



Micro-Credentials in Entrepreneurship Education: Fad or Future?

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Abstract

The rapid evolution of entrepreneurship education has seen a growing shift from traditional business degrees to alternative learning models such as micro-credentials. Micro-credentials offer practical, industry-relevant knowledge and align with competency-based education by showcasing mastery in specific skills or knowledge areas. These short, flexible learning programmes can either complement or form part of accredited qualifications, providing an accessible alternative for entrepreneurs and small business owners. This study explores whether micro-credentials are perceived as more effective in developing entrepreneurial and business management skills compared to traditional qualifications. Additionally, it examines whether SME business owners would consider pursuing micro-credentials for upskilling and addressing real-time business challenges. A qualitative research design was employed, using semi-structured interviews with 10 entrepreneurs and business owners across diverse industries in South Africa. Thematic analysis was conducted to identify key patterns in participants' perceptions, motivations, and preferences related to micro-credentials. Findings reveal that most participants were initially unfamiliar with the term micro-credentials, yet all expressed strong interest in enrolling once the concept was explained. Participants valued micro-credentials for their flexibility, practical focus, and alignment with immediate business needs, citing time, cost, and relevance as major decision-making factors. Several noted that traditional degrees are too broad and time-consuming for entrepreneurs who require targeted, just-in-time learning. Challenges such as compliance, finance, marketing, and people management were identified as key areas where micro-credentials could add value. While some participants emphasised the importance of formal recognition and accreditation, others prioritised knowledge application over certification. Online and hybrid delivery methods were preferred, particularly those offered in the evenings or on weekends. The study concludes that micro-credentials are seen as a practical, time-efficient alternative to traditional qualifications, especially when designed with entrepreneurial contexts in mind. Higher education institutions are encouraged to integrate flexible, industry-relevant micro-credentials into their curricula to better support the learning needs of entrepreneurs and contribute to SME sustainability and growth.

Keywords: *Micro-credentials; Entrepreneurship education; Business management skills; Higher Education Institutions*

Introduction

While higher education institutions face increasing pressure to equip students with employable skills and knowledge [1], the entrepreneurial landscape, particularly in South Africa presents both challenges and opportunities. Several university students that have graduated with a traditional qualification struggles to find a job, joining the very large pool of unemployment, especially within South Africa. The unemployment rate in South Africa in quarter 4 of 2024 is 31,9% [2], with 9.6% of graduate students unemployed [3]. Furthermore, in the first quarter of 2024, South Africa had 2.67 million small and medium sized businesses (SMEs), employing 11.4 million individuals. Despite their contribution to employment, SMEs face a 7.9% discontinuation rate, primarily due to a lack of profitability. These statistics underscore the urgent need for educational programs that not only enhance employability but also equip entrepreneurs with the skills necessary to sustain and grow their businesses, ultimately contributing to job creation and addressing South Africa's high unemployment rate.

Individuals with higher levels of education are more likely to be employed [4] and earn higher incomes [5;6] opposed to those with lower levels of education. However, informal learning also contributes to employment, which is more affordable and less time consuming than acquiring formal education [4]. Yet, earning a university degree remains one of the most reliable indicators of knowledge, skills, and intellectual capability [7]. This has led to the increase interest and need for micro-credentials amongst



higher education institutions (HEI), governments and the business sector [8]. Micro-credentials are defined as competency-based learning models that showcases evidence of mastery in specific skills or knowledge areas [9]. Competency-based learning models extend academic learning to real-world applications, it offers a personalised learning experience where students can tailor their learning needs. It can include continuous assessments and feedback to measure progress and ultimately demonstrate mastery in specific skills or knowledge areas [10]. [8] calls for urgent action amongst higher education institutions to embrace the future of work as a catalyst for reinvention, ensuring that lifelong learning becomes the norm for all. This requires a shift in education curricula from a “just in case” approach to a “just in time” model to closely align with industry needs and collaborating with businesses to develop relevant skills. The purpose of this study is therefore to explore whether micro-credentials are perceived as more effective in developing and fostering entrepreneurial and business management skills compared to traditional qualifications. Additionally, it seeks to investigate whether SME business owners and entrepreneurs, would consider pursuing micro-credentials as a more flexible and practical alternative to traditional degrees for upskilling and addressing business challenges.

Literature Review

What Is Micro-Credentials in Entrepreneurship?

