

Strategies for the Propagation of Micro-credentials in the Economy of Zimbabwe by Institutions of Higher Education/Learning and Training

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Abstract

The study sought to recommend appropriate strategies for the propagation of micro-credentials that would positively influence economic growth using micro-credentials to provide knowledge and skills training. The thrust was to establish the state of micro-credentials in Zimbabwe and how they could be implemented to advantage. An interpretivist philosophy informed the choice of a qualitative paradigm and a case study design. Two institutions of higher learning and training were selected and, from each institution a team of six was purposively selected because of their superior knowledge in the matters of university business. A series of in-depth interviews was held to elicit the requisite information until a point of saturation was reached. The findings indicated that Zimbabwe and most African nations, needed to speed up the process of adopting and implementing micro-credentials. The strategies they could utilise included the use of online courses already accredited to kick-start the offering of micro-credentials, the creation and upholding regulations that catalysed the provision of micro-credentials, and the opening of identified opportunities to adopt and use micro-credentials. The study ended with a recommendation to use an ACQF-II (2024) produced Handbook on Micro-credentials in Africa as resource material and a conclusion.

Keywords: Micro-credentials, Higher Education and training, Propagation strategies, Zimbabwe

Introduction

Micro-credentials are variously defined by different entities, depending on who is offering them and for what purpose. One definition state that micro-credentials offer shorter timelines, more flexible schedules and the opportunity to tailor-make learning paths from scratch, typically with an on-ramp to career opportunities built in. Another definition is that a micro-credential is a short, competency-based recognition that allows an educator to demonstrate mastery in a particular area. A third definition is that micro-credentials are an assessment-based record of focused learning achievement verifying what the learner knows, understands and can do. Micro-credentials are delivered as “bite-sized” chunks, they have stand-alone value and may also contribute to or complement other micro-credentials or macro-credentials. However, micro-credentials have benefits that are sought-after throughout the world; they offer flexibility to the learner, provide an opportunity to re-skill, upskill and add new skills to industry and commerce and they are a revenue-generating source to institutions of higher education. They offer a variety of other benefits that the study shall consider in due course.

The major characteristics of micro-credentials are that they offer flexibility and personalised learning to the student and they are performance-based in that a student must work for the qualification. They are also short, targeted and stackable learning outcomes.

Musseau (2024) states, “Micro-credentials are causing a revolution in the education landscape, offering a flexible, targeted and industry-aligned approach to skill acquisition”. Seneviratne (2024:1) quotes Dr Tan Tai Yong, President of Singapore University of Social Science (SUSS), who warns universities and says, “*Universities say we are the sort of guardians of knowledge, and if you want, you take it from us and so be it. However, this is no longer sufficient because if universities are not using micro-credentials, they are not relevant and are not talking to the rest of the ecosystem, they risk marginalisation. They risk being irrelevant.*” Those institutions of higher learning that ignore or are ignorant of micro-credentials and stand beside the wave of micro-credentials are likely to suffer marginalisation and become irrelevant.

Apparently, the revolution has not stirred the academic ecosystem of Zimbabwe, there does not seem to be a frantic race to adopt micro-credentials by the nation’s institutions of higher learning and the public and private sectors of Zimbabwe. However, nations like South Africa, Lesotho, Mauritius and Namibia have advanced to the level that they are at the stage of micro-credential conceptualisation, policy development and implementation in public and private sectors of their economies. The institutions of higher learning of these nations are working on policy, regulation, guidelines and quality control measures. The same does not seem to be taking place in Zimbabwe, where a search on the internet of the Zimbabwe Council for Higher Education’s (ZIMCHE) website (<https://www.inqahe.org/news/unesco-and-zimche-partner-for-quality-assurance-workshop-in-zimbabwe/>) did not yield any evidence that micro-credentials have arrived at the education regulator’s premises, apart from an ‘stray’ quotation.

A survey was conducted at the request of the Secretariat of the Southern African Development Community (SADC) (2022) to determine the status of the implementation of the Southern African Development Community Qualifications Framework. In Section E (New demands – new developments), the survey report recommends the engagement in a process to formulate a common African concept and guidelines on micro-credentials following the experiences of jurisdictions like the European Union, that have implemented micro-credentials for some time. Under Annex 6, “Micro-credentials: debates and developments towards common understanding” the survey report gives an overview on micro-credentials and offers recommended guidelines on what micro-credentials are, what they are not and how micro-credentials could be implemented.

The survey report indicates that there is no common ground in SADC on the definition and implementation of micro-credentials, nations are defining them according to their understanding and implementing them in ways they decide are best in their individual circumstances. The researchers of the survey indicate that their study may have not reflected the entirety of the situation as they received only twenty-eight responses from the fifty-two countries in Africa, a possible indictment on the existence of micro-credentials in Africa.

The study sought to answer the question: How can Institutions of Higher Learning and Training propagate micro-credentials across the width and breadth of the nation?

The purpose of the study was to seek strategies that institutions of higher education and training could employ to propagate micro-credentials. The specific objectives were:

1. To gauge the understanding that the institutions of higher learning and training have of micro-credentials
2. To seek reasons why institutions of higher learning and training have not led the nation in implementing micro-credentials
3. To formulate strategies that the institutions of higher education and learning could employ to propagate micro-credentials.

Review of Related Literature

This section considered the definitions that nations believed reflect their meaning; the global definitions are present and are explicit, but the African continent is still grappling with the definition of micro-credentials, which should start at national level and then these nations agree on a representative African definition. The European Commission defined micro-credentials at Commission level. If Africa were to follow in her footsteps it should have an African definition shortly.

However, there seems to be a consensus on the features, characteristics, benefits and other properties of micro-credentials, globally. This, obviously, is a welcome development, it illustrates a possible convergence of micro-credential ideas soon.

Definitions of Micro-credentials

Brown, Mhichil, Beirne and Lochlainn (2021) say that the term 'micro-credential' has been used, rightly or wrongly, to describe all manner of shorter forms of learning experiences, irrespective of type, size or delivery mode'. They agree that whatever practitioners agree to be the definition, it must be derived from the two words, that are:

1. **'Micro'** - means a shorter and possibly more specialised unit of learning than what a learner is exposed to in something like a semester-based credit course.
2. **'Credential'** - that which is earned by a learner and is evidence of accomplished learning. This evidence may require some form of assessment.

A micro-credential is a proof of the learning outcomes that a learner has acquired after a short learning experience. These learning outcomes have been assessed against transparent standards in the European Union and Australasia (European Commission, 2020).

The absence or lack of a global definition negatively impacts cross-application and the transferability of micro-credentials across international academic borders. Two tables have been used to validate this crucial fact: Table 1 illustrates what might be termed the 'global' definitions of 'micro-credential'; and Table 2 illustrates the African diversity in the search for a national definition prior to the search for an African definition.

Table 1: Selected Definitions of a 'Micro-Credential' – Global

NO.	Source/Country	Definition
1.	New Zealand Qualifications Authority	Micro-credentials are small, stand-alone awards with set learning outcomes. They are part of Aotearoa's education and training system. Micro-credentials recognise learners' skills, experience or knowledge, while meeting demand from employers, industry and communities.

