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A systematic review of the determinants of successful entrepreneurship education across universities in South Africa

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Abstract

Worldwide, successful entrepreneurship education in universities is evaluated through many indicators, such as entrepreneurial skills, attitudes, behaviour, and entrepreneurialism. Understanding the determinants of successful entrepreneurship education can assist curriculum designers and policymakers in terms of institutional investment in curriculum development. This literature review-based study extracted, discussed, interpreted, and analysed determinants such as institutional support, family support, awareness, and access to learning resources from secondary sources using ATLAS.ti software. Results indicated that entrepreneurial skills, attitude, and entrepreneurialism were higher in universities with resources. For the above reasons, it becomes increasingly necessary for universities to suggest pathways for creating and implementing a successful entrepreneurship education. This study suggests that universities can enhance the success of entrepreneurship education by investing in financial support for students and staff, attracting experienced and qualified staff, attracting the best students, and offering practical experience.

Keywords: *Determinants, Entrepreneurship education, Entrepreneurial skills and attitudes, Higher education institution, Universities.*

Introduction

In recent years, scientists and policymakers have realised that entrepreneurship education (EE) offers tremendous opportunities to accelerate community development (Hoang *et al.*, 2021). Given the apparent benefits associated with EE, such as improved standards of living (Grecu & Denes, 2017) and productivity growth (Ashari *et al.*, 2021), universities have increased interest in becoming efficient incubators for instilling a passion for positive entrepreneurship behaviour in students (Proença & Soukiazis, 2022). Therefore, curriculum design in entrepreneurship education has consistently aimed to stimulate creativity, innovation, and collaboration among entrepreneurship students (O'Brien & Hamburg, 2019). South Africa, as in other parts of the world, is already facing high unemployment rates, low income levels, poverty, crime, corruption, food insecurity, and vulnerable livelihoods (Doran *et al.*, 2018). In the face of these challenges, there are calls for increased entrepreneurial activities to close the gap. Despite the abundant evidence of the relevancy of EE to economic growth, the influence of EE is still less in several developing countries, including South Africa (Jesselyn Co & Mitchell, 2006; Bushe, 2019).

In this study, the broad definition of entrepreneurship education is the process of empowering individuals to apply entrepreneurial behaviours, attributes, and competencies to create cultural, social, or economic value (Agarwal *et al.*, 2020). In a university setting, EE can be achieved through modules within a degree, short courses, or extracurricular activities. These pathways ensure that all students can receive entrepreneurial education at the university (Omotosho *et al.*, 2022). However, each of these pathways has its advantages and its downsides. For example, the module pathway ensures that only students enrolled in that course can receive entrepreneurship education, except if they take up extracurricular activities or programmes. Students registered in non-business-related degree programs are automatically excluded. During extra-curricular activities, students may not take the training with the necessary seriousness and attention, as it falls outside the primary objectives of their stay at the university. Moreover, this method must be coupled with an aggressive marketing and promotional initiative so that students choose EE among the other competing extra-curricular activities.

Despite the above arguments, higher education institutions remain critical avenues for driving EE. Successful entrepreneurship education can be measured by how entrepreneurship courses such as creativity and innovation, entrepreneurship theory and practise, and cooperative

entrepreneurship achieve desired objectives (Doran et al., 2018; O'Brien & Hamburg, 2019). Higher education institutions play a critical role in equipping students with relevant skills that make them critical thinkers who can provide solutions to entrepreneurship challenges, as observed by Grecu & Denes (2017) and Bushe (2019). By way of explanation, universities are known to be platforms for driving societal and economic change (Jesselyn & Mitchell, 2006; Proença & Soukiazis, 2022). However, persistent failure by universities to ensure successful EE among students undermines the realisation of the positive benefits of EE. This assertion is supported by Bushe (2019) and Doran et al. (2018), who report that, although there has been unprecedented growth in tertiary education in the last decade, many universities still trivialise the need to consider whether they are doing enough to educate people about what the labour market wants. Thus, enhancing EE in South Africa requires understanding the determinants of a successful EE. For this reason, this paper argues for an EE rooted in capacitating students with the required entrepreneurship skills and knowledge. In this paper, we take the capability view and argue that entrepreneurship is a skill that can be taught. University students can be taught how to think and act in an enterprising manner. Such a view places the kind of training and its intended purpose at the centre. Assessing the objective and intended outcomes of a learning exercise becomes imperative.

