeats has won the prestigious ADITI 2.0 Defence Challenge with a grant of USD 3 million to build this tech for our Navy.

Similarly, India's armed forces have shifted from foreign-component-heavy drones to fully indigenous drone systems, which were deployed during precision strikes in Operation Sindoor; designed and manufactured in India, including hubs like Bengaluru.

The government has taken a new step in unmanned defence, the Indian Army signed a Rs168 crore contract with Bengaluru-based startupNewSpace Research & Technologies under iDEX for solar-powered surveillance drones. This marks the first time the Army is inducting solar-powered unmanned aircraft, overcoming endurance limitations of battery- and fuel-based systems.

Expanding the Nation's Nervous System (Space & AI)

Space and AI startups are extending the sensory and cognitive infrastructure of India. The number of Space Start-Ups was

just 1 in 2014, after 2014 opening the space sector to private participation has led to the emergence of over 382 space startups. Today India's space startups are strengthening India's sovereign space intelligence.

Bengaluru-based Pixxel has launched the first satellites of its Firefly constellation, the nation's first commercial satellite constellation, delivering world-leading hyperspectral imaging.

Similarly, the coming launch of GalaxEye's Mission Drishtiwill provide the nation with "sovereign eyes" with the world's first multi-sensor Earth-observation satellite. These "sovereign eyes" are not only about independence, they enhance India's ability to serve citizens more effectively.

In artificial intelligence, the IndiaAI Mission is ensuring India does not merely consume global AI tools but builds its own Sovereign AI ecosystem. Startups like SarvamAI were selected in 2025 to develop India's first sovereign LLMs, trained on Indian languages and hosted on Indian servers.

To democratize AI innovation, the government has onboarded over 38,000 GPUs, offering subsidized access to startups at just Rs65 per hour, enabling even small-town founders to train world-class AI models.

Laying the Digital and Physical Bedrock (Semiconductors, Mapping & AgTech)

Recognising that true nation building requires indigenous "brains," the government launched the India Semiconductor Mission (ISM) and the DLI scheme. Startups like Netrasemi, supported under the chip design programme, have secured Rs107 crore in VC

funding to develop chips for smart vision, CCTV, and IoT applications.

Simultaneously, in 2021 the government has decided to ease the mapping policy. And allowedlocal startups and businesses to collect, generate, store, publish and update geospatial data of the country but within its territorial boundaries.

This has unlocked innovation across agriculture, infrastructure, and governance. Startupslike Satsureare using satellite imagery to provide "Credit Scoring" for farmers. Some startups are using satellite imagery, AI and data science to deliver plot-level farm advisories to smallholders.

The Living Revolution Biotechnology India's biotechnology sector has emerged as a key pillar of economic growth and innovation. The sector's regional landscape is also evolving.

BIRAC's Incubation network has expanded to comprise 75 BioNEST Centres and 19 E-YUVA Centres contributing to a cumulative incubation space exceeding 9,00,000 sq. ft. and supporting over 3000+ entrepreneurs & Start-ups, more than 1300 IPs have been filed by the incubatees, and over 800 products have reached various stages of market deployment.

The dismantling of the Inspector Raj and its replacement with an Innovation Raj did more than reduce friction, it restored agency to Indian entrepreneurs. Through Startup India, startups were formally acknowledged as nation-builders, not regulatory subjects. The result is an ecosystem focused not just on valuation, but on value creation for society.

Ordinary Moments, Extraordinary Impact

POOJA RANI

Recently, I came across the idea of the Butterfly Effect, and like many others, it quietly stirred my curiosity. At first glance, it appears to be a scientific concept rooted in chaos theory-how a tiny change in initial conditions can lead to vast and unpredictable outcomes.