According to the Oxford English Dictionary as cited in [11], a credential is a “qualification, achievement, quality, or aspect of a person’s background, especially when used to indicate their suitability for something”. Currently, there is no agreed definition on micro-credentials, however several authors argue that it is competency-based learning models that showcases evidence of mastery in specific skills or knowledge areas [9; 12]. These credentials also focuses on a specific knowledge area within a short time frame [13]. [14] argues that micro-credentials in entrepreneurship would then consist of a competency based model that focuses on the skills necessary to start a new businesses or develop an entrepreneurial mindset. The authors used the example of an authorised Career Readiness Enhancement Designation (CRED) in entrepreneurship. A digital badge is earned once the individual has completed and passed four courses within their institution that relates to entrepreneurship, which will also reflect on the student’s transcript. Another example is Ryerson University in Canada which has one of the largest micro-credentialing programs in the world with “75 different entrepreneurship courses, 10 on-campus incubators, several masters degrees, undergraduate degrees, majors, minors, and cocurricular levels of credentialing” [15]. Micro-credential course may or may not be credit bearing like accredited courses in HEIs. It may also be aligned or developed based on existing modules that are credit bearing, contributing to the quality of the courses. In some HEIs it may be stackable to accumulate module outcomes which may or may not result in module exemption in a course [16]. The University of Melbourne identified specific characteristics of micro-credentials, stating that it is short, focused learning units that may be stackable toward a qualification, supporting Recognition of Prior Learning (RPL) as well by bridging educational gaps. Furthermore, it contributes to developing attributes such as soft skills, ethical awareness, or technical competencies, which would complement traditional qualifications [16]. Additionally, micro-credentials can assist individuals from unrelated fields in meeting accreditation requirements set by industry bodies. Micro-credentials are commonly delivered in a self-paced, online format, but they can also be offered through face-to-face, hybrid, or blended learning approaches that incorporate in-person sessions, group activities, and digital components [17].

Entrepreneurship is regarded as one of the major driving forces in economic growth, development and job creation across global economies [18;19]. Entrepreneurship education play a critical role in equipping students with the necessary business knowledge, skills and mindset to start and grow their own business [20]. Micro-credentials offer a flexible and scalable approach to recognising and validating skills as they are acquired, allowing for personalised learning and timely employee recognition [21]. They also enable rapid responses to training needs, are cost-effective to distribute, and allow learners to compile portfolios that showcase their skills [22]. These characteristics make micro-credentials particularly well-suited to entrepreneurship education, where agility, targeted upskilling, and practical application are essential for success. The European Union (EU) is targeting that 60% of adults should attend annual training by 2030 arguing that micro-credential offers such a solution [23]. [24] argue that entrepreneurship micro-credentials must be designed with contextual sensitivity, incorporating learner backgrounds, team dynamics, and digital delivery considerations.



Their case study illustrates that effective design should balance content, process, and context, offering learners not only flexibility but also coaching, real-world application, and networking opportunities.

Theories Related to Micro-Credentials in Entrepreneurship

Human capital theory

The Human capital theory suggests that individuals invest in education and training to enhance their skills and productivity, ultimately leading to higher lifetime earnings that outweigh the costs of their educational investment. [30;15]. Several studies have found that individual with higher levels of education is more likely to be employed [4] and earn higher incomes [5;6]. The rise in micro-credentials can be attributed to several key factors, including the high cost of traditional higher education qualifications, the growing mismatch between institutional offerings and industry needs, and shifting learner preferences toward more flexible, efficient, and skills-focused learning pathways. Micro-credentials are generally shorter in duration or workload [25], more targeted in terms of competencies and subject matter [26], and more adaptable in curriculum and delivery compared to conventional degree programmes [4]. As the human capital theory states, individuals seek to maximise their earnings while minimising their investment of time and money.

Signaling theory

The signaling theory was introduced by [27] and originated in the field of economics. The theory offers a solution to the information gaps between different stakeholders due to uncertainty. This theory is also dominant in the field of entrepreneurship, where new business startups often rely on various signals, such as convincing stakeholders, such as investors, customers, employees and suppliers of their capabilities [28;29]. Micro-credentials can therefore serve as valuable signals for entrepreneurs, helping them demonstrate their skills, capabilities and credibility, which can enhance their appeal to various stakeholders such as potential investors, customers, and business partners.