2.	Australian National Micro-Credential Framework	Micro-credentials are a certification of assessed learning or competency, with a minimum volume of learning of one hour and less than an AQF award qualification, that is additional, alternate, complementary to or a component part of an AQF award qualification.
3.	Canada College and Institutes	A micro-credential is a certification of assessed competencies that is additional, alternate, complementary to, or a component of a formal qualification.
4.	Malaysian Qualification Agency	Micro-credential is a certification of assessed learning of a single or a set of courses which are intended to provide learners with knowledge, skills, values and competencies in a narrow area of study and/or practice.
	European Commission (2022)	Micro-credential means the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes will have been assessed against transparent and clearly defined criteria. Learning experiences leading to micro-credentials are designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs. Micro-credentials are owned by the learner, can be shared and are portable. They may be stand-alone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity (2022/C 243/02, p.14).
	UNESCO (2022)	A micro-credential is a record of focused learning achievement verifying what the learner knows, understands or can do. It includes assessment based on clearly defined standards and is awarded by a trusted provider. It has standalone value and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning. It meets the standards required by relevant quality assurance (Oliver, 2022).
	OECD (2020)	Micro-credentials are ‘academic certificates recognising completion of organised learning activity may be awarded by educational institutions. These may or may not confer academic credit applicable towards degree programmes. Professional/industrial certificates are awarded by professional bodies, industries or product vendors, typically following the completion of an examination. Digital badges are defined as digital pictograms or logos that can be shared across the web to show the accomplishment of certain skills and knowledge.’ According to this definition, micro-credentials sit with a broader category of alternative credentials (Kato et al., 2020).
	ACQF (2024)	Micro-credential is a certification of assessed quality assured short period of learning, which is intended to provide learners with knowledge, skills, values and competencies in a targeted area and or practice (4th ACQF Forum, Seychelles, 13- 14/11/2024).

Table 1 above shows that there is a European Union definition of micro-credentials and that other nations have nationally agreed definitions. The current thrust is the formulation of an agreed definition of micro-credentials across most jurisdictions in the world; Africa lags as most nations have formulated national definitions.

According to a Groningen Declaration of 2021 recommendation the European Commission definition of micro-credential considered the following attributes:

1. **Learner autonomy** - requires the definition to recognise the unique value of micro-credentials as enablers of learner autonomy, agency and control.
2. **Trust** – requires the definition to emphasise that micro-credentials are trusted and based on transparently evident quality assured policies and practices.

3. **A Focus on Learner Outcomes** – should have a clear purpose and with a clear focus on providing verifiable evidence of what learning outcomes have been assessed and achieved.
4. **Interoperability** – it is essential that the definition signals the importance of using interoperable standards for data exchange while still respecting regional diversity, authority and autonomy.
5. **Portability** – Enshrining learner access to and control of their micro-credential in the definition requires a similar commitment to portability as these two dimensions are inextricably linked to self-sovereign identity principles (that is learner autonomy, agency and control) and data privacy.

The recommendations were designed to be explicable to whosoever required assistance in the formulation of micro-credential definitions. The African nations could do themselves a gigantic favour if they started from here; their chances of expeditiously arriving at an agreed African definition could be enhanced, starting with national definitions.

The African definitions

Micro-credentials now obtain in many sectors in African nations. For instance, Burkina Faso, Guinea-Bissau, and Zambia confirm micro-credentials are offered in every sector; but in Angola, Democratic Republic of Congo, Ghana, Malawi, Nigeria and Rwanda micro-credential offering is confined to technical and vocational education and training organisations.

Table 2 below shows that Africa still has a long way to go; there appear to be an absence of nationally agreed definitions of micro-credentials, even if a few nations have started the process of including micro-credentials in their qualification's frameworks. The table is derived from the results of the African Continental Qualifications Frameworks (ACQF) ACQF-11 Micro-credentials Survey Report (2023) for both first world and African nations.

Table 2: Selected Definitions of a 'Micro-Credential' in Africa

NO.	Source/Nation	Definition of Micro-credential
1.	The Seychelles Qualifications Authority (SQA)	the micro-credentials are often referred to by various names, most commonly as “short courses”, highlighting a lack of unified definition of this instrument in the country
2.	Mauritius	Micro-credentials and flexible learning pathways are seen to offer tailored, bite-sized educational achievements that can be stacked and accumulated to meet specific career or academic goals, promoting lifelong learning and skill adaptability. There is no definition given
3.	Kenya, the National Qualifications Information Management System (NAQIMS)	NAQIMS serves as a comprehensive database, which also includes part qualifications and short courses. No clear definition of a micro-credential
4.	Botswana Qualifications Authority (BQA)	Issued criteria and guidelines for the approval of non-credit-bearing short courses, including quality assurance standards and accreditation procedures for non-NQF programmes. No national definition of a micro-credential
5.	South African Qualifications Authority (SAQA)	Issued policies and criteria for registering partial qualifications within its NQF (2022). Provided a solid foundation for the potential introduction of micro-credentials in the country (SAQA, 2022). SAQA has established a

		Micro-credentials Task Team (MCTT) to form a SAQA position on micro-credentials. Absence of an agreed definition of a micro-credential
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Source: ACQF, 2024

Although most countries in Africa must come up with national definitions, some of them have already set up policy frameworks, guidelines and quality assurance processes for short courses, non-credit-bearing courses and incomplete credentials. Ghana, Guinea Bissau, Sierra Leone, Seychelles, Senegal and Somalia included micro-credentials in their national qualification's frameworks.

Numerous nations are creating National Qualifications Frameworks (NQFs) and those that already have them permit the implementation of micro-credentials of some kind.

Key findings of a Micro-credential survey

A recent survey on “Micro-credentials. Exploring the Dynamics of Micro-Credentials: Insights from Across African States” by Jakab, Zutautaite and Stukiene (2024) produced results that show the state and types of micro-credentials produced in Africa and the role played by National Qualifications Frameworks; the key findings are summarised below.

The Micro-credentials Survey comprised 28 countries in Africa that participated. The rest of the responses came from Zambia (7), Burkina Faso (4), Eswatini (4), Guinea-Bissau (4), Mozambique (4) and Seychelles (4). Angola, Kenya, Morocco and Tunisia all received 3 responses, South Africa and Uganda 2 responses. Zimbabwe submitted a single response. The survey's objective was to gather information about the status and patterns of micro-credentials in the systems of qualifications and lifelong learning across several African nations. More precisely, it sought to determine typical micro-credential kinds, examine organisational variations and look at several attributes including stickability, quality assurance techniques, inclusion in NQFs and information needs. Additionally, the survey collected information on the present micro-credential offerings.

The findings were that 61% of respondents indicated the use of micro-credentials in their countries, with localised definitions. However, 50% of these respondents indicated that their definitions of micro-credentials were still being worked on, it was work in progress. Respondents who said that their nations did not have policies for their micro-credentials constituted 46.7% of all respondents. However, there was awareness of micro-credentials in these nations. Thirteen nations indicated that the technical and vocational education and training (TVET) sector was leading in the production of micro-credentials. The other sectors were still in the process of understanding micro-credentials. The other result was that there was diversity in the provision of micro-credentials that ranged from vocational education and training to online platforms to employment organisations. The most prevalent micro-credentials were in professional development, skills acquisition and digital micro-credentials were less prevalent in this sector. The major purpose for the use of micro-credentials was aimed at responding to labour force needs. This was followed by micro-credentials used for upskilling and re-skilling, the support of lifelong learning and to achieve flexibility in learning opportunities.

The main conclusions of an ACQF-II (2024) survey on the state and application of micro-credentials in African nations are summed up in the items that follow.

1. Different nations are using micro-credentials at varying degrees of development. Fewer have set definitions, while the majority are still working on them.
2. Only a small number of nations have well-established systems, although many employs micro-credentials at different levels.
3. Micro-credentials are referred to by different names in different countries (for example, part qualification, short courses, skills certificate, modules).
4. Despite differing opinions, micro-credentials are viewed as advantageous, especially in VET and higher education. The primary providers are VET providers.
5. Due to Africa's large proportion of young people, young adults (20–35 years old) are the main receivers of micro-credentials. Most participants do not have a formal education and many of them are working.

ACQF-II (2024) survey report on the use of micro-credentials further states that micro-credentials, or notions like them, are new throughout the continent. The phrase is utilised at least somewhat in the context of their educational systems, according to 36 respondents (61%) in total. The phrase or other equivalent notions are not utilised, according to 19 (32%) of respondents. On the discussion on micro-credentials, the report notes that discussion has not yet led to a corresponding appearance in official policy papers, even in the face of the present surge of evolving definitions. Most replies (21, 46.7%) said that official policy papers do not currently include micro-credentials. Furthermore, a significant portion of respondents were unable to react to the question (8, 17.8%), while about one-third of the replies stated that the notion is referenced or alluded to (16, 35.6%). The technical and vocational education and training (TVET) sector is offering micro-credentials much more regularly. The report notes that 19 nations provide TVET micro-credentials.

