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## **FORMAL INSTITUTIONS IN ENHANCING ENTREPRENEURSHIP DEVELOPMENT IN THE TANZANIAN HIGHER LEARNING INSTITUTIONS**

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### **ABSTRACT**

This qualitative study aimed to explore how formal institutions promote entrepreneurship development in the Tanzanian Higher Learning Institutions (HLIs) using the Sokoine University of Agriculture (SUA) as a case study. It employed semi-structured individual interviews, focus group discussions, and documentary review as data generation methods. Thematic analysis with the help of Nvivo software was used to analyze the data, revealing insights from 73 respondents, selected based on data saturation. The study applied the institutional theory as a theoretical lens to frame both its methodology and findings interpretation. Results suggest that organized-functional, active and interplaying formal institutions, including the HLIs' charters, the policies (research and development policy, innovation policy, and entrepreneurship development investment policy), and the dedicated entrepreneurship development courses, play a crucial role in fostering entrepreneurship development in HLIs in Tanzania. The study recommends aligning institutional documents with entrepreneurship development and also ensuring coherence across these instruments.

**Keywords:** formal institutions, entrepreneurship development, and higher learning institutions.

### **1. INTRODUCTION**

In Tanzania, more than 93% of the economically active working-age population engages in the activities related to micro, small, medium, and large firms, contributing to job generation. The remaining percentages are employed in the public sector (3.1%) or are unemployed (3.4%) (Nkwabi & Mboya, 2017; Haji, 2015). Further, according to URT (2017), the micro, small, medium, and large enterprise sectors collectively account for about 71.1% of formal sector employment, while the public sector employs approximately 28.9% of all formal sector workers. Sutton and Olomi (2012), URT (2012b), and Nkwabi and Mboya (2019) highlight that the small and medium-sized enterprises (SMEs), excluding micro and large enterprises, contribute around 27% of Tanzania's GDP and significantly support the performance of large enterprises. In addition, the Japan Economic Research Institute (JERI) in 2017 and Tanzania Invest in 2023 report that, SMEs alone contribute 30% and one-third (33.3%), respectively, to the country's GDP.

In Tanzania, the arrival of business schools in the HLIs in the 2000s sparked the growth of entrepreneurship development in HLIs, alongside the establishment of a few entrepreneurship development programs in non-business schools (Sabokwigina & Olomi, 2010; Bwemelo, 2017). Notable pioneers include the University of Dar es Salaam (UDSM), first mover government

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university, Nelson Mandela African Institution of Science and Technology (NM-AIST), first mover research-intensive university, University of Iringa (UoI), first mover private university, and the Eastern and Southern Africa Management Institute (ESAMI), first mover intergovernmental and regional institute. These institutions established business schools and later entrepreneurship and innovation centers to support the development of knowledge-based products and enterprises. In a unique instance, the SUA, while not being one of the pioneering HLIs either in relation to the evolution of entrepreneurship development in HLIs in Tanzania, has uncovered, safeguarded, and commercialized multiple invention disclosures and has received eleven (11) patent certificates and (3) three plant breeder's rights, making it the top university in Tanzania for patenting (SUA, 2020).

Studies indicate that, members of Tanzanian HLIs covering the students, graduates and researchers are involved in relatively limited entrepreneurial activities (URT, 2012; Stima and Kuppusamy, 2018; Tutuba, 2023). Only 0.3% of entrepreneurial enterprises in Tanzania are created by the members of HLIs (URT, 2012), and this situation has not significantly improved (Mori, 2015; Stima & Kuppusamy, 2018). Furthermore, Sutton and Olomi (2012), URT (2012b), and Stima and Kuppusamy (2018), point out that the majority (96.4%) of the entrepreneurial activities in the country (Tanzania), including those by HLIs members, lack the capacity to meet market standards, remaining permanently micro and/or operate informally.

Scholars emphasize the importance of entrepreneurship and the necessity for a conducive environment to foster its creation, growth, success and sustainability (Dimaggio & Powell, 1983; Lindsay et al., 2007; Sutton & Olomi, 2012; Agrawal & Hockets, 2013; Erastus, Mwasalwiba, 2014; Stephen & Abdullai, 2014; Guth, 2016; Bogusz, Teighland & Vaast, 2018; Kaufmann, Hooghiemstra & Feeney, 2018; Nkwabi & Mboya, 2019; Kairuddin et al., 2023). It was therefore assumed that formal institutions operating in these HLIs explain the phenomenon of lack of capacity and stagnation.

The institutional theory and existing literature describe formal institutions as institutional forces (Dimaggio & Powell, 1983; North, 2005; Lindsay et al., 2007; Bogusz, Teighland, & Vaast, 2018; Chowdhury, Audretsch, & Belitiski, 2018). These forces, according to the scholars, determine the creation, viability, performance, profitability and survival of organizations and activities of individuals in a particular society or country. While formal institutional forces are extensively discussed in the institutional theory and recent literature (Mwasalwiba, Groenewegen, & Wakkee, 2014; Kairuddin et al., 2023); they are not specifically tailored to higher learning institutions (HLIs). The institutional theory and existing literature do not fully elucidate the specific aspects of formal institutions (formal institutional forces) that most effectively enhance entrepreneurial development in HLIs.

Therefore, the primary objective of this study was to establish (understand) the formal institutions for promoting entrepreneurship development in HLIs in Tanzania, using the Sokoine University of Agriculture (SUA) as a case study.

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## **2. LITERATURE REVIEW**

In this qualitative study, the literature review provided to the researcher the knowledge and understanding on what has already been known about the formal institutions in enhancing entrepreneurship development globally and in Tanzania in particular.

### **2.1 Conceptual Review**

The primary themes investigated in this study were formal institutions, entrepreneurship development, and higher learning institutions (HLIs). Formal institutions encompass written policies, laws, programs, charters, and codes of conduct governing individuals' or organizations' behavior (Erastus, Stephen & Abdullai, 2014; Guth, 2016; Zoltan, 2019; Bogusz et al., 2018). In the context of this study, these formal institutions provided a framework for interaction among students, graduates, researchers, and stakeholders of the SUA, fostering the creation, growth, success and sustainability of knowledge-based products and enterprises. Entrepreneurship development in the Tanzanian HLIs entailed fostering the creation, growth, success, and the sustainability of knowledge-based products and enterprises by SUA's students, graduates, and researchers. HLIs comprised of universities and colleges offering undergraduate and graduate programs in Tanzania, also offering consulting and research services.

