ISSN (ELECTRONIC): 2945-3135

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH & REVIEWS

journal homepage: www.ijmrr.online/index.php/home

FINANCIAL INCLUSION WITH THE HELP OF AGENTIC AI AND ITS EFFECT ON DIGITAL BANKING AND MICROFINANCE

Er. Mani Garg[1], Dr. Megha Vimal[2] & Dr. Prashant Sharma[3*]

[1]Assistant professor, Institute of business studies, CCS University, Meerut, India.
[2]Professor & HOD, MBA department, Dewan institute of management studies, Meerut, India.
[3]Professor, MBA department, Dewan institute of management studies, Meerut, India.
***Corresponding Author**: prashantsharmavm@gmail.com

How to Cite the Article: Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

https://doi.org/10.56815/ijmrr.v5i1.2026.66-76

Keywords	***Abstract***
Agentic AI, Financial Inclusion, Digital Banking, Microfinance, FinTech, Artificial Intelligence.	Autonomous, goal oriented, and adaptive decision-making, known as agentic Artificial Intelligence (AI) is becoming a new development in the further development of financial inclusion. The paper will discuss the effects of agentic AI on digital banking and microfinance and how it can help overcome current obstacles to underserved audiences, such as access to credit, high operational costs, information asymmetry, and financial literacy. The paper examine the use of agentic AI in customer onboarding, alternative credit assessment, personalised financial services, fraud detection and automation of operations. The results show that agentic AI improves financial inclusion, namely through dynamic risk estimation, adaptive loan design, personalized financial education, and proactive risk management of a portfolio, especially in microfinance institutions and digital banking services. Simultaneously, the paper defines such serious problems as algorithmic bias, transparency, data privacy, regulatory uncertainty, and gaps in digital capability. This paper speculates that the agentic AI can be employed inclusively to its fullest potential through

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

	responsible use that is backed by ethical design principles, human control and effective governance frameworks. The work is a contribution to the new body of literature on AI-based financial inclusion, as it views agentic AI as a strategic facilitator to sustainable and equitable financial ecosystems.

1. INTRODUCTION

It is one of the global development priorities, whereby the global financial sector focuses on financial inclusion of everyone and every business to have access to affordable and useful financial products and services. The World Bank estimates that about 1.4 billion adults have never been banked, and they do not gain access to formal financial services that allow them to save, get credit and insurance, and make digital payments. This exclusion is disproportionately applied to low-income and women and rural communities. Microfinance and traditional banking institutions are not always able to cater to such segments because of the high cost of operation, limited information available on risk assessment and infrastructural constraints. As one of the subfields of artificial intelligence that focuses on autonomous decision-making and adaptive goal-quest, agentic AI has become a promising facilitator of scalable, cost effective and personalized financial services. The agentic AI can incorporate context awareness and planning and continuous learning in contrast to narrow AI systems, which have been confined to particular tasks, providing prospects of dynamically scoring credit, interacting with customers intelligently, detecting fraud, and automating operations. The current paper explores the impact of agentic AI on digital banking and microfinance, which facilitates financial inclusion and reduces structural and technical barriers. We examine how agentic AI can change the world of inclusive finance and what dangers it presents through theoretical understanding and practical examples.

2. RESEARCH METHODOLOGY

The current paper is the synthesis of interdisciplinary studies concerning scholarly articles, industry reports, case studies, and technological commentaries. The research paper has made extensive use of secondary data and exploratory research design is applied. Our thematic approach will be to name major areas where agentic AI intervenes in financial inclusion. We assess results in digital banking as well as microfinance by documented deployments and pilot projects on different economies.

3. LITERATURE REVIEW

The global financial inclusion and technology initiative seeks to assist everyone in the world to access financial services and technology regardless of their state or location.

