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Enhancing the Impact of Student-led Entrepreneurial Initiatives in Egyptian Public Universities

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Oxfam WiP Local Partners:







Policy Paper Enhancing the Impact of Student-led Entrepreneurial Initiatives in Egyptian Public Universities

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School of Global Affairs and Public Policy The American University in Cairo

«The opinions expressed in this paper are those of the authors and do not reflect AUC Policies or views. They are published to stimulate further dialogue on issues and challenges facing Egypt in an attempt to expose graduate students to practical policy solutions»

July 2022

Enhancing the Impact of Student-led Entrepreneurial Initiatives in Egyptian Public Universities

Policy Paper

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List of Abbreviations/Acronyms

SDGs	Sustainable Development Goals	
GoE	Government of Egypt	
SDS	Sustainable Development Strategy	
ICTs	Information and Communication Technologies	
MSMEs	Micro, Small, and Medium-Sized Enterprises	
SMEs	Small and Medium-Sized Enterprises	
WiP	Work in Progress Project	

Executive Summary

entrepreneurship Innovation and increasingly viewed as key contributors to the creation of sustainable livelihood opportunities for youth and increased socioeconomic resilience. Accordingly, conducive university-based student-led entrepreneurship initiatives play an essential role in enhancing entrepreneurial culture, creating new businesses, and fostering a supportive entrepreneurship environment. Some of the existing literature on this topic indicates that entrepreneurship clubs enhance students' interpersonal and enterprise skills, widen their engagement in the entrepreneur ecosystem, increase students' entrepreneurial intention, and most importantly, give them the opportunity to gain hands-on experience through practical learning. This in turn improves their self-employment prospects.

This paper comes as part of Oxfam's Work in Progress (WiP) project – which aims to enable young people to generate sustainable living wages and foster optimism about their future in Egypt through capacitating youth on enterprise skills, accelerating start-ups and offering business development services to SMEs, as well as improving the enabling environment for youth and their enterprises by influencing key stakeholders.

The WiP Project is funded by The Netherlands' Ministry of Foreign Affairs and managed by Oxfam. In Egypt, WiP is being implemented by three partners: ICEALEX, Ahead of the Curve, and The Community Hub (TCH). The AUC Policy Hub is entrusted with producing a policy paper on understanding the role of student-led clubs operating inside Egyptian public universities in enhancing the entrepreneurial ecosystem. This is in addition to the important contributions of ICEALEX and ATC in reviewing the paper.

This paper is meant to serve and fit with the WiP Influencing Strategy that is being implemented by TCH.

The research relied on In-depth Individual

Interviews (IDIs) as a qualitative data collection method to delineate the organizational governance, communication strategies, mandate and goals, performance indicators and risks in several existing entrepreneurial student-clubs. This data collection tool was selected because it enabled the respondents to define, describe and express their perceptions, share their experiences, and provide policy recommendations, which gave the study team a more insightful understanding of the topic from the targeted stakeholders.

The policy paper offers several interlinked policy recommendations that aim improve the accessibility, effectiveness, and sustainability of student-ledent repreneurship club. This, in turn, culminates into advancing the impact of student-led clubs in prompting the entrepreneurial ecosystem in Egypt. Given the interlinked nature of the policy recommendations, they are directed towards several stakeholders, such as the Supreme Council of Universities, public universities across Egypt, international organizations, NGOs, and students to spur collective action towards creating a more conducive environment for entrepreneurship by making student-led clubs more impactful. The policy recommendations include:

- strengthening partnerships and cooperation mechanisms with external entities working on promoting a stronger entrepreneurship ecosystem;
- integrating a strategy to further incubate the student projects in student-led entrepreneurial clubs;
- fostering the association between external national and international organizations and student-led clubs to provide mentorship and growth to initiated entrepreneurship start-ups and ideas stemming from student-led clubs;

- channeling more long-term, and sustained funds to organizations supporting student-led clubs by international and national donors;
- integrating a model/strategy for coordinating entrepreneurial activities at all levels across universities and studentled activities;
- amending policy no. 23 for 2018 for Science and Technology Parks, Labs, and Innovative Incubators to include the student-led entrepreneurship clubs inside Egyptian public universities; and,
- fostering the association between academia and student-led clubs to put on content that bridge the gaps between the academia and labor market and at the same time to provide valuable content for the delegates inside the clubs.

I. Problem Statement

Student-led clubs and initiatives are a vital element in the undergraduate students' university experience. In addition connecting and enlarging their networks, they also help them in bridging the gap between academia and the labor market and preparing them for it. Most importantly, student-led clubs and initiatives aim to equip the students with skills and experiences that would help them enter the entrepreneurship field in Egypt, either to start their own business, or solidify their entrepreneurial skills to enhance their employability. The in-depth interviews conducted with several stakeholders reveal that there is no shortage of student-led entrepreneurship initiatives. The problem, however, lies in the limited impact of existing student-led initiatives on promoting Egypt's entrepreneurship culture. In other words, student-led clubs and initiatives have a wide reach but limited impact because most of these initiatives face several structural challenges that impede their accessibility, effectiveness, and

sustainability, all of which limit their overall impact.

Therefore, the question guiding this research is as follows:

How can we enhance the impact of existing entrepreneurship/ entrepreneurial initiatives/clubs that target undergraduates in public Egyptian universities?

Background

Entrepreneurship for Sustainable Development

The international community is increasingly geared towards accelerating efforts to attain the United Nations Sustainable Development Goals (SDGs). This universal call for action aims to transform economies and societies to promote prosperity and achieve a better and more sustainable future for all. More specifically, SDG 8 calls upon states to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all."

To encourage sustained economic growth, productivity and improve spur standards, states need to work towards innovation, promoting technological digitalization, and decent job creation. This is truer than ever now given the advent of the fourth industrial revolution which has put into question the role of manufacturing as the major source of employment. The diminishing role of industrialization, which is attributed to rising automation, has resulted in decreasing manufacturing jobs worldwide over the past three decades. Nowadays, we see a move away from manufacturing to services.

In light of this, entrepreneurship and innovation have been identified as a plausible solution, especially amidst the current technological revolution, enabling countries to "leapfrog" the industrialization phase straight into becoming a modern service economy. This belief is encapsulated in SDG 4, namely target 4.4, which aims to substantially increase the number of youth and adults who have relevant skills for employment and decent jobs, and entrepreneurship. Moreover, SDG target 8.3 is designed to promote development-oriented policies

that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, while encouraging the formalization and growth of micro-, small-and medium-sized enterprises (MSMEs). Mindful of this, the Government of Egypt (GoE) has launched Egypt's Sustainable Development Strategy (SDS), referred to as Vision 2030, which is aligned with UN SDGs.

Recognizing the vital role entrepreneurs play as catalysts in the process of industrialization and inclusive development, the GoE has launched the "One Million Entrepreneurs" campaign, which aims to qualify one million youth entrepreneurs by 2030 within the framework of Egypt's Vision 2030. This, in turn, reflects positively on the GoE's political will to strengthen and stimulate entrepreneurship among youth. The GoE's keenness to promote entrepreneurship stems from the belief that entrepreneurship can provide innovative and realistic solutions to economic challenges, spur productivity, and turn youth into active agents of sustainable development.