### **2.2 Theoretical Underpinning**

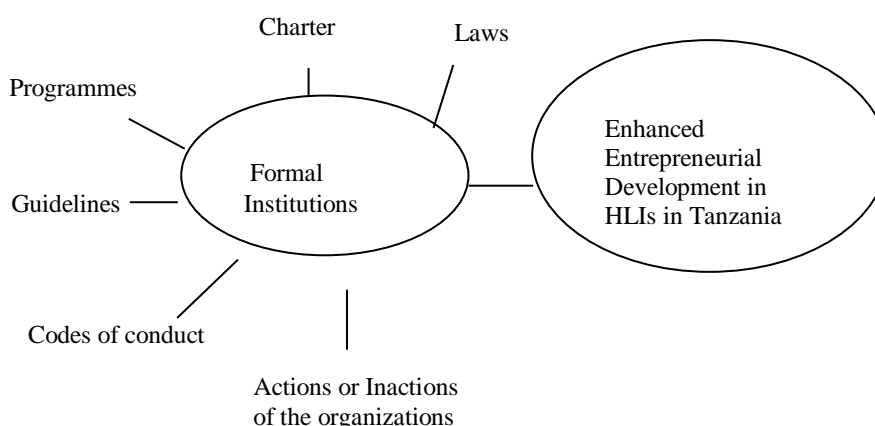
The study was guided by the institutional theory as a theoretical lens, which posits, according to Lindsay et al. (2007), Guth (2016), and Zhang et al. (2022), that organizations and individuals operate within a constraining external environment that provides both opportunities and constraints. This environment encompasses political, economic, and social factors. As noted by Dimaggio and Powell (1983), North (2005), Aidis and Estrin (2006), Lindsay et al. (2007), Veciana and Urbano (2008), Dobler (2011), Erastus et al. (2014), Bogusz et al. (2018), Chowdhury et al. (2018), and Zoltan (2019), this environment composed of formal institutions (formal institutional forces). These forces make organizational operations predictable, efficient, and reducing economic uncertainty.

Although the institutional theory offers a useful framework with tangible elements of the formal institutional dimension, it has not pinpointed precisely which formal institutions effectively foster the creation, growth, success, and sustainability of knowledge-based products and enterprises within HLIs' members. By utilizing the institutional theory as a theoretical lens, the study aimed to suggest improvements to the entrepreneurial landscape within Tanzanian HLIs. Hence, the study adhered to the conceptual framework outlined below.

### 2.3 Conceptual Framework

The study conceptualized that in order to enhance significant levels of entrepreneurial development in the HLIs in Tanzania, there needs to be a healthy interaction between formal institutions and entrepreneurship development in HLIs in Tanzania.

**Figure 1: Conceptual Framework**



### 3. METHODOLOGY

Since the study assumed that there were subjective and multiple perceptions, experiences, and meanings of participants about the formal institutions in enhancing entrepreneurship development in HLIs in Tanzania (ontological assumptions), and the realities are socially constructed (epistemological assumptions); exploratory research designs were relevant. Additionally, the study also employed exploratory research designs for the reason that it intended to explore richer and contextual understanding and interpretation about the phenomenon under investigation.

The study used the Sokoine University of Agriculture-Morogoro as a case study. Students, graduate entrepreneurs, faculty members, and management were used as units of analysis. Additionally, governmental and non-governmental organizations supporting entrepreneurial activities at the SUA, such as Tanzania Commission for Universities (TCU), Tanzania Commission for Science and Technology (COSTECH), Tanzania Registration and Licensing Agency (BRELA), Sokoine University Graduate Entrepreneurs Cooperative (SUGECO), and the Private Agricultural Sector Support (PASS), were considered as supportive cases. Analysis of these supportive cases focused on current employees actively engaged in entrepreneurial and institutionalization processes at the university. This study utilized non-probability sampling techniques comprising of purposive and snowball. 36 FGD participants divided into six focus groups, each with six participants, and 37 individual interviewees made up the saturation-based sample size of 73 respondents.

FGDs collected student data, while individual interviews were used to obtain data from graduate entrepreneurs, academic staff, and the management of the SUA. Furthermore, individual interviews were conducted with junior and senior officers, managers, and representatives from

selected supportive cases. Individual interviews and FGDs were supplemented by a documentary review.

The study's validity was typically assessed through the credibility, transferability, and conformability/subjectivity of its research findings as suggested by (Moon et al., 2016). Also, the study provided a thorough overview of the research design and implementation, that is, the audit trail/research protocols, including the methods, methodology, and a reflective appraisal of the project, to ensure reliability. Peer briefing, member check, data and method triangulation and data saturation were also initiated.

The qualitative data analysis was conducted using thematic analysis as suggested by Braun and Clarke (2006) and Dawadi (2020), with NVivo software facilitating the conversion of field data into textual form for accurate participant transcripts.

The study obtained research clearances from all the pertinent authorities including the SUA and the supportive cases. Informed consent of respondents was also obtained from the participants, participants' anonymity was guaranteed, and data confidentiality was upheld.

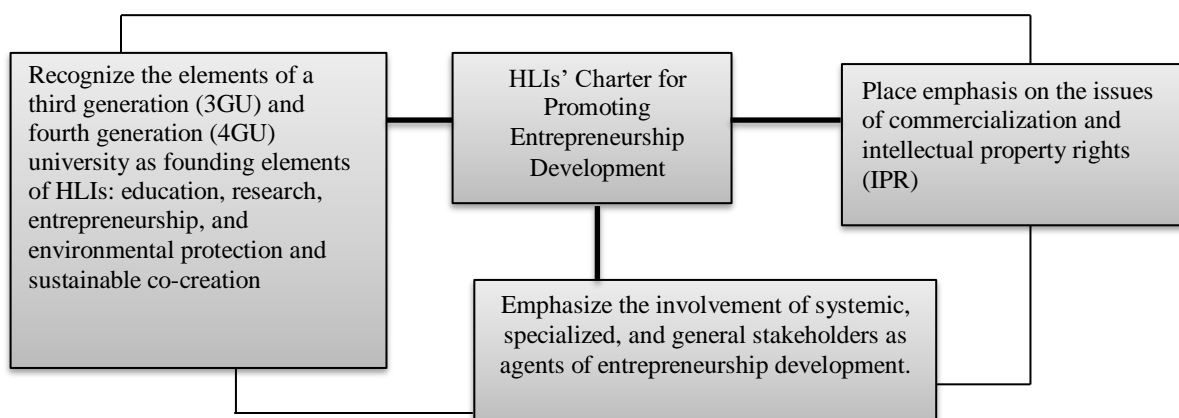
#### 4. FINDINGS AND DISCUSSION

The study revealed the charter (formal external instrument), research and development policy (formal internal instrument), innovation policy (formal internal instrument), entrepreneurship development investment policy (formal internal instrument), and the entrepreneurship development course (formal internal instrument) as the formal institutions for enhancing entrepreneurial development in HLIs in Tanzania. These formal institutions need to be closely aligned with entrepreneurship development in HLIs, with high coherence across each other. The figures summarize the findings, followed by discussions, with tables demonstrating evidence aligning key findings with entrepreneurship development at SUA.

