

Exploring artificial intelligence coaching's role in translating business training into real-world applications

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Orientation: Small and medium enterprises (SMEs) in emerging markets face challenges in applying business training knowledge to real-world operations, necessitating scalable, cost-effective support mechanisms like artificial intelligence (AI) coaching.

Research purpose: This study explored how AI coaching supported SME entrepreneurs in translating business training into practical applications within emerging market contexts.

Motivation for the study: How AI coaching helps SME leaders turn business training into daily practice is not yet understood. Clarifying its influence on post-training application can show whether AI coaching could offer scalable support in resource-limited settings.

Research approach/design and method: A qualitative exploratory design was employed. Twenty SME owners and managers participated in a business training workshop, followed by a 4-week engagement with an AI coaching chatbot. Data were collected through engagement metrics and semistructured interviews, which were analysed using Braun and Clarke's six-phase thematic analysis.

Main findings: Three themes emerged: functionality, methodology, and adoption. Participants valued real-time guidance and a nonjudgemental environment but faced challenges with onboarding and culturally mismatched phrasing. Trust in data handling was critical for adoption.

Practical/managerial implications: Artificial intelligence coaching provided accessible, scalable support for SMEs, enabling sustained knowledge application. Small and medium enterprise owners, managers, and trainers could integrate AI tools to enhance training outcomes in resource-limited settings.

Contribution/value-add: The study highlights AI coaching's role as an affordable, context-sensitive tool for reinforcing business training in SMEs, contributing to adult learning and entrepreneurial development literature by demonstrating its impact on experiential learning in emerging markets.

Keywords: artificial intelligence; coaching; SME entrepreneurs; knowledge transfer; emerging markets; business training; post-training support; scalable solutions.

Introduction

Orientation

Small and medium enterprises (SMEs) are pivotal to the economic conditions of emerging markets, including India, Africa, Morocco, and Colombia (Omar Bakar et al., 2020). In this context, SMEs are not only ubiquitous, representing over 98% of all businesses, but also play a crucial role in job creation, employing approximately 70% of the workforce across various sectors (OECD, 2023). This significant presence highlights their integral role in the national economy and exhibits trends observed in other emerging markets (Breuer et al., 2023), indicating a common pattern of economic dynamics in such environments (Mishra & Khanna, 2024). However, SMEs in emerging markets contribute just 39% to the gross domestic product (GDP) (Pratikto et al., 2024), markedly less than the 57% of developed markets (European Commission, 2022). This disparity indicates untapped potential and requires enhanced business interventions to boost the economic contribution of SMEs (Amoah et al., 2022).

The conventional approach to SME capacity building in emerging markets has been predominantly focussed on human training interventions (Mendy, 2021). These interventions have been key to

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providing knowledge and guidance (Ferreira et al., 2021), strengthening growth and development across different business domains (Msimango-Galawe & Majaja, 2022). When personalised, interventions can be especially beneficial in addressing the unique challenges and aspirations of individual enterprises, although this traditional model has some constraints (Idris et al., 2023). Personalised human business training grapples with scalability and accessibility, especially in a heterogeneous sector and the geographically widespread SME landscape (Pfister & Lehmann, 2021). Therefore, costs associated with tailored training programmes hinder growth of many SMEs, limiting their access to vital developmental resources and opportunities (Baloyi & Khanyile, 2022).

To overcome this challenge, the advent of artificial intelligence (AI) coaching emerges as a promising and innovative solution (Alhammadi, 2023). Researchers like Chowdhury et al. (2023) and Terblanche et al. (2024) agree that AI coaching embodies the convergence of technology and personalised training. Artificial intelligence coaching is designed to affordably scale bespoke learning experiences, which are essential in translating complex theoretical knowledge into actionable and effective business strategies (Agatova & Latipova, 2024; Terblanche et al., 2022a). The amalgamation of the intuitive, empathetic qualities of human coaching with the scalability of AI coaching to personalise the training experience presents a potentially ground-breaking approach (Bagai & Mane, 2023). This synthesised model holds immense potential to revolutionise the landscape of personalised SME training affordability, aligning with the dynamic and evolving needs of SMEs in emerging markets (Raihan, 2024).

Human business training and AI coaching are vital for facilitating SME development and sustainability, but research on their combined impact is scarce (Berretta et al., 2023). Furthermore, the existing literature often separates human-centric training from AI-driven coaching, missing their potential synthesis (Perifanis et al., 2023). This failure to explore the integration of human and AI approaches is pronounced in emerging markets where SME operational patterns differ from developed countries (Zahoor et al., 2023).

Therefore, this study sought to understand how an AI coach facilitated the post-training application of business knowledge for SME owners and managers. Specifically, it aimed to identify the functionalities of AI coaching that participants perceived as beneficial for knowledge application, whilst also exploring the methodological and adoption challenges that mediated its effectiveness.

Literature review

A literature review synthesises research to understand how an AI coach may help SME owners apply post-training knowledge. It connects SME learning challenges with adult learning theory and contrasts traditional coaching with scalable AI alternatives. Finally, it examines AI adoption models to establish practical and theoretical foundations for this investigation.

The small and medium enterprises learning context: From training to application

Small and medium enterprises majorly contribute to economic development and job creation, particularly in emerging markets (Mer & Virdi, 2024). Yet many SMEs struggle to convert training-derived knowledge into business improvement. A review by Leger et al. (2025) reported inconsistent outcomes from entrepreneurship training in sub-Saharan Africa, showing how difficult knowledge application can be.