Insights from the literature study

Numerous benefits of entrepreneurship education have been recorded across various South African universities (O'Brien & Hamburg, 2019; Ashari *et al*., 2021). Given the persistent challenge of unemployment in the country, there is an increasing call for the integration of entrepreneurship education across all disciplines. This initiative seeks to empower graduating students with essential skills to pursue entrepreneurship within their respective fields (Ndedi, 2013). to ensure that all students, upon graduation, are well-trained to be entrepreneurs in their field (Ndedi, 2013). Building on this, Muchemwa and Odimegwu (2023) further support the importance of entrepreneurship education by highlighting that youth with a tertiary education are more inclined towards self-employment compared to those with primary or secondary education. This finding underscores the significance of fostering an entrepreneurial mindset among students, particularly in tertiary institutions. As Muchemwa and Odimegwu (2023) note, more work is

necessary to strategically place higher education institutions to nurture and produce enterprising graduates who can establish and run successful businesses and ventures that create employment. This has also been explored in prior studies by scholars such as Smith & Chimucheka (2014) and Jesselyn & Mitchell (2006), who have supported efforts towards capacitating students of EE. The question is, how can universities ensure entrepreneurial education focuses on equipping and developing students with entrepreneurship skills?

Over time, extensive literature has been developed on universities' potential to create an entrepreneurial society, as espoused by Iwara and Kilonzo (2022). A popular explanation is that universities have a societal obligation to propel entrepreneurship. Thus, the conversation about the university's tremendous potential in creating an entrepreneurial society has been at the centre of EE in South Africa, with higher education institutions expected to be responsive to societal needs by providing entrepreneurial solutions (Lose and Kapondoro, 2020). Furthermore, understanding what it entails to help create an entrepreneurial society remains a challenge considering the diverse contextual realities of universities in the country. Although many studies have acknowledged the relevancy of EE, the research remains limited in methodology and actions to achieve this goal. Rashid (2019) revealed that the multiple strategies used within the higher education space in South Africa to address entrepreneurial gaps have failed to produce the desired results.

The link between EE and sustainable development

A study by Rashid (2019) utilised the human capital theory to unpack the relationship between entrepreneurship education and training and sustainable development. The study revealed that the two positively correlate with successful entrepreneurial education outcomes, contributing to sustainable development through the potential to reduce poverty, stimulate economic growth, boost innovation, and enhance social and environmental sustainability. The South African government acknowledges that higher education has the potential to stimulate entrepreneurship in the nation and help solve its many socioeconomic problems (Ncanywa, 2019). Consequently, the Department of Higher Education and Training concretises its view by establishing a programme titled Entrepreneurship Development in Higher Education (EDHE). This programme seeks to drive entrepreneurship activity in higher education (Ncanywa, 2019). Smith & Chimucheka (2014) reached a similar conclusion and expounded that EE capacitates and develops

entrepreneurs who can influence industry, firms, and society to address current challenges. This is particularly important when targeting the dimensions mentioned above, which can be achieved through education. Despite this and the numerous activities of individual institutions, the success of the various education programmes has yet to be well documented. Therefore, it remains to be seen whether the current guidelines on EE are informed by evidence. As a result, the objective of this study is to assess the determinants of successful entrepreneurial education within South African higher education.