Micro-credentials are even less common in other industries, with higher education (13 nations) coming in second. The nations with the greatest coverage of the variety of education and training sectors are Burkina Faso, Guinea-Bissau and Zambia. Some micro-credentials have started appearing on National Qualifications Frameworks.

The major characteristics of National Qualifications Frameworks accredited micro-credentials includes learning outcomes, issuing authority, date of issue, workload and relationship to existing qualifications. The results indicated that the challenges that impeded a wide adoption and use of micro-credentials are in the areas of standardisation, recognition and a lack of uniform definition (ACQF-II, 2024). The result proceeded to show that high quality micro-credentials were those that are recognised by qualifications authorities, the labour market, those that are aligned with the forces of supply and demand in the labour market, are trusted by employers and those offered by Institutions of Higher Education/Learning and Training.

Figure 1 shows the most common types of micro-credentials produced in Africa by the nations that participated in the survey. It would be interesting to know what other nations like Zimbabwe that were not mentioned are doing. Professional education and skills development feature prominently in the types of micro-credentials and these influence the level of economic activity and productivity of any country.

► Most common types of micro-credentials

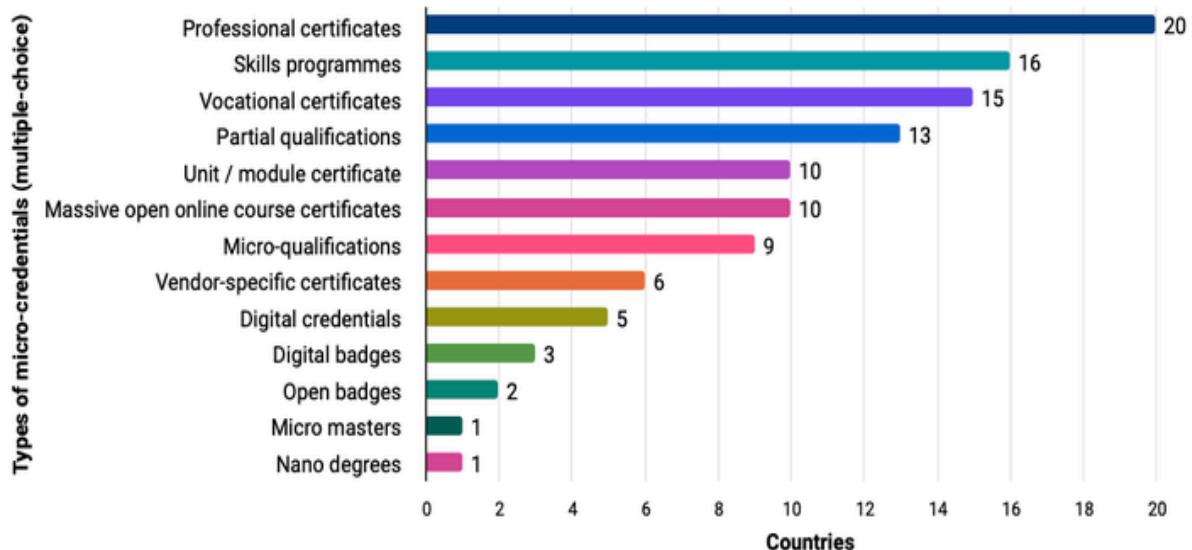


Figure 1: The most common types of micro-credentials in Africa

Source: Jakab, Zutautaite and Stukiene (2024)

The results of a survey on the state of National Qualifications Frameworks indicated that nations that have not started using National Qualifications Frameworks (NQFs) accredited micro-credentials could be compromising the development of their national economies. Most of these nations, apart from not having accredited micro-credentials, are still to adopt, design and implement micro-credentials at national level. Currently, most micro-credentials are offered by education and training institutions in their individual capacity as education and training organisations. The problem with this arrangement is that information on micro-credentials becomes almost impossible to collate and analyse, save for information collated in the survey that involved 28 countries. The survey shows that there are thirteen common types of micro-credentials offered in Africa as shown in the graph reproduced below.

A recommendation in the report showed that a partnership between the Southern African and European universities and higher education councils would help through an institution of higher education (CBHE) project that would methodically create guidelines and policies for the acceptance, regulation and quality control of micro-credentials in Southern African nations. The project would create national concept papers for the methodical introduction of regional guidelines and policy frameworks on micro-credentials after assessing the current state of micro-credential conceptualisation, policy development and implementation in the public and private sectors in Lesotho, Mauritius, Namibia and South Africa, as well as through intra- and inter-regional consultations.

A conclusion from the surveys described above is that Africa, in general and Zimbabwe in particular, needs to rediscover herself and, in a wholesome manner, adopt micro-credentials as a continental project; it should learn from the forerunners to shorten the adoption, design and implementation process. Its neighbours, South Africa, Mozambique, Zambia and Botswana, are far ahead and have started the inclusion process to include micro-credentials in their qualification's frameworks. However, because it has a few universities, like Zimbabwe Open

University that have started the micro credential implementation journey, it is not starting from scratch.

Benefits of micro-credentials for different stakeholder groups

The African continent concurs that micro-credentials are an essential part of their academic ecosystem and most nations are working hard to successfully adopt, design and implement micro-credentials that are included in their qualification's frameworks. However, there is a tangible understanding of the benefits of micro-credentials. In addition, stakeholders in the broader learning ecosystem have an interest in the use of micro credentials.

Benefits for learners

1. Flexibility and accessibility
2. Possible cost-effectiveness
3. Targeted skills development
4. Increased employability

Benefits for education and training providers

1. Increased reach and enrolment
2. Curriculum innovation
3. Partnership opportunities
4. Respond to recommendations and align to policy development

Benefits for employers

1. Workforce development
2. Increased workforce retention
3. Better talent match
4. Economic advantages

Benefit for national authorities

1. Meet labour market needs
2. Foster a culture of lifelong learning

Attributes of Micro-credentials

Micro-credentials enable the acquisition of skills and competencies, verification of learning outcomes and the issuance of digital artifacts

Why Global Micro-credentials

In response to Industry 4.0 or the Fourth Industrial Revolution, governments throughout the world are trying to address the evolving nature of employment and widening skills shortages. The significance of upskilling, reskilling and building the ability to thrive in the new digital world is highlighted by additional disruptive change forces like growing globalisation, ageing populations, climate change and technological advancements, including the growing influence of artificial intelligence (AI). Our times are unpredictable and changing quickly, which leads to the creation of new employment possibilities but also increases the danger of job displacement and the pressing need for people to reskill.

Brown, Mhichil, Beirne and Lochlann (2021) quote the World Economic Forum (2020) indicating that 50% of all employees in the world would need reskilling by 2025 because of the “double-disruption” of the economic impacts occasioned by the just-ended Covid-19 pandemic, including the technological advancements obtaining today.

Massive online open courses or MOOCs, are a methodology for distributing knowledge via the internet with zero restrictions on the number of participants. To address disparities and improve skills, private, third-party providers are collaborating with top institutions and larger businesses to offer MOOCs. Innovation is fuelled by strong collaborations.

Castel-Branco, (2024) says 44% of workers core skills are expected to change in the next five years. He proceeds to state that there are six types of skill that are cognitive skill, management skill, self-efficacy skill, technology skill, working skill, engagement skill should receive serious attention before 2027. These are disaggregated into top ten skills that feature prominently in the future workplace. These skills can be taught fast enough if micro-credentials are used.

The ten top skills are necessary to cover the ten fastest-growing jobs of the future which include AI and machine learning specialists, sustainability specialists, business intelligence analysts, information security analysts, fintech engineers, data analysts and scientists, robotics engineers, electrotechnology engineers, agricultural equipment operators, digital transformation specialists, bank tellers and related clerks, postal service clerks, cashiers and ticket clerks, data entry clerks, administrative and executive secretaries, material-recording and stock-keeping clerks, accounting, bookkeeping and payroll clerks, legislators and officials, statistical, finance and insurance clerks, door-to-door sales workers, news and street workers and related workers (Castel-Branco, (2024)).