##### Influence of the charter on entrepreneurship development

Figure 2 below provides a summary of the elements of the Tanzanian HLIs' charters for enhancing entrepreneurial development as demonstrated by the findings from the SUA.

**Figure 2: HLIs's charter for promoting entrepreneurship development**



The study revealed that the HLIs' charter (formal internal instrument), a formal government declaration, significantly enhances entrepreneurship development in Tanzanian HLIs. Based on the findings, the charter must closely align with entrepreneurship development and be highly coherent with the other formal institutional forces in enhancing entrepreneurship development. To enhance knowledge-based products and enterprises in the Tanzanian HLIs, findings further indicated that the charters of HLIs should recognize entrepreneurship development as a fundamental right, principle, duty, purpose, and privilege for students, graduates, and researchers. Additionally, charters should strongly emphasize on the three-dimensional elements of a Third Generation HLIs (3G-HLIs), which were education, research, and entrepreneurship. Moreover, findings showed that in order to enhance significant levels of knowledge based products and enterprises by students, graduates, and researchers, the HLIs must shift their focus to the four-dimensional elements of a Fourth Generation of HLI (4G-HLIs), which were education, research, entrepreneurship, and environmental protection and sustainable development co-creation.

Besides, findings revealed that the Tanzanian HLIs' charter should emphasize the role of general, specialized, and systemic stakeholders as the main actors of entrepreneurship development among students, graduates, and researchers of HLIs. General stakeholders include students, researchers, administrators, and managements of HLIs, while specialized stakeholders encompass technology transfer offices, patent offices, incubators, accelerators, science parks, innovation spaces (Audretsch & Belitiski, 2018).. Systemic stakeholders consist of government and industries (Audretsch & Belitiski, 2018). This collaborative strategy promotes knowledge production and commercialization, provides resources, and enhances governance through subsidies, incentives, and rewards.

The findings also acknowledged that, the charters of HLIs must underline the element of intellectual property protection (IPR) to promote entrepreneurship, ensure profits for creators, and encourage responsible knowledge registration, thus mitigating the risk of unregistered discoveries and businesses.

Respondents MP1, MP3, A2, and A3, along with the SUA charter (document), provided insights into how the university charter supported entrepreneurship development among SUA students, graduates, and researchers. See Table 1 below for details.



**Table 1: Evidence of alignment of vital findings from the SUA about the charter with entrepreneurship development**

INSTRUMENT	EVIDENCE OF ALIGNMENT WITH ENTREPRENEURSHIP DEVELOPMENT
Charter (formal external instrument)	<p data-bbox="492 384 1421 499"><i>“Our charter has given significant attention to entrepreneurship development by members of the university including students, graduates, and researchers, suggesting that entrepreneurship is one among the four key spheres of focus of the Sokoine University of Agriculture”. (Interviewees MP1 &amp; MP3).</i></p> <p data-bbox="492 527 1421 642"><i>“In actual fact, the charter clearly requires that the SUA must achieve excellence in entrepreneurship by commercializing knowledge and research findings to create innovative and entrepreneurial demand-driven solutions and knowledge based enterprises”. (Interviewee A2).</i></p> <p data-bbox="492 669 1421 816"><i>“The vision of the university is to become a centre of excellence and a valued member of the global academic community in agriculture, natural resources, rural development, and other related fields with emphasis on implementing practical skills, entrepreneurship, research and integration of basic and applied knowledge in an environmentally friendly manner”. (SUA, 2007).</i></p> <p data-bbox="492 844 1421 1043"><i>“The university holds the concept advocated by the triple helix model of innovation to enhance entrepreneurship by its members. And, according to the SUA’s charter, members of the university cover students, graduates, and researchers, amongst others. The triple helix model strategy has been very effective because it created a resourceful window of support and interaction between the university and its members, industry and the government, and of course local and international entrepreneurship development partners”. (Interviewees MP3 &amp; A3).</i></p> <p data-bbox="492 1071 1421 1218"><i>“To cooperate, offer consultancy and advisory services to the Government of the United Republic, the Revolutionary Government of Zanzibar, the people of Tanzania and any person or body of persons within or outside the United Republic to secure the planned and orderly development and application of agricultural and allied sciences, and for the better performance of the function of the university”. (SUA, 2007).</i></p> <p data-bbox="492 1245 1421 1339"><i>“To cooperate with national and international institutions in the initiation and conduct of cooperative research and training programmes for the mutual benefit of the cooperating institutions and the United Republic”. (SUA, 2007).</i></p> <p data-bbox="492 1367 1421 1461"><i>“The SUA aims to safeguard and protect intellectual property rights on innovations and inventions emerging from the efforts of University in executing its mandate as provided in the University Intellectual Property Rights policy”. (SUA, 2007).</i></p> <p data-bbox="492 1488 1421 1688"><i>“The SUA’s charter of 2007 of which the university operates to date, has strongly emphasized about the subject of protecting members’ intellectual assets. Because of this highlight by the charter, the university has developed the IP policy of 2020 which evolved from the IP policy of 2006 whereas both policies intended to encourage innovations and entrepreneurship by the SUA’s members, enhance protection of inventions and innovations by the members, reinforce commercialization of the innovations, and provide incentives and rewards to the creators”. (Interviewees MP4 &amp; A2).</i></p>

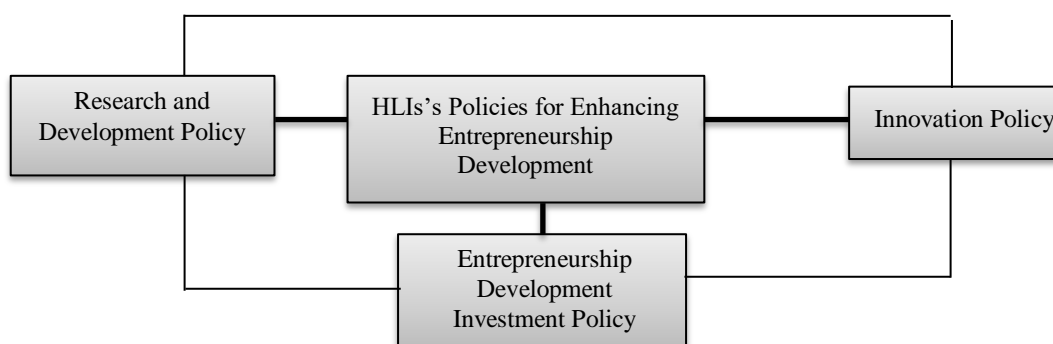
### Policies and entrepreneurship development

Policies are organizational management tools that allocate resources toward preferred agendas, principles, goals, and values (Jiliow, 2017; Ihebuzor, D. Lawrence & Lawrence, 2021). Innovative entrepreneurial policies are vital for fostering entrepreneurship development. The findings revealed three types of policies to enhance entrepreneurship development in the Tanzanian HLIs,



exemplified by SUA. These policies should be closely aligned with entrepreneurship development in HLIs and highly coherent with other endorsed formal institutions. See Figure 3 for a summary of these policies.

