

Making the higher education graduates employability real: curriculum analysis of self-employment enterprise skills development

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Abstract. This article analysed the relevance of higher education curricula in promoting enterprise skills and graduates' access to self-employment. A mixed-method approach was used. The study randomly selected 520 undergraduate teacher education students, 314 community respondents, and self-employed graduates. Data were collected through questionnaires, documentary analysis, and interviews. Descriptive statistics and thematic analysis were applied. Most graduates adapt to small-scale businesses like hair saloons 58 (18.5%) and transportation 46 (14.6%) in their surroundings rather than innovating new start-ups. Enterprise skills such as entrepreneurship, project planning and management, and financial management are inadequate. It is concluded that this shortage of enterprise skills results in poor graduates' competitiveness in creating and managing new self-employment jobs. Integrating self-employability content from economic-business studies into the teacher education curriculum and reforms of higher education policies for graduates' employability transition are recommended. Further large-scale longitudinal surveys and inferential statistical analysis on graduates' employability trends are recommended.

Keywords: curriculum, enterprise skills, higher education graduates, job creation, business start-ups, self-employment

1. Introduction

Graduate unemployment is a hot research agenda globally. The global youth unemployment status is high and is expected to continue rising as many young graduates continue to scramble for the few existing jobs [30, 44, 55]. Further, the youth unemployment rate is higher among higher education graduates than those with lower levels of education. For instance, Baah-Boateng [7] points out that youth unemployment rates were higher among university graduates in Ghana, Malawi, Mali, Nigeria and Uganda than at all other levels. Afolabi and Medu [1] explain that in 2019, the unemployment rate among those with advanced education in Nigeria was 15% compared to 9% for those with elementary education. Consequently, job scarcity makes graduates face hectic times in their survival while transitioning from school to employment. In that respect, various studies [4, 6, 32, 38, 58] including this article seek informed knowledge to address the problem by promoting the creation of more jobs for enhanced graduates' employability. To that end, the role of curriculum qualities for providing relevant employability skills and self-employment enterprise creation skills becomes inevitable.

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*Educational
Dimension*



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According to the International Labour Organization [30], globally, the future of young people is distracted by the inadequate creation of new jobs in the labour market while the labour force generation is expanding. For instance, in Sub-Saharan Africa (SSA), the youth unemployment rate is estimated at 5.9%, with over 25.8 million unemployed individuals in 2019 [44]. According to Bloom and McKenna [11], the world needs about 734 million new jobs to absorb the growing labour force production between 2010 and 2030. About 91% of these jobs are required in low and lower-middle-income countries. Meanwhile, the global economic reports indicate a low growth rate with a low macro and micro-economic capacity for job creation in various countries amid increasing labour force production [65, 66]. Thus, it is unknown where these new jobs will come from in the few years to come if young graduates do not embark on job creation opportunities for their sustainability. At these junctures, curriculum relevance in contents and training methods that incorporate enterprise skills development packages is of paramount concern.

Although the increase in the supply of higher education graduates overwhelms the few labour markets due to increased enrolment rates, the enrolment rates in higher education systems have been growing over periods. Evidence shows that the higher education enrolment rates have grown from elite (less than 15% enrolment) to mass enrolment (16% to 50% enrolment) and universal access (greater than 50% enrolment) [8]. Recent statistics show that the worldwide gross tertiary enrolment ratio (GTER) doubled between 2000 and 2020, rising from 19% to 40% and reaching 77% for Organization for Economic Cooperation and Development (OECD) member countries [62]. The GTERs in Turkey and Chile reached 115% and 93%, respectively, in 2019, increasing by almost 90% for Turkey and 55% for Chile since the beginning of the millennium [65]. In China, higher education growth and expansion rates were reported to have increased from 9.8% in 1998 to 54% in 2020 [51]. The least developed countries, including Africa, had a GTER increase from 5% in 2000 to 11% in 2020 [62]. The higher education enrolment number is predicted to double by 2030 [62]. These figures call for a global concern for proportional growth in job creation rates to absorb the new labour market entrants from the higher education systems.

Tanzania, like the rest of the world, experienced a notable increase in the number of graduates from 49,154 to 57,742, equal to a 17.47% increase in five years duration 2018/19 to 2022/23 [59] as indicated in figure 1.

Furthermore, although the increase in enrollment and graduates' numbers is an achievement to embrace, the quality of graduates and their capacity to generate jobs, along with the labour market economies, are questioned. Most employability studies condemn higher education institutions for being too academic to produce graduates who lack open-minded capacities to meet the diverse socio-economic dynamics of the labour market needs demanding abilities to create or adapt to available jobs or avail to creations of new jobs and competent start-ups [10, 16, 24, 27]. It is claimed that higher education graduates complete their studies with a mismatch of skills with labour market jobs, inadequate skills and poor readiness to create self-employment opportunities; thus, they remain mere job seekers [1, 55]. The political will and employment policies are condemned for being bureaucratic, have stringed business restrictions, and lack committed efforts to support graduates' employability pathways [27, 29]. Thus, higher education graduates' experience in self-employment job creation is of vital concern amid the diverse uncertainties.

Despite the persistent unemployment rates among higher education graduates, most employability studies have been focusing on assessing employability skills, access issues and skills relevance to wage employment [5, 20, 33, 38]. These studies fall short of two important research questions raised in the current study: firstly, "What is the coverage of contents and methods suitable for self-employment enterprise skills

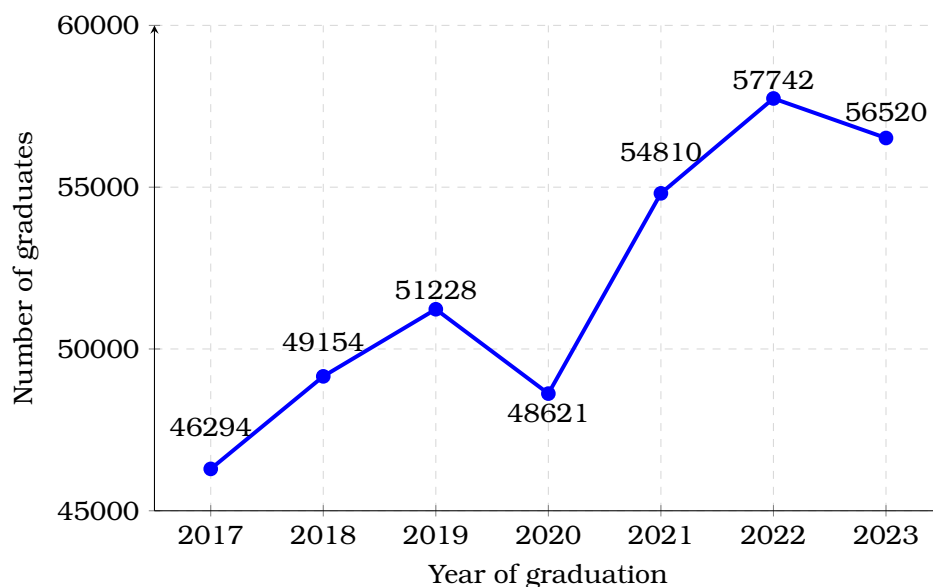


Figure 1: Trend in higher education degree graduates' number from 2017 to 2023 [60, p. 33].