Weak knowledge resources and poor learning networks constrain SME innovation (Durst et al., 2022). Generic training often overlooks sector diversity, limiting relevance (Chikweche & Bressan, 2018). Consequently, learning is mostly experiential and informal, underlining the need for scalable and context-sensitive support mechanisms (Dekel-Dachs et al., 2020). To design such support, it is first necessary to understand the underlying mechanisms of adult learning and knowledge transfer.

Foundations of adult learning and knowledge transfer

Kolb's (1984) experiential learning model explains knowledge acquisition as a cycle of experience, reflection, conceptualisation, and experimentation. Kolb's model is particularly applicable to this study because of its focus on experiential and action-oriented learning. This directly relates to the practical application of business training by entrepreneurs (Motta & Galina, 2023). Furthermore, learner motivation is essential for this cycle to succeed, with self-determination theory stating that supporting an individual's innate needs for autonomy, competence, and relatedness strengthens the intrinsic motivation required to persist in applying new knowledge (Deci & Ryan, 1985). Organisational support improves the likelihood that learning is applied (Salamon et al., 2021). However, without reinforcement, most training is lost in the workplace (Cromwell & Kolb, 2004). Structured post-training support is therefore important (Mansour et al., 2022). One of the most established forms of such structured support is workplace coaching.

Human coaching and applying training

Workplace coaching helps employees integrate training into practice (Kapoutzis et al., 2023; Régnier, 2023). Meta-analyses show that coaching improves performance, well-being, and learning transfer (Dixit & Sinha, 2022; Jones et al., 2016; Park et al., 2021). Yet human coaching is expensive and difficult to scale, particularly for SMEs (Passmore et al., 2025a). Artificial intelligence-supported coaching provides a potential solution (Terblanche et al., 2022a).

Artificial intelligence coaching as a scalable post-training solution

Artificial intelligence coaching employs chatbots and conversational agents to set goals such as applying a new marketing technique, give feedback by tracking progress

against that goal, and support behaviour change by prompting reflection on challenges (Graßmann & Schermuly, 2020). Studies report effectiveness across organisational settings (Passmore et al., 2025a). Terblanche et al. (2022b) found AI chatbot coaching, in a study of new graduates transferring learning to work tasks, produced goal-attainment comparable to human coaching, whilst Terblanche and Tau (2024) showed that an AI goal-attainment chatbot helped new graduates transfer learning to work tasks.

Therefore, AI coaching tools can complement human coaching by managing routine elements and enabling facilitators to focus on complex learning needs (Mai et al., 2021; Passmore & Woodward, 2023). By guiding users through questioning, feedback, and progress-tracking, AI coaching operationalises key elements of experiential learning such as reflective observation and active experimentation (Kolb, 1984). This suggests that AI coaching can provide cost-effective, scalable post-training support linking adult learning theory with practice, particularly where human coaching access is limited. However, its effectiveness also depends on clear communication about the AI's role and its alignment with learning goals (Engström et al., 2024). Furthermore, whilst much research has focused on AI in formal education or goal-tracking, its specific role in reinforcing the informal, post-training experiential learning cycle for entrepreneurs remains underexplored.

Artificial intelligence coaching technology acceptance

Adoption depends on user perceptions. The Technology Acceptance Model (TAM) (Davis, 1989) links acceptance to usefulness and ease of use, and the Unified Theory of Acceptance and Use of Technology (UTAUT) enhances social influence and facilitating conditions (Venkatesh et al., 2003). The Artificial Intelligence-Technology Acceptance Model (AI-TAM) model introduces trust, output quality, and collaborative intention (Baroni et al., 2022). The perceptions of AI assist in learning and adoption trajectories (Engström et al., 2024). Terblanche and Kidd (2022) applied TAM and UTAUT to a reflective coaching chatbot, finding that age and gender affected intentions, underscoring trust and perceived usefulness as key for coaching tools. Together, these frameworks and studies highlight that beyond functionality, the design of AI coaching systems must prioritise user trust, perceived usefulness, and ease of use to ensure they are adopted and sustained.

Research approach, design, and method

Research approach

This study qualitatively evaluates how AI coaching, combined with human-facilitated training, supports SME leaders in applying business knowledge. Artificial intelligence coaching in organisational practice is still a new area, with recent reviews noting a limited peer-reviewed evidence base (Bachkirova & Kemp, 2024; Passmore et al., 2025a). Research

on human-computer interactions demonstrates the use of large language model chatbots for executive coaching, which has only recently been examined in controlled studies, underlining the novelty of this research field (Arakawa & Yakura, 2024). For SMEs, studies on AI adoption report a fragmented body of knowledge and little large-scale evidence, supporting exploratory research at the intersection of AI coaching and SME leadership (Schwaeke et al., 2024). A qualitative method was therefore appropriate because a qualitative method allows the careful study of lived experience, beliefs, and reflection in participants' own words and supports in developing a rich conceptual understanding in emerging areas (Braun & Clarke, 2019).

Research strategy

An exploratory qualitative design was chosen to analyse the interaction between AI coaching and business training in supporting SME leaders, as this approach allows careful exploration of a new organisational practice in the specific environment in which participants operate (Palinkas et al., 2015).