**Figure 3: HLIs' policies and entrepreneurship development**



Based on the findings, the research and development policy (formal internal instrument) must support fundamental and applied research that lead to the discovery of new knowledge-based products in the Tanzanian HLIs. The policy should enhance institutional commitment to high-quality, demand-driven research among students, graduates, and researchers, with a strong focus on product development. Both the elements of research and development should receive equal emphasis. Findings further indicated that, the research and development (R & D) policy should also enhance the HLIs' capacity to fund research internally and through national, regional, and international organizations. According to the findings, HLIs should allocate a significant portion of their annual revenues (12%) to fund demand-driven research and product development, prioritizing areas aligned with the Tanzania's national development agenda, UN Sustainable Development Goals, and societal impacts. HLIs may opt for a single policy covering both research and development or separate policies addressing each element individually.

Respondents MP1, MP4, MP5, A1, A2, T4, and FGDs2, and the SUA's Research Policy (document) acknowledged the following, as shown in Table 2.

**Table 2: Evidence of alignment of vital findings from the SUA about the research and development policy with entrepreneurship development**

INSTRUMENT	EVIDENCE OF ALIGNMENT WITH ENTREPRENEURSHIP DEVELOPMENT
Research and Development Policy (formal internal instrument)	<p><i>“The objectives of the research policy were to enable the university allocates funds from within, and secure from outside the university for research and innovation by its students, graduates and researchers. The policy emphasizes on demand-driven researches. Such researches attract funds from the local and international entrepreneurship development partners and from the private sectors”.</i> (Interviewees MP5 &amp; T4).</p> <p><i>“It is predicted that a research policy will lead to more relevant and important research that addresses social issues while also promoting innovation for the socioeconomic development of the country”.</i> (Interviewees MP1 &amp; A2).</p> <p><i>“Our research policy should strongly consider the aspect of product development as a result of research, and the two elements of research and development should be equally emphasized”.</i> (Interviewee A1, FGDS2)</p> <p><i>“The Sokoine University of Agriculture Research Policy is based on the national and global policy framework guiding the development of the economy. The Tanzania Development Vision 2025 (TDV 2025) provides a foundation for this policy because it visualizes that by the year 2025 Tanzania’s economy will be transformed from a low productivity agricultural based to a semi-industrial economy. It is anticipated that such economic transformation will be led by application of science and technology and highly productive agricultural activities which are effectively integrated with supportive industrial and service activities in rural, peri-urban and urban areas”.</i> (SUA, 2018).</p> <p><i>“The research policy of 2018 enhances the conduct of quality and demand-driven researches, ensuring that research activities are aligned with SUA’s vision and mission, as well as with national and international development agenda. Also, the policy enhances the capacity for innovation and dissemination of technologies along with enhancing capacity to fund research from internal sources and to solicit research funds from national, regional and international research funding organizations”.</i> (SUA, 2018).</p> <p><i>“SUA’s contribution is through modernizing and commercializing agriculture so as to increase productivity and profitability of farming, improve food and nutrition security, increase incomes, increase access to quality agricultural science education and ultimately contributing to poverty reduction”.</i> (SUA, 2018).</p> <p><i>SUA researches shall abide to the national environmental policies, laws and regulations and ensure that their research activities have no adverse effects on the environment and make sure that they enhance sustainable use of resources”.</i> (SUA, 2018).</p> <p><i>“In order to meet the needs of the country, government funding for research should be substantial, but this has not typically been the case. The bulk of SUA’s research initiatives are funded by external organizations, and the majority of these initiatives have a focus on topics that are relevant to funders”.</i> (Interviewee MP5).</p> <p><i>“Various academic units within SUA shall liaise with private sector organizations, including commercial organizations, NGOs and CBOs on the possibilities of conducting contract research to develop innovations for their use”.</i> (SUA, 2018).</p> <p><i>“SUA therefore established a Research and Publication Documentation System (RPDS) to support electronic registration, reporting research progress, online application for research associateship and building research database”.</i> (SUA, 2018).</p>

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*“The research agenda is built on carefully selected priority issues that are consistent with SUA’s vision and mission, the national development agenda, and the global sustainable development goals (SDGs)”.* (Interviewee MP4).

*“Academic units shall identify research priority areas in their particular fields, but aligned to the institutional research agenda, As far as possible, research conducted at SUA should be demand driven”.* (SUA, 2018)

*“This document is meant to ensure that SUA is committed to allocating resources to fulfil its objectives, functions and obligations to advance knowledge through quality research that addresses national challenges as per SUA charter of 2007”.* (SUA, 2018).

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Regarding the innovation policy (formal internal instrument), findings revealed that the policy should institutionalize HLIs’ resources in terms of the physical resources, financial, commercial and expertise resources for intellectual property rights (IPR) and commercialization. IPR protect creators’ works and inventions, while commercialization covers enterprise creation, development, and market introduction. Based on the findings, the policy should support the creation, growth, success and sustainability of knowledge based products and enterprises developed by students, graduates, and researchers of HLIs. Further, the study revealed that the policy should establish the Innovations Facilitating and Entrepreneurship Development Fund (IFED Fund) in the Tanzanian HLIs, to support entrepreneurship development. Also, the policy should set up and support the technology transfer offices, accelerators, incubation centers, and creative spaces to enhance research protection, patenting, and commercialization.

The study found that intellectual properties and entrepreneurial discoveries made by Tanzanian HLIs’ members should be owned by the host institutions, particularly if significant university resources were used or collaborative research projects were involved. To encourage more entrepreneurship development, members of the HLIs should be permitted to retain intellectual properties but share profits with their creators. Ideally, findings indicated that creators should receive a large percentage, such as a 60:40 ratio (HLIs: creators). Respondents MP3, A3, and T3, along with SUA’s Intellectual Property Policy (document), acknowledged the following practices promoting entrepreneurial development among students, graduates, and researchers (Table 3).