development in the core curriculum?" and secondly, "How do the graduates apply enterprise skills during access and doing of self-employment businesses? The two research questions sought to analyse the effectiveness of educational curricula in enhancing graduates' self-employability. Thus, the study proposes three specific objectives:

- (i) To analyse the selected teacher education curriculum coverage of enterprise skills contents and promotion of students' preparations for the self-employment labour markets.
- (ii) To explore the community stakeholders' perceptions and experiences about higher education graduates' enterprise skills, access and doing of self-employment businesses.
- (iii) To assess the self-employed graduates' experiences and enterprise skills application during access and doing of respective self-employment businesses.

2. Literature review

2.1. The theoretical underpinning

The study was guided by the Human Capital Theory (HCT). The theory underpins the economic instrumentality inherent in the outcomes of schooling. HCT presumes that individuals and society derive economic returns from investments in people through education and training [41, 53]. This assumption implies that highly educated and skilled persons tend to earn more than others and that the level of education and qualifications a person achieves determine the quality of livelihood. In line with these perspectives, most societies invest in financing higher education for human capital development, expecting to gain potential returns from such investment [68]. Henceforth, the economic benefit of higher education to enhance graduates' employability in diverse labour market industries, their improved productivity, and contributions to their societies becomes a subject of interest. Thus, the HCT perspectives guided the analysis of the higher education curriculum regarding its aptness for offering relevant content and skills leading to enhanced graduates' capacity for job creation, enterprise development and improved earning of sustainable livelihoods as the realisation of returns on investment (RoI) through education.

2.2. The structure and delivery of teacher education programmes in Tanzania

The teacher education programmes in Tanzania are offered by the tertiary higher learning colleges and universities designated to award certificates, diplomas and degrees. The non-degree teacher education and training colleges (TTC) are regulated by the Ministry of Education, Science and Technology (MoEST), while the Tanzania Commission for Universities regulates university institutions [49, 63]. The core function of the regulatory organs is to accredit new programmes and administer the review frameworks of ongoing curricula. According to the current TCU guidelines [56], the undergraduate teacher education programmes span three years. The teacher education programme curriculum structure is composed of two major components: academic subjects and teacher education subjects. The academic subjects refer to teaching subject courses offered in secondary schools and teacher education colleges, while teacher education courses include theoretical foundations of teaching and learning, general courses, and teaching and learning methods courses. Moreover, the teacher education curriculum embarks on two major specialisations: the science and arts teacher education programmes.

2.3. The role of curriculum in promoting enterprise skills and graduates' self-employability

Yaşar and Aslan [67] view the educational curriculum as the constitution of education that directs an education system to prepare the kind of students needed in society. It is what is taught in school or simply a set of subjects taught at a school [45]. It answers questions about what knowledge should be taught, why, to whom, how and for what end goals. This study views curriculum as the programmes and courses, as well as the teaching and learning methods that lead to the attainment of the intended educational goals. Besides the definitions, available literature describes various curriculum features suitable for self-employability enterprise skills development. Among key features are those incorporating generic social skills [19], those engaging the use of guest speakers from labour market industries [5], entrepreneurship education [33], extracurricular projects [13], enriched with multidisciplinary skills contents [22, 52, 61]. Generally, these skills demonstrate strong curriculum connectivity with the labour market industries and open a room for teaching and learning that enhances students' learning of practical skills, attitudes, and readiness for self-employment.

Furthermore, the self-employed comprises individuals having their own account business, whether formal or informal and those without formal contracts and regular wages but work for subsistence earnings [28]. Due to inadequate job opportunities in wage employment to absorb the increasing labour force, the self-employment labour market is becoming an inevitable option to serve the needs of the fresh labour market entrants [6, 17, 32]. According to Chioda et al. [15], the self-employment labour force in small and medium enterprises (SMEs) represents about 90% of businesses within which their own account represents more than 50% of employment worldwide. The Integrated Labour Force Survey (ILFS) 2020/2021 of Tanzania [46] reports that the own account is the largest group of employment, which takes the majority of employed persons (54.3%). Unfortunately, most youths' self-employment in Africa and the Global South is characterised by informality, waiting, hustling, improvisation, and survivalism [35]. Moreover, these arguments question the youth's capacity to create new jobs and unfriendly socio-economic environments to support sustainable job creation opportunities and growth.

2.4. Empirical studies

The 'self-employment' and 'enterprise skills' are interdependent as skills result in an individual's ability to be self-employed. How are enterprise skills trained and developed

is a question studied in this literature. The enterprise skills training intertwines in two main curriculum approaches: enterprise education and entrepreneurship education [6, 15]. Brentnall [13] argues that enterprise skills are developed through students' exposure to learning activities such as mini-company programmes, starting a business activity and managing enterprise challenges. Other studies such as Ankeli [6] and Chioda et al. [15] explain enterprise skills development as part and parcel of entrepreneurship education composed of skills needed to start and manage a business firm. However, entrepreneurship differs from enterprise education as explained by Eurydice [21] that while entrepreneurship education focuses on the skills and attributes needed to become an entrepreneur, enterprise education is broader to skills, behaviours and personal attributes needed in life regardless of the career pathways. Therefore, this article conceptualises self-employability enterprise skills development as a curriculum function leading to students' preparations and graduates' abilities to create sustainable self-employment enterprises.

This study further reviewed the applicability of enterprise skills concepts towards graduates' self-employability. Davies [18] describes four main kinds of enterprise skills: firstly, knowledge and understanding of key concepts about organisations, risk, and change, and secondly, the ability to make informed decisions, manage risk, and make presentations. Thirdly, there are attitudes such as self-reliance, open-mindedness, and pragmatism, and fourthly, personal qualities such as adaptability, perseverance, determination, creativity, and flexibility. Specifically, the paper narrows these skills into three categories: business start-up initiative skills, business management and business growth and development to sustainable self-employment enterprises. The study explains these enterprise skills as prerequisites to the self-employment pathway among higher education graduates and, therefore, incorporates enterprise skills variables in the curriculum analysis.