➢ Financial Inclusion and Technology

This initiative aims to help everyone in the world to access financial services and technology in spite of their state or location. The financial inclusion concept is widely known to be the key to economic growth, reduction of poverty and social empowerment. Demirgüç-Kunt et al. (2022) argue that having formal financial services helps people to save safely, deal with risks, and invest

in education or entrepreneurship. Nevertheless, the conventional banking systems in most cases cannot access low-income and rural groups of people because of high cost of transaction, unrecorded, and geographical coverage. Financial access has been greatly increased through the establishment of digital financial services like mobile banking, digital wallets, and branchless banking which are now prevalent in the developing economies. Jack and Suri (2014) show that the mobile money platforms have enhanced household resilience and consumption smoothing in situations with low-income. Likewise, Gabor and Brooks (2017) do believe that digital finance transforms the idea of financial inclusion by integrating financial services into daily digital appliances. One of the notable developments is that despite all these improvements, much of the digital solutions are still dependent on simple automation and do not have advanced decision-making systems that can be used to provide personalized and scalable inclusion.

- **Fintech Artificial Intelligence**

Artificial intelligence has been playing an important role in the contemporary financial systems, especially credit rating, fraud detection, customer service automation, and portfolio management. Financial institutions can use machine learning algorithms to handle high amounts of both structured and unstructured data in order to create predictive insights (Fuster et al., 2019). In credit markets, AI-based models have proven to be better predictors than the conventional statistical ones, particularly when using alternative data sources (Berg et al., 2020). Nevertheless, the majority of AI implementations in finance are task-oriented and rely on goals set by humans and human control. Such systems do not have the autonomy of adjusting to dynamic environments, which is restrictive to help serve financially excluded groups whose data profile is incomplete or non-traditional. Furthermore, explainability, bias, and regulatory compliance remain to be the main issues that impede the extensive use of AI-based financial decision-making (Barocas, Hardt, and Narayanan, 2019).

- **Agentic Artificial Intelligence and Autonomous Decision-Making**

In contrast, agentic AI is the next stage in the development of standard AI systems based on autonomy, goal-directed action, and coping with learning. Based on work in autonomous agents and cognitive systems, agentic AI is aimed at acting on its surroundings, considering other possible courses of action, and performing a decision-making process with the goal of achieving specified goals with the minimum amount of human supervision (Wooldridge, 2009). Financially, the AI agentic can dynamically handle complex tasks, including the credit risk assessment, dealing with customers, and preventing fraud. According to Brynjolfsson and McAfee (2017), smart autonomous systems introduce a considerable productivity boost as they help to decrease the cognitive burden on humans and can optimize their results on a case-by case basis. According to the recent research, agentic AI systems can enhance financial access through continuous user behavior-based learning and constant changes in risk measurements and context-specific financial advice (Shrestha, Ben-Menahem, and von Krogh, 2019). However, it is also noted in the literature that agentic AI brings ethical and governance issues, such as accountability, transparency, and

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

probably exclusionary effects in the event that biased data or goals are instilled into autonomous systems (Floridi et al., 2018). The issues are especially timely in the financial inclusion case, where vulnerable groups can be disproportionately impacted by automated decisions.

4. PRESENCE OF AGENTIC AI IN FINANCIAL SERVICES

The agentic AI systems are defined as those that have: Autonomy: Capacity to work with less human access, based on real-time information. Perception: Processing multifaceted-level inputs (transaction histories, mobile behavior, and social data) into a decision. Learning: Adaptive models that do not require retraining when new information is added. Goal-oriented Behavior: Pursuit of specified aims like enhancing the accuracy of default predictions or loan product recommendations. In financial inclusion Agentic AI may be a layer of decision-making, used to augment or replace manual processes, especially in scenarios where data is sparse and traditional risk modeling does not work.