Why micro-credentials for Africa

Micro credentials are not very different from those offered globally, but they need to be interrogated and responded to. For instance, the recognition of prior learning (RPL) features prominently in Africa. A study titled, “New ACQF-II Survey Maps Policies on Recognition of Prior Learning across African Countries” by Jakab, Zutautaite and Stukiene, (2024) found that most respondent countries did not have a developed RPL system. The researchers value RPL because they believe that “millions of workers and individuals have skills and competencies that can be assessed and certified” through micro-credentials.

1. Recognition for Prior Learning
2. Offer a valuable way to recognise knowledge and skills
3. Improve employability
4. Enhance (basic) skills
5. Empower different subsets of the population from vulnerable groups to youth people and to low- and high-skilled individuals.
6. Demand for continuous training micro-credentials
7. Offer the opportunity to train individuals in emerging industries and areas especially important for the continent, such as catalysing digital literacy, the green economy and green agriculture (African Continental Qualifications Framework (ACQF), 2024)

The key micro-credential stakeholders in Africa include institutions of higher education, Vocational Education and Training organisations, commerce and industry, public employment

service organisations, employers and workers themselves, who are the major consumers of micro-credential outcomes, as illustrated in Figure 2 below.

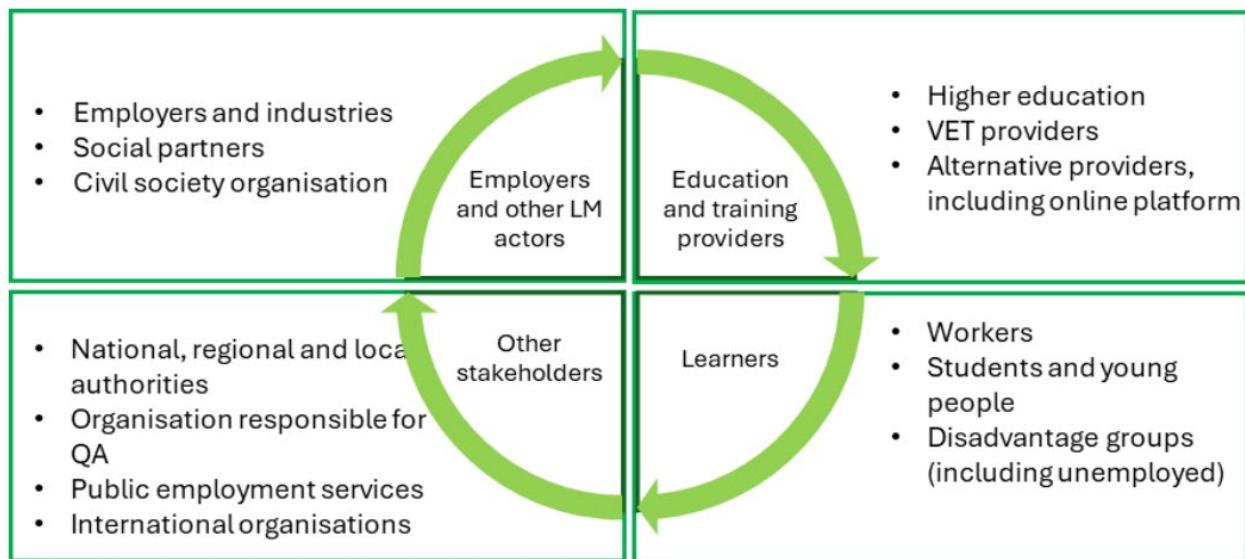


Figure 2: Key stakeholders of the micro-credential ecosystem in Africa

Source: ACQF (2024)

The principles for the design and issuance of micro-credentials are quality, transparency, relevance, valid assessment, learning pathways, recognition, portability, learner-centred, authentic, information and guidance.

The African Continental Qualifications Framework produced an ACQF-11 Micro-credentials Survey Report (2023) that gives the following characteristics of a micro-credential:

1. It refers to learning over a limited time and/or in a specific area
2. May form part of or add to formal qualifications
3. Potentially ‘stackable’ over time, adding to individual learning careers
4. Given their limited size and focus, more flexible than traditional qualifications
5. Based on assessed learning
6. Frequently delivered in a digital form

Benefits of Micro-credentials

OECD (2023) says, ‘Proponents of micro-credentials envision them as an innovation with a multitude of potential uses and benefits a sort of all-purpose solution for the problems confronting education and training systems.

According to Mahlasela, and Steyn (2023), micro-credentials offer a variety of benefits that include continuous and flexible learning; foster collaboration between employees; recognition across sectors; encourage employee growth and bridging skills gap.

The survey identified the following benefits of micro-credentials:

1. Because they are linked to skills or competencies, address a particular work need, are responsive to changes in the labour market, facilitate rapid access to employment and close the gap between formal education qualifications and industry or workplace requirements, micro-credentials are immediately relevant to labour market demand.

2. Individual learning is supported by micro-credentials (which are tailored to the requirements of the student, allow them to advance at their own speed, make it simple to accumulate knowledge in manageable chunks, may be stacked towards a certification and make formal education more accessible).
3. Micro-credentials are valuable on their own (a micro-credential is an important component of a qualification or a supplemental/complementary award that provides value to a formal education certification and can have an impact in the job market)
4. Micro-credentials make it easier to recognise a person's abilities, knowledge and competencies (helping to formalise and transfer these abilities; enhancing the visibility of lifelong learning; facilitating the recognition of learning accomplishments obtained outside of formal education; enabling the recognition of mastery or a higher level of proficiency in a particular field and enhancing digital visibility).
5. Flexible training design is made easier by micro-credentials, which enable on-demand learning as and when needed with little effort.
6. Micro-credentials save money and time because they need less study time and are reasonably priced for self-paying individuals.

These benefits are proof that nations must adopt the concept of micro-credentials and explore their various outcomes for the nations' benefit.

Uses of Micro-credentials

The result of the ACQF Micro-credentials Survey Report (2023) on the use of micro-credentials in Africa indicates four possible uses or non-uses as follows:

1. Providers and learning institutions employ micro-credentials, which are well-established in the policy framework.
2. Micro-credentials are brand-new and are just beginning to be used by providers and students.
3. Micro-credentials are employed but only in the context of research and policy discussion.
4. In no other situation are micro-credentials utilised.

OECD (2023) provides the following possible uses of micro-credentials: upskilling and reskilling, employability, lifelong learning, more flexible learner-centred learning, access to and completion of education and training, student international mobility, social inclusion and active citizenship and wellbeing.

Purpose and Provision of Micro-credentials

The Zimbabwean situation remains obscure with no record on the continental scene. The Zimbabwe National Qualifications Framework does not seem to have a policy position on micro-credentials. However, this seems to be the default position of many African nations, as a visit to the ACQF (2024) Handbook on Micro-credentials attests. The ACQF (2023) survey report indicates that the main providers of micro-credentials in Africa are vocational education and training providers, adult education providers, public employment service providers, companies and professional bodies, to mention a few, as illustrated in Figure 3 below.