Research setting

The study was conducted with SME leaders attending business training shown to correlate with improved organisational performance. Empirical large-scale UK data demonstrate that both on-the-job and off-the-job trainings significantly positively associate with SME performance, as reported by owner-managers (Idris et al., 2020). Similarly, research in Ghana shows that accessible, content-rich managerial training instils effectiveness in SME managers (Atiase et al., 2023). Therefore, the workshop was selected because it provides goal-setting, actionable content, and accessible delivery, which are identified as critical features for meaningful training outcomes.

The workshop presented a structured marketing framework using concise theory, practical case studies, and facilitated peer breakout discussions, enabling participants to test ideas against real challenges and set specific goals for application (Busso et al., 2023). The workshop covered key business skills including digital marketing and customer relationship management. At the close, the goal-attainment AI coaching chatbot was designed as a post-training reflective tool to help achieve personal goals identified during the session (Terblanche, 2019).

After the workshop, participants engaged with the AI coach on WhatsApp. Developed under the Designing Artificial Intelligence Coaches (DAIC) framework (Terblanche, 2020), the AI coach applied goal-setting theory using a generative AI conversation model, maintaining a nondirective flow and structured progress-tracking dialogues.

Dialogue followed a text-based nondirective goal-attainment protocol using open questions, reflection prompts, and twice-weekly progress checks. For example,

rather than providing a direct solution, the AI coach would guide the user's own reflection:

User: 'I'm struggling to apply the "customer segmentation" idea from the training.'

AI Coach (Nondirective): 'It can be challenging to apply a new concept. When you think about your best customers from last month, what did they have in common?'

User: 'Hmm, I suppose most of them were other small businesses, not individuals.'

AI Coach (Nondirective): 'That's a useful insight. What is one small action you could take this week based on that observation?'

This structured protocol differentiates AI coaching from a generic text helpline by embedding coaching microskills: reflection, goal clarity, and progress-tracking, rather than *ad hoc* tips.

Research participants and sampling methods

Following business skill training, an email invitation was sent to all attendees. From those who expressed interest, 20 SME owners or managers (see Table 1) engaging with the AI coach for 4 weeks were selected via purposive sampling. All participants had at least 2 years of business experience and were actively involved in managing or growing a small business in an emerging market. Participant SMEs operated in resource-constrained environments typical of emerging markets, where access to consistent human coaching was limited. All participants were introduced to the AI coach as part of the training programme and were supported in

setting it up and encouraged to use it regularly during the engagement period.

The business training occurred in Week 1, followed by a 4-week AI coaching engagement (Weeks 2–5). The semistructured interviews were conducted in Week 6.

Data collection methods

Primary data collected by semistructured interviews formed the core of data collection. Each participant engaged in a 55-min (ranging from 45 min to 70 min) online interview conducted using Zoom at the end of the 4-week AI coaching period. All interviews were carried out by the first author. Semistructured interviews are valuable for exploring participants' perspectives whilst allowing flexibility for follow-up questions (Kallio et al., 2016). Questions included their use of the AI coach, application of training knowledge with the AI coach's assistance, challenges faced, and their perceptions of the experience's value. All interviews were audio-recorded with participants' consent and transcribed verbatim (DiCicco-Bloom & Crabtree, 2006).

The primary data for this study comprised semistructured interview transcripts, which were thematically analysed to provide insights into participants' self-reported experiences. In addition, data were collected from the AI coaching tool's chatbot logs. These logs were not thematically analysed and were used solely to validate participants' engagement with the intervention, such as confirming the number of interactions reported in Table 1. These complementary data sources strengthened the trustworthiness of the findings by corroborating self-reported engagement levels (Fetters et al., 2013).

Data analysis

Data from the semistructured interviews were analysed using an inductive (bottom-up) thematic analysis approach, guided by the six-phase process described by Braun and Clarke (2006). The primary data corpus consisted of the verbatim transcripts from all 20 interviews.

The first phase, familiarisation, involved reading and re-reading the transcripts to gain a holistic sense of the dataset. Following this, a systematic open coding process (Phase 2) was conducted using ATLAS.ti. This produced 202 initial codes capturing participants' explicit statements, implied expectations, frustrations, and reflections.

The analysis then proceeded through an iterative and recursive process of clustering (Phase 3). These initial 202 codes were collated into 31 conceptual code groups based on shared properties. With researcher discussion and the use of visual mapping, these groups were further refined, merged, and abstracted to generate candidate themes. These candidate themes were critically reviewed and refined (Phase 4) against the coded extracts and the full dataset to ensure they were coherent, distinct, and accurately represented the patterns in the data.

TABLE 1: Research participant demographics.

Participant ID	Age (years)	Gender	Industry	Years of business experience	Number of interactions with the AI coach in the 4 weeks after the training
1	30–40	Male	Marketing	16	9
2	40–50	Male	Project management	21	7
3	40–50	Female	Occupational therapy	18	5
4	50–60	Male	Project management	36	7
5	30–40	Female	Fashion design	19	1
6	20–30	Female	Business development	6	10
7	50–60	Male	Insurance	31	7
8	50–60	Female	Flower sales	28	1
9	50–60	Male	Automotive sales	33	20
10	20–30	Female	Software development	8	12
11	30–40	Female	Manufacturing	16	17
12	20–30	Male	Hospitality	7	4
13	40–50	Female	Accounting	24	42
14	50–60	Female	Human resource management	32	11
15	20–30	Male	Chemical sales	5	10
16	30–40	Male	Manufacturing	12	8
17	20–30	Male	Food service	8	2
18	40–50	Male	Public transport	22	1
19	20–30	Female	Content creation	4	2
20	50–60	Female	Education	30	14

AI, artificial intelligence.

