



Exploring the Impact of Artificial Intelligence on Accounting Practice in Micro Enterprises: An Indian Perspective

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Abstract: *The integration of artificial intelligence into accounting practices represents one of the more fascinating shifts happening in India's micro-enterprise sector right now. This review examines how AI technologies are reshaping traditional bookkeeping, financial reporting, and compliance management in small-scale businesses across India. Drawing from eighteen peer-reviewed sources, the paper analyzes the adoption patterns, operational benefits, and implementation challenges that micro enterprises face when incorporating AI-driven accounting solutions. What emerges is a somewhat contradictory picture: while AI promises unprecedented efficiency and accuracy, many micro enterprises struggle with infrastructure limitations, skill gaps, and cost constraints. The Indian context adds another layer of complexity—regulatory frameworks designed for larger corporations don't always translate smoothly to smaller operations, and the digital divide between urban and rural areas creates uneven adoption rates. Findings suggest that successful AI implementation in micro enterprises depends less on technological sophistication and more on gradual, context-appropriate integration that respects existing workflows. The review also highlights how strategic management approaches and change management methodologies influence technology adoption outcomes. For policymakers and practitioners, this analysis offers insights into creating supportive ecosystems that enable micro enterprises to harness AI's potential without being overwhelmed by its demands.*

Key Words: *artificial intelligence, accounting practices, micro enterprises, India, financial reporting, technology adoption, digital transformation, machine learning*

1. INTRODUCTION

Walk into any small textile unit in Surat or a family-run spice export business in Kochi, and you'll notice something interesting. The ledgers might still be handwritten, but there's usually a smartphone nearby—and increasingly, that smartphone is running accounting software powered by AI. This isn't the dramatic technological revolution we see in Fortune 500 companies, but it's significant nonetheless.

India's micro enterprise sector, comprising businesses with investments not exceeding one crore rupees, employs millions and contributes substantially to the national economy. Yet these enterprises operate under constraints that larger organizations rarely face: limited capital, minimal technical expertise, and often, a deeply ingrained resistance to change (Mehta & Hiran, 2023). When AI enters this space, it doesn't arrive as a sophisticated solution embraced eagerly—it seeps in gradually, sometimes almost accidentally, through cloud-based accounting platforms and mobile applications.

The question isn't really whether AI will transform accounting in micro enterprises. That transformation is already underway. What matters is understanding how it's happening, what works, and where the friction points lie.



2. The Current State of AI in Accounting

Recent investigations into AI's role in accounting have revealed something of a paradox. DR. MOHAMMED ABID and RAMSWAROOP BHAMBI (2025) demonstrate that artificial intelligence and machine learning technologies significantly enhance accounting practices and improve financial reporting accuracy. Their research shows how automated data entry, real-time analysis, and predictive modeling reduce human error while accelerating processing times. However, this optimistic assessment doesn't capture the full picture, particularly for smaller operations.

Technology has come a long way, making it really easy to use. There are cloud-based platforms like Tally, Zoho Books, and QuickBooks that have amazing features like automatically recognizing invoices, categorizing expenses, and even detecting fraud. However, just because these tools are available doesn't mean people will start using them, and even if they do, it doesn't mean they'll use them effectively. For example, having a great accounting system is one thing, but actually using it to make good business decisions is another. It's like having a powerful car, but not knowing how to drive it. You need to know how to use these tools to get the most out of them.

Running a small business can be really tough - you have to handle everything from making products to selling them and dealing with rules and regulations. It's hard to find time to learn new computer programs, no matter how easy they're supposed to be. Some experts, like Dr. Mohammed Abid and Harsha Lohar, say that technology is changing the way accountants do their jobs in big ways. It's not just about automating tasks, but about how accountants think about their work. This might be exciting for accountants who work in big companies, but for someone who owns a small business, like a one-person manufacturing operation, it can feel like too much to handle. They just want to focus on running their business, not learning new software.

3. Theoretical Frameworks and Strategic Implications

Understanding AI adoption in micro enterprises requires looking beyond technology itself and examining organizational behavior. Chaplot (2018) investigates how strategic management influences organizational performance, finding that deliberate planning and adaptive strategies correlate strongly with positive outcomes. This matters because AI implementation isn't purely a technical decision—it's a strategic one that affects resource allocation, workflow design, and employee roles.