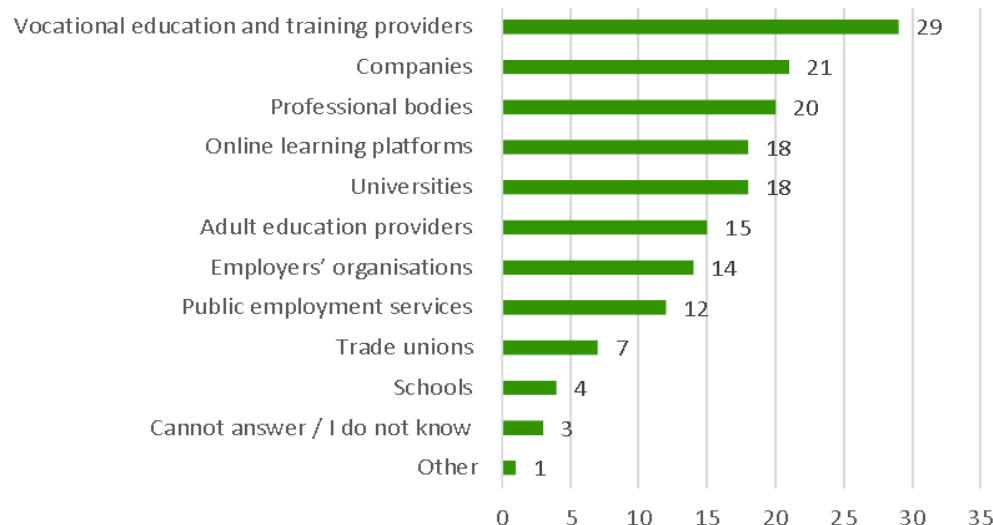


Figure 3: Main providers of micro-credentials (multiple-choice, data by respondents)
 Source: Jakab, Zutautaite and Stukiene (2024)

The ACQF Micro-credentials Survey Report (2023) indicates that there 14 types of micro-credentials in use in Africa, the most used is the Professional Certificate micro-credential. Zimbabwe, according to the ACQF Micro-credential Survey Report (2023) has not started using any type of micro-credential.

The report indicates that micro-credentials are part of a global shift towards more flexible, accessible and personalised education and training systems, built on three pillars.

1. Enabling skills development and career mobility
2. Providing flexible learning pathways
3. Recognition of prior learning

According to the ACQF Micro-credential Survey Report (2023), there are eighteen reasons why African nations are using micro-credentials. Zimbabwe should be seen to appreciate the use of micro-credentials and should identify the reasons that apply to it for the use of micro-credential. It cannot remain unconcerned by the adoption, implementation and use of micro-credentials in Africa and hope to compete equally on the African labour market. Figure 4 lists the eighteen main purposes of micro-credential in Africa and it would be interesting to compare these with the global reasons for micro-credentials; to identify the similarities and the differences and try to explain the reasons for these similarities and differences, which falls outside the purview of this study.



Figure 4: Main purposes of micro-credentials (multiple choice, up to 8 of the most important items, data by respondents)

Source: ACQF (2023).

Typical Providers

1. Education and training providers – public and private - at different levels of the education system, from VET providers to higher education institutions.
2. Labour market actors, most notably private companies, employers' and employees' organisations (for example, trade unions).
3. Alternative providers, including online providers (for example, platforms and specialised micro-credential providers) other public organisations and NGOs.

Reasons for the Offering Micro-credentials

The African continent is persuaded by the reason in Figure 5 to adopt and implement micro-credentials. Obviously, these reasons are not complete, but they reflect the overarching ones in the continent. Some of these reasons include to earn the recognition of national authorities, validate prior learning, link the supply and demand for labour in the market, create building blocks towards the attainment of full credentials and the to achieve the flexibility that most students yearn for.

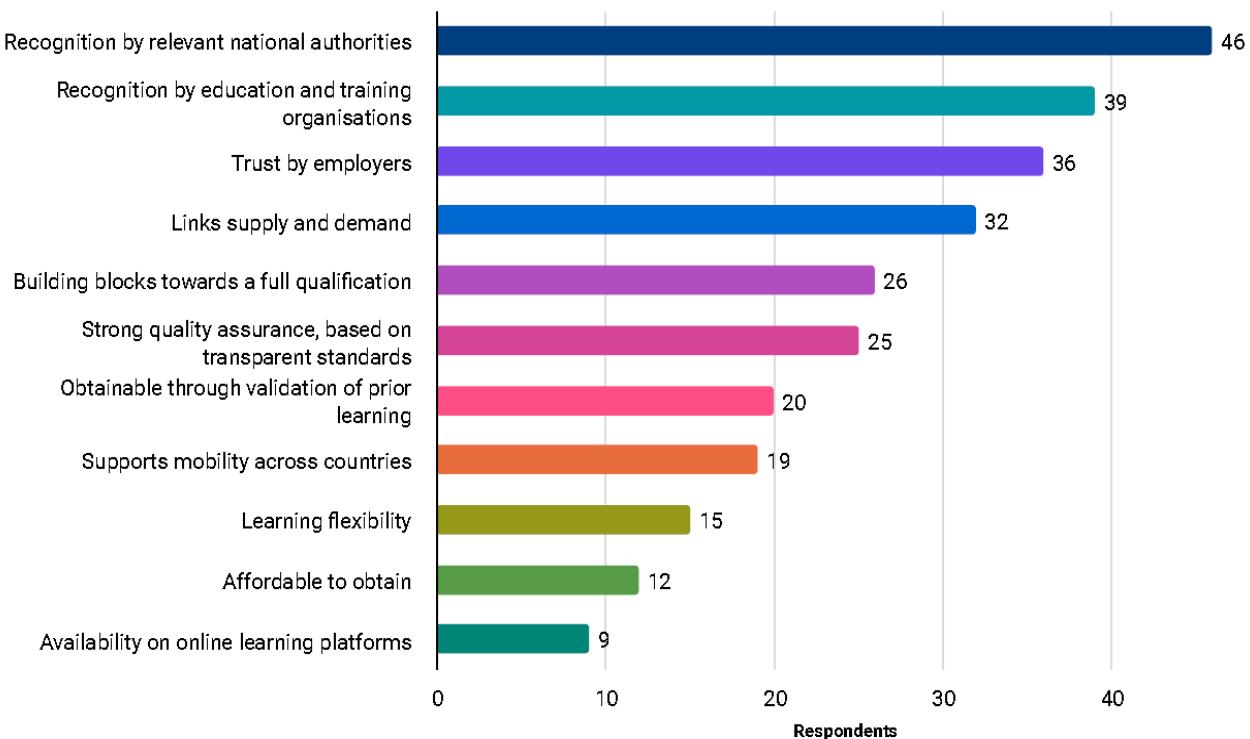


Figure 5: Reason for micro-credentials

Positioning of Micro-credentials in Qualifications and Credential System

Institutions of higher learning should decide on the preferred positioning of micro-credentials in their curriculum, qualifications framework or credential system. Micro-credentials could be positioned in combination with existing qualifications, as supplements of existing qualifications, as a bridge between formal, non-formal and informal learning, embedded in formal education, as an alternative formal system or as an entry pathway into a formal setup (ACQF Micro-credential Survey Report, 2023).

The positioning should start with an identification of that types of micro-credentials the nation can successfully offer; some micro-credentials may not be easy to offer depending on the target consumers and other issues. The graph below lists the common types of micro-credentials most nations in Africa are offering.

Challenges Nations Encounter in Offering Micro-credentials

The challenges nearly always stem from a lack of agreement in the definition, disagreement on the purpose of the micro-credential and the process of offering. Other challenges are listed below:

1. The absence of an agreed African definition of a micro-credential
2. A lot of people are still sceptical about the efficacy of micro-credential
3. Most of the Africa nations do not have national policies to support the use of micro-credentials
4. Micro-credentials are known by many names including short learning or short courses
5. There is a lack of trust and recognition of micro-credentials by many stakeholders

6. There could be an element of incompatibility of micro-credentials with national qualifications bodies
7. Micro-credentials do not have a common definition in Africa and among nations
8. There is little knowledge about the risk of using micro-credentials for the wrong reasons or wrong purpose
9. Institutions of higher education and industry may not trust micro-credentials
10. The level of access for micro-credentials is limited for most stakeholders
11. Many micro-credentials have proved to be expensive for consumers

Features of high-quality micro-credentials

Micro-credentials enjoy a range of features that are determined by the understanding of those using them, but there are a few that are applicable globally:

1. Relevant national regulatory authorities recognise micro-credentials
2. Training organisations and higher education institutions recognise micro-credentials
3. Micro-credentials link supply and demand
4. Employers support micro-credentials
5. Micro-credentials form a building block to full credentials
6. Micro-credentials are quality assured through a transparent system
7. Micro-credentials are issued based on prior learning
8. Flexibility is assured
9. They are available online
10. Most students find them affordable

The entities offering micro-credentials encounter challenges that may be unique in the locality of propagation, but there are challenges that apply in almost all situations. A selected few of these challenges for each entity are reproduced below

Challenges offered by micro-credentials for employers:

1. Consistency
2. Fraudulence / Authenticity due to variety
3. Lack of Formal Recognition

Challenges offered by micro-credentials for Higher Education Institution:

1. Academic Support from the faculty / department / school / senior managers
2. Assessment of Credit / Credit Transfer / Value Defining / Accreditation of external Qualification
3. Extensive review process by the faculty

Challenges offered by micro-credentials for government:

1. Confusions about the definitions and taxonomy
2. Funding and financing

The Centrality of HEIs in the Micro-credential Ecosystem

Institutions of higher learning and training are central in the design, implementation and assessment of micro-credentials except in situations where organisations outside the education mainstream offer micro-credentials. However, these micro-credentials lack acceptable accreditation and certification. Those micro-credentials offered by institutions of higher learning and training are accredited because it is a requirement of the national qualifications

frameworks to accredit whatever these entities offer to nationals. The accreditation allows the mobility of graduates nationally and internationally, where qualifications authorities have agreements in place.