Egypt's young population is rapidly growing, in fact, adolescents and youth represent approximately one-third of the Egyptian population, 6.2 percent of which are higher education graduates¹. The most pressing challenge facing the Egyptian youth is the high unemployment rate standing at 7.5 per cent during the third quarter (3Q) of 2021². This is partly attributed to the widening gap between the static learning material and traditional skillset acquired by students during their undergraduate studies especially in public universities and the everchanging demands of the labor market and global economy. In this vein, innovation and entrepreneurship are increasingly viewed as key contributors to the creation of sustainable livelihood opportunities for Egyptian youth and increased socioeconomic resilience in the face of these challenges.

¹ UNICEF, 2021

² CAPMAS, 2021

The Potential of Student-Led Entrepreneurship Clubs

This policy paper gives more attention to the role the student-led clubs play in promoting entrepreneurship.

Student-ledentrepreneurship clubs operating in public universities play an essential role in reducing the aforementioned employment gap by enhancing entrepreneurial culture, supporting the creation of new businesses, and fostering a supportive environment in which entrepreneurship and innovation can flourish³. They equip students with context-sensitive entrepreneurial knowledge and skillset. More specifically, student-led clubs enhance students' interpersonal and enterprise skills, widen their engagement in the entrepreneurship ecosystem, students' entrepreneurial increase most importantly, intention, and them the opportunity to gain hands-on experience through practical learning which improves their self-employment prospects⁴. Furthermore, student-led clubs that focus entrepreneurship on promoting have a positive effect on students' perceived desirability of self-employment and increase entrepreneurial intention, namely resorting to entrepreneurship as a career option.

The Problem and Purpose Statement

Despite the vital role played by student-led clubs in promoting the entrepreneurship ecosystem among students, the IDIs conducted with relevant stakeholders revealed that the impact of student-led entrepreneurial clubs operating in Egyptian

public universities is still minimal. In light of this, the policy paper team engaged in comprehensive research to identify the myriad barriers pertaining to the accessibility, sustainability, and effectiveness that impede and limit the impact of Egyptian studentled clubs in promoting entrepreneurship. Additionally, the policy paper provides policy recommendations on how to capitalize on existing student-led entrepreneurship initiatives by supporting them to become more impactful.

In order to outline the policy paper's plan and ensure the effective collection and sorting of relevant data, the study team participated in conducting an initial assessment to outline the various entrepreneurship student-led clubs operating in Egyptian public universities and engage in stakeholder mapping and analysis. Then, the paper relied on In-depth Individual Interviews (IDIs) as a qualitative data collection method to delineate the organizational governance, communication strategies, mandate and goals, performance indicators and risks in a number of existing entrepreneurial student-clubs. This data collection tool was selected because it enabled the respondents to define, describe, express their perceptions, share their experiences, policy recommendations. provide IDIs gave the study team a more insightful understanding of the topic from the targeted stakeholders, to delineate the strengths, weaknesses, threats, and opportunities facing the policy paper's stakeholders, as well as develop a better understanding of their mode of operation and governance structure, and context-specific sustainability, effectiveness and accessibility challenges that impede the impact of the stakeholders in the selected clubs.

³ Mersal, 2022

⁴Sansone, G. Ughetto, E. and Landoni, P. (2021). Entrepreneurial intention: An analysis of the role of student-Led entrepreneurial organizations. Journal of International Entrepreneurship. 1) 19:399–433 Vol.:(0123456789) https://doi.org/10.1007/s10843-021-00288-6

The study team depended primarily on a desk review of relevant literature to develop the discussion guides for the above-mentioned data collection tool. The questions revolved around six key thematic areas:

- Role and mandate;
- Governance structure, mode of operation and communication strategies;
- Goals and activities;
- Challenges and best practices;
- Role of international/national partnerships and universities;
- Impact/performance indicators;

Seven IDIs were conducted with the following stakeholders⁵:

- President of entrepreneurship student-led clubs such as, Ms. Rania Ahmed, the student president of COMET and Mr. Ibrahim Ghaly, President of PhAI.
- Members of national and international NGOs/associations working on promoting entrepreneurship inside an Egyptian university, such as Mr. Mohamed El Dallal, IEEE Region Entrepreneurship Initiative, Mr. Mohamed Kamal, Co-Director and Co-Founder at Greenish, Mr. Mustafa Abd Ellatif, E-Youth Company Co-Founder and CEO, Mrs. Fatima Sirry, President and CEO of Enactus, and Dr. Maged Ghoneima, previous iHub Director.

Before proceeding to discuss the results and analysis of the IDIs and policy alternatives and recommendations, it is important to review the main operational definitions and conceptualizations used in this policy paper.

Defining Student-Led Entrepreneurship Clubs

The paper adopts a definition of student-led clubs that view them as "an autonomous group of students who meet regularly to enhance their personal learning around a given topic or theme"⁶. Student clubs place themselves as an important component that provides opportunities for entrepreneurship and entrepreneurial education through experiential learning and allowing interested students to transform what they learn into reality on the ground⁷.

importance of student clubs for The entrepreneurship and its education is derived from being 'student-led', which enforces the engagement of students in experiential learning to gain practical experience that reflects positively later their entrepreneurial interests and projects, such as starting a business, enhancing transferable skills, and personal enjoyment8. Additionally, studentled clubs are characterized as self-organized and/or sponsored, and divided into led purely by students, or mediated by external organizations9.

Based on the conducted in-depth interviews, student-led entrepreneurship clubs in Egypt can be defined as "a group of undergraduate students who form a semi-autonomous entity with a self-decided structure/hierarchy to run it". These clubs aim to promote entrepreneurship, related skills. complementary and disciplines, undergraduate encourage to students to pursue an opportunity in the field of entrepreneurship and/or enhance their employability in the rapidly changing labor market. The club's activities are varied, including but not limited to, delivering capacity building sessions, assisting in the entrepreneurial process (except for growth and acceleration), promoting networking, holding entrepreneurship conferences and events, and participating in entrepreneurship related competitions.

⁵ A brief about the interviewed stakeholders is in Appendix 1

⁶ Pittaway et al, 2015, p.4.

⁷ Abbas, 2016 et al, 2011

⁸ Pittaway et al., 2016

⁹ Ibid

Types of Student-Led Entrepreneurship Clubs in Egypt

The paper divides student-led clubs into two sub-categorizations, namely locally supported student-led clubs, and internationally supported student-led clubs. These categorizations act as a practical guide for assessing how the different categories of student-led clubs can contribute to promoting entrepreneurship in Egypt.

Locally Supported Student-Led Clubs

The initiation of student-led clubs is based on the stakeholder approach, in which students are perceived to be one of the universities' key strategic stakeholders. Currently, students play a key role in universities' assessment especially internally, consequently influences the universities' strategic plans, including initiating clubs and organizations such as student-led clubs that serve the students' various needs. Based on this approach, clubs are considered one of the most common practices that deliver and/or respond to the vision of studentcenteredness inside universities10.

Additionally, student clubs can also be initiated to respond to the need of having more enterprising learning environments in Egyptian universities that let students start new ventures that equip them with technical skills to initiate and manage businesses rather than being only learnt in academic programs. Promising student activities such as clubs that enhance entrepreneurial culture and assist in starting new businesses are considered a paradigm shift in universities' mission from teaching to having a pre-focused approach on

contributing to economic growth in terms to "research, innovation and entrepreneurship", which eventually contributes to the academic mobility in the knowledge society¹¹.