This refinement process resulted in eight coherent subthemes. In Phase 5, this hierarchy was finalised by organising the eight subthemes within the three overarching main themes that form the structure of the findings. The final phase (Phase 6) involved interpreting these themes in the context of the study's purpose, moving beyond summary to examine what the experiences revealed about the potential and limitations of AI coaching in this SME training environment. The analysis was performed inductively, without a pre-existing theoretical framework.

Trustworthiness

To ensure trustworthiness (Lincoln & Guba, 1983; Nowell et al., 2017), credibility was fortified using two practical measures. Firstly, transcript validation was performed by the interviewer, who listened back to the audio recordings whilst reading the transcripts to ensure accuracy. Secondly, communicative validation was carried out during the interviews, whereby the interviewer would periodically summarise a participant's point and ask, 'Have I understood that correctly?' to confirm the interpretation in real-time.

Dependability was addressed by maintaining a detailed audit trail within Atlas.ti, which consists of all analysis files, including the final code lists, analytic memos, and thematic maps illustrating the refinement process. Transferability is supported by the thick description of the participant cohort, the emerging market context, and the AI coaching intervention.

Finally, confirmability was addressed through reflexivity. The first author, who conducted the interviews, maintained a reflexive journal to note methodological decisions and bracket potential biases. As part of this, we disclose that the first author was involved in delivering business training and the second author in the chatbot's technical development. This potential bias was reduced by adhering to the inductive analysis protocol and using researcher discussion to ensure themes were demonstrably grounded in the participants' data rather than the researchers' pre-existing knowledge.

Ethical considerations

Ethical clearance was granted by the Stellenbosch University Institutional Review Board (Ref: SBER 30881). All participants provided written informed consent prior to the interviews, were assured of confidentiality through anonymisation, and were aware they could withdraw at any time. Participants were not previously known to the interviewer.

Results

This research identified three main themes: functionality, methodology, and adoption. These themes were developed from eight subthemes based on the analysis of interview transcripts describing participants' experiences with post-training AI coaching. Table 2 presents the relationship between each main theme and its associated subthemes.

An interaction was defined as a user-initiated conversation segment comprising the participant's opening message and the AI coach's subsequent turns until 10 min of inactivity or a goal-check closure. Therefore, multiple back-and-forth messages within a segment were counted as one interaction.

A secondary analysis was conducted to compare experiences based on engagement levels (see Table 1). This revealed a notable pattern: participants with high interaction (e.g. P10, P11, P13, and P20) focussed their feedback heavily on functionality, discussing specific ways the coach helped them refine goals and reflect (Theme 1). Conversely, participants with very low interaction (e.g. P5, P8, and P18) tended to focus their feedback on the methodology and adoption barriers (Themes 2 and 3), such as onboarding confusion or cultural misalignment, which may explain their limited engagement.

Theme 1: Functionality

The first theme examined how AI coaching provides real-time support, fosters reflective thinking, and creates a safe learning environment. This main theme emerged from

TABLE 2: Synopsis of finding themes and subthemes.

Main theme	Main theme description	Subtheme	Subtheme description	Participants who mentioned this
1. Functionality	Examines the core utility and perceived benefits of the AI coach in the participants' learning process.	1.1. Scalability and real-time responsiveness	AI coaching provides continuous, on-demand support, removing limitations of human coaching availability.	2, 5, 12, 14, 16, 17, 19
		1.2. Fostering reflective thinking	AI coach encourages critical thinking and self-reflection through nondirective questioning.	3, 9, 10, 14, 15, 17, 19, 20
		1.3. Trust through nonjudgemental support	Participants felt safe discussing their challenges openly with AI, free from judgement.	3, 6, 8, 9, 12, 14, 17, 18, 20
2. Methodology	Assesses the structural and procedural factors, including barriers, which influenced the user's engagement and trust.	2.1. Effective on-boarding for AI coaching	Participants suggested step-by-step guides and interactive tutorials for a smoother onboarding process.	2, 4, 5, 10, 13, 20
		2.2. Trust-building through transparent data practices	Clear data policies and user control over information were critical in fostering trust.	3, 6, 8, 10, 14, 17
		2.3. Consistent evaluation and iterative improvements	Regular updates based on user feedback were necessary to enhance AI response adaptability.	5, 10, 14, 18, 20
3. Adoption	Explores the human-centric factors, such as accessibility and cultural alignment, which mediated the tool's practical uptake.	3.1. Platform familiarity and accessibility	WhatsApp was preferred for its low cost and familiarity, increasing accessibility.	1, 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20
		3.2. Cultural sensitivity and contextual alignment	Participants emphasised the need for AI coaching to include cultural and industry-specific adaptations.	2, 10, 15, 18, 19, 20

AI, artificial intelligence.

subthemes such as scalability and real-time responsiveness, fostering reflective thinking, and trust through nonjudgemental support.