**Table 3: Evidence of alignment of vital findings from the SUA about the innovation policy with entrepreneurship development**

INSTRUMENT	EVIDENCE OF ALIGNMENT WITH ENTREPRENEURSHIP DEVELOPMENT
Innovation Policy (Formal internal instrument)	<p><i>“The university is being transformed into both the third and fourth generation university. The policy intends to influence students, graduates, and researchers of the SUA to grow from merely doing standard studies and researches to entrepreneurship while taking into account the components of sustainable co-creation and environmental conservation. The goal is to provide entrepreneurial solutions to the economy of the country and the globe by means of producing knowledge based products and enterprises.” (Interviewee MP3).</i></p> <p><i>“Sokoine University of Agriculture through its research does produce innovations and technologies that aim at improving agriculture and allied sectors for socio-economic development of Tanzanians, Africa and the world at large”. (SUA, 2020)</i></p> <p><i>“It is the intention of the university to contribute, through its research, to the economic development of the country by way of generating innovations that will be commercialized for the benefits of the wider community.” (SUA, 2020).</i></p> <p><i>“There is a need for IP Policy of the university to give a close eye on the development of a strong supportive environment for entrepreneurship development by the members of the university. The university must expand the physical, financial, human and commercial infrastructures for entrepreneurial development. Presently, the university has established the technology transfer office for the purposes of protecting, patenting and commercializing knowledge and research findings by members of the university. However, the university considers establishing an entrepreneurship career guidance centre, marketing and distribution channels, seed capital and an entrepreneurial loans centre, amongst others, in order to closely take commercialization into account”. (Interviewees A3 &amp; T3).</i></p> <p><i>“Monetization of knowledge has never been the norm in Tanzania. Many IP holders are unaware of the benefits of IP rights or of their own capabilities to create IP assets or the value of their ideas. Since, the underlying reason seems to be the lack of awareness among researchers on the importance of exploiting fully the results of research through registering and patenting the significant results from research, the policy provides a framework for governing the rights and responsibilities of all</i></p>

*stakeholders in relation to inventions, innovations, and copyrightable works arising from their activities.” (SUA, 2020)*

*“Out of the many invention disclosures, SUA has been granted 11 patent certificates and 3 Plant Breeder’s Rights.” (SUA, 2020).*

With respect to the entrepreneurship development investment policy (formal internal instrument), findings suggested that the policy should institutionalize various resources covering the physical resources, financial resources, human resources, and commercial resources to support knowledge-based products and businesses by students, graduates, and researchers in HLIs. Based on the findings, the policy should aim to enhance financial success and sustainability to the HLIs by attracting development partners, providing facilities, private funding, government incentives, and fostering entrepreneurial ecosystems with government, industry, and stakeholders. Investments may include incubators, accelerators, creativity spaces, entrepreneurship libraries, and facilities for product development, entrepreneurial career guidance centres. Entrepreneurial development joint investments could involve specialized labs, research systems, governance centers, transportation networks, warehousing, financing programs, legal support services, and business insurance centers. The policy should prioritize university-public-private entrepreneurship programs benefiting students, graduates, and researchers.

Regarding the entrepreneurial development investment policy, respondents MP1, MP3, MP5, A1, and JO5, as well as the SUA’s Investment Policy (document), acknowledged the following, as shown in Table 4 below.

**Table 4: Evidence of alignment of vital findings from the SUA about the entrepreneurship development investment policy with entrepreneurship development**

INSTRUMENT	EVIDENCE OF ALIGNMENT WITH ENTREPRENEURSHIP DEVELOPMENT
Entrepreneurship Development Investment Policy (Formal internal instrument)	<p><i>“The SUA embraces on public-private-partnership. Through the SUA Investment Policy of 2005, the university has authorized its land for investments by the private sector in respect of entrepreneurship development by students, graduates, and researchers of the SUA. It has given a land to SUGECO and PASS in order to establish incubators, which we will be taking our students to them for entrepreneurship coaching and mentorship. The centres provide hands on training to our university members”. (Interviewees MP5, A1 &amp; JO5).</i></p> <p><i>“The main objectives of initiating the investment policy are therefore to generate additional income to supplement the inadequate government subvention; provide support services to the university community for the betterment of the academic endeavours and to provide quality infrastructure for academic activities. This will be achieved through establishing investment activities for sustainable income generation; attracting private investors on the university land and other facilities; publicizing and promoting goods, services, new technologies and</i></p>

*innovations produced at the SUA; while the university serving as a strategic partner in investment.” (SUA, 2005).*

*The university has allowed the private sectors to make commercial developments of the University land in order to support knowledge-based products and businesses by our members. We plan to align our investment policy to strongly support entrepreneurship”. (Interviewee MP1).*

*“Through the Investment Policy, the IP Policy, and the Research Policy of the university, the SUA has been able to create an attractive institutional environment for entrepreneurship development. For instance, it has established the Technology Transfer Unit, the SUA Resource Mobilization Unit, and the SUA Investment Company Ltd that promote entrepreneurship development investments, intellectual assets protection and commercialization”. (Interviewee MP3).*

*“The SUA will put in place efficient and effective mechanism for promoting investment; strengthen and develop infrastructural support; identifying markets or opportunities for the expansion of businesses and land for investment use; hold investment forum periodically.”(SUA, 2005).*

*“The professional skills based investment will involve joint ventures between SUA – Consult with local and/or international consulting companies. Included also are industrial cooperation in research, technology development and adaptation, as well as production and marketing”. (SUA, 2005).*

*“In this mode [Build, Owen, Operate and transfer mode (BOOT)]’ no land is transferred to the investor, Agreement allows for invested sums agreed period and for a nominal rent. After recoupment of the invested sums, the agreement shall allow transfer of the landed property to SUA. A new lease agreement would be raised for a higher negotiated rent”. (SUA, 2005).*

### **Enhancement of entrepreneurship development in the Tanzanian HLIs through the entrepreneurship development courses**

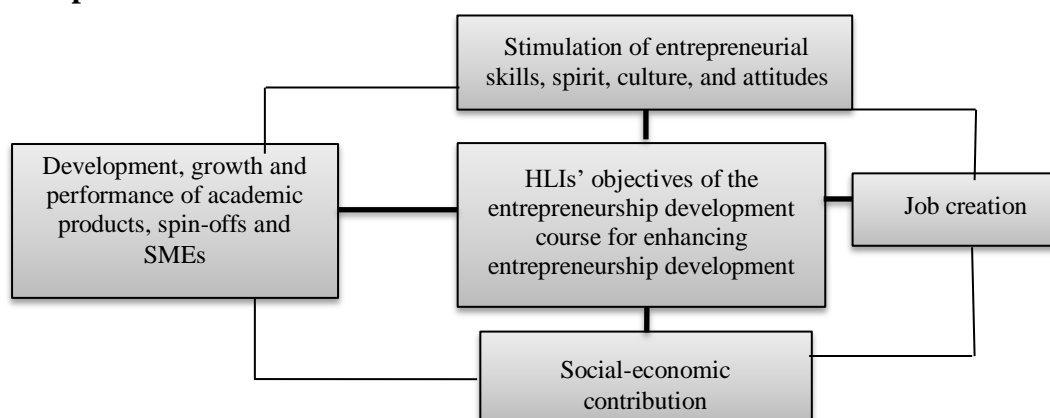
This study explored the teaching approaches for the Tanzanian HLIs’ entrepreneurship development course (formal internal instrument) to foster knowledge-based products and enterprises, focusing on the teaching and delivery systems, evaluation systems, course contents, resources and tools, and course objectives, as part of the HLIs learning approaches. Findings indicated that the course must be functional, active and interplaying.