One example for this is the Pharmaceutical Association for Investment (PhAI) in the Faculty of Pharmacy, Cairo University, COMET¹² in the Faculty of Commerce Section, Cairo University, Greenish organization operating through multiple student-led clubs inside many public universities across Egypt. These student-led clubs deliver several capacity building activities with the overarching aim promoting entrepreneurship among their respective delegates by means of providing them with practical knowledge on entrepreneurship, assist them in designing and developing project ideas and documents, and giving them the chance to participate in entrepreneurship and pitching competitions.

At the time of writing this policy paper, insufficient empirical research was found on the structure of student-led clubs and their categories. However, few foreign and Egyptian universities post on their websites the guidelines for initiating and formulating student-led clubs within their educational institutions:

¹⁰ Jongbloed et al., 2008; Hostut, 2018

¹¹ Kirby, 2012; Hassan, 2020, p.2

¹² Conference on Marketing Economics and Trade (COMET) is a student-led club based in Cairo University. The club has four academic councils, one of them focuses on promoting entrepreneurship.

Egyptian National University Regulations for Establishing Student-Led Clubs:

Based on secondary research, the guidelines of Saint John's University, located in the United Stated, for clubs are the closest to the regulations of establishing student-led clubs in Egyptian governmental universities. according Student-Clubs However, to Regulations in Egyptian Universities, the club advisor should be from the academic staff (Ph.D. holder and above) and there is an additional supervisor from the teaching assistant staff (MA/MSC holder or below). Moreover, the advisor has the right to suspend the club if it violates the university's rules and regulations. Furthermore, clubs should serve a wide array of interests/issues, such as social and/or cultural issues, arts, and sports. Entrepreneurship is not mentioned in these interests; however, it could be under a sub-category. Furthermore, the club should have at least 30 members but does not exceed 50 members. These regulations for establishing a student-led club are the same across all Egyptian public universities.

The conducted IDIs reveal that not all the stated rules and regulations are applicable except for having an academic advisor on board of the student-led club and his/her authority to bestow permissions to carry on the club's events and activities during the academic year. Rules and regulations are usually subjective and change from one public university to another despite having a form of standardized rules and regulations guiding the establishment and operation of student-led clubs from the Supreme Council of Universities. Each university decides on the rules and mandates according to its own convenience, and facilitating the club's activities usually involves connectionism, yet universities tend not to diverge completely from the rules and regulations established by the Supreme Council of Universities. Moreover, some universities require a security clearance/permission for the club to operate, especially if it is associated with an external organization.

Internationally Supported Student-Led Clubs

Based on observations inferred from the stakeholder mapping and later confirmed by the IDIs, there is another kind of student-led clubs in Egyptian universities, namely those that have an association with international organizations. The structure and content of the club are formulated by the international organization, and members are selected through a recruiting process from undergraduate students. International student-led clubs also must obtain permission from the university.

Entrepreneurship student-led clubs associated with international organizations elevate universities to global platforms because of the international collaborations, in addition to placing themselves in a proactive position for local economies¹³.

The international entrepreneurial studentled clubs differ in functions, objectives, and roles based on their vision and structure. Entrepreneurship clubs associated with organizations have different approaches, e.g., Enactus is related to working on community outreach projects that improve the quality of life and its standards for people in need. On the other hand, there are other organizations that provide networking opportunities and support these clubs (CEO in USA and NACUE in UK) or provide hands-on experience through small non-profit businesses on campus (JEE formerly JADE in Belgium)¹⁴. It is noticeable that entrepreneurial student-led clubs are often classified as entrepreneurship clubs abroad.

¹³ Kuzu (2021),

¹⁴ Pittaway et al., 2015.

Students seek involvement in entrepreneurship clubs to gain practical learning experiences that have value for them and learn about entrepreneurship, especially from entrepreneurs. Enactus Egypt is classified as an international student-led club which offers students such opportunities in addition to gaining practical insights into the entrepreneurial and community practices on the ground and enhancing their skills for better employability¹⁵

Enactus is an example of an international organization that connects student, academic, and business leaders through entrepreneurial-based projects that empower people to transform opportunities into real, sustainable progress for themselves and their communities. Based on an in-depth interview with Mrs. Fatima Serry, Egypt's Enactus President and CEO, Enactus Egypt relies on experiential learning and

guides undergraduate students to apply what they have learnt from their university to map issues and challenges with social impact within their communities and come up with innovative solutions for them. Enactus Egypt envisions a better way to teach and apply entrepreneurship through spotting the challenges of a community as economic opportunities. It has proved to be a successful model given that several Egyptian universities including Azhar University, 6th of October University, Cairo university and others have managed to win the Enactus World Cup.

II. Stakeholders Analysis

The stakeholder analysis has been conducted based on the Power-Interest Matrix. The matrix classifies the below mentioned

stakeholders into four categories according to their power and interest, which facilitates drawing policies that address them.

High power & Low interest	High power & High interest
Academic Councilor/CoordinatorFacultiesSupreme Council of Universities	Academic Program LeadersAffiliated International OrganizationsEgyptian Universities
Low to moderate power & Low interest	Low power & High interest
Student Affairs Officers	Undergraduate StudentsClub LeadersEntrepreneursExternal Organizations

¹⁵ Ibid

II. Stakeholders Analysis

First Category

The first category includes stakeholders who possess high power; however, they have low interest in the matter, such as:

- **Academic Councilor/Coordinator:** They are faculty academic staff members (Doctorate holders and above) and teaching assistants (TAs) who supervise entrepreneurial clubs/initiatives. They are essential for the initiation process and sustaining and/or terminating it. They also sign the permissions and paperwork needed for the club's activities and events, and sponsorships/collaborations. Despite their power, however, their interests are not certain. In some cases, they might not be highly interested in the sustainability of the club, they just act as coordinators between the students and faculty board who sign their paperwork and give permissions. In some other cases, they are interested in the club and provide the needed counseling for the students to maintain the sustainability of the club. They do not initiate the entrepreneurial clubs, but they may help the students in the process.
- Faculties: they are the involved faculties where the clubs/ initiatives take place. Despite their high power, however, they might not be interested in initiating the clubs unless they have the green light from the university, and/or someone else directed them to the importance of having such clubs.
- Supreme Council of Universities: It draws the general policy for universities and higher education in the way that fulfills the country's social, economic, and scientific agenda. The Supreme Council has the authority to foster entrepreneurship activities inside the public universities through its policies.

Second Category

The second category includes stakeholders who possess high power and high interest in the matter, such as:

- **Academic Program Leaders:** They are faculty academic staff members who are usually lecturers and professors that propose and initiate universityled entrepreneurial programs for the students within their departments. These programs are often an outcome to add extracurricular activities within the department to spread entrepreneurial concepts practically, and those academic program leaders start the initiatives by themselves. They differ from student-led clubs because they are mainly academic activities to be translated into practical programs. They have the power to create such initiatives due to their position inside the faculty and being familiar with the procedures and regulations.
- Affiliated International Organizations:
 they are third-party organizations that
 invest in the creation of these clubs. They
 seek to foster entrepreneurship in public
 universities through the student-led
 clubs. They offer financial, technical, and
 moral support in align with the faculty and
 universities. Their affiliation strengthens
 existence of the student-led club and
 boost its activities.
- Egyptian Universities: they are Egyptian public universities where these clubs are initiated and take place. They have the upper hand in sustaining or terminating a club. However, they usually seek external security/ ministerial approval for the initiated clubs inside their campuses.