This paper further posits that the three enterprise skills groups listed above interlock the qualities of self-employable graduates that the higher education curriculum should bring forth. Business start-up skills support an individual's ability to identify workable business opportunities, generate a business/project idea, make informed decisions, formulate a business plan, adaptability, and innovativeness to start a new job [6, 13, 32]. To enhance effective start-ups, studies suggest strengthening the curriculum linkage of students' learning with diverse labour market experiences across the discipline to nurture their development of competitive entrepreneurial and vocational skills for future work practices [3, 16, 26, 34, 39, 54]. These skills add to students' creativity and abilities to undertake business start-ups through their good composure of business research skills, project-based learning innovation and exposure to informal businesses outside school. Concerning these propositions is the question of how the core curriculum of the learned discipline in higher learning institutions provides for enterprise skills development.

Moreover, business management, development and growth are closely related and interdependent skills. The two skills comprise personal attributes and social capital skills, which are composed of effective intrapersonal and interpersonal communication skills, the ability to develop supportive social networks, market oneself, market one's products, form and manage teamwork or a group company for self-employment [3, 58]. Business management and growth also include networking skills such as marketing management skills, activities planning and management, innovation and financial management [14, 47, 50]. Moreover, business development and growth comprise enterprise skills related to the sustainability aspects of self-employment firms. This means that where the growth focus is lacking, the own accounts become necessity entrepreneurs who only dwell in survival chances [9]. Furthermore, business growth and development are associated with personal attributes and behaviours such as

self-efficacy, perseverance, self-management, decision-making, risk-taking, organisational management skills, self-efficacy, flexibility, adaptability, open-mindedness and resilience [3, 47, 58]. This article included a broad range of enterprise skills in the curriculum analysis.

Finally, the core argument of this article supports a cross-discipline trade-off curriculum design that integrates the teacher education, economics, and business studies disciplines. This kind of perspective is explained in the literature under the concepts of multidisciplinary, interdisciplinary and transdisciplinary curricula [22, 52, 61, 64]. The multidisciplinary curricula integrate full courses from another discipline into the core curriculum studied by a student in time [22, 64]. An interdisciplinary design integrates two or more subjects to make a hybrid content or topic within the subject or course to enrich the student's learning experiences [52]. According to Matinho et al. [40], the interdisciplinary design can either be horizontal, i.e. integration between different subject areas at a time, or vertical, i.e. integration across time to improve the connection between the basic courses and higher-level knowledge or courses of similar discipline, or spiral, i.e. integration across disciplines and time, such that learners revisit the material at increasing levels of complexity as they progress through the course. The third approach is a transdisciplinary curriculum that integrates knowledge beyond professional expertise and scientists, removing the boundaries of different subjects and adopting a layman's knowledge towards innovative solutions [36, 52]. Henceforth, the teacher education curriculum can integrate knowledge and contents from the economic and business studies discipline to enhance students' self-employability prospects.

3. Methodology

3.1. Study approach and design

This article is a mixed-methods study composed of a quantitative survey for objectives one and two and participants' interviews for objectives two. The study used a concurrent mixed design, applying survey tools and qualitative case study interviews.

3.2. Population

The study population involved undergraduate final-year students, community stakeholders and self-employed graduates.

3.3. Sample and sampling techniques

The study sampled four higher learning institutions based on the criteria of offering undergraduate teacher education programmes with arts and science education. Furthermore, the study randomly sampled 520 final-year students, 317 arts and 203 science teacher education students. The data enumerators, through course instructors, invited students to attend the sessions to fill in the questionnaires. The selection process was random, as it allowed students who attended the sessions to fill in the questionnaires. Because the study was not for inferential statistical analysis, this approach was convenient with the condition that the authors ensured the sample size per each programme is not less than 100, which is statistically recommended [23, 31, 37]. The targeted final-year students were interested in participating since research is one of their core subjects, so it was easy to capture the required sample size.

The study also selected ten local government councils from two study regions: Dar es Salaam and Dodoma. These regions host higher learning institutions and fast-growing cities and are well populated with socio-economic businesses, therefore suitable for the problem under study. The study sampled 314 community stakeholders' respondents comprising 262 local governments, 52 community-based organisations (CBOs) and

faith-based organisations (FBOs) staff. The selected local government staff and officials included the Community Development Officers (CDOs), Trade, Industries and Investment staff, Ward Executive Officers (WEOs), Ward Councillors, Street Executive Officers (SEO), Village Executive Officers (VEO), Village Government Chairperson, and Street Government Chairpersons. Participants from the CBOs and FBOs were heads of organisations and other well-informed respondents. Criteria such as relevance for youth services, accessibility, and convenience in participating in the survey tools were considered. Finally, the self-employed graduates were selected through snowballing techniques. The authors visited the self-employment businesses and organisations for interviews with the self-employed teacher education graduates.

3.4. Data collection methods, validity, reliability and credibility

Quantitative data were collected through survey questionnaires for continuing students and community stakeholders. Experts in teacher education curriculum, labour departments, trade and industry and community development practitioners validated the survey tools. After validation, a pilot study was conducted with 35 second-year student samples from one higher learning institution to test the reliability and validity of the instruments by determining Cronbach's alpha. From the reliability test, items with the $\alpha < 0.6$, which is interpreted as poor, were either removed or improved, while those with $0.6 < \alpha < 0.9$, which are interpreted as good, moderate to excellent [25], were included into the main study. Also, the questionnaires were physically administered by the data enumerators to ensure the clarity of items and completeness of responses to generate valid results.

Moreover, the authors conducted a documentary analysis of two selected teacher education programmes: the science and arts programmes. This documentary analysis involved a total of 35 sciences and 39 arts courses. The authors sorted 12 enterprise skills keywords from the empirical literature section and analysed their frequencies in each curriculum. The selected skills keywords were: (1) self-employment, (2) employment, (3) entrepreneurship, (4) innovativeness/initiative, (5) project management, (6) business management, (7) marketing skills, (8) financial management, (9) communication skills, (10) information technology, (11) self-management, and (12) research. The analysis was conducted at three levels of the curriculum: programme level, course level, and module level. At each level, skills keyword frequencies were sorted from programme names, the programme aims and objectives, programme learning outcomes, course names, course aims and objectives, course learning outcomes, and modules names and modules learning outcomes. The module learning outcomes were determined from the sub-module contents and list of targeted skills competencies within a particular module. Finally, the study conducted interview sessions using semi-structured interview guides for community participants and self-employed graduates. The enumerators used field notebooks supported by voice recorders to capture the participants' views. The credibility and trustworthiness of interviews were ensured through multiple transcriptions of audio tracks and cross-reading the field notes.

