

## Aboubacry KANE

### Contact Information

Polytechnique Montreal

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## PROFESSIONAL SUMMARY

Economist with over 7 years of experience across Africa, North America, and Europe, specializing in innovation economics, digital transformation, and agricultural development. Expert in applied econometrics, machine learning (ML), and large language models (LLM) for analyzing economic networks and supply chain interactions. Recognized for delivering strategic policy recommendations for international organizations such as IFAD and AERC, with a focus on economic resilience, digital inclusion, and food security.

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## KEY COMPETENCIES

- **Digital Transformation & Innovation:** Expertise in applying AI, blockchain, and LLM models to economic and policy analysis.
  - **Econometric Modeling & Data Analysis:** Advanced use of econometrics and ML to analyze innovation, productivity, and economic policies.
  - **Policy Development:** Proven ability to translate economic research into actionable recommendations for policymakers.
  - **Poverty & Equity Analysis:** Strong focus on gender disparities, agricultural development, and economic inclusion.
  - **Multidisciplinary Collaboration:** Experience leading research teams across multiple sectors and international contexts.
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## RESEARCH AND WORK EXPERIENCE

### Postdoctoral Researcher

Polytechnique Montreal -Canada Research Chair in Innovation Management and Economics (2023-present)

- Collaborating on a multidisciplinary research project focused on mapping Canada's agri-food innovation ecosystem, addressing supply chain inefficiencies through the integration of emerging technologies such as AI and blockchain.
- Developed AI-driven insights on supply chain networks, identifying key actors and relationships within the agri-food sector using ML and LLM models.

- **Impact:** Results contribute to policy discussions on supply chain resilience and digital transformation in Canada.

### **Consultant**

International Fund for Agricultural Development (IFAD), Rome (2021 - 2022)

- Conducted research on technology adoption and digital services in rural Senegal, identifying barriers to digital inclusion and innovation.
- Developed policy recommendations to improve women's access to digital platforms, agricultural technologies, and digital financial services, presenting findings to national stakeholders.
- **Impact:** Contributed to national policy reforms under the National Agricultural Investment Program for Food Security and Nutrition (PNIASAN), which aims to reduce food insecurity by 10% by 2025.

### **Researcher**

Institut Agro Rennes-Angers, Rennes, France (2022)

- Conducted gender-based analysis of agricultural productivity and food security in the WAEMU region, highlighting the role of digital innovations in improving access to resources.
- Published policy briefs advocating for digital infrastructure investments to support equitable access to agricultural technologies.
- **Impact:** Raised awareness among policymakers on the need for digital solutions to improve equity in rural economies, promoting digital inclusion and crop diversification.

### **Researcher**

Open African Innovation Research (Open AIR), Ottawa, Canada (2020 - 2021)

- Co-led a study on the role of women in Africa's digital ecosystem, identifying structural barriers to their participation in the tech sector.
- Delivered comprehensive reports and blog posts shaping discussions on inclusive digital policies and gender equity in the digital economy.
- **Impact:** Contributed to policy dialogues and initiatives aimed at closing the gender gap in the tech sector across Africa, promoting digital literacy and innovation.

### **Researcher**

African Economic Research Consortium (AERC), Nairobi, Kenya (2019 - 2022)

- Developed a research agenda focused on innovation capacity and productivity in Senegalese manufacturing firms, securing a competitive grant from AERC.
  - Presented actionable recommendations to policymakers to drive R&D investment and digital innovation in small and medium-sized enterprises (SMEs).
  - **Impact:** Results and recommendations were incorporated into the Senegalese government's 2035 industrialization strategy, shaping national innovation and digital transformation policies.
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## TEACHING EXPERIENCE

### Lecturer in Economics

Université Cheikh Anta Diop de Dakar (UCAD), Dakar, Senegal (2019 - 2022)

- Taught courses in Microeconomics, Development Economics, and Economic Analysis, integrating digital economy concepts into undergraduate and graduate curricula.
  - Mentored students on research projects, focusing on the role of digital technologies in economic development.
  - **Impact:** Improved student engagement and outcomes through hands-on learning and applied research techniques, fostering digital literacy and analytical skills.
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## EDUCATION