The main contribution of this article is to identify the common internal factors that significantly impact the EE landscape's success. Policymakers, industry, and scientists increasingly demand courses and training that provide students with the required skills (Grecu & Denes, 2017), instead of simply being more concerned with the number of graduates per year. It seems reasonable to promote the role of universities in creating an entrepreneurial civilisation. This implies that universities should be leaders in generating and providing intellectual and practical solutions to entrepreneurial-related challenges, in addition to the traditional roles of institutions of higher education. This suggests that universities should provide students with the required environment and experiences related to entrepreneurship and mainstream entrepreneurship into its traditional responsibilities (Agarwal *et al.*, 2020; Ashari *et al.*, 2021). Thus, this article aims to explore the determinants of EE while offering suggestions to improve the cultivation of entrepreneurship skills among university students. The rest of the article is organised as follows: First, we provide an overview the methodology used for our systematic literature review. Second, we present and discuss the main results using an ATLAS flow chart diagram. After discussing the significant findings of this study, we conclude with final recommendations and policy implications.

Methodology

This study adopted a systematic literature review to unpack the determinants of successful entrepreneurship education across universities in South Africa. The above approach considered three steps to search and extract the relevant body of knowledge (Booth *et al.*, 2019; Kraus *et al.*, 2020), namely: 1.) initial search for synonyms; 2.) extraction from the database; 3.) article screening; and 4.) further screening and analysis. The search approach targeted widespread global literature, using the following

search strings: a.) entrepreneurship, b.) entrepreneurship education, and c.) determinants.

Global databases such as Google Scholar, EBSCOhost, Web of Science, SCOPUS, and ScienceDirect were used for this study. The aforementioned electronic databases were selected for effective study due to their promotion of multidisciplinary research and the fact that they all contain more active, full-text, peer-reviewed journals, many of which are listed in top citation indices (Guetterman & Fetters, 2018).

To ensure that only reputable sources were included in the sample, only internationally recognised and accredited journals were included in the current study. Additional criteria regarding publication date and language were applied to screen the articles and prioritise those that provided the most up-to-date information deemed valid for our study. Articles published before 2012 and those that were not written in English were excluded from the analysis. During our data extraction, 204 articles were initially extracted from a sample of articles published between 2012 and 2023 (Figure 1). Despite the initial number of source articles (204), this broad search was chosen in this study to maximise the likelihood of capturing all relevant publications.

Of these 204 articles, 28 were classified as relevant for the study after systematic screening based on deliberate inclusion and exclusion criteria.During the screening process, articles were invalidated for the present study after they were narrowed down to studies conducted in South Africa. Although this is a limitation as some of the scientific articles were excluded, the aim was to eliminate studies outside the study.Articles without citations and those that omitted important material on curriculum improvement were eliminated.