**a) The Objectives of the entrepreneurship development course on entrepreneurship development**

Figure 4 below outlines the findings about the most preferred objectives of the entrepreneurship development course for promoting entrepreneurship development among students, graduates, and researchers of HLIs with special reference to the SUA.

**Figure 4: Objectives of the entrepreneurship development course and entrepreneurship development**



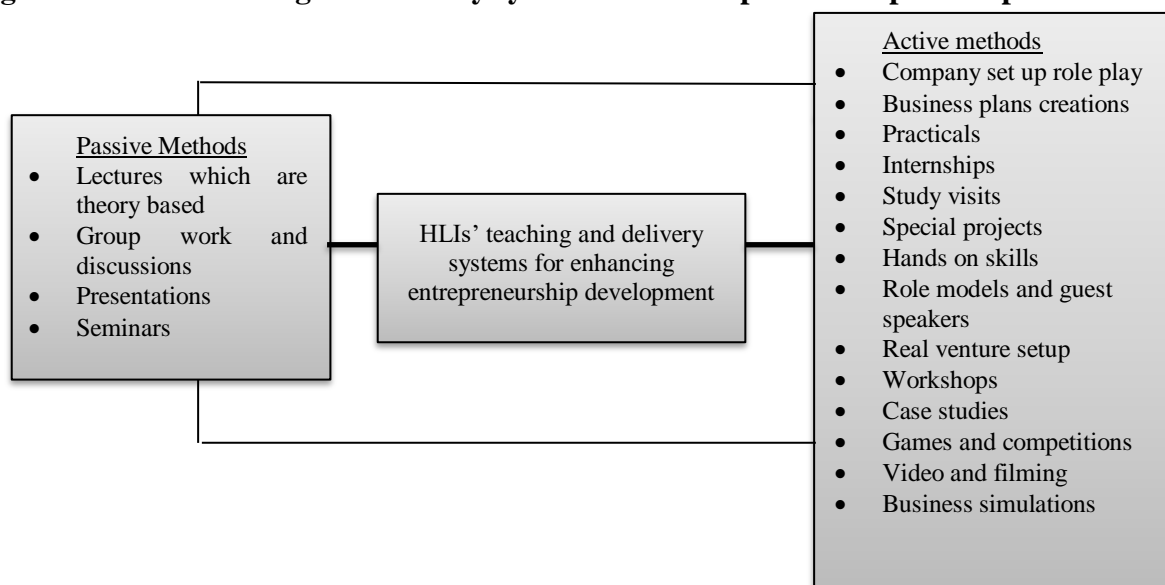
Findings unveiled the entrepreneurship development course objectives for the Tanzanian HLIs, aiming to foster entrepreneurial development among students, graduates, and researchers. According to the findings, the objectives included stimulation of entrepreneurial skills, culture, and attitudes, development of academic products, spin-offs, and SMEs, job creation, and socio-economic contributions. The course should focus on enhancing students' ability to generate ideas, and foster creativity, innovation, risk-taking, and accelerate commercialization. The study showed that Tanzanian HLIs should mandate students, graduates, and researchers to set individual entrepreneurial goals and focus on achieving them during delivery of the course. Course effectiveness should be assessed by the number of participants creating, growing, flourishing, and sustaining their knowledge-based products and enterprises.

**b) The Teaching and delivery systems of the entrepreneurship development course on entrepreneurship development**

Figure 5 below provides the comprehensive findings about the delivery and teaching methods of the entrepreneurial development course of HLIs in Tanzania, as revealed by the findings from the SUA.



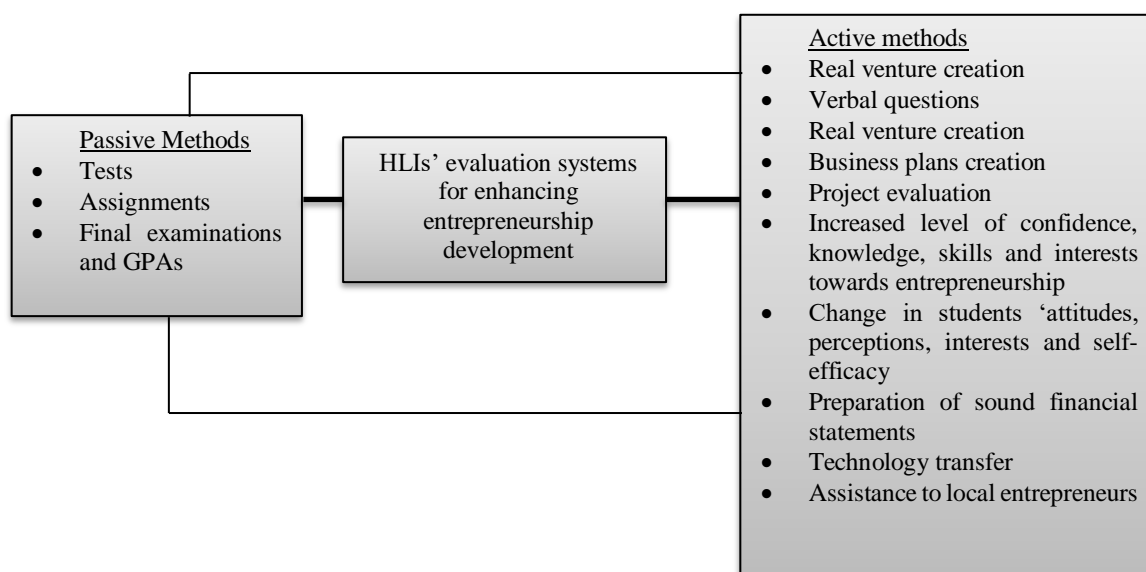
**Figure 5: HLIs' teaching and delivery systems and entrepreneurship development**



The findings revealed that, Tanzanian HLIs adopt student-centered learning methods to boost entrepreneurial development. Based on the findings, the methods encompass passive methods such as theory-based lectures, group discussions, presentations, and seminars. Findings found the active teaching and delivery methods like role-playing company setups, business plan creation, practical exercises, internships, study visits, special projects, hands-on skills training, guest speakers, real venture setups, workshops, case studies, games, competitions, videos, and business simulations. Active teaching methods in the Tanzanian HLIs effectively foster entrepreneurial skills, culture, and attitudes, academic products, spin-offs, and SMEs, resulting in job creation among students, graduates, and researchers. In order to facilitate the establishment of the active methods, HLIs requires strategic partnerships with specialized and systemic stakeholders, both locally and internationally.