II. Stakeholders Analysis

Third Category

The third category includes stakeholders who possess low power and low interest in the matter; however, the only identified stakeholder is student affairs officers who are faculty officers that follow-up the bureaucratic process of paper approval.

Fourth Category

The fourth category includes stakeholders who possess low power but high interest in the matter, such as:

- Undergraduate Students: They are the maintargetaudiencefromtheseinitiatives. They are highly interested as the clubs fulfill their needs for experiential learning and developing skills that would help in enhancing their employability. Despite their high interests, they have minimum power in sustaining/terminating the clubs and their activities.
- Club leaders: They are managers of the student-led clubs. They are highly interested in initiating and sustaining the clubs/initiatives. They work on delivering the clubs' purposes and goals. However, they do not always have the sole upper hand on directing the future of the clubs.

- collaborating with the students on their startups, providing them with experience, mentorship, and funds. They could also volunteer their times to be mentors/lecturers/speakers in these clubs to gain public recognition and build a positive image for themselves.
- External **Organizations:** They governmental, non-governmental, profit or non-profit organizations which can benefit from the collaboration with student-led clubs for the purposes of CSR or implementing their communityreach goals on one hand. On the other hand, some of these organizations can collaborate with the student-led clubs to provide one of their services/activities in entrepreneurship and business fields (e.g., exploring a new opportunity for the organization to expand their market). External organizations unlike international organizations tend to be less established, have less resources, and do not often have extensive funding programs, their support to student-led clubs often comes in the form on technical rather than financial support.

III. Field Data Analysis

The following analysis has been conducted for the collected primary data through the seven IDIs carried by the study team during January 2022, to have an overview about

how entrepreneurship is transpired inside student-led entrepreneurship clubs, their performance indicators, and assessment of their impact.

Entrepreneurship Inside Student-Led Entrepreneurship Clubs

Based on the IDIs, four common forms were identified:

- Entrepreneurship is integrated through multiple sessions, conferences, competitions inside a specific club unit/ council during the academic year alongside departments/councils. For instance. COMET has an academic council named entrepreneurship council; its purpose is to deliver 5-6 sessions on entrepreneurship each academic year to approximately 60-80 students/delegates. Moreover, COMET holds two conferences where they invite key entrepreneurs to present their journey and allow the club delegates to visit their respective start-ups. The delegates are then assigned the task of identifying the challenge facing that start-up and developing strategies to address these challenges.
- Entrepreneurship is integrated through multiple courses that help students to grasp a comprehensive idea about the entrepreneurship & business field. For example, PHAI provides an extra-curricular entrepreneurship course under the name of 'Entrepreneurship School', which includes business planning, freelancing, business skills, and startups.
- Entrepreneurship is integrated through intensive training about entrepreneurship for a short period for students to help them launch their startups. For example, Greenish provides 2-3 weeks of training to educate involved students to draft their business and financial plan for their chosen topic to compete in their final competition.

Entrepreneurship is integrated through training sessions in addition to intensive bootcamps, mentorship and networking, along with complementary skills and courses, and incubation. For instance, Enactus provides networks, trainings in different disciplines in addition to entrepreneurship after identifying the entrepreneurial needs. It also includes further incubation and development.

Performance Indicators for Student-Led Entrepreneurship Clubs:

To measure and assess the impact of the targeted student-led clubs on promoting entrepreneurship, a performance indicator metric was developed that comprises three key pillars: accessibility, effectiveness, and sustainability.

- Accessibility

Accessibility as a concept is defined as the availability of a club as an entity functionally, logistically, and physically. Some of the interviewed stakeholders defined accessibility as the ability for any student to reach the entity, its services such as events, club councils, schools, and competitions, and having a physical place to reach it. On the other hand, others defined accessibility as the ability to directly reach and communicate with the entity and having less paperwork or permissions to be obtained for collaborations and sponsorships.

Therefore, accessibility for student-led entrepreneurship clubs in this paper could be defined as "the ability of a student-led club through its physical place and services to be available for the students, have a clear and effective two-way method of communication, and can collaborate with multiple parties with minimum paper-work hassle."

- Sustainability

Sustainability was variously defined but it is emphasized as the means to keep the studentled club running. Some of the interviewed student-led clubs defined sustainability as the ability to have connections that facilitate running the entity for them, especially the paperwork and logistics. Moreover, some of the student-led clubs defined sustainability as securing a stable fund to pay for their services and activities and keep the entity functioning. On the other hand, some of the student-led clubs defined sustainability based on reviewing what was previously achieved to correct its drawbacks and build on it for the future events and activities. updating their vision and services to keep the entity running.

Therefore, sustainability for student-led entrepreneurship clubs in this paper could be defined as "the ability to secure stable funds and connections, review and update their activities to define their drawbacks to correct them and build upon them to keep the entity functioning and running. Sustainability could also include the ability to legalize a student-led club and keep its approved status from the faculty and university."

Effectiveness

Some of the interviewed student-led clubs discarded effectiveness as a criterion to measure their performance. One of the reasons was 'effectiveness' which seemed like a performance indicator criterion for corporates not student-led clubs, and indicates that some of these entities consider themselves recreational entities with less commercial impact rather than doing good.

- On the other hand, the rigid system and inflexible policies inside universities were also considered a reason to discard effectiveness as a criterion due to the frequent need to hack the system and use its loopholes to overcome its rigidness and obstacles. They resonated such acts to be unfeasible to be continued for a long time because their problems would still be unsolved, hence effectiveness could not exist, unless the system is fixed.

Nevertheless, some of the student-led clubs defined effectiveness based on their achieved results such as the multitude of their impact and reach of their communications and marketing activities, the number of enrolled students who benefit from the club's services, the number of executed programs, and the number of applied/admitted startup proposals and the winning ones in the competitions. Moreover, they also defined effectiveness based on the conducted assessment and reflection process by the end of each academic year to identify what worked and what did not, the weaknesses and strengths of their events and activities as well as the relativity, currency, and value of provided content to the current trends of business and entrepreneurship.

Therefore, effectiveness for student-led entrepreneurship clubs in this paper could be defined as "the multitude of impact of student-led clubs. It is based on their communications activities, the number of beneficiary enrolled students, the number of executed programs as well as the relevance. and value of provided content to the current trends of business and entrepreneurship and number of applied/admitted startups proposals and the winning ones in the competitions. Effectiveness also includes the ability to conduct an assessment to reflect on the club's weaknesses and strengths, opportunities and threats and update their mandates based on the outcome of this reflective process".

Assessment of the Impact of Student-Led Clubs

The in-depth interviews conducted with the previously mentioned stakeholders revealed an array of strengths and weaknesses/ challenges that affect the impact of existing student-led clubs on promoting entrepreneurship in Egypt. The strengths, weaknesses/challenges of student-led clubs can be classified under three key performance indicator pillars: sustainability, accessibility, and effectiveness.

Strengths of Existing Entrepreneurship Student-Led Clubs:

The existing points of strength of entrepreneurship clubs are important entry points since they reflect the available potential and resources that could be capitalized on to advance their impact on promoting the entrepreneurship ecosystem.