Subtheme 1.1: Scalability and real-time responsiveness

Participants valued the AI coach's constant availability. Participant 2 said:

'I'd be in the middle of a customer issue and ask the AI coach how to apply what I'd learned. It was like an adviser on call.' (P2)

For SME owners working outside standard hours, immediacy was vital. Participant 16 explained:

'I usually only get to focus on business development after hours ... Having an AI coach that responded immediately ... meant I could test ideas and solve problems while they were fresh in my mind.' (P16)

Many appreciated freedom from hourly billing. Participant 12 reflected:

'With human coaches, you consider the cost per session. Here, I felt free to explore ideas repeatedly without worrying about taking up someone's time.' (P12)

Participant 17 added:

'With a person, I sometimes hesitate ... but with the AI coach, I felt no shame asking the same question twice and had no fear to be billed twice.' (P17)

These experiences highlighted how always-on access and cost neutrality supported experimentation and agile decision-making.

Subtheme 1.2: Fostering reflective thinking

The AI coach promoted analysis rather than directive answers. Participant 10 recalled:

'Instead of telling me what to do, it asked, "What do your margins say about sustainability?" That made me rework my whole model.' (P10)

Participant 20 noted:

'I thought I had my customer targeting figured out, but the AI coach kept probing.' (P20)

Writing responses also clarified reasoning. Participant 15 said:

'When I had to explain my choices, I saw the gaps in my thinking. The AI coach held a mirror to my logic.' (P15)

Several participants described moving from wanting quick solutions to valuing reflection. Participant 14 commented:

'At first, it was frustrating ... I wanted answers. Then I realised it was guiding me to discover them on my own.' (P14)

Such questioning strengthened learning from the business workshop and encouraged ownership of decisions.

Subtheme 1.3: Trust through nonjudgemental support

Participants reported that the AI coach created a safe space for sharing doubts and mistakes. Participant 3 explained:

'There are things I wouldn't say to a human coach ... but with the AI coach, I could talk about mistakes without feeling exposed.' (P3)

Participant 14 added:

'When I forgot something basic, like how to calculate break-even, I didn't hesitate to ask the AI.' (P14)

Respectful and consistent tone further built trust. Participant 20 said:

'It never made me feel like I was wasting its time.' (P20)

Participant 12 summarised:

'Because I wasn't worried about judgement, I could be myself ... weaknesses and all. That's when I started making progress.' (P12)

This safety allowed growth through trial and error.

Theme 2: Methodology

This second theme focussed on how intuitive onboarding, transparent data practices, and iterative improvements impact AI coaching adoption. This theme consists of the subthemes: effective onboarding for AI coaching, trust-building through transparent data practices, and consistent evaluation and iterative improvements.

Subtheme 2.1: Effective on-boarding for artificial intelligence coaching

Early guidance shaped engagement. Participant 2 stated:

'The first few days felt like guessing ... what to type, how much to explain, whether it understood me.' (P2)

Participant 10 proposed:

'A two-minute video or example chat would have helped.' (P10)

Participant 13 agreed:

'Better onboarding would help people feel smarter, not more lost.' (P13)

Therefore, clear orientation would potentially have reduced hesitation, particularly for users less confident with digital tools.

Subtheme 2.2: Trust-building through transparent data practices

Data privacy affected willingness to share sensitive material. Participant 8 asked:

'Before opening up about my business strategy, I wanted to know ... who's going to see this?' (P8)

Participant 14 needed assurance:

'I needed reassurance that the data wasn't being pulled into some bigger system.' (P14)

Participant 17 added:

'Even a regular short reminder about confidentiality would help.' (P17)

Participant 10 suggested:

'If I could clear the chat history or control what the AI coach remembers, I'd feel more in control.' (P10)

Subtheme 2.3: Consistent evaluation and iterative improvements

Several users wanted the AI to adapt the conversation to the participant's context. Participant 9 noted:

'By the second week, it started asking me similar questions that I felt I had already acted on.' (P9)

Participant 14 explained:

'I needed the AI to grow with me ... not just repeat things I already knew.' (P14)

Participant 2 suggested:

'If it followed up with "How did your plan go?" it would feel more like a real coach.' (P2)

Participant 10 added:

'If it remembered our previous discussions ... that would increase engagement.' (P10)

Therefore, personalised continuity was essential for long-term use.

Theme 3: Adoption

Theme 3 explored platform familiarity, cultural relevance, and engagement strategies that influence AI coaching effectiveness and consisted of the following subthemes: platform familiarity and accessibility and cultural sensitivity and contextual alignment.

Subtheme 3.1: Platform familiarity and accessibility

The use of WhatsApp as the delivery platform significantly boosted engagement. Participants appreciated that they did not have to learn a new interface or download additional software. Participant 18 remarked:

'If I had to download a new app or learn a new system, I probably wouldn't have used it.' (P18)

Participant 10 added:

'WhatsApp doesn't use a lot of data. I could interact with the AI without worrying about costs.' (P10)

Participant 17 said:

'It was on a platform I already trusted.' (P17)

Participant 20 explained:

'It felt familiar ... If it had been a new app, I would've hesitated.' (P20)

Participant 15 said:

'When I was texting my supplier, I could switch tabs and ask the AI a question.' (P15)

Subtheme 3.2: Cultural sensitivity and contextual alignment

Several participants indicated that the AI coach's language and tone sometimes felt foreign or out of place. The phrasing of questions did not always align with the way entrepreneurs in the South African context spoke about their businesses.