Research Questions:

The primary research question of this study is: *How do entrepreneurs and SME business owners perceive the effectiveness and practicality of micro-credentials in developing entrepreneurial and business management skills compared to traditional business degrees?*

Secondary Research Questions:

1. What factors influence entrepreneurs' and SME business owners' decisions to pursue micro-credentials instead of or alongside traditional business degrees?
2. How do entrepreneurs' and SME business owners' perceive the value of micro-credentials in addressing specific challenges they encounter in running and growing their businesses?
3. How can higher education institutions integrate micro-credentials into their curricula to better support entrepreneurs and SME business owners?

Research Methodology

This study adopted a qualitative research approach to explore the perceptions of entrepreneurs and SME business owners on whether micro-credentials are perceived as more effective in developing and fostering entrepreneurial and business management skills compared to traditional business and entrepreneurship qualifications. Semi-structured interviews were conducted to gather insights from participants. Purposive sampling was used to select 10 entrepreneurs/SME business owners in South Africa to participate in the study. The interviews were held either online and in person, depending on the participant's availability, and lasted between 30-46 minutes. The interviews was recorded and transcribed for analysis.

The data was analysed using thematic analysis, identifying key patterns and themes related to the perceived value and relevance of micro-credentials, their recognition and accreditation across industries, and recommendations for how HEIs can better support entrepreneurs through micro-credential offerings. All ethical considerations were observed, including obtaining informed consent from all participants prior to the interviews, ensuring confidentiality, and allowing participants to withdraw from the study at any stage. The study aimed to provide meaningful insights for HEIs and



policymakers on how to integrate micro-credentials to better support entrepreneurs in their learning and professional development.

Findings and Discussion

The purpose of this study was to determine how entrepreneurs and SME business owners perceive the effectiveness and practicality of micro-credentials in developing entrepreneurial and business management skills compared to traditional business degrees. Table 1 below provides an overview of the demographic information of the participants.

Table 1. Demographic information of participants

Participant	Business	Role	Education
Participant 1	Motor windscreen repairs	Business owner	No formal qualification
Participant 2	Construction, building and textile industry	Business owner	No formal qualification
Participant 3	Education	Managing Director	BA Psychology
Participant 4	Enterprise and supplier development, socio-economic development programmes for small business	Managing Director	Honours in counselling psychology
Participant 5	Creative media and marketing agency	Managing Director	Diploma in Music; BA in visual communication.
Participant 6	Public relations and digital marketing firm	Business owner	Diploma in Public Relations
Participant 7	Food and retail	Managing Director	BCom degree and Honours in Strategic Management
Participant 8	Health and beauty skincare franchise	Business owner	BA in Marketing Communications; BCom in Marketing & Management Sciences; PGDip in Business Admin, Current MBA candidate
Participant 9	Finance and property development	Financial Accountant	BCom degree and Honours in Financial Management
Participant 10	Wholesale supplier to retail	Business owner	TVET College degree

Source: Authors own compilation

The participants were asked if they are familiar with the concept of micro-credentials and eight out of the 10 participants said they have not heard of the concept. Once the concepts were explained, four of the participants said they have completed similar short courses, not knowing that it was referred to as micro-credentials. This reveals a gap in the awareness of micro-credentials amongst industry players. Figure 1 below presents the three key themes that emerged from the study.