- Accessibility

Effective Communication and Outreach Strategies

• All the targeted student-led clubs relied mainly on different social media platforms for their reach and recruitment processes. These methods proved to be effective, especially given that since the outbreak of the COVID-19 pandemic, many student-led clubs were not permitted to establish an on-campus recruitment booth. In fact, most of the interviewed club leaders cited that they do not find difficulty reaching their targeted audience (30-50+members) through the different social media platforms either to attend their events or to become club delegates. Moreover, they stated that the total

club page reach and engagement are always high, which indicates that relying on social media as a communication and outreach channel has proved to be effective. They also underscored that in case the club is suspended, this is often only announced through the club's social media platform, and it is considered as an official declaration of the club suspension. Moreover, the vast majority of studentled clubs interviewed are also accessible to students from different faculties inside the university.

- Sustainability

Resilience and Adaptability

One of the key points of strength of the targeted entrepreneurship student-led clubs is the high level of resilience and creativity the clubs portrayed. This is often reflected on the strategies adopted by clubs to maneuver and address existing structural barriers in the environment by which they operate. For instance, COMET regularly comes up with new fundraising ideas to address the lack of logistical support on part of the university especially amid the outbreak of the COVID-19 pandemic which compelled them to rent coworking spaces. Likewise, Enactus displayed a great deal of resilience when it was faced with the arbitrary decision to halt its activities and withdraw permission from it in 2016 for unexplained security reasons.

Moreover, existing student-led entrepreneurial clubs also show a high level of adaptability, for instance, clubs like COMET and PhAI added entrepreneurship to their exiting club models in order to meet the expectations of the ever-evolving demands of the job market. In fact, COMET added an entrepreneurship council in 2008, three years after its initial establishment. Similarly, PhAI has evolved over the years since its initial establishment in 2008 to include more sessions on entrepreneurship. The IDIs also reveal that entrepreneurship student-led clubs are highly flexible and adaptable in nature capable of updating their structure and content material to reflect the evolving needs of the job market.

Moreover, the conducted interviews showed that they have achieved sustainability on their own terms throughout their running years, which has been proven through their flexibility in facing challenges and carrying on running the club especially when COVD-19 pandemic hit, and day-to-day functions stopped. Most of the student-led clubs designed paid training activities to cover off campus co-working spaces for the club sessions and activities, while others managed to effectively and swiftly shift to an online mode of operation.

The Role of Club Alumni and Board Members

Another point of strength of student-led clubs operating in Egyptian public universities, such as COMET and PhAI, is the vital role played by the club alumni in resolving potential conflicts, ensuring the sustainability of the club, bringing real-life experience to the activities of the club, and providing advice to the club leaders. Other clubs like Enactus have entrepreneurs and well-known experts as board members, which play an important role in the sustainability and endorsement of

the club among public universities and the Supreme Council of Universities.

Effectiveness

Content-Sensitive Entrepreneurship Material

Another important point of strength that was revealed during the IDIs is that members of student-led clubs are actively involved in the development and design of the entrepreneurial content material delivered during the entrepreneurship activities delivered by the club with the intention of sharpening the entrepreneurial knowledge and skillset of the clubs' delegates. During the IDIs, presidents of clubs like PhAI, COMET and the president/directors of Enactus and Greenish expressed that they are keen on ensuring that the material delivered to delegates is practical – to allow the students to put what they have learnt theoretically about entrepreneurship into practice - and context-sensitive to the Egyptian job market and tailored to the learning needs of the students.

Outreach & Recruitment Methods

All the interviewed stakeholders cited not facing any difficulties in the outreach and recruitment processes and meeting the expected target of new recruitment. Despite the fact that COVID-19 has prevented some clubs from conducting on-campus recruitments through recruitment booths, social media platforms provided effective methods in helping entrepreneurship student-led clubs meet their respective targets of recruitment.

Low Dropout Rates

Furthermore, some of interviewees stated that they measure effectiveness by the number of delegates' dropout rates once they have joined the clubs. This is often evident when they look at the initial number of students attending the entrepreneurship sessions provided by the clubs, usually on the weekends, and the number of students after they have completed the semester to calculate the dropout rate. Most of the interviewees stated that they have low dropout rates. However, this is an assumption based on their personal observation, since, as mentioned earlier, the interviewed clubs do not adopt clear and structured methods to monitor and evaluate their performance indicators.

Activities

Regardless of the challenges pertaining to lack of funding and support on of the university, all the interviewed student-led clubs managed, as mentioned earlier, to design and develop innovative methods to ensure that all the activities they planned to implement at the beginning of the semester are being implemented. This, however, is only evaluated from a quantitative rather than a qualitative perspective. Club leaders often measure the success of the club based of its ability to organize and implement the target number of planned activities. However, they do not have tools to measure and evaluate the impact of these activities on skills development and/or entrepreneurship intensions.

Achieved Successes

n example of a success story comes from PhAI, according to Mr. Ibrahim Ghaly, President of PhAI, two startups have been initiated from two delegates due to the entrepreneurship and business content provided by PhAI. The first startup is an application on modern agriculture, and the founder of the application was a guest in many events as a speaker and he referred to PhAI as the reason to learn the basics of business planning and the first step to accomplish his application. The second startup is a giveaways company called La Fiesta. The second delegate established it before giveaways became ubiquitous in Egypt. In addition, this delegate became a PhAI crewmember until he graduated and now the company is his sole income and main focus.

Likewise, Enactus Egypt has collaborated with Delta Shields to assist the winning teams from Enactus's competition to establish their startups and turn their ideas into reality. They started to collect data of the winning teams with the aim of establishing five SMEs. The number might increase to ten SMEs if it proves successful. Mrs. Serry claimed that there is a very high possibility for success because the projects are social enterprises, which are better to promote since they are tackling social causes and problems within the Egyptian communities.

Weaknesses/Challenges Facing Existing Entrepreneurship StudentLed Clubs:

The IDIs conducted with various stakeholders reveal some of the interconnected challenges/weaknesses facing student-led clubs; these are effectiveness, sustainability and accessibility related challenges, whether external or internal, and limit the impact of student-led clubs in promoting entrepreneurship.

- Accessibility

Gender Representation

Most of the interviewed student-led clubs claimed that women/girls constitute a significant percentage of their clubs, have strong access to their services and activities and that there is no discrimination based on gender, age, race, or background. Nonetheless, all the interviewed studentled clubs do not adopt a clear gender effectively mainstreaming strategy to measure the impact of their activities from a gendered perspective through gender segregated data. More specifically, all the interviewed clubs do not mainstream gender in their code of conduct, club constitutions or learning material. Instead, some of the clubs interviewed cited that they prefer to accept and appoint candidates in key club positions based on merit rather than gender. Others argue that they already have female representation ratio within the club given the fact that the social sciences field of study is already female dominated and thus there is no need to integrate a gender mainstreaming strategy. All in all, it can be concluded that the gender representation within clubs is often not tracked or measured. Moreover, the sessions provided to the club delegates are not sensitive to the differentiated needs of women and barriers to entering the job market and the unequal access to resources, trainings, and funding.

Outreach and Selection

With regards to the selection criteria and processes, some clubs seek delegates who have a background on entrepreneurship, which can compromise latent opportunities in other students. Moreover, certain universities do not permit its entrepreneurship students-clubs to allow students from other universities to join their clubs. Furthermore, for certain clubs the selection interviews are highly

subjective, there are no clear criteria. For COMET, for instance, the club leaders would accept delegates who have solid command of English and fit the 'club spirit'.

terms of access to student-clubs' entrepreneurial activities, the interviewed stakeholders shed light on the fact that the modality of virtual learning is widely unfamiliar especially for those who reside outside Cairo, which in turn, creates geographical inequality in accessing entrepreneurship learning, especially amid the COVID-19 pandemic. Moreover, certain clubs deliver their activities, such as sessions, workshops, conferences, solely in English, which limits the access of students who do not have a solid command of English to these activities' entrepreneurship.