Participant 10 shared:

'It asked, "What internal systems can you optimise?" That's not how we speak. I had to interpret it in my context.' (P10)

Similarly, Participant 20 said:

'It asked about "customer acquisition strategies" ... I don't use that kind of language. I talk about clients.' (P20)

The tone also felt overly formal to some, which created a psychological barrier. Participant 19 reflected:

'In our culture, how you ask matters. The AI coach felt very formal. If it was more like how we talk here, I might have opened up more.' (P19)

Others suggested the AI coach should support multilingual interaction. Participant 18 remarked:

'I think I would've been more expressive in isiXhosa. Sometimes, our ideas come out clearer in our own language.' (P18)

Participant 2 summarised this theme succinctly:

'The questions were helpful, but they felt imported ... like they came from another place and not from someone I was having an actual conversation with that understood my business' context.' (P2)

Discussion

This study addressed the research question of how an AI coach facilitates the post-training application of business knowledge for SME owners and managers. The thematic analysis of participant experiences yielded three main themes: functionality, methodology, and adoption. This discussion interprets these findings to answer the study's specific objectives: firstly, to identify the AI coaching functionalities perceived as beneficial for knowledge application, and secondly, to explore the methodological and adoption challenges that mediated its effectiveness.

Artificial intelligence coaching as a scalable post-training solution for small and medium enterprises

Artificial intelligence coaching replicates the benefits of human coaching, such as promoting goal-directed behaviour and reflective feedback, making it a transformative tool for SME development. Jones et al. (2016) demonstrated that coaching enhances performance and wellbeing, whilst Dixit and Sinha (2022) highlighted its role in behavioural skill transfer. In this study, the AI's nondirective questioning and

psychological safety enabled SME owners to apply training in practice by creating a space where they felt comfortable discussing mistakes. Graßmann and Schermuly (2020) support this, showing AI can replicate structured dialogue that promotes behaviour change, which is valuable where resource constraints limit personalised coaching (Pfister & Lehmann, 2021). Terblanche et al.'s (2022b) finding that AI coaching matches human coaching in goal-attainment is mirrored in participants' ability to explore ideas after hours. This scalability addresses cost and scheduling barriers (Baloyi & Khanyile, 2022), positioning AI coaching as a democratising force for SME training. Yet repetitive feedback echoes Terblanche et al.'s (2024) warning that AI must evolve with users to sustain value. Future designs should include memory-informed dialogues to enhance entrepreneurial impact (Passmore & Woodward, 2023). Artificial intelligence coaching can thus extend the benefits of traditional coaching to SMEs, providing consistent, accessible reinforcement that lengthens the effect of training interventions.

Enhancing trust and contextual relevance in small and medium enterprise learning

Trust and contextual relevance are pivotal for AI coaching's effectiveness in SMEs. Participants' hesitation to share sensitive business information without clear data assurances aligns with Eden et al.'s (2024) observations on transparency's role in AI adoption. Transparent data practices are essential for SMEs, where strategic information is sensitive (Raman et al., 2025). Additionally, the AI's language and tone, often perceived as overly formal or foreign, reduced reflective depth, supporting Berretta et al.'s (2023) warning about design biases in AI systems. Multilingual and culturally resonant AI coaching, as proposed by Dara and Kesavan (2024), would enhance engagement, particularly in diverse emerging markets like South Africa.

Kolb's (1984) emphasis on meaningful reflection highlights the need for contextually relevant feedback. Cromwell and Kolb (2004) argue that continuous, resonant reinforcement drives behavioural change, a process hindered when AI feedback feels misaligned. For SMEs, where experiential learning is often informal (Chikweche & Bressan, 2018), culturally attuned AI coaching could bridge the gap between training and application, fostering entrepreneurial innovation. This study shows the importance of identifying these adoption barriers and being sensitive to culturally responsive AI designs.

Leveraging familiar technology to support small and medium enterprise learning

The use of WhatsApp as a delivery platform improved AI coaching adoption in this study by using a familiar, low-data tool. This supports Rozmi et al.'s (2021) finding that SME learning grows when delivered through accessible platforms. Terblanche and Kidd (2022) show that facilitating conditions predict technology adoption, noting that the platform is one of three main adoption factors. WhatsApp's place in SME routines reflects this

point. The approach also answers Idris et al.'s (2023) concerns about scalability, allowing SMEs in low-resource settings to take part without technical barriers. Participants valued the short learning curve and low data costs, which made engagement easy.

However, platform limitations, such as difficulty tracking past interactions, hindered long-term engagement, reflecting Terblanche's (2020) noted trade-off between simplicity and functionality. Future AI coaching designs should balance accessibility with progress-tracking features to support SME owners' need for structured learning, as Suravi (2023) advocates for hybrid training models. This study shows that familiar technology can democratise access to learning for SMEs, offering a practical solution to scalability challenges in emerging markets.