But the more I reflected on it, the more I realized that this idea is not confined to science or weather patterns. It is deeply woven into our everyday human lives. The Butterfly Effect invites us to pause and reconsider how we view small moments. We often believe

that only major decisions, dramatic events, or life-altering incidents shape our future. Yet, this concept gently challenges that belief. It suggests that seemingly insignificant actions-an encouraging word, a careless remark, a moment of patience or neglect-can grow over time into something profoundly impactful.

Most of us can recall at least one such moment from our own lives. Perhaps it was a teacher who believed in us when we doubted ourselves, or a casual conversation that planted the seed for a future career. At the time, these moments felt ordinary. Only in hind-

sight do we realize how powerful they were. Like the butterfly's wings, they were small, almost invisible-but their consequences were lasting.

This idea becomes especially relevant when we think about children and adolescents. Parents and teachers often feel pressured to "do something big" to make a difference-extra classes, strict discipline, grand plans for success. But the Butterfly Effect reminds us that consistency matters more than intensity. A calm response during a conflict, a habit of listening without judgment, or regular words of appreciation can slowly but surely shape a young person's self-image

and emotional resilience.

In today's fast-paced and highly judgmental world, this reflection is even more urgent. We are quick to label, criticize, and react-often without realizing the long-term impact of our behavior. A teenager dismissed as "lazy" may internalize that label for years. A child constantly compared with others may grow up doubting their own worth. These outcomes rarely arise from one dramatic incident; they emerge from a series of small, repeated experiences.

The Butterfly Effect also applies to society at large. A single social media post can spark movements or spread

misinformation. One compassionate act can inspire many; one careless statement can deepen divisions. Change does not always announce itself loudly.

Often, it enters quietly, grows slowly, and reveals its power much later. Understanding this concept does not mean we must live in fear of every word we speak. Rather, it encourages mindfulness. It reminds us that we have more influence than we think-not through control, but through presence. Our everyday choices, attitudes, and interactions matter.

Perhaps the most comforting aspect of the Butterfly Effect is its hopeful mes-

sage. If small negative actions can cause harm, then small positive actions can also heal. Kindness does not need a grand stage. Empathy does not require a microphone. Even a brief moment of understanding can set off a chain of positive change.

As I reflect on this idea, one thought lingers strongly: nothing we do is ever too small to matter. In our homes, classrooms, workplaces, and communities, we are constantly shaping outcomes through ordinary moments. The question is not whether our actions will have an effect-but what kind of effect we choose to create.

SHIELDING OUR PETS IN HARSH WINTERS: VETERINARIAN'S GUIDE

DR. R.K. BHARDWAJ & DIVYANSH PANDEY

As winter sets in across the country, we instinctively retreat to the comfort of our heaters and warm blankets. Yet, we must remember that for our pets, the cold season brings more than just discomfort-it carries significant health risks. Across India, from the freezing north to the chilly plains, animals face physical stress that demands proactive human intervention. As a veterinarian, we witness a predictable spike in clinic visits during these colder months due to preventable issues. Understanding winter wellness isn't optional; it is a necessary duty of care we owe to these silent, loyal members of our families, whether they are playful puppies or aging companion.

Vulnerability Varies: Who is Most at Risk?

The susceptibility of animals to cold is governed by the laws of thermodynamics, specifically the surface area-to-volume ratio. Smaller breeds like Chihuahuas and Toy Pomeranians possess a larger surface area relative to their body mass, causing them to lose metabolic heat to the environment via radiation and convection far more rapidly than larger animals. This vulnerability is compounded in short-haired breeds like Boxers, Greyhounds, and Dalmatians, which lack a dense, insulating undercoat to trap a layer of warm air against the skin. From a clinical perspective, hypothermia occurs when a dog's core temperature falls below 99°F (37.2°C), a dangerous state for "extreme" age groups. Puppies are at severe risk because they lack the brown adipose tissue (fat) and the mature thermoregulatory reflexes-such as efficient shivering and peripheral vasoconstriction-needed to maintain homeostasis. Geriatric dogs face similar risks due to a slowing basal metabolic rate and age-related muscle atrophy, which reduces the body's ability to generate heat through movement.

