

Satpreet Singh Presents Landmark Research on Superintelligent AI Risks in Supply Chains at Global AI Ethics Conference

New Study by Satpreet Singh Highlights Leadership's Role in Mitigating Al-Driven Supply Chain Disruptions

LAS VEGAS, NV, UNITED STATES, April 16, 2025 /EINPresswire.com/ -- As artificial intelligence (AI) rapidly reshapes the foundation of global commerce, <u>Satpreet Singh</u>, a distinguished scholar from the School of Business and Economics at National University, has emerged as a leading



voice in the conversation surrounding AI governance, ethics, and leadership. At the 2025 International Conference on the AI Revolution: Research, Ethics, and Society (<u>AIR-RES 2025</u>), held April 14–16, 2025, and hosted on the official website <u>https://american-cse.org/air-res-drafts/</u>, Dr. Singh presented his critically acclaimed research paper, "Existential Risks of Superintelligence: The Critical Role of Leadership in Sustainable Supply Chain Management," to a global audience of scientists, scholars, and policymakers.

Dr. Singh's presentation explored the growing tension between technological progress and responsible leadership as superintelligent AI becomes embedded in global supply chains. His research highlights how AI-powered systems have already transformed logistics, forecasting, and manufacturing, contributing to up to 65% improvement in service levels, 35% reductions in inventory levels, and significant cost savings across industries. However, Dr. Singh warns that the unchecked deployment of superintelligent AI poses grave existential risks, including supply chain monopolization, algorithmic bias, data security vulnerabilities, environmental degradation, and the loss of human oversight.

"Al has become the brain of the modern supply chain," Dr. Singh remarked during his presentation. "But without ethical frameworks, strategic leadership, and collaborative governance, it may become its weakest link."

Drawing on extensive secondary data, case study analysis, and statistical modeling, Dr. Singh's

research evaluated the practices of major corporations including Amazon, Tesla, Walmart, IBM, and Siemens. While these firms have demonstrated innovation leadership in integrating AI across their operations, the research uncovered significant concerns. More than 50% of supply chain executives cited AI-induced cybersecurity risks as their top concern, while 33% of AI systems were found to exhibit bias in resource allocation, leading to unintended inequalities and ethical violations.

A particularly alarming finding was the 35% increase in Al-related cyberattacks in the past two years, resulting in an estimated \$15 billion in financial losses globally. Fast fashion industries, which increasingly rely on Al for predictive production models, have seen a 15% rise in overproduction — highlighting the environmental cost of over-automation. Dr. Singh emphasized that these trends are not technological failures but leadership challenges. "Al will do what it is programmed to do — optimize for efficiency," he stated. "It is leadership's responsibility to ensure that optimization aligns with values such as equity, sustainability, and long-term resilience."

The research utilized a multiple-case study methodology, analyzing public reports, corporate ethics guidelines, and AI adoption statistics from leading companies and industry databases. Dr. Singh focused on the role of leadership in designing and implementing ethical AI frameworks. Companies like Tesla and Siemens, which have formal AI ethics boards and internal governance structures, were found to be 38% more successful in mitigating algorithmic risks and operational disruptions. In contrast, companies lacking these structures were more susceptible to AI-induced crises, compliance failures, and stakeholder distrust.

Moreover, the study underscores the urgency of ethical leadership in an industry poised for exponential growth. The global AI-in-supply-chain market, valued at \$4.5 billion in 2024, is projected to reach \$157.6 billion by 2033, with a staggering compound annual growth rate of 42.7%. As adoption increases, so do the risks. Dr. Singh called on both public and private sector leaders to accelerate the development of AI governance frameworks that can keep pace with the technology.

The research is grounded in two key theoretical frameworks: Transformational Leadership Theory, which advocates visionary, value-driven leadership to guide disruptive innovations, and Adaptive Leadership Theory, which emphasizes the need for agility and responsiveness in complex, evolving systems. These models were used to evaluate how leadership practices directly impact AI outcomes in supply chains. The study revealed that high-performing companies were twice as likely to use AI for demand forecasting and logistics optimization, but success hinged on transparent governance, accountability, and human-AI collaboration.

Dr. Singh also addressed the regional dimensions of AI risk, noting that the Asia-Pacific region is expected to see the most profound supply chain transformation due to AI between 2025 and 2027. Labor standards, environmental compliance, and data privacy will become flashpoints in an increasingly digitized supply chain landscape. "Global problems require global solutions," Dr.

Singh noted. "Cross-border cooperation, international ethical standards, and sector-specific AI policies are essential to prevent systemic breakdowns."

The practical implications of the research are far-reaching. The study recommends that corporations establish AI ethics boards, conduct regular audits of AI systems, invest in transparency tools, and involve diverse stakeholders in AI strategy design. For policymakers, the findings emphasize the need for robust regulations, including AI impact assessments, data protection policies, and algorithmic accountability measures. Dr. Singh called for a coordinated effort between governments, academia, and the private sector to develop international AI standards that protect both innovation and human dignity.

Perhaps most critically, the research draws attention to a glaring governance gap. Currently, only 48% of major corporations have implemented any form of AI governance framework. Of those, fewer than 30% conduct regular AI ethics reviews. Meanwhile, 72% of global supply chain executives report that they operate in regulatory environments that lack clear guidelines for AI use. This regulatory ambiguity increases the likelihood of unintended AI-driven disruptions, underscoring the need for urgent leadership intervention.

In his conclusion, Dr. Singh offered a sobering but hopeful message: "Al is not inherently good or evil. It is a mirror reflecting our leadership values, priorities, and blind spots. If we lead with integrity, transparency, and foresight, Al can be the most powerful tool of our time. But if we allow profit to outpace ethics, it may become the defining risk of our generation."

The presentation received enthusiastic response from fellow scholars, policy experts, and business leaders attending AIR-RES 2025. Dr. Singh's insights provided a framework for not only understanding the current trajectory of AI in supply chain systems but also for reshaping that trajectory toward ethical and sustainable outcomes.

Dr. Satpreet Singh is widely recognized for his contributions to the fields of leadership, business ethics, and sustainable innovation. He serves as a CEO of Ardass Corporation in Manteca, California. In addition to his academic leadership, Dr. Singh is a published author and a frequent contributor to international conferences focused on AI ethics, supply chain resilience, and leadership strategy. He can be contacted at drsatpreetsingh@gmail.com, and his research portfolio is available on his ORCID profile: <u>https://orcid.org/0009-0001-0028-247X</u>.

AIR-RES 2025, organized by the American Council for Science and Education (CSCE), is an international platform dedicated to exploring the impacts of AI on society, ethics, and global development. The conference brought together thought leaders from across disciplines to discuss how AI can be guided toward equitable and responsible use. More details can be found at <u>https://american-cse.org/air-res-drafts/</u>.

For media inquiries, interviews, research collaborations, or speaking engagements, please contact Dr. Satpreet Singh at drsatpreetsingh@gmail.com.

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