- Sustainability

Supporting MSMEs

The long-term impact of clubs reflected in the numbers of student projects that turned into profitable and sustainable MSMEs remains very low as is evident from the results of the IDIs.

The student-led clubs have one thing in common, which is not providing further support for the projects once they have been established. Based on the IDIs, initiatives from student-led entrepreneurship clubs usually struggle to grow and turn into an SME. The struggle is usually because of the lack of further mentorship, providing required resources especially funding, and support to strengthen the startup to grow and flourish. These services are rarely if ever provided to the students after the idea generation and planning, which hinders those clubs from having a real impact in the entrepreneurship field in Egypt.

For instance, PhAI's president declined any chance for further support for the project plans developed by PhAI delegates to turn them into start-ups and described it as "hard to achieve because it would require that the club solely focuses on the student business projects and ideas that stem from 'PhAI's Schools' and disregard its other activities". Likewise, Dr. Maged Ghoneima, previous iHub Director, stated that it is now possible for universities to push funds entrepreneurship incubators accelerators inside their campuses after policy no. 23 for 2018. However, another struggle would present itself in the fact that accelerators should run by experts in entrepreneurship and business fields not academic staff as top management, and that might be possibly rejected by the staff members inside these universities. Hence, more awareness should be raised to top management inside public universities about the role of experts in incubators and accelerators with proper supervision from the academic staff.

In fact, it was only when student-led clubs partnered with organizations such as Greenish and E-Youth did they witness a slightly higher number of incubated projects that turned into start-ups. More importantly, there is a lack of follow-up mechanisms in place to monitor and evaluate the progress of the students who had received the club services and managed to successfully turn in into sustainable MSMEs. Nevertheless, Enactus has taken small steps in that direction by partnering with Delta Shields to assist Enactus teams in (incubating) establishing MSMEs.

Sustained Funding

In terms of funding, all the interviewed stakeholders cited the absence of longterm sustained funding as a key challenge. Accordingly, entrepreneurship student-led clubs highly resort to unstable fundraising. In fact, many of the student-led clubs depend on year-by-year sponsorships and some of the student-led clubs generate fees from the members and delegates such as COMET. These unstable funding modalities pose a significant risk to the continuity of the clubs' activities and impact. There are no definitive regulations for fund raising in student-led clubs. According to the IDIs, financial fund raising is usually done informally through various ways, such as planning trips and outings and selling branded merchandise to the members. As for formal funding, it is more of moral and technical support from donors to avoid any suspicion of profiting by the students.

Security Permits

From the researchers' observation based on the conducted IDIs, there are no definitive guidelines nor policies to initiate studentled clubs. The process of the initiation is left to each Egyptian university to decide upon. According to an in-depth interview with Mr. MohamedKamal,Co-DirectorandCo-Founder at Greenish, Egyptian universities usually seek security approval and guarantees from other ministerial associations to approve forming an activity inside it. However, the process itself is not defined despite the existence of the Student-Clubs Regulations in Egyptian Universities. This in turn fosters an environment of uncertainty which affects the sustainability of entrepreneurship studentled clubs.

Security Permits

With regards to the Supreme Council of Universities, one of the key challenges facing internationally supported organizations such as E-Youth and Enactus that work through establishing internationally supported student-led clubs, is the prolonged process of obtaining security permits, especially after the 25th of January Revolution. Moreover, the fact that these security permissions can be withdrawn abruptly at any moment without a clear explanation negatively affects the sustainability of these clubs. For instance, in the case of Enactus, the security permissions were revoked without providing clear reasons. This in turn reflects negatively on the performance, sustainability, and durability of the student-led clubs supported by international/national NGOs/ private companies. The arbitrary decision to stop the activities and withdraw permission from Enactus in 2016 for unexplained security reasons during the club competition negatively impacted the club's performance.

- Effectiveness

Lack of Clear Direction/Vision of Executed Programs

One of the weaknesses identified during the IDIs was the lack of direction and a clear vision on how to promote entrepreneurship; this is often coupled with the inability to engage in effective needs identification due to lack of experience. The interviewed clubs also did not have a comprehensive and unified performance indicator metrics to measure the long-term impact of their activities and interventions. The only exception is Enactus that needs to conduct a regular SWOT analysis to hand to the club board. This is not to say that student-led clubs lack indicator

measures altogether, as demonstrated in the section above, yet they often have an informal implicit performance indicator that is often solely quantitative in nature to assess the success of their activities.

Additionally, some of the clubs interviewed underscored the challenge of being assigned an academic advisor that is not highly interested in the topic of entrepreneurship, and thus only supports and/or commends their work once it attracts recognition from other organizations. This accordingly means that there is minimal supervision and direction related to content design and development. Thus, it was observed that some studentled clubs do not develop context-sensitive entrepreneurship content. Consequently, the case studies and role models used do not resonate with the Egyptian students due to the different business culture under which they operate.

Governance and Transparency

In terms of governance structure, most of the key positions held within the clubs are filled by appointment rather than elections in most of the clubs like COMET and PhAI, all of which have an adverse impact on transparency and effectiveness. The criteria of recruiting the crewmembers of the student-led clubs are subjective in some of the clubs. Most of the positions in the clubs interviewed are gained through appointment by previous club members rather than elections, except for Enactus.

Competition and Lack of Coordination

a strategic level, the interviewed stakeholders stated that public Egyptian universities do not have model/ strategy for coordinating and integrating entrepreneurial activities levels across the student-led activities, or at least not one that they are made aware of. Likewise, according to the interviewed stakeholders, Egyptian public universities do not have any overarching strategy to support the efforts of entrepreneurship within the university, especiallythat of student-led clubs, rather they stressed on the need to foster an increased interest in promoting entrepreneurship and supporting entrepreneurship initiatives inside public universities.

Accordingly, the IDIs reveal that most entrepreneurship student-led clubs tend to compete with each other and work in silos rather than collaborate and coordinate with one another. Hence, the possibility for collaboration to synchronize their services for better outcomes in entrepreneurship and avoiding possible overlapping and redundancy is often limited.

Lack of Support and Red Tape

According to the IDIs, there is a general lack of interest in the entrepreneurial vision of the student-led club on part of the university and the academic advisors. This manifests itself in the lack of logistical support from some university departments, which act as a key challenge to student-led club members who are forced to rent co-working spaces, which are costly and put a strain on the club's budget. This is especially true after the outbreak of the COVID-19 pandemic since

universities stopped providing student-led clubs with on-campus venues to hold their training sessions and workshops.

Generally, the lack of interest in the entrepreneurial vision of the student-led club on part of the university and the academic advisors leads to a lack of support, prolonged processes to get permission, and red tape.