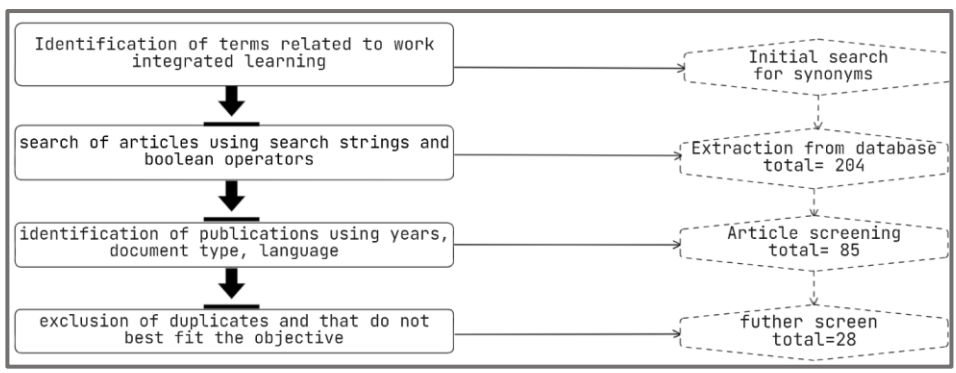


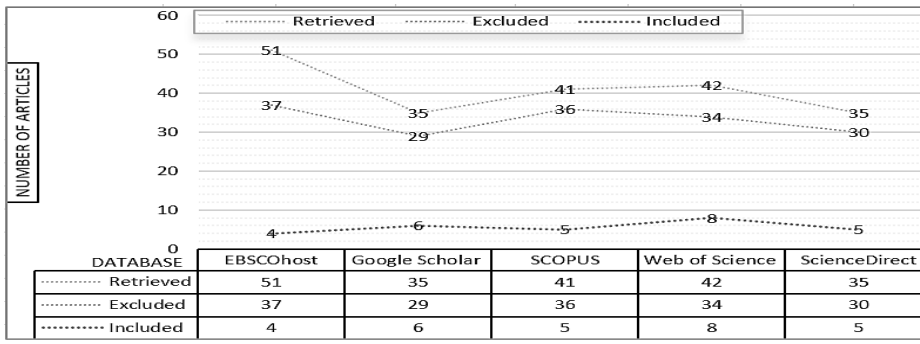
Figure 1: The flowchart illustrating the inclusion and exclusion criteria for literature documents.

To get rid of overlapping journals, two types of deduplications were taken into consideration. In the first form, five databases were chosen, and identical data sources had to be removed (Guetterman & Fetters, 2018). Multiple publications published from the same data set were prevented by the second form (Creswell & Plano, 2018). The remainder list was manually reviewed since one automatic deduplication approach was deemed insufficient. The bibliographic management software Zotero was utilised for the automatic duplication identification. After the sampled articles were narrowed down through this screening procedure, 28 scholarly papers were produced (Figure 1) (Molina-Azorin & Fetters, 2016). To enhance the global relevance of the study, while its primary focus was on South Africa, additional articles from the reference list were deliberately chosen.

Data querying and analysis

Figure 1 depicts the complete procedure for extracting and screening journal articles from every electronic database. For every article, a framework for gathering and assessing qualitative data was created. This involved finding data segments that mentioned important concepts of interest by using the ATLAS.ti22 auto-coding tool. The literature on articles was analysed in this work using the ATLAS.ti thematic-based analysis method. The analysis was conducted using ATLAS.ti flow charts to assess the determinants of successful entrepreneurship education across universities in South Africa. According to Paulus and Lester (2016), ATLAS.ti is software that enables the researcher to competently capture the most important information in the literature and produce summarised results from systematically reviewed literature (Wild *et al.,* 2016).

The first step was to upload the selected articles into the software during analysis. A total of 28 peer-reviewed articles were uploaded into the ATLAS.ti software for coding. Codes such as "internal factors", "external factors", "challenges", "teaching", and "learning" were initially created using the open code tool. We combined related codes into higher-order codes in our second analytical stage, and we kept comparing and reviewing our codes throughout. After more data querying, all unnecessary and dead-end codes were eliminated. Lastly, we used selective coding, which enabled us to go back and review our codes and data in order to create themes, theoretical ideas, and connections between themes.



DATABASE	EBSCOhost	Google Scholar	SCOPUS	Web of Science	ScienceDirect
Retrieved	51	35	41	42	35
Excluded	37	29	36	34	30
Included	4	6	5	8	5

Figure 2: The dual-axis chart shows the specific number of articles extracted from various electronic databases.

Results and discussion

This section has been organised to address the objective of the present study. The section begins by presenting significant results in a flow chart diagram, followed by analysis and discussion in the discussion section. The discussion section provides an interpretation of the findings weaved into the literature review, leading to a set of recommendations useful for management and suggestions for future direction in research. From the literature, evidence that several factors adversely affect entrepreneurship education is well understood; what remains unknown and urgent are sustainable optimisation strategies. Moreover, while other universities do not have well-defined strategies to promote EE, results indicate that some universities have a "fix as we go" approach. While "fix as we go" remains effective as the challenges on EE persist, it would be irresponsible to watch graduate employability reach rock bottom.