3.5. Data analysis, presentations, and discussions

The data were analysed using descriptive statistics. The analysis progressed from coding the data, data entry using the SPSS Excel version 21, and cleaning and computing the outputs. The study computed the results for each objective in frequencies, percentages, mean scores and standard deviations across respective variables. The findings were then presented using frequency tables and line graphs that precisely visualised them for interpretation. Furthermore, the study analysed the curriculum documentary review data by sorting the skills keyword from the selected programmes, courses and modules' names/titles, aims/objectives and learning outcomes. The

authors sorted skills keywords, generated frequency using an Excel sheet and presented the findings through line graphs. The qualitative data were analysed through a six-step thematic analysis recommended by Braun and Clarke [12]. The steps were familiarisation with the data, generating initial codes into an Excel sheet, searching for themes by filtering, reviewing the themes, defining and naming the themes, and writing the report. Three themes (3) from community stakeholders and seven (7) from self-employed graduates were identified as presented in the results section using verbatim quotes and discussed in section five.

3.6. Ethical issues

Before the data collection, the authors obtained ethical clearance from the University of Dodoma and research permits from the Permanent Secretary, Presidents' Office Regional Administrative and Local Government (PO-RALG). The study ensured confidentiality and anonymity of personal particulars by neither including the respondents' names in the questionnaires nor mentioning them in the findings. Before the commencement of the interview sessions, the interviewer read an information sheet to get the participant's informed consent. The participants opted for oral consent as it was the most known experience in community-based studies and due to a busy workplace environment. In addition, since the study did not involve human subjects, the authors did not doubt oral the prominence of the consent. Finally, this work is original and plagiarism-free; the cited sources have been well-acknowledged in the reference list.

4. Results

4.1. Analysis of the curriculum coverage of the enterprise skills contents and promotion of students' preparations for self-employment labour markets

Data for objective one was collected through students' questionnaires and curriculum documentary analysis of selected teacher education programmes. The study conducted and presented two main analysis results in this objective: (i) documentary analysis of the teacher education curriculum coverage of enterprise skills contents, and (ii) analysis of the relevance of teaching methods to self-employment labour market industries.

4.1.1. Documentary analysis results on the teacher education curriculum coverage of enterprise skills contents

The curriculum documentary analysis established a list of enterprise skills keywords from the science and arts programmes. This analysis developed 12 enterprise skills keywords that were searched for in the curriculum documents. These are (1) self-employment, (2) employment in the teaching profession, (3) entrepreneurship, (4) innovativeness/initiative, (5) project planning/management, (6) business planning/management, (7) marketing skills, (8) communication skills, (9) financial management, (10) self-determination, (11) information technology, (12) research skills. The search results generated accumulate skills frequencies at programme, course and module names, aims and objectives, and learning outcomes as presented in figures 2 and 3.

Data in figures 2 and 3 above shows that across the 8 curriculum variables, none of the enterprise skills was mentioned in the programme name level (PGN) for both the science and arts curricula. At the course name level, skills 6 (business planning/management), 8 (communication skills), 11 (information technology), and 12 (research skills) have been mentioned in both science and arts curricula. Most enterprise skills appear in the course and module learning outcomes level in both curricula, although science has better coverage than the arts curriculum. Figure 2 shows higher

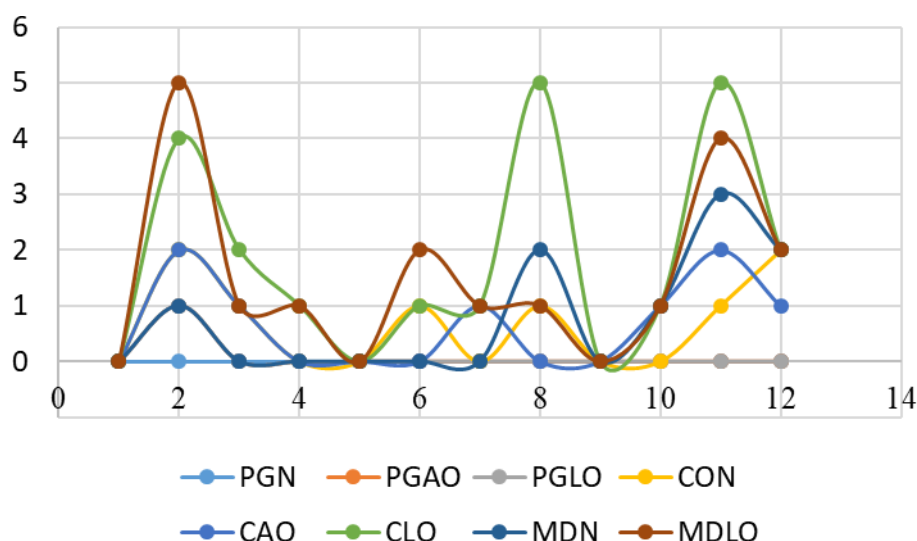


Figure 2: Documentary analysis of skills keywords from the Science Teacher Education curriculum (key: PGN = programme name, PGAO = programme aims and objectives, PGLO = programme learning outcomes, CON = course name, CAO = course aims and objectives, CLO = course learning outcomes, MDN = module name, MDLO = module learning outcomes).

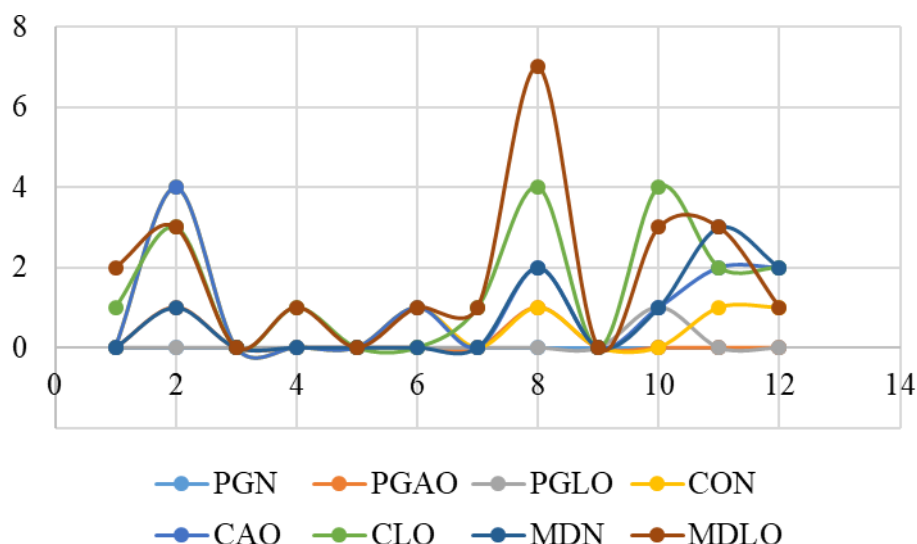


Figure 3: Documentary analysis of skills keywords from Arts Teacher Education curriculum (key: PGN = programme name, PGAO = programme aims and objectives, PGLO = programme learning outcomes, CON = course name, CAO = course aims and objectives, CLO = course learning outcomes, MDN = module name, MDLO = module learning outcomes).