5. WORK OF AGENTIC AI IN DIGITAL BANKING

5.1 Customer Onboarding and On-Ramping

Customer onboarding is one of the oldest obstacles to financial inclusion. Identity verification may be automated by agentic AI through biometrics, document verification, and behavioral characteristics. Friction Agentic agents ease Know Your Customer (KYC) processes by connecting with national digital identity systems such as Aadhaar in India, which lowers the cost. An agentic AI is applied by a digital bank to provide potential customers with an opportunity to follow a conversational interface where documents are verified and cross-linked with the public records. The system will use interactions to learn and tailor prompts, as well as to minimize dropout rates.

5.2 Individualized financial services

they play a key role in effecting effective financial inclusion because underserved people usually possess non-homogeneous incomes, monetary requirements, and danger levels. The conventional banking model has generally been based on a standardized financial product and fixed customer segmentation models that are insufficient in responding to the dynamic and intricate financial habits of low-income and informal-sector customers. Personalization Agentic AI fundamentally changes personalization to autonomously, contextually, and constantly adaptive financial decisions. Indonesia and the Philippines are some of the countries with a number of digital banks that rely on agentic AI to onboard customers via conversational interfaces, and provide personalized product recommendations, and have seen sales skyrocket in underbanked segments.

- **Dynamic Customer Profiling and Context Awareness**

AI systems that act as agents will build dynamic customer profiles based on real-time and past transaction and various customer data drawn on a range of diverse sources, such as transaction histories, mobile usage, digital payment behavior, geolocation data where consent is given, and interaction histories with financial platforms. In contrast to the rule-based personalization

engines, agentic AI constantly updates such profiles in response to changes in the circumstances of users, which ensures that financial services can remain relevant and responsive. The agentic system of AI may also identify seasonal changes in income among the agricultural workers and respond with product suggestions, including encouraging flexible savings tools during the harvest seasons and short-term credit during lean seasons. Such context-sensitive profiling lowers product-incompatibility and engages and builds confidence in the users.

- **Independent Financial Product Recommendation**

The agentic AI is an autonomous recommendation agent designed to match financial products to the personal financial goals, constraints and risk aversion. The system can predict potential saving plans, micro-insurance plans or credit opportunities the user may need in advance and propose them without the user making clear requests based on how the user feels and how much money he or she can afford to invest. Within the framework of digital banking, agentic AI can detect a customer who is particularly carrying excessive balances on a regular basis and suggest an investment/savings product that generates interest. On the other hand, an alarm on the cash flow stress can be triggered and the system can propose an overdraft protection or a short-term microloan. Such an agentic behavior allows agentic AI to play the role of a customized financial planner, especially to such users who do not access conventional financial advisory services. M-PESA is a mobile phone based money transform service. It operates in Africa. The development of M-Pesa incorporates agentic AI layers to interpret transaction dynamics to personalize savings, lending and risk alerts. This has contributed to expanding financial interaction beyond the simple payments.

- **Smart Financial Nudging and Behavioral support**

New populations are usually disadvantaged by behavioral biases and inadequate financial literacy to make sound financial decisions. The use of behavioral economics principles in agentic AI helps in the provision of intelligent nudges, which promote favorable financial habits like saving, repaying on time, and controlling expenses. In contrast to the existing reminders systems, agentic AI monitors the responsiveness of a user to the previous nudges and adjusts the communication strategies. As an example, when a user reacts more positively to visual messages than to text messages, the system adjusts its interaction strategy. These adaptive nudges encourage one to build a habit and be financially resilient in the long term without overriding user autonomy.

5.3 Fraud Detection and Risk Mitigation

The agentic AI is good at detecting anomalies on millions of transactions. The ability to acquire the changing patterns of fraud provides digital banks with the authority to save the fraudulent customers against advanced schemes. The system can automatically adjust and alert suspicious behavior and also respond in real-time instead of being governed by predetermined rules.