Designing adaptive artificial intelligence coaching for sustained small and medium enterprise development

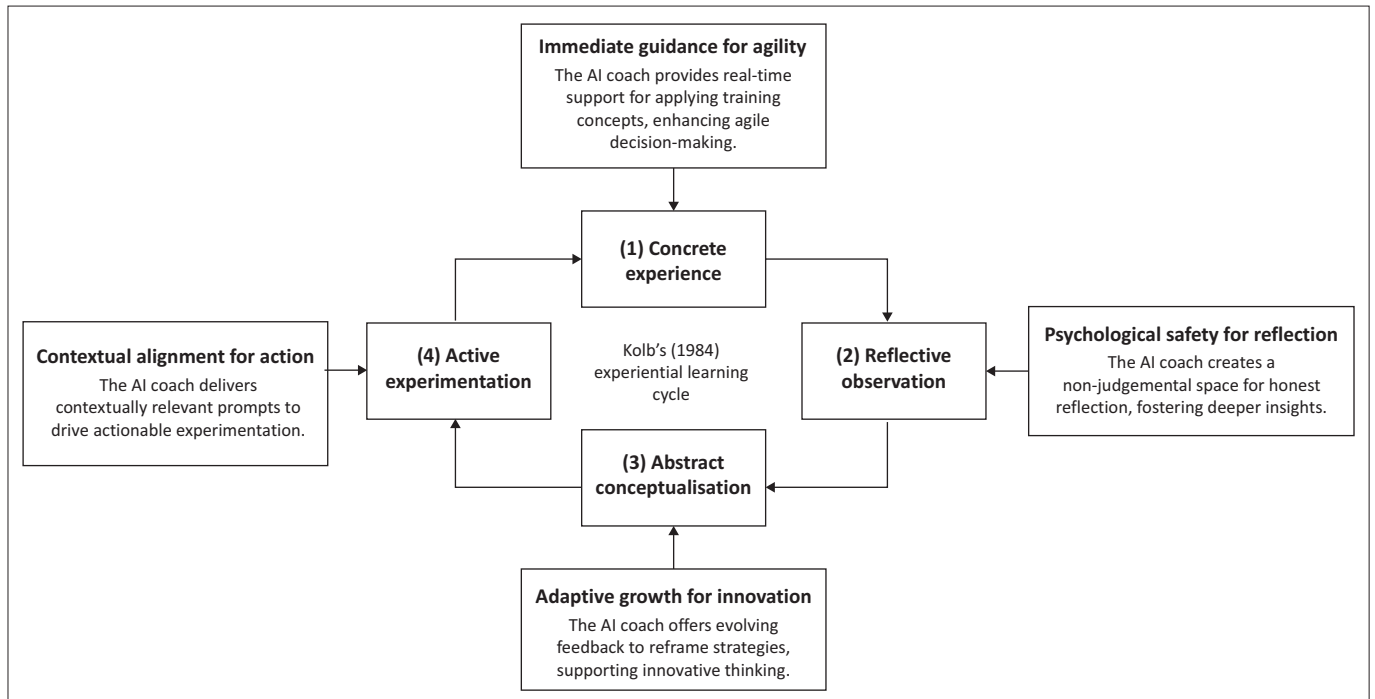
Participants emphasised the importance of AI coaching that adapts over time, including follow-ups on progress, highlighting the need for systems that evolve with SME learners. Salamon et al. (2021) show that adaptive support sustains learning transfer, whilst Cromwell and Kolb (2004) stress that reinforcement must build on prior experience. Incorporating memory and follow-up features, as recommended by Passmore et al. (2025b), would align AI coaching with human coaching's longitudinal awareness and strengthen its value for SME growth.

The three themes align with AI-TAM constructs: Functionality relates to perceived usefulness and output quality; methodology involves ease of use, facilitating conditions, and trust; and adoption concerns social influence, behavioural intention, and contextual moderators (Baroni et al., 2022; Venkatesh et al., 2003).

Extending adult learning through artificial intelligence coaching in small and medium enterprises

Finally, the findings of this study show that AI coaching enables SME leaders to apply training in real-world contexts by offering immediate, on-demand support, encouraging deeper reflection, and creating a nonjudgemental environment for learning. This aligns closely with Kolb's (1984) experiential learning cycle, which describes learning as a process involving concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Figure 1 illustrates how AI coaching integrates with this cycle, enhancing its theoretical and practical implications for SME development.

Concrete experience: The workshop gave SME practice grounded in real challenges. Artificial intelligence coaching added immediate guidance, aiding agile decisions (Msimango-Galawe & Majaja, 2022).



AI, artificial intelligence.

FIGURE 1: Conceptual diagram of artificial intelligence coaching in Kolb's experiential learning cycle for small and medium enterprises.

Reflective observation: Artificial intelligence coaching encouraged critical thinking and honest reflection, crucial where informal learning prevails (Chikweche & Bressan, 2018; Park et al., 2021).

Abstract conceptualisation: Adaptive feedback supported reframing strategies, even in weak knowledge networks (Dekel-Dachs et al., 2020).

Active experimentation: WhatsApp delivery allowed testing ideas in daily routines. Culturally aligned prompts, as Zahoor et al. (2023) advise, could enhance relevance.

In conclusion, AI coaching creates a continuous learning loop tailored to SMEs, addressing their distinct constraints, such as limited access to human coaching and diverse operational needs (Idris et al., 2023). It extends adult learning theory by showing how technology can support experiential learning in resource-constrained contexts, offering a novel framework for SME training interventions.

The findings also resonate with Knowles' (1978) andragogy principles, which emphasise self-directedness and problem orientation in adult learners. Artificial intelligence coaching's user-paced, on-demand support empowered SME owners to tackle context-specific challenges, reinforcing Mansour et al.'s (2022) findings that learner control enhances training transfer. Unlike traditional training, where Cromwell and Kolb (2004) noted limited post-training support, AI coaching's real-time availability overcomes accessibility barriers, making it a scalable solution for SMEs in emerging markets.

