Transforming traditional accounting into smart accounting

Conducător științific: Prof. Univ. Dr. Hlaciuc Elena

Popescu (Iacob) Iuliana Mihaela

Presentation structure

- Context and research problem
- Theoretical foundations and concepts
- SLR methodology and study selection
- Results and effects on information quality
- Facilitating factors and barriers
- Implications, limitations and conclusions

Why is the topic current?

- Digitalization is accelerating the transformation of the accounting function globally.
- Artificial intelligence and automation are changing reporting and analysis processes.
- SMEs need faster, clearer and more reliable financial information.
- The transition is necessary but difficult due to limited resources and low digital skills.

2015–2024

The period analyzed in the systematic review of the literature to identify the evolution of the theme [file:132].

The research problem

What is the article about?

The article systematically analyzes the effects of transforming traditional accounting into smart accounting on the quality of financial information in SMEs and attempts to fill the lack of an integrated synthesis of the literature on this topic [file:132].

Key concept

How is smart accounting defined?

Smart accounting is presented as an integrated financial and accounting information management system, based on AI, machine learning, cloud computing, big data, blockchain and RPA, used for automation, increasing accuracy and supporting managerial decisions [file:132].

TECHNOLOGY

The technological components of smart accounting

AI & ML

Automatic classification, anomaly detection, predictive analysis [file:132].

Cloud

Real-time data access, scalability and reduced IT costs [file:132].

Big data

Processing large volumes of financial and non-financial data [file:132].

Blockchain

Transparency, security and immutability of records [file:132].

RPA

Eliminating repetitive tasks from accounting flows [file:132].

New ERPs

Function integration and advanced decision support [file:132].

Information quality

Qualitative dimensions analyzed

- Relevance [file:132]
- Faithful representation [file:132]
- Comparability [file:132]
- Verifiability [file:132]
- Opportunity [file:132]
- Intelligibility [file:132]

The link between smart accounting and information quality

Smart accounting is treated as a mechanism to reduce information asymmetry and increase decision-making efficiency in SMEs [file:132].

- The theory of information asymmetry explains the role of intelligent systems in reducing information gaps.
- Agency theory shows how better information reduces agency costs.
- Intelligent systems support better decisions through faster and more accurate data [file:132].

Methodology

Methodological approach

The paper uses the systematic literature review methodology, adapted for the field of accounting and financial information systems, following the Tranfield, Denyer and Smart and Denyer and Tranfield protocol [file:132].

Research questions

What questions guide the analysis?

RQ1

How do smart technologies influence the relevance and reliability of financial information?

RQ2

What are the effects on the timeliness and accessibility of financial reporting? [file:132]

RQ3

What factors facilitate or inhibit the transition to smart accounting? [file:132]

RQ4

What are the implications for the role of professional accountants? [file:132]

Study selection

The search process and the final sample

287

studies initially identified in Web of Science, Scopus and EBSCO [file:132]

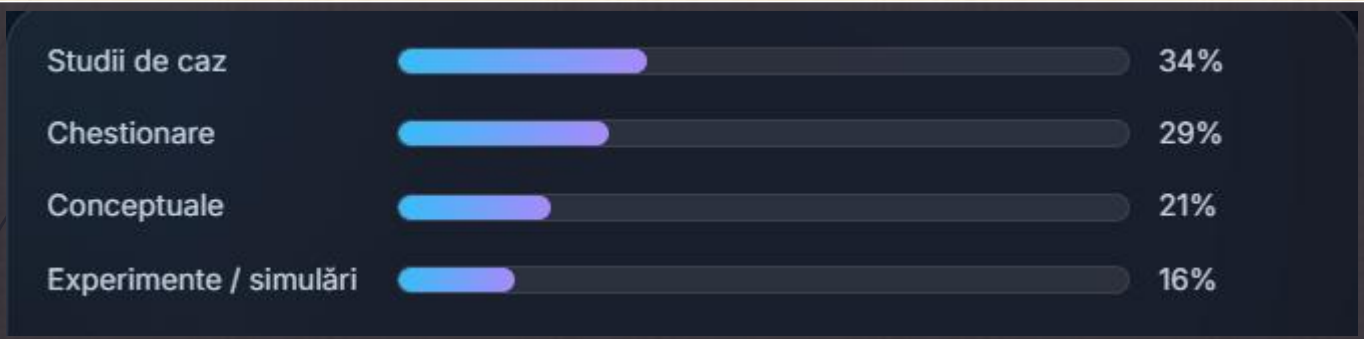
38

studies selected for detailed analysis according to inclusion and exclusion criteria [file:132]

3

major databases used in systematic searching [file:132]

What does the literature profile look like?



chronological distribution shows a strong increase in interest after 2018

result

Effect on the relevance of financial information

- Machine learning-based systems produce predictive analytics and personalized reports in real time [file:132].
- SMEs that use smart solutions report more useful information for budget planning and control [file:132].
- The predictive value of information increases with automation and advanced analytics [file:132].

result

Effect on accuracy and faithful representation

40–75%

Reducing the error rate in automated accounting processes compared to traditional manual processes [file:132].

RPA and AI reduce human error in recording and processing transactions, directly improving the faithful representation of financial statements [file:132].

result

Comparability, opportunity and verifiability

Cloud accounting standardizes processes and supports comparability between periods [file:132].

Reports can be generated in real time or at much shorter intervals [file:132].

Automatic parameter updates reduce the risk of non-compliance [file:132].

Blockchain can strengthen the transparency and verifiability of records [file:132].

Adoption

Factors facilitating the transition

- Affordable cloud solutions [file:132]
- Competitive pressure and partner requirements [file:132]
- Specialized consulting services [file:132]
- Public support programs for digitization [file:132]
- Organizational culture open to innovation [file:132]
- The need for faster and better reporting [file:132]

BARRIERS

What inhibits adoption in SMEs?

- Implementation and training costs [file:132]
- Lack of digital skills among accounting staff [file:132]
- Data security and privacy concerns [file:132]
- Resistance to change and limited software interoperability [file:132]

The accounting profession

Implications for professional accountants

Automating repetitive tasks frees up time for analysis, interpretation, management consulting, and strategic planning [file:132].

Professional retraining is necessary, with an emphasis on digital, analytical and communication skills [file:132].

Implications

Recommendations for stakeholders

SME

Gradual adoption, prioritizing high-impact technologies and moderate investments [file:132].

Accountants

Continuous updating of professional and digital skills [file:132].

Decision makers

Public policies for funding, training and digital reporting standards [file:132].

Limitations and conclusions

The final message of the article

The article concludes that the adoption of AI, cloud computing, big data, blockchain and RPA positively contributes to improving the relevance, faithful representation, comparability, timeliness and verifiability of financial information in SMEs, but the success of the transition depends on resources, digital skills and institutional support [file:132].

Thank you!