Certain medical conditions further predispose specific breeds to cold-related injuries. For instance, dogs with Hypothyroidism (common in Dobermans, Labrador Retrievers and Golden Retrievers) suffer from a lack of thyroxine, a hormone essential for stimulating metabolic heat production. Conversely, Obesity can be deceptive; while fat provides some insulation, it significantly impairs a dog's ability to move and generate heat through activity, while also putting extra strain on the heart during cold-induced stress. For regions with extreme winters like Kashmir, breeds with a biological "double coat" are essential for survival. Indigenous breeds such as the Gaddi (Himalayan Sheepdog) and the Tibetan Mastiff have evolved over centuries in the high altitudes of the Himalayas to develop thick, water-resistant outer hairs and a woolly undercoat that acts as a thermal barrier. Other Arctic-origin breeds, such as the Siberian Husky, Alaskan Malamute, and Samoyed, are also highly adapted, featuring specialized paw pads with increased vascularization to prevent freezing and long, bushy tails that they use to filter and warm the air they breathe while sleeping in the snow.

The Grooming Dilemma: To Bathe or Not to Bathe? Scientific evidence supports the recommendation for dry grooming during winter because a pet's coat and skin undergo significant physiological stress in cold, dry conditions. Maintaining the integrity of the skin barrier and the coat's insulative properties is critical for thermoregulation and health.

1. Protection of the Natural Skin Barrier



Frequent water baths can strip the skin of its natural sebum (oils), which are essential for maintaining the skin's moisture barrier. In winter, low humidity levels already dehydrate the skin, and stripping these oils further can lead to trans-epidermal water loss, causing flakiness, irritation, and increased susceptibility to allergens and infections. Dry grooming with "waterless" shampoos or foams allows for dirt removal without disrupting this protective lipid layer.

2. Maintenance of Thermal Insulation

A dog's fur coat serves as a primary insulating layer by trapping a static layer of air close to the skin, which minimizes heat loss via convection and radiation.

The Perils of Wet Fur: Water is a highly efficient conductor of heat; wet fur loses its ability to trap air and can reduce thermal resistance to about one-half of its dry value.

Mechanical Disruption: Wetting can flatten the "pelage" (fur structure), further reducing its depth and insulative value. This is why pets with wet fur are at a much higher risk of hypothermia in cold environments.

3. Benefits of Regular Brushing

Regular brushing is not merely cosmetic; it is a vital health intervention:

Thermoregulation: Brushing removes matted fur, which otherwise traps moisture against the skin and destroys the coat's natural insulating properties.

Circulation and Oil Distribution: The mechanical action of brushing stimulates peripheral blood circulation and evenly distributes natural oils throughout the coat, which enhances its shine and protective qualities.

Early Detection: Frequent grooming sessions allow owners to inspect the skin for hidden issues such as parasites, lumps, or cold-weather injuries like frostbite that might be concealed by a thick winter coat.

Bathing Safety Protocols

If a full bath is required, using lukewarm water is essential because hot water further strips skin oils and cold water can cause thermal shock. Following up with a thorough blow-dry on a low-heat setting is non-negotiable; towels often leave moisture deep in the undercoat, which can

continue to conduct heat away from the body long after the bath is over.

Engineering Warmth: Insulation and Shelter

For pets living indoors, the floor is the coldest part of the house. Elevate their beds! A simple wooden pallet or a thick rug can prevent "conductive heat loss." Insulate the bed by layering self-warming pet pads or even thick woolen blankets.

For those who maintain outdoor shelters for guard dogs or rescued animals:

The Three-S Rule: Small, Solid, and Secluded. A shelter should be just large enough for the animal to turn around; if it's too big, they cannot trap their own body heat.

Bedding: Avoid blankets outdoors as they can get damp and freeze. Use straw or wood shavings, which trap air and provide excellent insulation.