skills frequencies in the course and module learning outcomes for the science curriculum skills 2 (employment in teaching job) and 11 (information technology) compared to the arts curriculum. On the contrary, the arts curriculum has a higher concentration of skill 10 (self-determination) than the science curriculum. The enterprise skills keyword 1 (self-employment) has not been mentioned in science curricula, except it only appears in the arts curriculum once and twice in course learning outcomes and module learning outcomes, respectively. Generally, skills 3 (entrepreneurship skills), skills 5 (project planning/management), and skills 9 (financial management) were not mentioned at all, while skills 4 (innovativeness/initiatives) appeared very little in both curricula. The results imply that these enterprise skills are underrepresented in the selected curricula or have poor coverage of these enterprise skills.

4.1.2. Analysis of the relevance of teaching and learning methods with self-employment enterprise skills development

Regarding teaching and learning methods, the study conducted two kinds of analysis. Firstly, the study examined the frequency of relevant teaching and learning methods most used in selected HLIs and programmes. This analysis was done by using a six-scale Likert questionnaire that required students to rank the frequency of particular methods from 1-6 “not at all to very often”. The results were analysed using descriptive statistics and are presented in table 1.

Table 1

Analysis of the frequently used teaching and learning methods in HLIs.

Teaching and learning methods used in selected HLIs	N	Minimum	Maximum	Mean	Standard deviation
Lecture methods	520	1	6	4.59	1.574
Library survey/readings	520	1	6	4.35	1.395
Research works	520	1	6	2.17	1.374
Guest speaker	520	1	6	1.35	0.898
Students' classroom presentations	520	1	6	4.46	1.558
Tour study	520	1	5	1.26	0.766
Project-based learning	520	1	5	1.80	1.176
Practical works	520	1	6	3.08	1.873

Data in table 1 indicate that the most rated mean scores were lecture methods 4.59, class presentations 4.46, and library survey or readings 4.35. The mean score average of 4 means the “often” method. The practical works methods were rated 3.08 mean score, which means “sometimes used”. Other methods had low mean scores, with the research method having 2.17 “very little” while the rest, project-based learning (1.89), guest speaker (1.35), and tour study (1.26) means score, meaning that the mean scores ranged between 1-2 representing methods “not used at all” or “used very little”.

Secondly, the study assessed students' mode of interaction with the self-employment labour market business during their studies. Students were asked to identify their mode of interaction with self-employment businesses during their studies. The aim was to determine whether students associate the teaching and learning methods and course activities with their interaction with self-employment labour market industries. Results are presented in table 2.

Table 2

Students' interactions with self-employment labour markets.

Question: How do you interact and relate your learning with self-employment labour markets during your studies?	Frequency	%
Not relate learning interactions with self-employment businesses	161	31.0
Through tour study	31	6.0
Through assignment works	45	8.7
Through looking after personal needs and activities	198	38.1
Through field practical works	53	10.2
Through research and project works	32	6.2
Total	520	100.0

Data in table 2 above shows that a large number of students, 198 (38.1%), interacted with self-employment labour markets only when looking after their personal needs, followed by those who could not relate their learning interactions with self-employment

business 161 (31.0%). A few students said they interacted through field practical works 53 (10.2%) and through course assignment works 45 (8.7%). Research, project works, and tour studies were rated lower, with 32 (6.2%) and 31 (6.0%), respectively.

4.2. The community stakeholders' experiences about higher education graduates' enterprise skills, access and doing of self-employment businesses

Objective two data draw results from two sources: community stakeholders' survey questionnaires and interviews. There are three important results generated in objective two: (i) the type of self-employment businesses done by graduates, (ii) community participants perceptions about graduates' composure of self-employment enterprise skills and attributes, and (iii) community participants' views about graduates' capacity to access and doing of relevant self-employment businesses.

4.2.1. Types of self-employment businesses done by higher education graduates

Using an open-ended tool, the community stakeholders were asked to mention one self-employment business graduates were doing most in their areas. The responses were sorted, grouped, coded, and analysed using descriptive statistics. The results are presented in table 3.

Table 3

Types of self-employment businesses done by higher education graduates.

Types of self-employment businesses done by graduates	Frequency	%
Transportation activities (<i>boda boda</i> , <i>bajaj</i> , bus etc.)	46	14.6
Hairdressing saloons and barber shops	58	18.5
Retail shops, clothes, shoe products, domestic utensils, etc.	39	12.4
Agriculture, and agribusinesses	34	10.8
Agents of telephone money business	21	6.7
Teaching in tuition centres	23	7.3
Private organisations (NGOs) and/or group companies	18	5.7
Online business	19	6.1
Stationery business	29	9.2
Food products and catering services	27	8.6
<i>Total</i>	<i>314</i>	<i>100.0</i>

Data in table 3 indicates hairdressing saloons and barber shop businesses 58 (18.5%) and transportation activities (*boda boda*, *bajaj*, bus etc.) 46 (14.6%) as the most done type of self-employment businesses by graduates. Others include retail shops, clothes, shoe products, domestic utensils 39 (12.4%), agriculture, and agribusinesses 34 (10.8%). The lowest rated were agents of telephone money business 21 (6.7%), online businesses 19 (6.1%), and private organisations (NGOs) and/or group companies 18 (5.7%). These results indicate that many graduates engage in causal small-scale businesses in their surrounding communities, hence little demonstration of competence for new job creation enterprise skills.

4.2.2. Community perceptions about graduates' composure of self-employment enterprise skills and personal attributes

The community stakeholders were asked to rate their perceptions about graduates' possession of the selected attributes and enterprise skills. Using a Five-scale Likert questionnaire, seven kinds of enterprise skills and personal attributes were assessed, namely: (1) self-management and goal setting, (2) impressiveness and ability to build social capital networks, (3) readiness to start or adapt to self-employment business, (4) ability to manage business growth, (5) attitudes and perceptions towards self-

employment, (6) trustworthiness when given an opportunity to self-employment, (7) hardworking to get through self-employment activities. The rating scale ranged from 1 very little to 5 very high.

