IOCRF 2025 Conference The 1st International Online Conference on Risk and Financial Management



17-18 June 2025 | Online

# FINANCIAL INNOVATIONS AND AI-DRIVEN MANAGEMENT IN ROMANIA'S TOURISM AND PUBLIC CATERING SECTOR

Alexandra Trif 1, Paul Andor 2, Teodora Mititean 3, ClaudiaSocol 1, Alexandru Vasile Rusu 3\*, Florin Criste 1\*

1 University of Oradea, Oradea, Romania 2 University of Agricultural Sciences and Technology, Cluj-Napoca, Romania 3 CENCIRA Agrofood Research and Innovation Centre, Romania \*corresponding author

### **INTRODUCTION AND AIM**

The management of tourism and public catering establishments in Romania is increasingly leveraging financial innovations and emerging technologies to enhance its efficiency and profitability. This study explores the impact of artificial intelligence (AI), machine learning (ML), big data, and cloud computing on financial decision-making, pricing strategies, and customer experience in the hospitality sector.

## METHOD

Data Collection: Case studies from Romanian hotels, restaurants, and catering businesses, from Transilvania region, Romania.

## **RESULTS AND DISCUSSIONS**

Romanian hotels have seen a notable increase in revenue thanks to AI-powered dynamic pricing models, which adjust rates based on real-time demand. At the same time, restaurants are managing to significantly cut down on food waste through the use of machine learning for demand forecasting. In the financial world, algorithmic trading and roboadvisors are becoming essential tools in decision-making, helping optimize investments and enhance overall

### CONCLUSION

By leveraging computational finance tools, Romanian tourism and hospitality businesses can enhance their financial sustainability, increase their competitiveness, and adapt to the evolving digital economy. This study contributes to the growing body of research on AI-driven financial innovations in the service industry, offering valuable insights for policymakers and business leaders.

perrormance.			
Meanwhile, cloud-			
based financial			
analytics platforms	Ar		
are streamlining			
operations by	 		
reducing costs and	(		
supporting real-	A		
time monitoring,			
which allows for			
smarter, more strat	τe		

cloud-	Impact of Financial Technologies on Romanian Tourism and Hospitality			
ncial	Technology	Application	Outcome / Impact	
atforms	Artificial Intelligence	Dynamic pricing for hotels and bookings	Revenue increase op to 2%	
ining by	Machine Learning	Demand forecasting for restaurantts	Food waste reducton by 15-30%	
osts and	Cloud Computing	Financial analytics & cost monitoring	Operational cost reduction by 10-15%	
real- pring,	Algorithmic Trading & Robo-Advisors	Investment decision support and portfolio	Investment returns improved by 12-1%annually	
s for	Blockchain	Secure financial reporting aniuditing	Fraud risk, mproved transparency	
ore strat	tegic planniı	ng.		

#### REFERENCES

1.A. Badulescu, D. Badulescu, R. Simut, S. Dzitac Tourism – economic growth nexus. The case of Romania Technol. Econ. Dev. Econ., 26 (4) (2020), pp. 867-884
2.OECD (2024), "Artificial Intelligence and tourism: G7/OECD policy paper", OECD Tourism Papers, No. 2024/02, OECD Publishing, Paris
3.Türkeş, M.C.; Stăncioiu, A.F.; Băltescu, C.A.; Marinescu, R.-C. Resilience Innovations and the Use of Food Order & Delivery Platforms by the Romanian Restaurants during the COVID-19 Pandemic. J. Theor. Appl. Electron. Commer. Res. 2021, 16, 3218-3247.