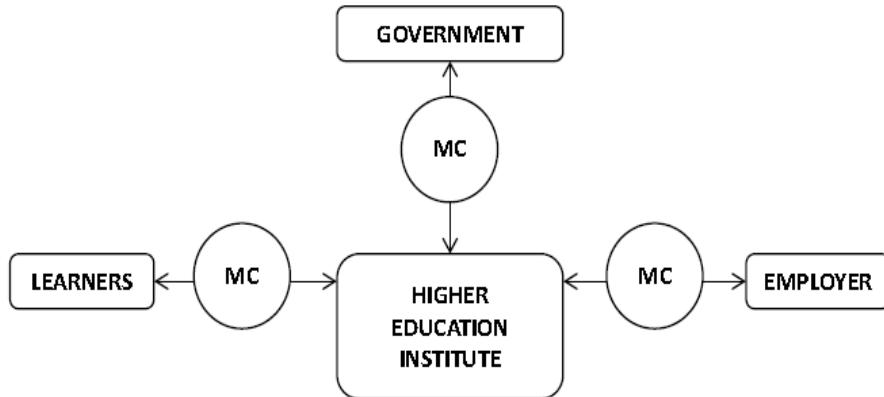


Figure 6: The centrality of institutions of higher education and training in micro-credentials

The diagram above shows that higher education and training institutions are needed in the micro-credential design, accreditation and implementation. In most cases this is undertaken in partnership with employers, who have specific skill set needs. The micro-credential resulting from an agreed between partners needs to be accredited with a governmental authority before it is offered to the student.

Way forward: Handbook on Micro-credentials for Africa

Jakab, Scarpato, Kirdulyte, Abozeid and Zutautaite (2024) produced a Handbook on Micro-credentials for Africa under the auspices of the African Continental Qualifications Framework that addresses findings from the first continental survey on micro-credentials and synthesises global practices, offering a tailored approach for Africa. It highlights the importance of a shared approach for all involved countries in the implementation of micro-credentials.

The handbook argues that micro-credentials that provide easily available, adaptable and skills-focused certificates, are revolutionising education and training systems around the globe. Their potential is especially important in Africa. The incorporation of micro-credentials into national education and training systems is a key component of the guidebook. This strategy guarantees that they are in line with current frameworks, including credit accumulation plans, Recognition of Prior Learning (RPL) systems and policies for lifelong learning.

Countries may address urgent skill shortages, advance educational fairness and provide students the ability to follow flexible routes that are suited to their individual and market needs by incorporating micro-credentials into these systems. A vibrant education environment that fosters economic growth, workforce preparedness and innovation is the end outcome. Despite its potential, obstacles to the implementation of micro-credentials include a lack of stakeholder knowledge, unreliable quality assurance and fragmented definitions.

The guidebook provides specific suggestions for overcoming these obstacles, highlighting the necessity of unified policies, strong quality frameworks and cooperative initiatives between enterprises, educational institutions and governments. The handbook is based on case studies from around the world and insights unique to Africa, the guidebook offers practical methods for maximising the potential of micro-credentials.

In addition to practical examples, the handbook provides technical and methodological insights based on internationally renowned literature from international organisations and experts. It explains the history of micro credentials, presents the idea and describes its use on the African continent. To consider the significance and applicability of micro-credentials, it also raises important considerations. It also explains the meaning of micro-credentials and outlines some of its salient features.

The handbook gives a summary of the key players in the micro-credential ecosystem and provides instances of how micro-credentials have been incorporated into educational institutions throughout the world. It describes how to create and apply micro-credentials in various educational systems in a realistic manner. The handbook ends by offering suggestions and policy guidelines for promoting the growth of micro-credentials in African nations. “Handbook for Micro-credentials” is an asset that African nations, especially National Qualifications Frameworks must, of necessity, religiously consult in their micro-credential adoption, design and implementation processes.

Research Methodology

The researcher was influenced by his belief that reality is not a given but is a function of social interaction and agreement to adopt the interpretivist philosophy. This worldview was in turn influenced by the questions that needed to be answered to be able to come up with the requisite strategies that form the thesis of this study. The study assumed a qualitative paradigm, informed by the study philosophy (Creswell, (2009).

The case study designed enabled the researcher to purposively select two cases, one from state universities and the other from private universities. The purposive selection was influenced by a perceived leadership role played by these institutions of higher learning and training, these have not taken the lead to the point that they should have spread the knowledge about micro-credentials through the normal academic channels and implemented the micro-credentials. From each of these cases, the researcher again purposively selected those within the institution who should be knowledgeable like deans, professors and senior academics (Nickerson, 2024). The point of saturation was reached at thirteen participants.

The researcher conducted several in-depth interviews with the selected participants until the interviewees started to repeat themselves. The individual interviewees received a copy of the transcript interview to check for efficacy, after which the researcher compared the authenticated information against the outcome of the other participants to draw a result. The transcripts were coded and themes generated from the coded information from which the strategies were derived.

Results and Discussion

The names of the institutions of higher learning and training and those of participants were replaced with pseudonyms to protect their identities and give them the required anonymity to air their views without the fear and dread of retribution from their institutions.

Table 3: Grassroots University

Name of participant	Professional qualification	Position in institution	Age - Years	Working experience - Years
Prof Paul Mbanga	PhD in Business Management	Pro Vice Chancellor: Academic	61	44
Dr Caiphas Mpundu	PhD in Psychology	Dean: Curriculum Studies	54	28
Mr. Cuthbert Gore	MBA: General	Lecturer in Human Resources	63	31
Dr Jaison Banda	PhD in Education	Lecturer in Educational Management	49	23
Prof Susan Zvirewo	PhD in Human Capital Development	Dean: Human Capital Development	56	33

Source: Study sample

Table 4: University of Technology and Innovation

Name of participant	Professional qualification	Position in institution	Age - Years	Working experience - Years
Dr Ndanatseyi Poshi	PhD in Sociology	Pro Vice Chancellor: Academic Affairs	58	27
Prof Kuda Chonzi	PhD in Hospitality and Catering	Dean: Tourism Infrastructure	66	35
Prof Caxton Chinaka	PhD in Business Management	Lecturer in Strategic Management	42	16
Ms. Angela Shumba	Director: Financial Management	Bursar	51	33
Dr Nyarai Guru	PhD in Strategic Management	Lecturer in Benchmarking	49	26
Mr Regai Gwata	MBA General	Lecturer in Leadership Development	58	17

Source: Study sample

Table 8: Themes

No.	Theme	Origin	University
1.	Forming alliances	In-depth interview	Grassroots University
2.	Responsiveness to employer needs	In-depth interview	Grassroots University
3.	Stakeholder involvement	In-depth interview	University of Technology and Innovation
4.	Adopt goal of micro-credential	In-depth interview	Grassroots University
5.	Recognition of prior learning	In-depth interview	University of Technology and Innovation

6.	Skills development: upskilling and re-skilling	In-depth interview	Grassroots University
7.	Increased learning pathways	In-depth interview	University of Technology and Innovation
8.	Ignorance of micro-credentials	In-depth interview	Grassroots University

Source: Study results

The first theme, ‘Forming alliances’ was that institutions of higher learning and training should form alliances either among themselves to conscientise each other or bring weaker institutions to the same level of knowledge and understanding as the strong ones, the initiators, if they obtained. Institutions of higher learning and training could also form alliances with industry that consumed micro-credentials to jointly identify the needed micro-credentials, design them and implement them. They could also agree on the assessment methodology. Dr Mpundu said, *‘Micro-credentials have taken forever to be introduced due to a variety of reasons, chief among them is the ignorance of the concept by universities. They could be introduced successfully if those institutions with the knowledge and expertise formed alliances or partnerships with knowledge-deficient institutions.* According to her, institutions of higher education and training behaved like silos, eager to protect the knowledge they possessed and refusing to share with those without it.