Data in figure 4 indicate that the community perceptions about graduates' possession of enterprise skills and attributes ranged around 2.5 to nearly 3.0 out of 5.0 mean scores. This means that graduates have either little or unsatisfactory possession of the rated enterprise skills and attributes. Highly rated personal attributes were hardworking in getting through self-employment opportunities (3.19) and social capital networks (2.84). The lowest-rated attributes include trustworthiness in utilising self-employment opportunities (2.46) and the ability to manage business growth along self-employment challenges (2.39).

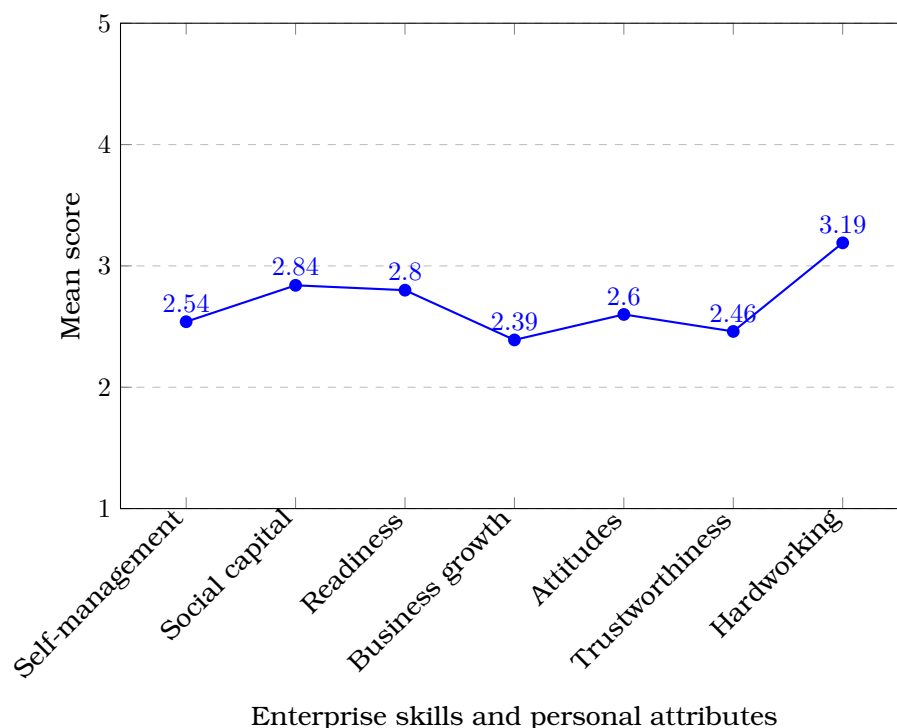


Figure 4: Community perceptions about graduates' composure of self-employment enterprise skills and personal attributes.

4.2.3. Community views about graduates' access and doing of self-employment businesses

The community participants were asked to explain their views about graduates' competencies to access and perform respective self-employment businesses. The interview results identified three important themes: a low level of graduates' readiness for self-employment, low trust of the community in graduates' commitment, and inadequate capacity of graduates to manage businesses. During interviews, one community development officer (male) had the following to say:

Based on my experience, most graduates do not actively apply for the youth loans we offer to support self-employment start-ups and innovation. I think they lack the commitment to form their groups or join other youth groups; they are so troublesome. Graduates are very mobile, always seeking formal employment, and therefore, even when they take a loan for self-employment, it is difficult to supervise them for repayment as they do not stay in groups for long after taking the money. (Interview with a Community Development

Officer in Dar es Salaam, June 2023)

Moreover, results indicated that rather than engaging in new start-ups, most graduates adapt to existing informal self-employment businesses in their community settings after failure from other options. During the interview, one staff from a CBO (female) had the following to say:

I know a certain young graduate (male) from our street. He attached himself to one motorcycle (boda boda) transporters' centre around here. He used to rush some clients and get some money for that. Later on, they realised his hardworking spirit, seriousness, and ambition. So, his fellow youths helped him get a motorcycle loan from a certain company. Now, he is doing well in motorcycle transportation while repaying the loan bill weekly. (Interview data, in Dodoma, July, 2023)

Furthermore, results showed that business management and growth were affected by some graduates' factors, including lack of positive attitudes, readiness, lack of hope for the business future, and lack of goal commitment for own account businesses. On the contrary, the interviews also showed positive behaviours such as a positive attitude and hardworking spirit for success, which promoted the growth of businesses among the self-employed graduates. One staff from the trade, industry, and investment (female) section narrated:

Based on my experience, they are doing well, although some graduates are ashamed of their own account local businesses, so they try to quit and have little concentration to manage and grow. However, others cope and manage them well. For example, I have my friend's daughter she is selling domestic utensils while the other girl also sells fruits. The only challenge I see is that they need some support to grow their businesses. (Interview with the Street Chairperson in Dar es Salaam, August 2023)

4.3. The self-employed graduates' experiences and enterprise skills application during access and doing of respective self-employment businesses

The self-employed graduates' interviews present five thematic results explaining the self-employed graduates' experiences and enterprise skills application during access and doing of own account businesses. The themes include start-up decisions and skills towards own account business, efforts and skills for generating the start-up capital, ability to access social capital support services during start-ups, experiences about the business operation and management, commitment for business growth and development prospects.

4.3.1. Start-up decisions and skills towards own account business

Regarding initiative skills, there were three important results. These include skills for business opportunity identification, capital formation, and the role of social capital networks. Experience from interviewed graduates shows that some self-employed graduates' decision to get into self-employment options followed after they failed to get wage employment in a teaching job. However, it is impressive that initiatives to search for business ideas and opportunities demonstrated enterprise skills applications for opportunity identification. During the interview, one self-employed graduate (male) had the following to narrate:

It's been two years since I struggled without a job; then, I decided to do informal research about which business opportunity was paying the most

in Dodoma. So, I visited some hotels and asked them how and where they were getting milk from and how many litres they were buying per day. I realised that some of the hotel managers had complaints about the failure of milk suppliers to meet the hotels' needs consistently. So, I requested an opportunity to supply milk, and three hotels accepted my request. (Interview data in Dodoma, July, 2023)

It was also noted that graduates who had background experiences in doing self-employment businesses before or during their studies had good business start-ups. Such an experience creates an easy environment and motivates graduates' readiness to expand their businesses. During the interview, a self-employed graduate (female) explained her experiences as quoted:

I have been selling female wares to supplement my living expenses during my studies at the university. While still there, I was selling products like female shoes, clothes, and cosmetics. So, I had prior experience running a business, and it was not hard for me to continue with my business. (Interview session in Dar es Salaam, August 2023)