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

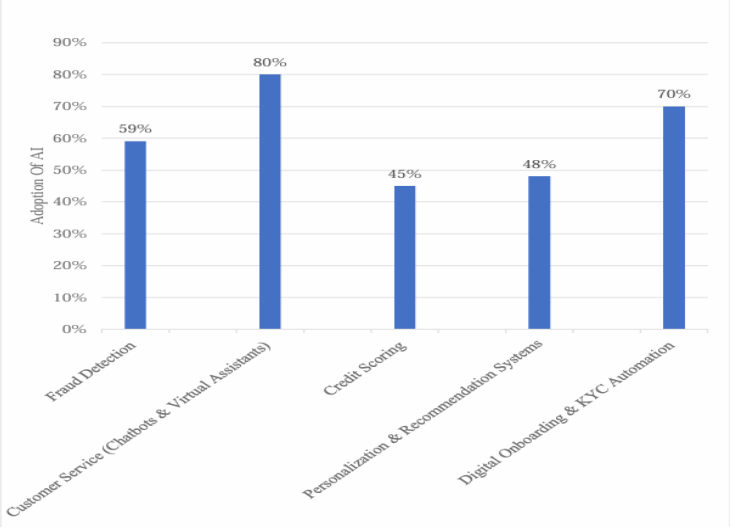

Figure 1: Adoption of Agentic AI across key digital banking functions

Source

Data synthesized from CoinLaw (2025); WifiTalents (2025); ElectroIQ (2025).

6. AGENTIC AI AND MICROFINANCE

Microfinance institutions (MFIs) have a critical role in the provision of financial services to low-income families, informal employees and micro-enterprises who are not a part of the conventional banking framework. Although MFIs have a developmental implication, it continues to be confronted with several challenges, such as operating cost, lack of borrower data, credit risk volatility, and struggles to extend their reach without affecting sustainability. The solution to these challenges is agentic AI that provides an opportunity to make autonomous, adaptive and context-specific financial decisions in the microfinance eco systems.

- **Self-activated credit assessment based on alternative data**

Lack of formal credit histories of the borrowers is one of the greatest constraints to lending in microfinance. This limit is surmounted through agentic AI systems which can autonomously incorporate and examine other data sources such as mobile phone use, electronic payment history, supply-chain transactions and social interaction patterns with proper consent. Compared to the old methods of credit scoring, agentic AI self-improves the risk profile of borrowers through continuous learning based on repayment history, transaction frequency, and economic conditions.

- **Adaptive Loan Structuring and Dynamic Repayment Model**

Conventional microfinance credits are usually based on standard loan sums, interest rates and strict repayment plans. This uniformity does not capture different and uneven income distributions of micro-entrepreneurs, farm hands, and the self-employed. The concept of agentic AI presents the idea of adaptive loan structuring, whereby the loan parameters are optimized by an agentic AI, depending on the individual financial behavior and situation specific variables of the borrower. To

illustrate, agentic AI can construct adjustable repayment plans that are based on seasonal rates of income, especially in those areas that depend on agriculture. Optimization of Group

- **Group lending mechanism optimisation**

Group lending has been one of the pillars of microfinance which also takes advantage of human collateral and peer supervision to reduce risk. Yet, group formation and group management is conventional manual and with little qualitative evaluation. The efficiency of group lending is improved through agentic AI which analyzes social networks, transactional relationships and past repayment history and optimizes group composition. Upon finding complementary risk profile and social cohesion indicators, agentic AI can create lending groups with increased repayment characteristics. Also, agentic systems are capable of tracking group dynamics, identifying the first signs of group-wide stress, and intervening proactively by sending reminders, restructuring recommendations, or mediating assistance. The MFI in Brazil and Mexico has experimented with agentic AI to optimize group lending and automated scoring on risks, which claim to raise repayment rates and reduce administrative workload.

- **Automation and Cost-Reduction of operations**

One of the biggest obstacles to the sustainability of microfinance is high transaction costs. The scope of operations automated by agentic AI is extensive, such as the borrower onboarding, loan disbursement, loan repayment tracking, and delinquency management. Intuitive workflow orchestration through autonomous workflows ensures that field officers are not required to carry out regular work, and the human resource is left to engage in relationships and the handling of complex cases.