### c) Evaluation systems on entrepreneurship development

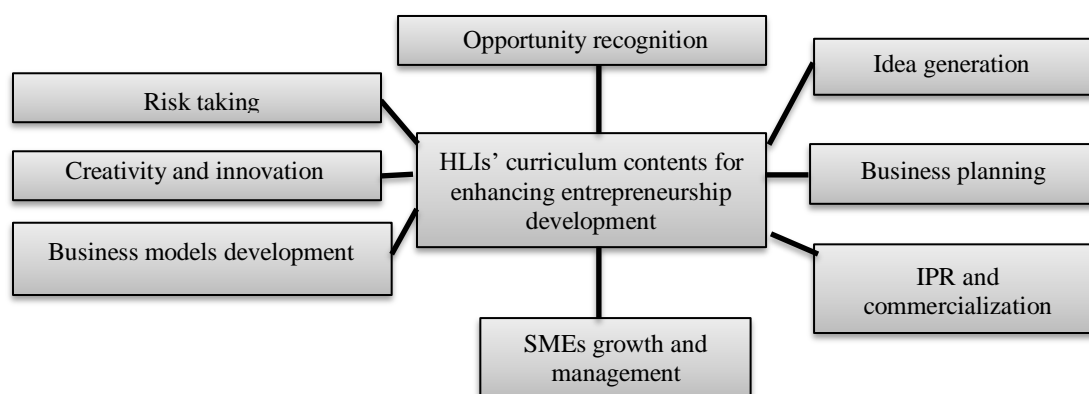
Figure 6 below presents the evaluation systems of the Tanzanian HLIs' entrepreneurial development course.

**Figure 6: HLIs' evaluation systems and entrepreneurship development**


The study found tests, assignments, and GPAs as passive evaluation methods for the entrepreneurship development course. Further, the study revealed verbal questioning and psychological constructs like confidence and interest in entrepreneurship, real venture creation and business plan development, as the active evaluation methods that are more effective in enhancing entrepreneurial development in HLIs in Tanzania. Collaborating with main actors of entrepreneurship development in HLIs (specialized and systemic partners) can enhance the use of the performance (active) evaluation systems.

#### d) Course Contents of the entrepreneurship development course

Figure 7 summarizes the course content aimed at enhancing entrepreneurial development in HLIs in Tanzania, as demonstrated by the findings from the SUA.

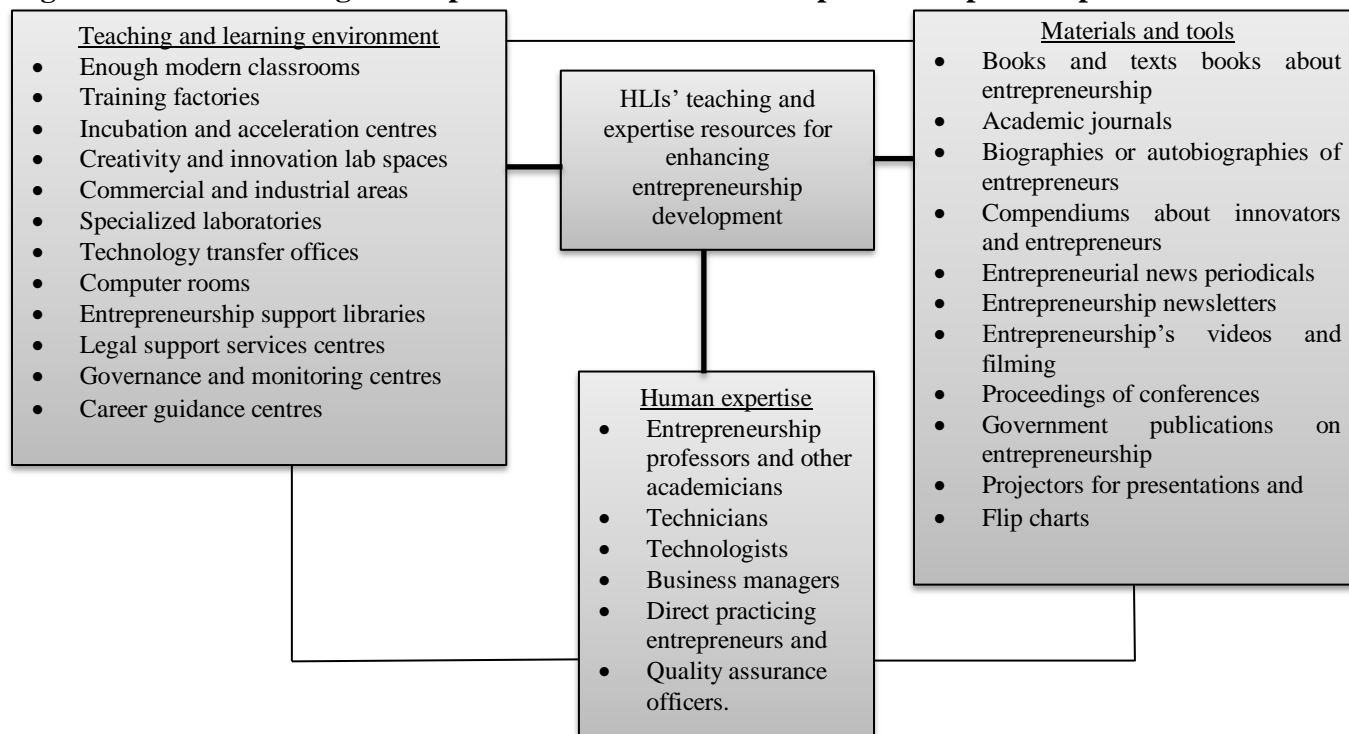
**Figure 7: HLIs' curriculum contents and entrepreneurship development**


This study found the course' contents for enhancing entrepreneurship development in the Tanzanian HLIs. Findings revealed the course core curriculum contents as opportunity recognition, risk-taking, idea generation, creativity, innovation, business planning, business models development, IPR, commercialization, and SMEs growth. Findings recommended continuous content updates and modifications in partnership with the industry and the other entrepreneurship development partners to incorporate local and international entrepreneurship trends.

e) **The teaching and expertise resources of the entrepreneurship development course on entrepreneurship development**

Figure 8 below summarizes the findings on the teaching and expertise resources for promoting entrepreneurship development in HLIs in Tanzania, as showed by the findings from the SUA.