‘Increased learning pathways’ was a theme generated in an in-depth interview with Prof Chinaka. He said, *Institutions of higher learning tended to be conservative entities that did not foster a spirit of innovativeness, otherwise they would continuously seek new pathways to enhance the number of the pathways that they could employ to disseminate knowledge and information to their students’.* His belief was that as long as these institutions remained lethargic and conservative in their approach to student learning, they would not seek to increase the pathways. His last words were, *‘Universities needed to start departments of innovation and set aside budgets for the departments, this is the equivalent of Research and Development departments that most progressive companies have’.*

Ms. Shumba contended that institutions of higher learning did not adequately tap into the prior learning that students possessed. She said, *‘A recognition of prior learning’ by the students would persuade institutions of higher learning and training to find new innovative ways of assisting students take advantage of the learning to build onto it and improve the learning of students. One way of doing that would be to recognise students’ prior learning in a proactive manner by offering the students micro-credentials to build on them in a stackable manner.’* Micro-credentials are stackable to form credentials, and this can be achieved through a recognition of prior knowledge. Ms. Shumba said, ‘Prior learning should be recognised and built onto it to turn it into degrees or to improve onto it in a manner that it improved the academic position of the student with the prior learning.

The theme that emerged from Prof Mbanga’s contribution was ‘Skills development: upskilling and re-skilling’. Prof Mbanga was convinced that micro-credentials could be employed to afford employees an opportunity to re-skill or up-skill. This can only be done profitably if employers and employer organisations came together to identify skills that need to be sharpened or those that needed to be attended to again. He said, *‘Skill sets in the industry are evolving at a fast pace due to the incident of technological development, which forced organisations to periodically assess these and offer reskilling and upskilling opportunities through micro-credentials. It is not the organisations’ core business to offer the opportunities*

to employees to improve themselves, the onus lay with institutions of higher learning and training’.

Dr. Poshi extended Prof Mbanga’s point that institutions of higher learning and training needed to offer reskilling and upskilling opportunities to employees by stating that these institutions must be response to employer needs. He said, *‘Employers expected institutions of higher learning and training to move with the times and offer micro-credentials to employees and save employers a lot of money by keeping employees who productivity had fallen due to a reliance of skills that had outlived their usefulness. The productivity of every employee should be kept at optimal level through institutions offering training as and when it was needed’. This can only be done effectively where there was continuous interaction between employment organisations and institutions of higher learning; they would be able to respond timeously to employer needs.*

Dr Guru reiterated the fact that companies were built on solid performance by employees, who possessed the requisite skill sets. Where these employees lacked the skills, productivity suffered irreparably, in most cases. Micro-credentials were the fastest route to the acquisition of this skill, either through reskilling, in cases where the skills needed improvement, or upskilling where employees needed to acquire higher order skills. She said, *“My contention with most universities is that they now know about micro-credentials, but they are not implementing them to assist employees with skills and to improve the productivity of companies in these trying times when the economy is underperforming. Institutions of higher learning should adopt and implement micro-credentials to raise revenue and complement student fees and grants from government”.*

Prof Chonzi argued that there was a lack of knowledge and information in the institutions of higher learning about micro-credentials. He saw no reason why they should have adopted micro-credentials and implemented them a long time ago if they knew about them. He said, *‘I know for a fact that we, in the institutions of higher learning and training know almost nothing about micro-credentials, their nature, form and use, otherwise we should have started the ball rolling ages ago. If institutions knew about micro-credentials, then why did they not adopt the goal of micro-credentials a long time ago? Why are we still denying the employee and students the benefit of this new methodology of learning? My humble submission is that institutions of higher learning and training cannot adopt micro-credentials when they know almost nothing about them. I do not know what micro-credentials are, but I would be happy to learn about them and help by aiding my institution in adopting micro-credentials today’*. The point raised by Prof Chonzi resonated with perceptions acquired during in-depth interviews that the concept of micro-credentials was not understood by most practitioners, let alone the participants in the in-depth interviews. The interviewer was forced to start the interview with a brief definition of micro-credentials. They misunderstood micro-credentials and, in some cases, not known altogether.

Institutions of higher learning and training should acquaint themselves with some working knowledge about micro-credentials.

Mr Gwata added his voice in university ignorance about micro-credentials. He said, *“In my university we do not have micro-credentials, no one knows anything about them. However, amid that ignorance, I believe anything that increase university revenue and is beneficial to students and the economy must be adopted. Why should universities not know about this wonderful method of learning and lead instead of letting the private sector colleges lead in*

micro-credential implementation. After this interview I must read about micro-credential and champion the micro-credential cause in my university”. Dr Banda echoed Mr Gwata’s sentiments and vowed to self-learn micro-credentials with a view to implementing them at his university. He pledged, *“I do not know a lot about micro-credentials, but I have some basic understanding of the concept, which I am going to add onto through targeted reading of relevant literature. I will introduce micro-credentials in my university”*.

Mr Gore suggested that micro-credentials could only be introduced and propagated successfully if there was stakeholder involvement. He said, *‘Micro-credentials are a learning method that works well where concerned stakeholders are involved. This involvement should include those offering the micro-credential, the target individuals, the beneficiary organisations and the accreditation entity. In the current situation, the institution of higher learning and training offering the micro-credential should work with the Zimbabwe Council for Higher Education (ZIMCHE), commerce and industry and the students, who are receiving the micro-credential.* Mr Gore’s observation resonates well with experiences of other higher education institutions of learning and training, who have formed working groups to champion the management of micro-credentials.

Prof Zvirewo echoed Prof Chonzi’s sentiments that very little is known about micro-credentials at Grassroots University. His words are, *‘Who knows what micro-credentials are at this university? As far as I know I have not interacted with anyone who could explain to me what this creature called micro-credential looks like, let alone being able to use it. I, as an individual would be happy to involve myself with micro-credentials, but we need a university position, policy and workshops where we are tutored on micro-credentials before we can confidently say we are funding in micro-credentials. Our institution is normally a leader in most innovations and in introducing new modes of learning and I would be happy if it worked quickly to capacitate us and we run with it.* This could be the reason why Zimbabwe has not moved with other countries like Mozambique, Kenya, South Africa and the Seychelles to name a few that have laid micro-credential foundations. The regulator does not seem to have much information on its website apart from an introduction that looks like a quotation from a micro-credential source, however, a few qualifications frameworks in Africa have proceeded to include micro-credentials on their websites.

Dr Mpundu said he knew a lot about micro-credentials, he read about them and had produced a concept paper on the adopt and implementation of micro-credentials at his university. His exact words were, *“I taught myself about micro-credentials and know that they are a useful method of increasing the knowledge and skills of students and employees in companies. I produced a concept paper through which I aim to approach companies to form alliances and partnership with my university and use this vehicle to upskill and reskill employee. The competences of employees are the cornerstone to the production the companies and the productivity of employees. I believe that the micro-credentials are going to change the strategic direction and scope of universities, ultimately universities are going to be some extension of industry, producing industry-demanded programmes that will be taught through micro-credentials. Students will not want to spend what they term unnecessary time at university and would rather proceed to work after high school. These students/employees do not have time to seat on desks and spend upward of four years learning to work when they can learn when working, the micro-credential pathway. Students now need a flexibility in learning that answers their skill and knowledge demand without removing them from the workplace; they want to learn at their pace and from where they are and earn a degree when they are ready for it. Their*

immediate concern is not the degree but the knowledge and skill that enables them to earn, build a life and have a degree to certify their learning”.