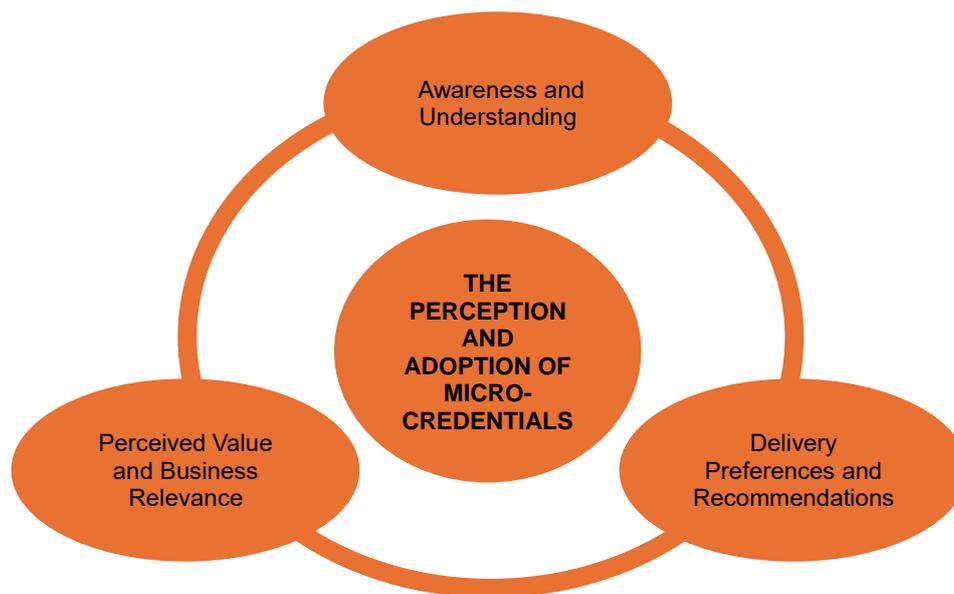


Fig. 1. Thematic map illustrating the perceptions and adoption of micro-credentials among entrepreneurs and SME owners.
Source: Author's own compilation

To further elaborate on these themes, Table 2 provides a detailed overview of the broader categories and patterns that emerged from the participants' responses. The themes are discussed in more depth in the sections that follow.

Table 2. Summary of Themes, Broader Categories, and Emerging Patterns from Participant Responses

Themes	Broader Categories	Patterns and Relationships
Awareness and Understanding of Micro-Credentials	<ul style="list-style-type: none"> Initial lack of awareness Familiarity increases after explanation 	Research Question 1 and 2: <ul style="list-style-type: none"> 8 out of 10 participants were unfamiliar with the term. Some had completed similar courses without realising they were micro-credentials. Demonstrates a gap in awareness but a willingness to engage once informed.
Perceived Value and Business Relevance	<ul style="list-style-type: none"> Practical and immediate skills development Business life cycle requires specific needs Cost, time, and flexibility considerations 	Research Question 1 and 2: <ul style="list-style-type: none"> Participants preferred targeted, relevant skills over broad degrees. Key drivers: <ul style="list-style-type: none"> Flexibility, cost-effectiveness, relevance to business challenges. Value in addressing specific needs at different business stages. Industry-dependent preferences for formal recognition
Delivery Preferences and Recommendations for Institutions	<ul style="list-style-type: none"> Flexible delivery formats Practical application Networking and peer engagement opportunities 	Research Question 3: <ul style="list-style-type: none"> Preference for online and after-hours formats Suggestions for gamification, practical focus over theory, and more awareness-building. Desire for networking opportunities embedded in courses. Institutions should align courses with real-world entrepreneurial needs.

Source: Author's own compilation



Perceived Value and Relevance

Once the concept was fully understood, all the participants indicated that they would enrol for micro-credential courses, citing the flexibility, practicality and time-efficiency as distinct advantages. The participants highlighted that it aligns with the realities of entrepreneurship in terms of targeting immediate skills development. These findings concur with scholarly discourse. Despite the lack of an agreed definition, micro-credentials are described as competency-based learning models that provide evidence of mastery in specific skills or knowledge areas [9; 12].

In order to understand if the participants would enrol for a course and the type of course, they were asked to share business challenges they experience within their business. Several challenges were discussed, such as admin, compliance, strategic planning, people management, marketing and IT systems. Participant 8 stated that:

"...when you are entrepreneur you have no one to assist you and give you those guidelines when you are making certain decisions..."

All the participants indicated that they would enrol for a micro-credential course to address various business challenges in areas such as finance, HR, admin, leadership, and marketing, arguing that it is more valuable than a traditional degree that covers a broad range of knowledge since it addresses specific business needs. One participant stated that: *"...you need different skills and knowledge at different times in your business's life cycle. So like right at the beginning, you might not necessarily need to know how to scale you might. You just need to know the basics of how to set up a business, you know and..."* Another participant stated that: *"Yes, I would take specific short courses to gain relevant knowledge and skills."*

These findings align with [13], who claim that micro-credentials typically focus on a specific knowledge area within a short time frame. The main factors that would contribute to entrepreneurs pursuing micro-credentialing is time, value, relevance and cost. Participant 2, 4 and 10 stated:

- *"Most degrees will push you into one direction, but micro-credential can give you knowledge that is relevant to your business" – Participant 2*
- *"I think of 3 things. First of all the cost and that's the cost in terms of, you know obviously monetary value. And the cost and time. So the time commitment I think would be a massive 1. And then maybe even structure." – Participant 4*
- *"The cost and value of the micro-credential and if it is worth pursuing it" – Participant 10*

These factors concur with [25] and [26] claiming that cost and time are prominent reasons why there is a high interest in these courses. Furthermore, these findings also align with the study by [24], which observed time as essential, noting that the majority of their participants were busy professionals that needed to balance work, family, and studies. This highlights the critical role of flexible, time-sensitive course design in the success of micro-credentials for entrepreneurs.