The prolonged bureaucracy for obtaining permissions for the establishment of a club is changeable and subjected to the nature of who is in authority rather than the rules and regulations. Partnerships could be obstructed if the faculty and university are unfamiliar with the organizations which filed the permissions through the studentclubs. Likewise, red tape and prolonged bureaucracy obscure the daily operations and activities of student-led clubs inside the university. For instance, according to the president of COMET, to create a booth for the club on campus, club members need to follow strict rules and submit detailed documentation on the type and number of materials and equipment used, the number of students attending a specific event, how many of them would be wearing the club t-shirts, etc. Moreover, although certain clubs like Cairo University-based COMET prefer to widen the scope of their services to target students from other universities, the university does not permit them to do so. Moreover, relations with university presidents and faculty advisors and international NGOs operating inside universities are often informal. Thus, their sustainability is based on personal networking and relations as well as the persons' subjective belief in the club goals, rather than formal channels of operation and clear guidelines.

Lack of Coherent, Structured and Unified Performance Indicators

There are no coherent, structured and unified methods used to measure the impact of the clubs' activities on promoting entrepreneurship. Despite the important role played by clubs in spreading the idea of entrepreneurship, equipping many students

with entrepreneurial skills, and getting them to a certain degree ready for the labor market, the lack of coherent, structured and unified qualitative and quantitative data on their impact on promoting entrepreneurship and improving students' access to the job market remains limited. operation and clear guidelines.

IV. The Current Needs of Entrepreneurship Student-Led Clubs

Based on the aforementioned section, the needs of student-led clubs are identified as the following:

- Having a clear and well distributed legal process provided by the university because the process is subjective to a great extent.
- Raising the level of awareness about the importance of business and entrepreneurship and their organizations among the academic advisors.
- Recognizing the students' needs and interests before designing the lectured content and activities.
- Laying down a proper unified structure among the collaborated/initiated clubs with international NGOs that achieve its aims (incl. recruitment process).
- An internal mapping for entrepreneurship activities inside the universities to foster collaboration between the different stages of initiating startups and projects.

- Integrating entrepreneurship inside the curriculum and activities of universities to raise awareness about it.
- Providing student-led entrepreneurial clubs with logistical support and reduce the bureaucracy to get permissions to facilitate the implementation of the clubs' activities.
- Sustainable long-term funding for student-led clubs and the organizations supporting the sustainability of activities of student-led clubs.
- Strengthening international and national partnerships with student-led clubs to spur the long-term impact of the clubs through supporting the transformation of student projecting into profitable SMEs.
- Integrating a model/strategy by the Supreme Council of Universities for coordinating entrepreneurial activities at all levels across universities and the student-ledactivities to enhance synergies, promote collaboration between different stakeholders and reduce the duplication and overlapping of activities.

Policy Alternatives

Based on the conducted IDIs and secondary research, seven policy alternatives are proposed to bridge the gap between existing policies and initiatives and the current situation to foster the impact of studentled entrepreneurship clubs inside Egyptian public universities. The policy alternatives target three main categories of policy actors that play a vital role in decision making.

First Category: Student-Led Entrepreneurship Clubs, Incubators and Entrepreneurship Centers Inside Egyptian Public Universities:

1. Strengthening partnerships and cooperation mechanisms with external entities working on promoting the entrepreneurship ecosystem.

Effectiveness

This policy alternative aims to strengthen the collaboration mechanisms between external entities and student-led entrepreneurship entrepreneurship clubs promoting ecosystem inside Egypt to enhance the effectiveness of the clubs. Entrepreneurship student-led clubs provide an array of activities that mainly aim to equip university students with the skills and knowledge needed to start their businesses and promote their entrepreneurial intentions. Several initiatives support entrepreneurship student-led clubs in promoting the entrepreneurial ecosystem within their respective universities. E-Youth is one of those supporting entities that collaborate with student clubs across Egypt through partnering with them to provide entrepreneurship, ToT training programs to the club delegates, sponsoring student-led

conferences where the delegates showcase annual progress/projects, and/or participate as guest speakers in studentclubs workshops/events. Moreover, E-Youth several international partnerships has with several UN and other organizations, such as UN Women, UNICEF, ILO, GIZ, and USAID facilitating underprivileged students' access to E-Youth courses. Partnering with organizations such as E-Youth would help student-led clubs solidify entrepreneurial vision on how to promote entrepreneurship, help them in priority and goal setting, and engage in the process of needs identification.

Benefiting from its established reputation and connections, INJAZ also could be one of the external organizations that provides several projects for university students to promote for the concept of entrepreneurship and its skills including marketing, and ideation, incubation, and growth services.

The stakeholders that would benefit from these policy alternatives will mostly be those who fall under the low power and high interest category, namely undergraduate students, club leaders, entrepreneurs, external organizations. However, in order for this policy recommendation to materialize, those with high power and high interest, namely academic program leaders, relevant international organizations and Egyptian universities need to be show willingness to support this policy alternative.

First Category: Student-Led Entrepreneurship Clubs, Incubators and Entrepreneurship Centers Inside Egyptian Public Universities:

2. Student-led entrepreneurial clubs need to integrate a strategy in their plan to further the spectrum of support available to student projects that are developed as a result of engaging with student clubs.

Effectiveness and Sustainability:

This policy alternative aims to persuade the student-led clubs to develop and adopt a more comprehensive strategy to solidify their long-term impact by ensuring that initiated start-up project ideas formulated by clubs' delegates have been developed into sustainable start-ups. This strategy needs to focus primarily on enhancing collaboration between student-led clubs and universitybased incubators to guarantee further incubation of the initial start-up ideas. In fact, the Binghamton University based Entrepreneur Connect club, which adopts a strategy that aims to effectively bring innovative students together and connect the resources of the Koffman Southern Tier Incubator, to prepare them to launch their business ideas¹⁷.

The stakeholders that would benefit from these policy alternatives will mostly be those who fall under the high/lower power and high interest category, namely undergraduate students, club leaders, as well as those who fall under the low power and high interest category, namely entrepreneurs, external organizations. To facilitate the operationalization of this strategy with high power and low interest namely academic program leaders, Egyptian universities need to show willingness to support this policy alternative.

¹⁷ Zipman, E, 2021.

Second Category: External National and International Organizations to Collaborate with Student-Led Entrepreneurship Clubs Inside Egyptian Public Universities:

1. International and national donors need to channel more long-term, as well as renew and sustain funds to organizations supporting student-led clubs and diversifying student-led clubs' sources of funding.

Sustainability:

This policy alternative aims to provide and secure sustained, flexible, and predictable funding in the form of grants and sponsorships because it is key to enhancing the sustainability and effectiveness of entrepreneurship student-led clubs, such as Greenish, especially those that are internationally supported. In this vein, the restructuring of existing funding modalities towards depending less on the highly volatile models of fundraising is imperative to widen the impact of student-led clubs.

Diversifying student-led clubs' sources of funding by expanding their access to resources both internally through funding from the university, or self-funding activities such as fundraising and externally through donors from international organizations, private sector etc. is key to the sustainability of the club activities. The key barrier, however, hindering the diversification of funding sources internally is the lack of will on part of the university to provide student-led clubs with direct funding or technical support to promote their self-funding activities. Moreover, the absence of secure sustained, flexible, and predictable funding in the form of grants and sponsorships on part on international and external organizations also act as a key barrier to this policy alternative. The primary groups that will benefit from this policy alternative are those that fall under the

high interest, low power category, namely undergraduate students, club leaders, entrepreneurs, and national NGOs. The secondary beneficiaries would be those with low interest and high power namely Egyptian universities and student affairs offices. To facilitate the operationalization of this strategy with high power and high interest namely, relevant international organizations need to show willingness to support this policy alternative, in addition to support from those with high power and low interest namely the Supreme Council of Universities and Egyptian universities.