Orientation: Face the entrance away from the prevailing "Sheen-vayu" (cold winds) and use a heavy burlap flap for a door.

The Hydration Hurdle: Overcoming Winter Dehydration

A common misconception among pet owners is that dehydration is only a summer concern. In reality, winter poses a unique "thirst challenge." When the air is cold and dry, pets lose significant moisture through respiration (panting) and the dry indoor heating systems we use. Yet, many pets instinctively drink less because cold water is unappealing and their thirst drive is lower than in the heat.

Dehydration in winter is particularly dangerous because it thickens the blood, making it harder for the heart to pump, and it severely exacerbates chronic conditions like Kidney Disease and Gastroenteritis.

Strategies to Boost Fluid Intake

The Warmth Factor: Animals, much like humans, prefer comfort. Avoid leaving water in metal bowls outdoors where it can become ice-cold. Instead, provide lukewarm water (room temperature or slightly above) and refresh it at least three to four times a day.

Dietary Moisture "Hacks": If your pet is a stubborn drinker, try "wetting" their food. For pets with no history of diarrhoea or sensitive stomachs, adding warm, unsalted

bone broth (ensure it contains no onions or garlic) to their dry kibble can make a meal irresistible while secretly boosting hydration.

Multiple Water Stations: In multi-pet households or larger homes, pets may be reluctant to leave a warm bed to walk across a cold floor for a drink. Place water bowls in multiple, carpeted, or warm areas of the house to make hydration convenient.

Monitor the Output: As a vet, I always tell owners: watch the urine. If your pet's urine is very dark or has a strong odour, it's a clear sign they aren't drinking enough.

Winter Wellness Check-ups

Winter "masks" many symptoms. A dog with Hypothyroidism may seem just "lazy" due to the cold, when in fact their metabolic rate is dangerously low. Similarly, the "winter itch" might not be just dry skin, but a fungal infection fostered by damp coats.

A professional wellness check-up before the peak of Chilla-i-Kalan is essential. This allows us to adjust dosages for chronic medications and assess "Body Condition Scores"-an obese pet may need a calorie-restricted diet even in winter, as excess weight puts undue stress on cold-stiffened joints.

The Silent Struggle: A Final Call to Vigilance

Our pets are masters of stoicism; an evolutionary instinct drives them to hide pain and vulnerability. They cannot articulate when their paws have gone numb from the frost or when the "winter ache" in their joints becomes unbearable. While we retreat to the comfort of our homes, sipping salt tea by the fire or adjusting the thermostat, we must remember that the animals under our watch are experiencing the same environment without the benefit of a voice.

Listen to the Unspoken

Vigilance is your most powerful tool. Watch for subtle behavioral shifts:

The "Winter Limp": If your older dog is slow to rise or hesitant to walk, it isn't just "laziness"-it is likely a flare-up of Osteoarthritis, where the cold thickens the lubricating fluid in their joints, making movement painful.

Paw Protection: Check their footpads daily. Snow, ice, and even the salt used to clear roads can cause painful cracks, chemical burns, or "snow-burn."

Shivering & Lethargy: These are not just signs of being "a bit cold"; they are the first clinical indicators of Hypothermia.

The Best Prescriptions are Not Always Found in a Pharmacy

As a veterinarian, I often tell my clients that the most effective medicine for winter isn't a pill-it's a combination of proactive care and empathy.

Insulation: Ensure they are elevated off the cold ground and protected from drafts.

Hydration: Keep the water bowl lukewarm and full.

Nutrition: Adjust calories based on their activity levels and health status (obese vs. underweight).

Vigilance: Be their advocate. If the weather is too cold for you to stand outside without a jacket for ten minutes, it is too cold for your pet.

Let us ensure that our silent companions are not left to shiver in the shadows of our winter celebrations. By taking these small, deliberate steps, we can ensure that this season remains a time of cozy companionship rather than a season of medical crisis. A little warmth and a watchful eye are the greatest gifts you can give your pet this winter.

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