**Figure 8: HLIs' teaching and expertise resources and entrepreneurship development**



The study found three types of teaching and expertise resources that can enhance entrepreneurship development in HLIs in Tanzania.

- **Materials and tools:** This included books, academic journals, entrepreneurial biographies, news periodicals, videos, conference proceedings, government publications, projectors, and flip charts.

- **Human expertise:** Experts such as academicians, business managers, entrepreneurs, technicians, technologists, and quality assurance officers.

- **Teaching and learning environment:** This encompassed modern classrooms, training facilities, incubation centers, creativity labs, industrial areas, specialized laboratories, technology transfer

offices, computer rooms, entrepreneurship libraries, legal support services, governance centers, and firsthand observation of entrepreneurs through case studies, surveys, and interviews. Additionally, seminars and presentations by practicing entrepreneurs can nurture entrepreneurial talents.

Findings indicated that Tanzanian HLIs must allocate budgets and collaborate with the entrepreneurship development partners to enhance their entrepreneurial development through both passive and active teaching and expertise resources.

Interviewees MP4 & MP5 confirmed the following, as shown in table 5 below, with respect to how the SUA's entrepreneurship development courses (AB 618 & AEA 210) enhance entrepreneurship development by the students, graduates, and researchers of the SUA.

**Table 5: Evidence of alignment of vital findings from the SUA about the entrepreneurship development courses with entrepreneurship development**

INSTRUMENT	EVIDENCE OF ALIGNMENT WITH ENTREPRENEURSHIP DEVELOPMENT
Entrepreneurship Objectives development course (Formal Internal Instrument)	<p><i>"The common perceived objectives of the SUA's entrepreneurship development course are to increase entrepreneurial attitudes and knowledge to students. This is good, but what is needed is for the university to develop a course that also highpoint the development of knowledge based products and enterprises as the main perceived common objectives of the course". (Interviewee G7).</i></p> <p><i>"The university needs to underscore on job creation and social-economic contribution. It also needs to nurture and emphasize these entrepreneurial objectives throughout". (Interviewee MS6).</i></p> <p><i>"The aim of the course is to develop entrepreneurial spirit in agribusiness through imparting knowledge and the required key competences and skills through the enterprise education". (SUA, 2021).</i></p> <p><i>By completion of this course students should be able to: generate business ideas, screen and evaluate viable business plans in agribusiness, prepare business plans for agribusiness firms, understand and match different sources of funding for different categories of start-ups, use research tools in deciding viable business enterprises".(SUA, 2021).</i></p>

Teaching and  
Delivery Systems

*“This course is intended to broadly introduce the set of skills known to have an impact on entrepreneurial success and to enlighten those who are interested in starting, joining, or acquiring their own businesses; as an investor”. (SUA, 2021)*

*“The SUA needs to intensely embrace the concept of students centered learning in which both passive and active teaching methods are used to impart entrepreneurship. A combination of the teaching methods like role model and guest speakers, video and filming, games and competitions, business simulation and workshops will certainly accelerate commercialization of knowledge and research findings by the students, graduates, and researchers”. (Interviewees MP4 & MP5).*

*“The applied teaching methods for the entrepreneurship development course of the SUA consist of the lectures which are theory based, practicals, internships, group work and discussions, presentations, and seminars. Some instructors use business plan creations and company setup role play. Also, students are given assignments whereby they go out and find real entrepreneurs and study them as case studies and later use the experiences they have grown to develop special projects. I think the university needs to also advocate methods like real venture set up”. (Interviewee MP4, G6, FGDs5).*

*“Concerning the internships, the university should consider putting in place a formal procedure for enrolment”. (Interviewee A1).*

*“The course will be delivered through: formal lectures, group work, practicals, independent studies and a variety of experiential exercises; outside class work, as students are required to gather information about the feasibility of a particular business idea not only through the acquisition of secondary data but also by contacting potential customers, suppliers and other sources of primary data which is relevant to their business ideas” (SUA, 2021).*

Evaluation  
Systems

*“Our university uses final examinations, tests, quizzes, assignments, and verbal question nevertheless in order to be able to create more entrepreneurial solutions and enterprises, the universities and instructors need to adopt more practical evaluation systems that are more suitable in assessing delivery of entrepreneurship. Practical evaluation systems like assessing the increased level of confidence, ability to create ventures, change in students’ attitudes, and solid business plans creations”. (Interviewee A6 & FGDs3).*

*“The entrepreneurship development courses need a different kind of supportive evaluation systems jointly with the applied ones in order to be able to measure successfully the delivery of entrepreneurship”. (Interviewee MP5).*

Curriculum  
contents

*“The entrepreneurship development courses of our university have integrated elements such as creativity, innovation, risk taking, business planning, and resources management. However, I think that because entrepreneurs are born and made as well, the number of students, graduates, and researchers-made entrepreneurs can be amplified if the SUA considers incorporating additional components such as business model development and IPR and commercialization. The IPR and commercialization module should be taught by our instructors in collaboration with the governmental organizations involved in the institutionalization and management of IPs and enterprises, in order to straightforwardly integrate the government and emerging-contemporary issues related to IPR and commercialization”. (Interviewee A1, FGDs2).*

*“The SUA needs to carry out courses’ contents updates to incorporate the emerging new concepts of entrepreneurship so that to make the entrepreneurship courses pertinent to the changing environment”. (Interviewee MS7).*

*“Entrepreneurship in the twenty first century, the entrepreneurial perspective, entrepreneurial*

*environment, developing the entrepreneurial plan, and entrepreneurial research. Understanding agribusiness and entrepreneurship, entrepreneurship and innovation, Business development and support services, generation and screening business ideas, business plans development, and marketing strategies for new businesses".(SUA, 2021)*

## 5. CONCLUSION

The study revealed that the low levels of entrepreneurship development in the Tanzanian higher learning institutions (HLIs) have been due to the lack of the functional, active and interdependent formal institutions (formal institutional forces) which are aligned with entrepreneurship development in HLIs. The study suggests that the revealed formal institutions including the charter (formal external instrument), the research and development policy (formal internal instruments), the innovation policy (formal internal instruments), the entrepreneurship development investment policy (formal internal instrument), and the entrepreneurship development Course (formal internal instruments); enhance entrepreneurial development by students, graduates, and researchers of HLIs in Tanzania. These formal institutions must not only align with entrepreneurship development in the HLIs, but it is equally important for them to exhibit coherence regarding entrepreneurship development issues across each other.

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