4.3.2. Efforts and skills for generating the start-up capital

Capital has been explained in various empirical studies as a big problem hindering youth start-ups. This study had results showing good graduates' enterprise skills and experience in generating start-up capital. It was found that self-management, commitment, and financial management skills contributed to capital formation during business start-ups. During the interview, some self-employed graduates were quoted narrated hereunder:

Graduate 1 (male):

I started with 25,000/= shillings, for which I bought 5 litres of milk, 2 boiling pots (cooking can), and transport expenses. I started boiling milk and supplying it to hotels. Two months after my start-up, I managed to employ one supporting staff, but now I have two staff to work and have increased the supply of milk from 5 to 60 litres per day. This amount is even less than the demand I had to supply, which is 80 litres per day, and I am planning to have a big supply in future, not only for hotels but my products in the larger market. (Interview data in Dodoma, July, 2023)

Graduate 2 (male):

During my start-up of this business (saloon business), I used funds I served by keeping a portion of the student loan during my studies. At each instalment of the six study semesters, I saved not less than 80,000/= to 120,000/= TZS. So, at the completion of my studies, I had sufficient funds to rent a saloon room, pay house rent, buy shaving machines, and buy other equipment you see here. (Interview data in Dodoma, June, 2023)

4.3.3. Ability to access social capital support services during start-ups

The results also showed that the social support environment was necessary to enhance graduates' self-employment after schooling. The interviewed graduates demonstrated their feelings about the need for someone to give support, social company, mentorship, and guidance. They also said that returning home after schooling felt more frustrating than seeking a self-reliant life. Thus, graduates needed social capital skills to attach with others and support services in managing their start-ups. Support

from relatives, peers, and fellow businesses contributes significantly to graduate access to the self-employment labour market. Below are two quotes from self-employed graduates:

Graduate 1 (male):

I appreciate the good company I get from my fellow businessmen around here, more particularly the support from my uncle. He helped me stay in his home after my studies. This was helpful not only because I was not paying rent but also because he supported me with some funds to start the saloon business after I learned shaving skills from my friend here. (Interview data in Dar es Salaam, June, 2023)

Graduate 2 (female):

After graduation, I remained in Dodoma with my two friends who were in the saloon business. I just remained because I had nothing to do at home; my parents would ask me about jobs and even expect much from me. Fortunately, my aunt called me and asked about the business I was doing in Dodoma. I explained to her, and then she lent me 300,000/= TZS to start this clothes-selling business. (Interview data in Dodoma, July, 2023)

4.3.4. Experiences about the business operation and management

The interview results showed that there was mixed experience among self-employed graduates in managing their businesses. Some interviewed graduates showed dissatisfaction with the income earned, poor readiness to face challenges, and negative perceptions about the job's relevance to their skills. Verbatim quotes from some interviewed self-employed graduates are narrated below:

Graduate 1 (male) was quoted as saying:

My business (barber shop) is good just for helping me survive life in town, but it does not make a good income. There are many struggles and constraints, such as fluctuating income and unfriendly running costs such as electricity, security bills, customary taxes, etc. So, maybe I will start a business that is more relevant to my education and a more profitable investment. (Interview data in Dar es Salaam, June, 2023)

Graduate 2 (female):

Keeping up with this business is really hard; I get tired and sometimes wish to stop, but it is life; what should I do?! As you can see, I have to move from place to place, from one auction market to another. There are transport costs, living costs, and taxes. With this small shop, it may take a whole week without selling anything. So, I have to move with my products even though it is tiresome. (Interview session in Dar es Salaam, August, 2023)

4.3.5. Commitment for business growth and development prospects

During the interviews, graduates were asked to explain their prospects with particular businesses. The results showed that some self-employed graduates were not sure about their commitment to carry on with their businesses, thinking of changing to other employment or having tried to change several times without satisfaction. Moreover, the growth of own account businesses was hindered by diverse factors such as unfriendly service charges, unpredictable running costs, unsustainable markets, and desires to shift to more paying businesses. During the interview, one self-employed graduate (male) was quoted saying:

I don't know if I will proceed with this business (barber shop). I have moved through three businesses now; I started with fruit selling and a tuition centre, which I now run. I sometimes don't feel well with this because it is not what I studied, it does not make a good income, and there are a lot of struggles and constraints such as fluctuating running costs such as electricity, security bills, customary taxes, etc. So maybe I will start a business that is more relevant to my education and more paying investment. (Interview data in Dar es Salaam, June, 2023)

Furthermore, the results showed that business marketing and advertisement through social media and online sources, as well as personal commitment to goal setting, hardworking and tolerance, had a positive contribution to business growth and development. Quotes from two self-employed graduates support the findings:

Graduate 1 (female):

I run my female wear business well. I advertise it through social media groups, such as my classmates' WhatsApp group, my Instagram account, and even YouTube. I get customers. Some of them request delivery, while others come to my shop and buy; it helps my business sustain itself and become known in the market. (Interview data with self-employed graduate in Dar es Salaam July, August, 2023)

Graduate 2 (male):

I have been in this business (an education centre) for about 6 years now. It started small, with only 10 students who joined for remedial tuition hours to prepare to re-sit their Form IV national examination. However, as time went on, we began advertising our centre; we used social media, visited social institutions like churches and mosques, and even visited schools supplying advertisement posters around the town. I also appreciate our hardworking spirit and the assurance that our clients performed well. So, currently, we enrol more than 150 students each year; I feel good and comfortable as I apply my skills as a science teacher (Chemistry and Biology) and hope one day we can have a full school. (Interview with self-employed graduate in Dodoma, September 2023)

5. Discussion

The results of this study indicate that graduates' initiative skills and decisions to engage in self-employment businesses are largely driven by a lack of employment opportunities in teaching jobs. The findings concur with Kabonga [35], explaining that youths' employment and livelihoods in Africa and the Global South have informality, hustling, improvisation, and survivalism characteristics. Bayart and Saleilles [9] describe such a tendency as characteristic of necessity entrepreneurs who are usually driven by a need for survival for persons facing unemployment conditions. The results imply a lack of sufficient enterprise skills among graduates to create competitive and sustainable jobs in the self-employment labour market. The results also demonstrate poor graduates' self-employment competitiveness and inability to transform the labour market conditions, which may be associated with students' poor training linkage with job creation opportunities during their studies and lack of innovation skills training as emphasised in other literature [24, 50, 57]. Due to insufficient job creation capacity, graduates adapt to existing self-employment businesses instead of start-ups for new jobs. Since they compete for the same informal self-employment businesses with other

youths, it is evident that their number lags to those already experienced, as explained in findings from other studies [1]. Generally, these results are contrary to the human capital theory expectations of the skills' productivity perspectives and returns from investing in education [41, 53].