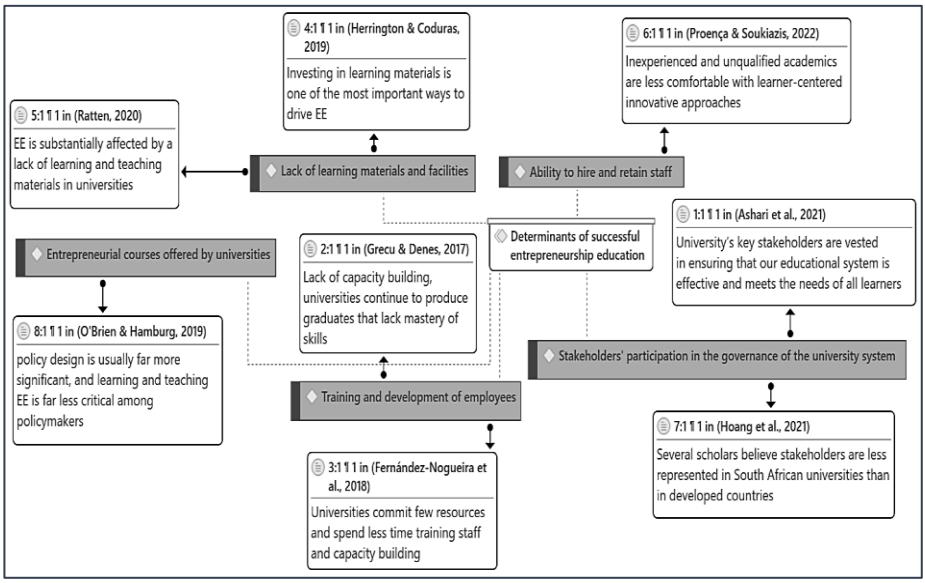


Figure 3: Determinants of successful entrepreneurship education.

Internal determinants of successful entrepreneurship education

Human resource availability and retention

Findings on the determinants of successful EE hint at a positive relationship between hiring qualified staff and EE's success. These results show that experienced and qualified lecturers transfer relevant knowledge and motivation to students. Again, insights from the literature review indicate a need for adequate experience and qualified lecturers to teach entrepreneurship modules at universities across South Africa (Herrington & Coduras, 2019; Ratten & Jones, 2021). Like all organisations in most developing countries today, universities in South Africa face the delicate challenge of recruiting and returning professional staff due to resource demands (Herrington & Coduras, 2019). This result ties nicely with the above-referenced study, wherein the challenge of recruiting qualified academics is associated with a considerable salary bill, as also noted by Grivokostopoulou *et al.* (2019). The above observation is essential because similar results show inexperienced and unqualified academics are less comfortable with learner-centred innovative approaches (Doran *et al.*, 2018; Ashari *et al.*, 2021; Proença & Soukiazis, 2022). Moreover, the dynamic nature of the entrepreneurship education and practice space requires that educators keep abreast of the trends and trajectory of development to ensure they remain relevant within the

contextual realities. However, this requires financial resources, which many institutions struggle to raise. Additionally, established institutions are more likely to attract the few experienced and qualified lecturers due to their capacity to attract and retain staff as a product of better financial endowment than previously disadvantaged universities.

Lack of learning materials and facilities

The literature reviewed indicates that EE is substantially affected by a lack of learning and teaching materials in universities (Ratten, 2020). These materials are practical resources for holistic students' interpersonal and experimental development (Jena, 2020). Although attempts have been made to make learning materials available to students, some basic facilities are still missing, as indicated by Grecu & Denes (2017; Grivokostopoulou *et al.*, 2019). Insights gained from recent studies also indicate that institutional culture greatly emphasises using online materials in response to the COVID-19 pandemic (Agarwal *et al.*, 2020; Ashari *et al.*, 2021). Even though a shift to online space is a move along with contextual changes, it negatively affects dynamic and communicative teaching due to limited physical contact (Agarwal *et al.*, 2020; Ashari *et al.*, 2021). A similar conclusion was reached by scholars such as Ratten and Jones (2021), who lament that the lack of facilities prevents learners from reaching their full potential. Therefore, learning and teaching materials and facilities can be fundamental in promoting EE. Thus, there is a need for a policy shift to support and encourage investing in learning materials and facilities in entrepreneurship education.