When companies switch from old accounting ways to using artificial intelligence, it's like what happens when any organization tries to change how it works. Some researchers, Mehta and Hiran, looked into how smaller businesses in less big cities can make changes without everything falling apart. They found out that it's better to make small changes one at a time, rather than trying to change everything all at once. This way, employees can get used to the new ways of doing things slowly. It's especially helpful for very small businesses in smaller cities in India, where taking things one step at a time makes it easier for everyone to adapt.

It seems like we have a misconception about how AI works. We usually think it's all about being modern and taking big risks. But actually, being careful and taking things slow can be a better way to go, especially when resources are limited. For example, a company in Ludhiana that exports textiles might not want to suddenly switch to a new AI system for accounting, even if it promises to be really good. It's better for them to use both the old and new systems at the same time for a while, even if it doesn't seem like the most efficient way to do things. This approach can help reduce risks and make people more confident in the new system. It's all about finding a balance between trying new things and being careful with the resources we have.

4. Financial Pressures and Economic Context

The state of the economy has a big impact on how small businesses invest in new technology. For example, a study by Choudhary and Madhwani in 2013 looked at how the recession affected the tourism and hospitality industry. They found that when the economy is bad, businesses have to think carefully about how they spend their money and look for ways to be more efficient. Even though they weren't specifically looking at accounting technology, the same idea applies: when money is tight, it can both motivate and limit a company's ability to innovate. This means that small businesses may be more likely to invest in new technology when they need to cut costs, but they may not have the money to do so.

During economic uncertainty, micro enterprises face a dilemma. AI-powered accounting systems promise cost savings through reduced manual labor and fewer errors, but they also require upfront investment and ongoing subscription fees.



For a business operating on thin margins, that calculation becomes complicated. Is it worth spending ₹15,000 annually on accounting software when the current manual system, though slower, costs nothing beyond the accountant's salary?

The tax environment adds another dimension to this equation. Mehta's research on tax revenue composition examines how different revenue sources affect overall fiscal health. For micro enterprises, GST compliance represents a significant administrative burden—one that AI tools can theoretically simplify through automated return filing and real-time tax calculations. Yet compliance requirements themselves keep changing, and software updates don't always keep pace with regulatory shifts. I've heard accountants complain that they spend more time troubleshooting software glitches than they saved through automation.

5. Sector-Specific Challenges and Opportunities

Different industries experience AI's impact differently. The tourism and hospitality sector, already grappling with volatility as Choudhary and Madhwani (2013) document, faces unique accounting challenges. Seasonal revenue fluctuations, multiple payment channels, and complex inventory management make manual accounting particularly cumbersome. AI systems that can predict occupancy rates, optimize pricing, and reconcile transactions across platforms offer tangible benefits.

Small manufacturing businesses, like those that make car parts, have special accounting needs that regular accounting tools might not be able to handle. For example, they need to keep track of how much their raw materials cost, how much it costs to make their products, and how well they're doing on quality control. But a lot of accounting programs that are meant for bigger companies or for selling to consumers don't have the features that these small manufacturers need. This means that small manufacturers often have to customize their accounting systems, which can be expensive - and that's a problem because they usually don't have a lot of extra money to spend on things like that.

6. Implementation Barriers and Resistance

Let's face it, adopting new technology isn't always a straightforward decision. Researchers like Dr. Mohammed Abid and Rams waroop Bham bi have shown that AI and machine learning can greatly improve accuracy and efficiency. However, they don't fully explore the human side of things - specifically, people's resistance to change. From my own conversations with owners of small businesses, I've picked up on a common concern: fear. But it's not just about the technology itself failing, it's about becoming too reliant on it. What if the internet connection is lost? Or what if the software company suddenly hikes up its prices or even goes out of business? These are the kinds of worries that can hold people back from embracing new technology, and they're worth considering.

People are right to worry about this. In rural and semi-urban areas, internet connections can be unreliable, and businesses need to be able to keep running smoothly. For example, a shop owner in a small town who has been using physical ledgers for twenty years might be hesitant to switch to a cloud-based system. They like being able to see and touch their records, and the thought of losing that - of not being able to physically check and verify everything - makes them uncomfortable. Even if the company promises that their data is secure, it's hard to shake off the feeling that something could go wrong.