- **Individualized Financial Education and Capacity Building**

Financial literacy is also another critical factor leading to successful microfinance. The agentic AI is a financial educator that is more personalized by providing a contextual-specific advice based on the financial behavior of the borrowers, their financial literacy and their economic activities. However, in contrast to generic training programs, agentic AI customizes the learning material depending on user interaction and understanding.

- **Early Warning Systems and Proactive Risk Management**

The agentic AI allows risk management in the portfolio to be proactive and constantly monitors the actions of the borrowers and external factors like weather conditions, market conditions, or economic shocks in the region. Agents can detect and respond to the signs of repayment distress at an early stage and take prevention measures independently in connection with anomaly detection and predictive analytics.

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

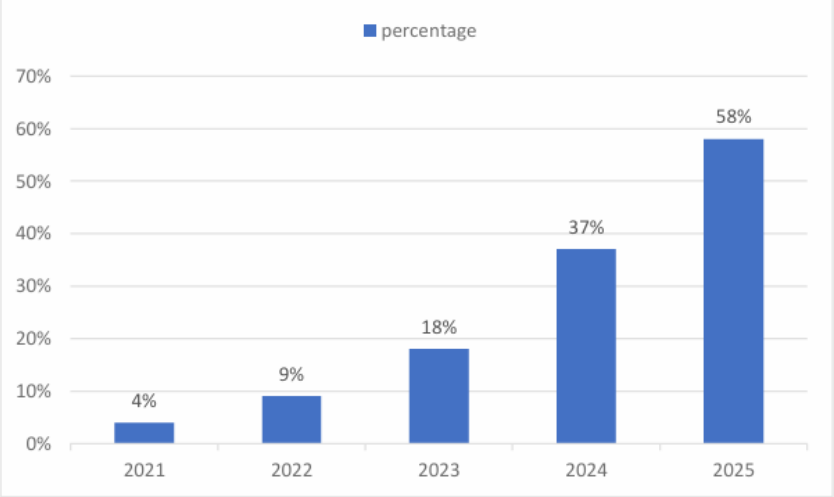

Figure 2: Year wise adoption of Agentic AI in Microfinance

7. EFFECTS ON FINANCIAL INCLUSION

Expanded access to the unbanked

To a large extent, agentic AI decreases the need to have physical branches of banks, and gives them digital substitutes that access distant populations. To the unbanked, particularly in the developing economies with high mobile saturation, the agentic AI-powered applications can be the gateways to formal finance.

Lowering Costs and increasing efficiency

Digital banks and MFIs can reduce their operational expenses by automation. The human expertise applied to complicated cases can be offered by agentic decision agents to routine tasks.

Increased Availability of Credit

The agentic AI has made credit accessible to people who were formerly considered as unscorable by widening data inputs and enhancing predictive models.

Financial Empowerment on a Personal level

AI will create a more personalized financial experience; advice, products, risk analysis, etc., all customized to individual financial needs and objectives.

8. CHALLENGES AND RISKS

Despite benefits Agentic AI brings significant challenges. Agentic AI in finance risks reinforcing historical biases, compromising data privacy, and operating through opaque "black box" models. While promising, its implementation faces significant hurdles including evolving global regulations and digital literacy gaps, necessitating robust governance and transparency to ensure equitable, secure, and accountable financial inclusion for all users.

9. RECOMMENDATIONS

In order to be responsible in using agentic AI to achieve financial inclusion:

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

- **Establish Inclusive Data Standards:** Promote data collection procedures that elicit various economic behaviors without abusive privacy.
- **Introduce Regulatory Sandboxes:** Principles Find a way to give agentic AI models a trial run, under regulation, with the aim of helping to minimize risks and compliance.
- **Enhance AI literacy:** Make an investment in user education to enhance digital navigation and trust.
- **Create Partnerships:** Involve regulators, technologists, civil society, and financial institutions in designing inclusive AI systems.