Although some scholars have mixed views on whether investing in facilities and modern technology would translate to successful EE (Grecu & Denes, 2017; Doran *et al.*, 2018), others argue that investing in learning materials is one of the most important ways to drive EE (Herrington & Coduras, 2019). Questions arise regarding whether overemphasis on materials and facilities must be consistently increased in promoting EE, as some societies need more facilities to support technological requirements. As a result, debates have arisen regarding the effectiveness of the current strategies. On the contrary, this article offers a new interpretation of misdirected efforts that responded to the frustrations felt by many scientists. This paper argues that the overemphasis on student support in EE concentrates on how and what students need.

Entrepreneurial courses offered by universities.

Although growing studies on EE within South Africa indicate that institutions of higher learning in South Africa are beginning to move towards scaling up EE (Fernández-Nogueira *et al*., 2018), based on the results, few universities offer EE courses (Grecu & Denes, 2017). It is a reasonably safe claim that South African universities are still struggling to implement curricula on ÉE, an argument reinforced by findings that many universities do not offer EE at different degree levels (O'Brien & Hamburg, 2019; Herrington & Coduras, 2019). Unfortunately, this situation worsens as an investment in policy design is usually far more significant, and learning and teaching EE is far less critical among policymakers (see Figure 3). Therefore, additional steps may be needed to implement policy on EE in a way that can increase the likelihood that the policy will achieve its intended outcomes. Additionally, policymakers should be more alert to the practicalities of introducing EE as a course by assessing the feasibility of policy proposals more carefully from the onset.

Courses offered by universities, including those at EE, must ensure that they are consistent with reality. Courses offered by universities, including those at EE, must ensure that they are consistent with contextual realities. Courses on EE, which need to be more contextually relevant, do more to empower students to think and act entrepreneurially. Courses on EE, which need to be more contextually relevant, do more to empower students to think and act entrepreneurially. Price and Ronnie (2021) argue that contextualising courses ensures that students locate themselves and understand knowledge as part of their everyday experience. In addition, students can identify local problems they can solve by applying the entrepreneurial knowledge they have acquired. This contextualisation can be achieved through teaching and learning material incorporating local realities through language, case studies, examples, questions, and assignments (Price and Ronnie, 2021). As part of contextualisation, it is also necessary to create local success stories of entrepreneurs that students can draw on for motivation. If EE remains decontextualised, it will remain an abstract idea, and students will not see opportunities to put the ideas into practice.

Another aspect noted in the courses is the overemphasis on theory while relegating practical and experiential learning to the periphery. The courses should integrate experiential learning as an essential component

of teaching and learning to ensure students learn what they are taught. This will ensure that EE provides students with the required knowledge, skills, and attitudes (Omotosho *et al.*, 2022).

Institutional policies and strategic documents

Institutional policies communicate the university's views, interests, direction, and focus. They give guidelines for action. Likewise, entrepreneurship within institutional policies can influence successful education, such as the strategies thrust, vision and mission, community engagement, research, and teaching and learning policies directly speaking to EE (Wadig& Oliver, 2017). This is because staff action is guided by strategic documents (Omotosho et al., 2022; Price & Ronnie, 2021). In a way, the strategic policies contribute to establishing an institutional culture. The institutional culture is represented in how university business is carried out, including EE. If the university culture does not value entrepreneurship as a co-curricular and extra-curricular activity, the chances of successful EE will be limited (Wagid & Oliver, 2017). Universities should have well-established pathways for supporting EE and activities for its success within the university boundaries (Omotosho *et al.*, 2022). Thus, this calls for universities to drive a culture of entrepreneurship from a strategic level if successful EE is to be achieved.

