



HOW ARTIFICIAL INTELLIGENCE IS RESHAPING
OUR INDUSTRIES

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AI impact on Productivity in Pakistan

About Me & My Perspective



Consultant & Co-founder, Eyecon AI: Deploying cutting-edge computer vision solutions for Pakistani industries, and helping businesses optimize processes, from the factory floor to the supply chain.



Academia: National University of Computer and Emerging Sciences, Karachi Campus.



My Passion: Bridging the gap between Pakistan's industrial potential and the transformative power of AI.

The Productivity Challenge

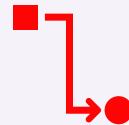
Pakistan's Industrial Potential is Undeniable. But...



We face persistent challenges in efficiency, quality control, and resource management.



Traditional methods are hitting a ceiling. Incremental improvements are no longer enough.



The Question: How do we achieve a quantum leap in productivity to compete globally?

AI: Not Magic, It's a Tool

What is AI in a business context?

It's the ability for machines to:



Learn from Data:

Analyze vast amounts of information (e.g., production logs, sensor readings, images).



Recognize Patterns:

Identify trends, anomalies, and correlations invisible to the human eye.



Predict & Automate:

Make intelligent forecasts and automate complex decisions.

Think of it as the ultimate assistant, amplifying human capability.

The Core Impact: AI on the Factory Floor

More Automation

- Beyond SCADA
- Analytics / infographics
- Wholistic approach towards automation and optimization

Predictive Maintenance

- **Before AI:** Fix machines when they break. (Reactive, costly downtime)
- **With AI:** AI analyzes sensor data (vibration, temperature) to predict failures *before* they happen. (Proactive, planned maintenance)

Quality Control Automation

- **Before AI:** Manual inspection. (Slow, inconsistent, prone to human error)
- **With AI:** Computer vision systems inspect products at high speed with over 99% accuracy. (Fast, consistent, reliable)



Case Studies (Pakistan ONLY)

- AI based object counting and tracking
- AI based HRM
- AI based learning management and assessment in academia
- AI based process optimization in manufacturing industry and banks
- AI based documents management
- AI based traffic management
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Beyond Manufacturing: A National Impact PK

The same principles apply across Pakistan's key sectors:



Agriculture:

AI-powered drones analyze crop health to optimize fertilizer and water usage, boosting yields.



Logistics & Supply Chain:

AI optimizes delivery routes, saving fuel and time, and manages warehouse inventory with unprecedented accuracy.



Services (BPOs/Call Centers):

AI chatbots handle routine queries, freeing up human agents for complex issues, improving customer satisfaction.

The Hurdles on Our Path

Adopting AI is a journey, not a switch. The key challenges for us are:

- **The Data Gap:** AI needs high-quality, structured data. Many industries are still in the early stages of digitization.
- **Lack of Awareness**
- **False Cost Perception:** High initial investment in hardware and talent can seem daunting.
- **The "Change" Mindset:** Overcoming the resistance to move away from "how we've always done it."



A 3-Point Roadmap for an AI-Powered Pakistan

Industry

- **Start Small, Think Big.** Pilot AI projects in one area.
- **Invest in Data Infrastructure.** Digitize your processes.
- **Upskill Your Workforce.** Train your existing teams.

Academia

- **Modernize Curricula.** Focus on data science & practical AI.
- **Forge Industry Partnerships.** Create real-world capstone projects.
- **Promote Research.** Fund applied AI research for local problems.

Government

- **National AI Strategy.** Create a clear, supportive policy.
- **Incentivize Adoption.** Offer grants or tax breaks for AI projects.
- **Ensure Data Privacy.** Build trust with clear data protection laws.

The Future: Human + AI Symbiosis 🤝



The goal of AI is not to replace humans, but to **augment** them.



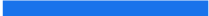
AI handles the **repetitive, data-intensive** tasks.



Humans focus on **strategy, creativity, and complex problem-solving**.



This partnership leads to more engaging jobs, safer work environments, and a massive boost in collective productivity.



Questions?

- Let's build a more productive Pakistan, together.

- Engr. Dr. Muhammad Burhan Khan

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