- **Ph.D. in Economics** – Cheikh Anta Diop University of Dakar, Senegal (2019-2022)  
**Thesis:** *Innovation Capacity and Its Effect on the Productivity of Senegalese Manufacturing Firms*  
**Advisor:** Professor Ndiack Fall
    - Focus: Innovation economics, productivity analysis, industrial organization.
  - **Master of Advanced Studies in Applied Economics** – Cheikh Anta Diop University of Dakar, Senegal (2016-2018)  
**Specialization:** Industrial Organization  
**Thesis:** *Determinants of Intra-Regional Trade in ECOWAS: An Application of the Gravity Model*  
**Advisor:** Professor Abou Kane
  - **Bachelor's Degree in Economics** – Cheikh Anta Diop University of Dakar, Senegal (2012-2015)
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## SELECTED PUBLICATIONS

- Kane, Aboubacry & Catherine Beaudry (Forthcoming, 2024/2025). How Do Emerging Technologies Impact the Productivity of the Agri-Food Supply Chain in Canada?
  - Kane, A. & Huchet, M. (Forthcoming, 2024/2025). Agricultural productivity and food security in WAEMU: A gender analysis. *Journal of African Economies*.
  - Kane, A. (2023). Analyzing the Relationship between Innovation and Productivity: A Case Study of Senegalese Manufacturing Industries. *African Economic Research Consortium, Research Paper 542*.
  - Kane, A. & Aidara, M. M. (2022). Differences in Agricultural Productivity Among Women and Men on Small-Scale Farms in Senegal: Contributions of Agricultural Innovations. *Journal of Agricultural Science*, Vol. 14, No. 5.  
DOI:10.5539/jas.v14n5p1
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## CONFERENCE PRESENTATIONS

- Kane, A. (2024). Écosystème de connaissance agroalimentaire : acteurs et collaborations au Canada. 91e Colloque de l'ACFAS, Ottawa, Mai 2024.
  - Kane, A. & Huchet, M. (2023). Agricultural productivity and food security in WAEMU: A gender analysis. 2nd Mediterranean Day on Modeling and Statistical and Economic Analysis, CIHEAM Montpellier (France), Décembre 2023.
  - Kane, A. & Aidara, M. M. (2022). Differences in Agricultural Productivity Among Women and Men on Small-Scale Farms in Senegal: Contributions of Agricultural Innovations. 26th International Consortium on Applied Bioeconomy Research (ICABR), Bologne, Italie, Juillet 2022.
  - Kane, A. (2022). Innovation capacity and effect on the productivity of Senegalese manufacturing firms. 8th AfricaLics Ph.D. Academy, Nairobi, Juin 2022.
  - Kane, A. (2021). Innovation and Productivity in Senegalese Companies. Economists' Days of Senegal, Dakar, Avril 2021.
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## SCHOLARSHIPS, AWARDS, AND RESEARCH GRANTS

- Postdoctoral Fellowship – Centre Interuniversitaire de Recherche sur la Science et la Technologie (CIRST-UQAM), 2023-present
  - Ph.D. Academie Grant – African Network for the Economics of Learning, Innovation, and Competence Building Systems (AfricaLics), 2021
  - Research Grant – African Economic Research Consortium (AERC), 2019
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## SKILLS

- **Emerging Technologies:** LLMs, ML, AI, Blockchain, Digital Financial Services (DFS)
  - **Programming, Data Visualization & Statistical Tools:** STATA, R, SPSS, Python, Eviews, SQL, Gephi, QGIS, Excel, Power BI
  - **Languages:** French (native), Wolof (native), Peulh (native), English (Professional proficiency)
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## REFERENCES

**Catherine Beaudry** -Canada Research Chair in Innovation Management and Economics, Polytechnique Montreal- [catherine.beaudry@polymtl.ca](mailto:catherine.beaudry@polymtl.ca)

**Marilyne Huchet**- Professor of Economics, Institut Agro [Rennes-Angers](http://Rennes-Angers)- [marilyne.huchet@institut-agro.fr](mailto:marilyne.huchet@institut-agro.fr)

**Ndiack Fall**- Professor of Economics, Cheikh Anta Diop University of [Dakar](http://Dakar)- [ndiack.fall@ucad.edu.sn](mailto:ndiack.fall@ucad.edu.sn)