Training and development of employees

A further novel finding of this study is that universities commit few resources and spend less time training staff and capacity building (Fernández-Nogueira *et al.*, 2018). It probably represents an overemphasis on curriculum design more than the teaching and learning activities. While prior research suggests that focusing on the students and their learning is crucial, it is generally accepted that there is also a need to promote practical staff training (Jones *et al.*, 2019). Staff development training is essential since the students learn more effectively when the lecturer has the necessary resources and skills. A probable explanation is that universities must realise that the societies and worlds they serve are continuously changing. Therefore, a successful EE, needs capacity-building development programmes aligned with the demands of the subject area to capacitate lecturers to adapt to new ideas or tools in their teaching context. In line with previous studies, Grecu & Denes (2017) argue that due to a lack of capacity building, universities continue

to produce graduates who lack mastery of skills. This may raise concerns about employability, as university graduates sometimes struggle to compete in the 21st-century job market.

Stakeholders' participation in the governance of the university system

Scholars of EE have found that the involvement of stakeholders in the university is integral to the success of EE (Alabi & Mutula, 2020). The university's key stakeholders are vested in ensuring that our educational system is effective and meets the needs of all learners (Ashari *et al*., 2021). Again, stakeholders are vital in advising about skills in demand in the labour market (Doran *et al*., 2018), highlighting the importance of stakeholder involvement in developing entrepreneurship education curricula. Thus, universities ward off a potential barrier to successful EE by allowing university stakeholders to participate, contribute, and promote EE at both the planning and implementation phases. However, closer examination shows inconsistencies, probably due to the different contexts in which these studies were conducted (such as region and period) and the other research methods employed. Several scholars believe stakeholders are less represented in South African universities than in developed countries (Alabi & Mutula, 2020; Hoang *et al*., 2021). The above is probably because the discourse of engaged scholarship in South Africa is still at the infant stage. Therefore, the participation of all stakeholders in education will help create an entrepreneurial society and ensure that students' needs are met. Commonly, EE without stakeholders' participation usually becomes ineffective.

Recommendations

Successful implementation of EE in South African universities is essential to achieving Sustainable Development Goals. As the demand for positive EE grows, universities will need to make sure that all social groups have access to reasonably priced, high-quality EE programs. The following four main recommendations are given to help guarantee sound policy and efficient implementation:

Targeted loans and grants for tuition fees - Give public financial aid to underprivileged student populations. This can be effectively achieved by

creating an institution to oversee the distribution of student financial aid and efficient methods of collection.

Limit student repayments: To reduce the burden of student repayment, combine income-based loans with low tuition costs.

Build a school community for all students- Curriculum development and instructional priorities should focus on the individual success of each student. A more engaging and understanding school environment will decrease student dropout rates.

Put university decisions in the hands of the community- Universities can advocate for a shift from standardised control to community-led and based mechanisms, which include community-elected university boards with the authority to decide how their learners are educated.
Elevating EE as a strategic focus- Universities would benefit significantly from elevating EE as a strategic focus, leading to its resourcing and prioritising as compulsory courses for all first-entering students.

Conclusion

This article highlights the key internal challenges and success factors for EE in universities in South Africa. The findings underscored the significant hurdles universities across South Africa face, including deficiencies in policy frameworks, limited stakeholder involvement in decision-making processes, inadequacies in course offerings and instructional materials, insufficient faculty training and support, and broader educational constraints. For universities to enhance their EE, it is imperative for institutions to prioritise faculty development initiatives aimed at equipping educators with the necessary skills and knowledge to deliver high-quality entrepreneurship curricula. Additionally, concerted efforts should be made to bolster institutional support for EE, including the provision of adequate resources and infrastructure. Policy implications stemming from these findings emphasise the need for comprehensive reforms within higher education institutions to foster an environment conducive to entrepreneurial learning and innovation. This includes revisiting institutional policies, enhancing stakeholder engagement mechanisms, and investing in faculty development programmes. Moving forward, future research directions should focus on evaluating the long-term impact of these interventions on student outcomes, as well as exploring innovative pedagogical approaches and

curriculum designs tailored to the unique needs of South African students and the broader socio-economic context. It is hoped that the suggestions made in this article will help universities enhance EE and develop better strategies to promote graduate employability.

Disclosure statement

The authors are unaware of any biases that might be perceived as affecting the objectivity of this review.

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