The curriculum coverage of enterprise skills in course contents is inadequate for science and art teacher education curricula. Entrepreneurship skills, project/business planning and management, innovative skills, and financial management have been underrepresented in the curricula as they concentrate only on the course and module learning outcomes. This implies a curriculum mismatch of skills recommended, such as project-based learning, innovation and enterprise management and generic skills, which are recommended in the literature [6, 15, 19, 26, 48] as key areas of training for enhanced graduates' employability. Consequently, the lack of innovative enterprise skills among the educated workforce is one of the most critical obstacles to doing business in Africa [2, 34]. The curriculum falls short of important business skills such as project-based learning, innovation, and exposure to informal businesses outside school as necessary inputs for employment creation. Moreover, the results indicate insufficient curriculum integration of multidisciplinary, interdisciplinary, and transdisciplinary skills features [52, 61] needed to enhance the cross-disciplinary transfer of skills from the economic and business studies discipline to shade the teacher professional cadre with the self-employability competencies.

Furthermore, the selected curriculum has a poor students' linkage with the self-employment labour market experiences through teaching and learning methods. Cyran [16] and Teng et al. [57] observed that the HLIs focus on transmitting information to large classes while ineffective in developing employability skills such as problem-solving, interpersonal skills, creativity, and innovation. Likewise, Nyinge [48] demonstrated a gap in training linkage with labour markets in the universities' training and assessment methods that fall short of authentic assessment tools such as portfolios, projects, teaching practice, and practical work, leading to poor acquisition of generic competencies among undergraduate science student-teachers. Similarly, this study's results showed that the student's interactions with the self-employment labour markets largely rely on personal routines rather than course activities. Also, the results showed that teaching and learning methods such as tour study visits, guest speakers, and project-based learning had very low mean scores. The widely used, famous labour market practical learning mode is through the teaching practice, which has shortcomings for being limited to teaching jobs in a school setting and is thus inadequate for extending students' practical learning of self-employment experiences beyond the school borders. Failure to expand learners' experiences beyond the teaching jobs inculcates ready-made job-dependent mindsets instead of promoting students' flexibility and innovative minds for job creation [16, 24, 27]. Under these circumstances, the design of teacher education curricula and their ability to develop the enterprise mindsets, skills, and preparedness of prospective graduates for the self-employment labour industries is inadequate.

Moreover, the result has shown the existence of unfriendly socio-economic conditions in the labour markets hindering effective business start-ups, management, and growth. Graduate interviews reported difficult experiences with generating capital, lack of supportive credit schemes, unpredictable market availability, utility charges such as electricity and security bills, and high cost of living. Other studies also point out unsupportive macroeconomic conditions and socio-economic factors for business start-ups resulting from poor microeconomic capacity to support job creation, complex restrictions, access to credits, getting capital, permits, and DGP per capital as economic factors affecting the business environment, especially in developing countries [17, 43, 44, 66]. Furthermore, Hatibu and Hafidh [27] emphasises poor political will

and stringed bureaucracies as hindering factors for doing business environment in East Africa. These socio-economic conditions put the graduates' enterprise skills under high pressure to cope and grow in self-employable businesses. The condition also retards graduates' spirit of love for manual work, which, according to Seni [54], is among the important attributes needed to enhance growth in the world of work. Moreover, other studies argue that unfriendly socio-economic conditions deteriorate graduates' commitment to self-management, perseverance, and self-efficacy, which are recommended in the literature [3, 4]. Generally, the social systems, society, and socio-economic conditions are necessary to support graduates' self-employment prospects and the realisation of enterprise skills.

Furthermore, the interviewed self-employed graduates have demonstrated recommendable enterprise skills. The commitment to saving funds from the portion of students' loans for generating capital implies self-management and goal-setting skills among some interviewed self-employed graduates. Some self-employed graduates could also access support from their relatives, peers, and businessmen to raise capital. The ability to cope and gain support from others and goal commitment demonstrate personal self-management, social capital networking, and financial management skills, which are suggested as among the important attributes for a successful self-employable entrepreneur [3, 14, 15, 42, 47]. Moreover, self-employed graduates who have tolerance and trust in themselves endure challenging business environments and develop a positive attitude towards success in self-employment businesses. The interview results have shown that such graduates have the likelihood of growing their businesses into large enterprises. These findings concur with Tentama and Nur [58], who emphasised the role of self-efficacy as a core attribute for promoting graduates' employability drive. The findings characterise self-employable graduates who can create jobs and make them grow, similar to opportunity entrepreneurs [9]. Lack of such attributes results in graduates' self-employability limitations like poor focus, moving across businesses, poor productivity, poor business futures, and failure.

6. Conclusion and recommendations

The study concludes that the selected science and art teacher education curriculum has inadequate content and aptness for enterprise skills development. The conventional teacher education curriculum has insufficient coverage of enterprise skills such as entrepreneurship, innovativeness, project and business planning and management, financial management, and linkage with self-employment labour market industries in general. Likewise, the social systems of the microeconomic conditions, access to capital, and tax requirements retard graduates' efforts for job creation and growth in self-employment businesses. Moreover, graduates' poor innovative skills, project and business planning skills, goal commitment, and poor attitudes toward business futures hinder their sustainable access and growth in self-employment businesses. These characteristics make graduates embark on existing jobs only for survival while frequently seeking to change to other businesses. However, graduates with self-management, goal commitment, tolerance, and positive attitudes towards their own account businesses have a good ability to cope with the business environment and a likelihood of success in the self-employment labour market.

Based on the findings, the study makes three important recommendations. First, higher education institutions should transform the current teacher education curriculum to a multidisciplinary hybrid design integrating the contents and methods of economics and business studies disciplines. The teacher education curriculum should integrate enterprise and skills such as project-based skills, entrepreneurship, financial management skills, marketing, and formal and informal self-employment skills

development. Secondly, the responsible government authorities, such as the youth and labour departments and the community development department, should develop self-employment graduates' cluster groups and offer necessary support, including social capital mentorship and capital loan materials, to ease graduates' access to various self-employment opportunities. Thirdly, the study recommends the improvement of global higher education policies for increased linkage with labour market practices. Specifically, the study recommends that the Tanzania government improve the National Higher Education Policy 1999 by establishing specific provisions for labour industry linkage guidelines that formalise support frameworks for graduates' school-to-work transition. Finally, the study recommends further studies on a large-scale graduates' survey for curriculum linkage with small and medium enterprises (SMEs) businesses. Also, the study recommends a quantitative and inferential statistical analysis of a longitudinal survey to track graduates' employability outcomes over time and its comparison across the country level, regional, and global coverages.

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