The response by Dr Mpundu was a long and loaded one but it condensed the aspirations and wishes of students and employees and suggests how these wishes and aspirations could be fulfilled to achieve economic growth and people's prosperity.

The interviews produced strategies that were not repeated by other participants but that contained reason and goodwill in them. These are recorded below for their authenticity and soundness. Institutions of higher learning and training could:

1. Use open online courses that have already been released as open educational resources (OER) to reduce risk, limit expenses and maximum effect as part of a pilot implementation strategy to test, improve and grow a sustainable solution.
2. Create and uphold regulations that are helpful in defining requirements for credit-bearing micro-credentials that are in line with credentials included in current degree programmes.
3. Offer chances to enhance the delivery of courses while maintaining quality to cater to new and developing markets and meet the evolving demands of employers and students.
4. Mainstream implementation throughout the organisation by allocating current resources or generating new income to provide sufficient funding for sustainability.

Conclusion and Recommendations

The ACQF-II survey by Jakab, Zutautaite and Stukiene (2024) illustrated that Africa has scratched the surface with regards to the introduction and spread of micro-credentials; twenty-eight nations participated in the study and not all the 28 answered all the questions. For instance, Zimbabwe had two answers, and it does not feature in all the discussions of the answers and their import as a reflection of the micro-credential landscape in Africa. The continent needs to put its shoulder to the plough and lift implementation and propagation micro-credentials to a respectable level. The African Continental Qualifications Framework (2024) micro-credential survey report paints a gloomy picture of the minuscule steps the continent took up to the end of that year (2024).

Institutions of higher learning and training should move with speed to gain the micro-credential implementation ground they have lost over the years.

1. ZIMCHE should include the required standards of the Zimbabwean micro-credential on its website after engaging with its stakeholders on a definition, policy and attendant detail
2. Institutions of higher learning and training should not wait for ZIMCHE to take the lead but should proceed to do the needful; adopt micro-credentials and implement them the best way they can using programmes already accredited by ZIMCHE
3. Institutions of higher learning and training should proactively approach those of its partners that have already started for benchmarking purposes; one hut does not make a village!
4. Institutions of higher learning and training should form partnerships with companies.
5. Students should be proactive and demand micro-credentials from their institutions of higher learning as these are a beneficial pathway of learning.

References

3rd Ed. Sage, Singapore

ACQF-II (2024). Micro-credentials survey report

African Continental Qualifications Framework (2024). Micro-credentials Survey Report

African Continental Qualifications Framework (ACQF) 2024). Handbook on Micro-credentials www.acqf.africa

Bernsteinian analysis in Journal of Curriculum Studies 2021, Vol. 53, No. 2, 212–228

Brown, M., Mhichil, M. N. G., Beirne, E., and Lochlainn (2021). The Global Micro-Credential Landscape: Charting a New Credential Ecology for Lifelong Learning in *Journal of Learning for Development* – JL4D 2021, Vol. 8, No. 2, pp. 228-254

Castel-Branco, E. (2024). For lifelong learning and employability

Coetzee, D. (2024). Micro-credentials: An emerging alternative to traditional tertiary education. ResearchGate DOI: 10.13140/RG.2.2.16792.40962
https://www.researchgate.net/publication/382082399_Micro-Credentials_An_Emerging_Alternative_to_Traditional_Tertiary_Education?enrichId=rgreq-507b66f3a2fd2eac443ff394ca8aa6ad

Coursera (2024). Micro-Credentials Impact Report 2024 Insights from Higher Education Leaders

Creswell, J. W. (2009). Research design: qualitative, quantitative and mixed methods approached

Daniel, B. K., Koh, J.H. L., and Varadarajan, S. (2023). A systematic review of the opportunities and challenges of micro-credentials for multiple stakeholders: learners, employers, higher education institutions and government in Int J Educ Technol High Educ <https://doi.org/10.1186/s41239-023-00381-x>

EHL Insights

Goode, E., Golden, S., Kelly, V., McGuinn, N., and O'Dea (Eds) (2024). The State of Play of Groningen Declaration (2021). Micro-credentials: Towards a Universal Definition Groningen Declaration Network Position Statement on Micro-credentials <https://acqf.africa/news/micro-credentials-exploring-the-dynamics-of-micro-credentials-insights-from-across-african-states-zalan-tamas-jakab-elzbieta-zutautaite-gerda-stukiene-ppmi>

<https://acqf.africa/resources/surveys-acqf-ii-nqf-rpl-micro-credentials/micro-credentials-in-africa-results-of-the-survey-2024-full-report>

<https://acqf.africa/resources/surveys-acqf-ii-nqf-rpl-micro-credentials/micro-credentials-in-africa-results-of-the-survey-2024-full-report>

<https://creativecommons.org/licenses/by/4.0/legalcode>

<https://doi.org/10.1080/00220272.2021.1887358>

<https://duklasscornerstone.ca/wp-content/uploads/2021/07/GDN-Position-Paper-for-the-European-Commission-public-consultation-on-micro-credentials.pdf>

<https://hospitalityinsights.ehl.edu/microcredentials-revolutionizing-education-institutions>

<https://indepthnews.net/as-micro-credentials-gather-steam-universities-are-at-a-crossroad/>

https://www.etf.europa.eu/sites/default/files/2020-07/acqf_infographic_en_2020_final.pdf

<https://www.jet.org.za/work/project-showcase/potential-of-micro-credentials-in-southern-africa-pomisa-1>

<https://www.simplypsychology.org/interpretivism-paradigm.html>

<https://www.unicef.org/southafrica/media/10566/file/ZAF-Towards-micro-credential-country-model-south-africa-2024.pdf>

Jakab, Z. T., Scarpato, G., Kirdulyte, G., Abozeid, O. and Zutautaite, E. (2024). Handbook on Micro-credentials. Support implementation of African Continental Qualifications Frameworks (ACQF-II)

Jakab, Z. T., Zutautaite, E., and Stukiene (2024). Micro-credentials. Exploring the Dynamics of Micro-Credentials: Insights from Across African States.

Keevy, J. (2024). Potential of micro-credentials in Southern Africa

Mahlasela, O. N. and Steyn, A. (2023). Benefits of adopting micro-credentials for skills development at the 9th African Conference on Information Systems and Technology 2023. Kennesaw State University

McGreal, R., Mackintosh, G. C., Cox, G., and Olcott, D. (2022). Bridging the Gap: Micro-credentials for Development. UNESCO Chairs Policy Brief Form - Under the III World Higher Education Conference (WHEC 2021) Type: Collective X in International Review of Research in Open and Distributed Learning Volume 23, Number 3

Micro-credentials for Lifelong Learning and Employability: Uses and Possibilities

Micro-credentials: Ireland. PoMiSA University of Galway

Moodie, G. and Wheelahan, L. (2021). Analysing micro-credentials in higher education: a

Musseau, A. (2024) Micro-credentials: Revolutionizing Education Institutions

Nickerson, C. (2024). Interpretivism Paradigm and Research Philosophy

OECD (2021). Education Policy Perspectives: Micro-credential innovations in higher education: Who, What and Why? No.39 – Micro-credential innovations in higher education: Who, What and Why?

OECD (2023). Education Policy Perspectives: Directorate for Education and kills. (No 66).

Patterson, A., and Keevy, J. (2024). Towards a micro-credential country model for South Africa. Recognition of non-formal and informal skills for young people in Eastern and Southern Africa through the innovation of micro-credentials

Seneviratne, K. (2024). As Micro-credentials Gather Steam Universities Are at A Crossroad Sierra Leone – NQF Consultation Week. ACQF

www.acqf.africa