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Agent-Based Simulation as a Novel Decision Support Tool for Retail Managers

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Abstract:

Intelligent agents offer a new and exciting way of understanding the world of work. We apply agent-based simulation to investigate a set of problems in a retail context. Specifically, we are working to understand the relationship between human resource management practices and retail productivity. Our multi-disciplinary research team draws upon expertise from work psychologists and computer scientists. Our research so far has led us to conduct case study work with a top ten UK retailer. Based on our case study experience and data we are developing a simulator that can be used to investigate the impact of management practices (e.g. training, empowerment, teamwork) on customer satisfaction and retail productivity.

Keywords: agent-based modelling, agent-based simulation, retail productivity, management practices, customer behaviour