Contribution

This study contributes theoretically, empirically, and practically to adult learning, coaching science, and entrepreneurial development in emerging market SMEs. The primary novelty lies in demonstrating how AI coaching, when paired with structured human training, facilitates the application of business knowledge amongst SME entrepreneurs. Unlike many previous studies that examined AI tools in isolation, this research integrates AI coaching with experiential learning theory and reveals how learners use digital tools to extend the impact of traditional business training interventions (Chen et al., 2024).

Theoretically, this study contributes to the adult learning discourse by showing that AI-enabled environments could reinforce reflective observation and abstract conceptualisation, two key stages in the experiential learning cycle (Kolb, 1984). Whilst principles of andragogy emphasise self-directed learning (Knowles, 1978), this research adds empirical weight to the idea that AI coaching can enhance learner autonomy through nonjudgemental, user-paced support. Additionally, it supports the notion that control over the learning environment strengthens confidence and motivation (Deci & Ryan, 1985). The findings also affirm that learning systems must evolve with the learner to remain effective (Salamon et al., 2021).

Practically, this study offers direct insights for a number of stakeholders. Training providers and development agencies can integrate AI coaching tools to extend the lifecycle of their interventions and enhance knowledge transfer. Artificial intelligence developers and ed-tech companies can use the study's findings to build culturally attuned, memory-

informed, and user-responsive AI coaching systems. Policy makers may leverage AI coaching as a cost-effective method for scaling SME support across rural or under-resourced areas. Small and medium enterprise support institutions such as incubators and nongovernment organisations (NGOs) can offer AI coaching to supplement mentoring programmes.

Furthermore, for SME owners in emerging markets, this study offers an accessible, self-paced, and psychologically safe support mechanism that helps sustain training outcomes. By enabling immediate feedback, reflective questioning, and goal-tracking, AI coaching assists entrepreneurs in contextualising their learning and addressing daily operational challenges. The capacity to receive ongoing support without cost or scheduling constraints positions AI coaching as a democratising force in SME development.

Limitations

This study has several limitations that warrant consideration. Firstly, the sample was limited to 20 participants from a single South African cohort, which may affect the transferability of findings to other emerging market contexts with different infrastructural or linguistic conditions.

Secondly, the 4-week engagement period was sufficient to observe initial application but restricted conclusions about long-term behavioural change or sustained business impact. Longitudinal studies are needed to evaluate sustained outcomes.

Thirdly, whilst the use of WhatsApp as a delivery platform enhanced accessibility, its technological constraints, such as difficulty retrieving past interactions, might have inhibited a deeper learning cycle and masked the coach's full potential.

Fourthly, the study did not collect baseline data on participants' prior familiarity or comfort with chatbot technology. This is a potential confounding variable, as pre-existing digital literacy could have influenced perceptions of the tool's utility and ease of use.

Finally, the AI coach was text-based and supported English only. Participants noted this limited cultural resonance, and future research should explore multilingual platforms to enhance inclusivity and reflective depth. These limitations provide boundaries for the interpretation of the findings and highlight clear directions for future research.

Future research

Building on this study, several avenues for future research are proposed. Longitudinal studies are needed to evaluate the sustained impact of AI coaching on SME performance metrics, such as revenue growth, customer retention, or team development. Such studies could determine whether short-term knowledge application observed here leads to long-term behavioural transformation.

Additionally, future research should explore AI coaching in multilingual and multicultural contexts. The findings suggest that language and cultural alignment could affect engagement with the AI coach. Investigating how AI coaching tools can incorporate local dialects and culturally resonant phrasing would help address barriers to reflective depth and adoption in diverse settings.

Furthermore, the study revealed unique insights into the role of psychological safety in AI coaching. Participants frequently reported that the nonjudgemental nature of the AI coach enabled them to be more honest about their challenges and business decisions. This created a safe space for vulnerable self-reflection, an outcome rarely explored in technology-mediated learning. Future studies could investigate how design features such as tone, anonymity, and perceived neutrality contribute to psychological safety and how these elements affect learning transfer and user confidence.

Conclusion

This study explored how AI coaching can enhance the practical application of business training amongst SME leaders in emerging markets. The research addressed the gap between entrepreneurs' knowledge acquisition and practical application. By combining a business workshop with a 4-week AI coaching engagement, the study examined if AI tools could offer meaningful post-training support in resource-constrained environments.

The findings contribute to the fields of adult learning, SME entrepreneurial development, and coaching science by demonstrating AI coaching's role in facilitating experiential learning cycles, addressing SME-specific challenges, and offering a scalable model for post-training reinforcement.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

CRedit authorship contribution

Bonus Steenkamp: Conceptualisation; Data curation; Formal analysis; Investigation; Methodology; Project administration; Software; Validation; Visualisation; Writing – original draft. Nicky Terblanche: Conceptualisation; Supervision; Writing – review & editing. All authors reviewed the article, contributed to the discussion of results, approved the final version for submission and publication, and took responsibility for the integrity of its findings.

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Data availability

The datasets generated and analysed during the current study consist of semistructured interview transcripts and AI chatbot interaction records. Owing to confidentiality agreements with participants and the sensitive nature of the business information shared, these data are not publicly available. De-identified excerpts relevant to the study's findings are included within the article. Additional data may be made available from the corresponding author, Nicky Terblanche, upon reasonable request, subject to institutional ethical approval.

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