Recognition and Accreditation

Micro-credentials provide individuals with badges or certificates to demonstrate their skills and capabilities to relevant stakeholders [14]. These credentials can act as signals of competency and credibility, enhancing an entrepreneur's appeal to investors, customers, and partners [28;29]. However, findings from this study reveal that the perceived value of formal recognition varies significantly across industries. For example, participants from the beauty, education, and motor repair sectors placed high importance on accreditation, due to trust and regulatory implications in these fields. In contrast those in media, public relations, and textiles emphasised the practical acquisition of skills over formal certification. One participant stated that: *"Personally, it is not very important for me, I value knowledge over formal recognition and certificates"*.

Preferred Formats and Delivery

The participants were also asked to share the preferred mode of delivering these courses and the majority of the participants indicated that online would be most preferred, however two participants



highlighted the value of face to face course for engagement purposes. Furthermore, the participants indicated that evening and after-hours availability was essential for them to enrol, since they require learning formats that does not disrupt their business operations. One participant particularly said that Saturday sessions would work best, over six to eight weeks where only one topic or skill is covered during that period. This aligns with [17], claiming that micro-credentials are mostly delivered in a self-paced, online format, but they can also be offered through face-to-face, hybrid, or blended learning approaches.

Recommendations for Higher Education Institutions

Lastly, the participants shared recommendations to successfully roll out micro-credentials for entrepreneurs. Main factors include relevance to their specific industry and practicality, reducing theory-heavy models. One participant also suggested that some of the course should be gamified to appeal to younger generations and also creating awareness around these courses. Moreover, one participant emphasised that networking opportunities should be embedded within micro-credential courses, as they enable entrepreneurs to exchange knowledge, share experiences, and collaboratively navigate common business challenges. Overall, participants emphasised that micro-credential courses must be directly aligned with their specific business needs, ensuring that the content delivers practical value and addresses the real-world challenges that they face as entrepreneurs. Two participants stated:

- *“...Because generally people assume there is no point in getting education if you are going to be an entrepreneur. If you are going to work for yourself, what is the point? Make education fashionable again...” – Participant 8*
- *“The university should adapt to the environment and the industry trends to attract more people”. – Participant 10*

This aligns with [25] and [26] and the [4] claiming that micro-credential courses are becoming more popular due to the knowledge and skills gap that is being addressed. [24] also argue that the design of entrepreneurship micro-credentials should balance content, process, and context, offering not only flexibility but also coaching, real-world application, and networking opportunities. This aligns with the sentiment of the participants.

Recommendations and Conclusion

This study highlights the growing relevance and perceived value of micro-credentials among entrepreneurs and SME business owners in South Africa, particularly as an alternative to traditional business qualifications. Based on the findings, several recommendations emerge. HEIs should design micro-credentials with flexibility in mind, such as online, weekend, or after-hours formats to accommodate the time constraints of busy professionals as highlighted by the participants. Courses must be relevant and practical, directly addressing the real-world challenges entrepreneurs face in areas like finance, compliance, HR, marketing, and IT systems. Given that most participants were unfamiliar with the term “micro-credentials” despite completing similar short courses, institutions should also invest in awareness campaigns that clearly communicate their benefits, how they differ from traditional qualifications and the value it offers. HEIs should also consider how micro-credentials can be stackable as an accumulation to a formal qualification. In addition, the courses should incorporate elements such as real-world application to enhance engagement and impact as well as networking opportunities amongst peers. To effectively design the courses, HEI should ensure alignment with current market needs and to boost the credibility of these credentials since all the participants emphasises the relevance to their business and value in addressing specific skills and needs. In conclusion, the study finds that micro-credentials are not only practical and more time-efficient but are also better suited to the dynamic learning needs and requirements of entrepreneurs compared to traditional degrees. When designed with contextual sensitivity and supported by clear communication and flexible delivery, micro-credentials hold great potential to strengthen entrepreneurial education, promote small and medium sized business growth, and ultimately contribute to addressing South Africa’s unemployment and skills development challenges.



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