10. CONCLUSION

The development of agentic AI is one of the important steps in the direction of more inclusive financial systems through autonomous, adaptive, and personalized financial services in digital banking and microfinance. Its capability in processing alternative data, dynamically evaluating risk and customizing financial products overcomes the long-standing obstacles that have long affected underserved groups, such as deficit of credit history, excessive service expenses and financial illiteracy. In microfinance, agentic AI increases the efficiency of credit, the scalability of operations, and the support of borrowers, whereas in digital banking it helps to engage with customers on a personal level and actively manage finances. Nevertheless, course implementation of agentic AI also provokes some crucial issues regarding algorithm bias, visibility, privacy, and regulatory responsibility. In order to deal with these issues, it is imperative to use ethical design, human governance, and effective governance structures. In the cases of agentic AI, which need to be implemented responsibly, such technology can promote financial inclusion in the long term, as well as creating equitable economic growth.

11. AUTHOR(S) CONTRIBUTION

The writers affirm that they have no connections to, or engagement with, any group or body that provides financial or non-financial assistance for the topics or resources covered in this manuscript.

12. CONFLICTS OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

13. PLAGIARISM POLICY

All authors declare that any kind of violation of plagiarism, copyright and ethical matters will take care by all authors. Journal and editors are not liable for aforesaid matters.

14. SOURCES OF FUNDING

The authors received no financial aid to support for the research.

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

REFERENCES

[1] Barocas, S., Hardt, M., & Narayanan, A. (2019). Fairness and machine learning. https://fairmlbook.org

[2] Berg, T., Burg, V., Gombović, A., & Puri, M. (2020). On the rise of fintechs: Credit scoring using digital footprints. Review of Financial Studies, 33(7), 2845–2897. https://doi.org/10.1093/rfs/hhz099

[3] Brynjolfsson, E., & McAfee, A. (2017). Machine, platform, crowd: Harnessing our digital future. W. W. Norton & Company.

[4] CoinLaw.io. (2025). AI in banking statistics 2026: Adoption, savings, customer impact.

[5] Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2022). The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank. https://doi.org/10.1596/978-1-4648-1897-4

[6] Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018).

[7] Fuster, A., Goldsmith-Pinkham, P., Ramadorai, T., & Walther, A. (2019). Predictably unequal? The effects of machine learning on credit markets. The Journal of Finance, 77(1), 5–47. https://doi.org/10.1111/jofi.13053

[8] Gabor, D., & Brooks, S. (2017). The digital revolution in financial inclusion: International development in the fintech era. New Political Economy, 22(4), 423–436. https://doi.org/10.1080/13563467.2017.1259298

[9] Gartner. (2025). AI in finance survey 2025: Tracking the shift toward autonomous banking ecosystems

[10] Jack, W., & Suri, T. (2014). Risk sharing and transactions costs: Evidence from Kenya's mobile money revolution. American Economic Review, 104(1), 183–223. https://doi.org/10.1257/aer.104.1.183

[11] McKinsey & Company. (2025, June 12). The state of AI in 2025: Generative AI's transition to autonomous agents.

Mani Garg, Megha Vimal & Prashant Sharma (2026). *Financial Inclusion with the help of Agentic AI and its Effect on Digital Banking and Microfinance. International Journal of Multidisciplinary Research & Reviews, 5(1), 66 - 76.*

[12] Shrestha, Y. R., Ben-Menahem, S. M., & von Krogh, G. (2019). Organizational decision making structures in the age of artificial intelligence. California Management Review, 61(4), 66–83. https://doi.org/10.1177/0008125619862257

[13] Wooldridge, M. (2009). An introduction to multiagent systems (2nd ed.). John Wiley & Sons.