Training is a big obstacle for many businesses, especially small ones. According to Dr. Mohammed Abid and Harsha Lohar, who wrote about this in 2025, technology is changing the way accounting works, and that means people need to keep learning new things. The problem is, small businesses often don't have a special team or money to help their employees learn and grow. Usually, the owner of the business has to handle the accounting, along with many other tasks, and finding time to learn new software can be really tough. This can be overwhelming, especially when you consider that the owner might be doing a dozen different jobs at the same time. As a result, learning new accounting software can feel like just one more thing to add to an already long list of responsibilities.

7. The Path Forward: Pragmatic Adoption Strategies

What actually works? Based on the reviewed literature and observed patterns, successful AI adoption in Indian micro enterprises tends to follow certain principles.

First, integration should complement rather than replace existing knowledge. Chaplot (2018) emphasizes that strategic management effectiveness depends on aligning initiatives with organizational capabilities. A micro enterprise shouldn't



abandon its accountant's expertise in favor of pure automation—instead, AI tools should enhance human judgment by handling routine tasks and flagging anomalies for expert review.

Second, scalability matters more than sophistication. A business processing fifty transactions daily doesn't need the same AI capabilities as one processing five thousand. Starting with basic features—automated invoice generation, simple expense tracking—and gradually adding complexity as familiarity grows prevents overwhelming users.

Third, vendor selection requires careful consideration of local support and vernacular interfaces. English-language software with international customer service doesn't serve a Tamil-speaking entrepreneur in Coimbatore particularly well. Companies that invest in regional language support and local training networks achieve better penetration in micro enterprise markets.

Mehta and Hiran (2023) discuss change management in medium-sized organizations, but their insights about incremental transformation apply equally to smaller operations. Successful change doesn't announce itself dramatically—it creeps in through small victories that build momentum. An accountant who uses AI to automate bank reconciliation might initially feel skeptical, but after experiencing how it eliminates hours of manual matching, they become advocates for broader adoption.

8.Regulatory and Policy Considerations

Government policy plays an underappreciated role in shaping AI adoption patterns. Tax compliance requirements drive much of the accounting workload in micro enterprises. Mehta's examination of tax revenue composition indirectly highlights how fiscal policy creates administrative burdens that technology must address.

The GST Network in India represents both an opportunity and a challenge. On one hand, digital filing requirements essentially mandate some level of technology adoption. On the other, the system's complexity and frequent changes create frustration. AI tools that promise seamless GST compliance often struggle with the reality of unclear regulations and inconsistent interpretations across tax circles.

Supporting micro enterprise digitalization requires more than just encouraging technology adoption—it demands infrastructure investment in stable internet connectivity, affordable electricity, and accessible technical support. Urban-rural disparities remain stark, and policy interventions need to address these fundamental inequalities before expecting uniform AI adoption.

9.Conclusion

The impact of AI on accounting practices in Indian micro enterprises defies simple characterization. It's neither the revolutionary transformation that technology evangelists predict nor the irrelevant distraction that skeptics dismiss. Rather, it's a gradual, uneven, often frustrating process of adaptation that nevertheless holds genuine promise.

DR. MOHAMMED ABID and RAMSWAROOP BHAMBI (2025) are right that AI improves accuracy and efficiency. DR. MOHAMMED ABID and HARSHA LOHAR (2025) correctly identify technology's transformative potential. But these truths exist alongside persistent barriers—cost constraints, skill gaps, infrastructure limitations, and psychological resistance. The reviewed literature, including Chaplot's (2018) work on strategic management, Mehta and Hiran's (2023) insights on change management, and Choudhary and Madhwani's (2013) analysis of economic pressures, collectively suggests that successful AI integration depends less on technological capability and more on thoughtful implementation that respects organizational context.

It's really important for researchers to keep looking into this area, especially by doing long-term studies that show how small businesses change their accounting practices over time. For people who work in the field and make policies, the message is clear: the systems that support businesses are just as important as the technology they use. To make AI available to everyone, we need more than just affordable software - we need training programs, local technical support, and rules that take into account the special challenges faced by India's smallest businesses. This will help them grow and succeed.

We should not think of using artificial intelligence as just two choices - either we use it or we don't. Most small businesses will likely use some AI features, but still do things the old way. They will make small changes over time,



instead of making big sudden changes. And that is okay. Making progress doesn't always mean making big changes all at once.

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