2. Fostering the association between external national and international organizations and student-led clubs to provide mentorship, incubation, growth, and acceleration to initiated entrepreneurship startups.

Effectiveness and Sustainability:

This policy alternative aims to encourage the association between external national and international organizations and studentled clubs whether through offering services and funds that facilitate the provision of mentorship, incubation, growth, and acceleration to the initiated startups and ideas that turn them into established SMEs. The focus/domain of these external organizations should be encouraging entrepreneurs from any background generally and students specifically to pursue the implementation of their business plans and help them through providing the needed services and funds and/or help them to outreach and connect with third-party organizations that foster them through the entrepreneurship process.

The primary beneficiaries from this policy alternative are those that fall under the high interest, low power category, namely undergraduate students, club leaders, entrepreneurs, followed by national NGOs. The secondary beneficiaries would those with high interest and high power namely Egyptian universities and relevant international organizations. To facilitate the operationalization of this policy alternative, stakeholders with high power and high interest as well as low power and high interest, such as relevant international organizations. Egyptian public universities, student-led club leaders, and national NGOs need to show willingness to support this policy alternative.

Third Category: Egyptian Public Universities and the Supreme Council of Universities

1. Integrating a model/strategy for coordinating entrepreneurial activities at all levels across universities and student-led activities.

Accessibility and Effectiveness

Egyptian Public Universities and the Supreme Council of Universities need to adopt a strategy for coordinating entrepreneurial activities at all levels across universities and student-led activities, as well as to establish an entrepreneurship structure which coordinates activities within the university and stakeholders within the local entrepreneurship ecosystem. This is key to creating pathways for collaboration between the different entities within the Egyptian public universities working on promoting the entrepreneurship ecosystem as well as avoiding duplication of work,

breaking silos and creating synergies to leverage on collective action to promote entrepreneurship. In fact, iHub, which is based at Ain Sham University, has already set the momentum towards achieving this since 2019 by holding an event like that of AUC Innovate to coordinate entrepreneurial efforts held within Ain Shams University.

The primary beneficiaries from this policy alternative are those that fall under the high interest, low power category, namely undergraduate students, club leaders, entrepreneurs, university-based incubators, and entrepreneurship research centers. In addition to those with high interest and high power namely Egyptian universities, faculties, and academic advisors. facilitate the operationalization of this policy alternative stakeholders with high power and high interest as well as low power and high interest need to show willingness to support this policy alternative.

2. Amending policy no. 23 for 2018 for science and technology parks, labs, and innovative incubators to include among them the student-led entrepreneurship clubs inside Egyptian public universities.

Sustainability, Effectiveness, and Accessibility:

This policy alternative aims to endorse and/or amend policy no. 23 for 201818, which is named Science, Technology and Innovation Incentives Act for Egyptian public universities. It aims to enable the Egyptian public universities to establish science and technology parks, labs, and innovative incubators and regulate them. These facilities aim to serve as innovative institutions that advance sciences, scientific research, development and serving the community through utilization from academia, scientific research and community of universities including undergraduates and alumni. The universities can act as educational entities and commercial ones, hence, the policy enables universities to accept funds for their startups/projects and generates revenues from their outcomes. It also facilitates the collaboration with external national and international organization and overcoming bureaucratic procedures by previous policies.

Therefore, amending the policy to include student-led entrepreneurship clubs would provide them ultimate benefits from enabling them to fully function as semi-independent organizations to collaborate with external national and international organization for their activities and events, and generate enough funds to carry them out. The amended policy would also enable the student-led entrepreneurship clubs to reach for external incubators and accelerators, which will provide further mentorship and growth for the initiated startups to turn into established SMEs.

The primary beneficiaries from this policy alternatives are those that fall under the high interest, low power category, namely undergraduate students, club leaders, entrepreneurs, university-based incubators. In addition to those with high interest and high power namely Egyptian universities, faculties. To facilitate the operationalization of this policy alternative, stakeholders with high power and high interest such as Supreme Council of Universities, the Ministry of Higher Education and Scientific Research, the Egyptian parliament and Egyptian public universities need to be show willingness to support this policy alternative.

¹⁸ A draft of the policy can be found here: http://www.crci.sci.eg/?p=5081

3. Fostering the association between academia and student-led clubs to put on content that bridges the gap between the academia and labor market and at the same time to provide valuable content for the delegates inside the clubs.

Effectiveness and Accessibility:

This policy alternative aims to encourage initiating a bond (cooperation) between academia represented in academic staff in discipline related to entrepreneurship and business fields and student-led clubs directors. and teams. The aim of this cooperation to provide the student-led clubs constructive instructed outlines and plans of courses and content for the student-led clubs to guide them in formulating the delivered courses and content to the delegates (undergraduate students). However, these outlines and plans are guidelines for the clubs to follow rather than a top-down content to be forcibly implemented. A room for creativity by the student-led clubs' leaders and teams should be allowed to preserve their uniqueness and identity. Moreover, one of the aims of studentled clubs is to fill in the gap between academia and labor market, hence, the preserved space

would allow them to do so. Nevertheless, this cooperation is meant to facilitate the creation of content and courses and elevate its value into a comprehensive integrated content among the related entrepreneurship committees. It also transfers a glimpse of experience in course design and formulation from the academia to the student-led clubs, which enhances their overall experience.

The benefited stakeholders from these policy alternatives are those that fall under the category of low power and high interest, namely undergraduate students, and club leaders. This is followed by the stakeholders that fall under the high power and low interest category, i.e., academic advisors, academic program leaders, and faculty members and Egyptian public universities. To facilitate the operationalization of this policy alternative, stakeholders with high power and low interest such as academic advisors, academic program leaders, and faculty members and Egyptian public universities need to be show willingness to support this policy alternative, and those that fall under the low power and high interest, namely undergraduate students, and club leaders, need to mobilize support for this policy alternative.

• Policy Analysis:

In order to prioritize the policy alternative in an order that responds well to the problem statement, we analyzed the proposed alternatives based on the following criteria.

First Category:

1. Strengthening partnerships and cooperation mechanisms with external entities working on promoting entrepreneurship ecosystem.

- Effectiveness Criteria:

This policy alternative aims to address the effectiveness challenges previously stated, mainly that studentled entrepreneurship clubs often lack direction and clear vision on how to promote entrepreneurship; this is often coupled with the inability to engage in effective needs identification due to lack of experience. Accordingly, in order to support student-led clubs in designing and implementing a clear vision and mandates as well as effective entrepreneurship activities that meets the needs of the job market, student-led entrepreneurship clubs need to strengthen partnerships and cooperation mechanisms with external entities working on promoting entrepreneurship through adaptable and customized programs, such as E-Youth, which provide free entrepreneurship courses like, Startup Investment, Employment Promotion, and other courses such as legal issues for startups, advanced business development and others. These local entrepreneurship entities can help student-led clubs through training of trainers (ToT) programs in designing a context specific content for the sessions they provide to their delegate in order to better equip them for the needs of the job market.

- Economic Criteria:

This partnership might have a slight economic cost on the student-led clubs that should be reflected in their fundraising activities. Given the fact that due to the COVID-19 pandemic a significant portion of the fundraising is channeled towards renting off campus co-working spaces to hold recruitment interviews or hold sessions, this may put a strain on the student-led club's budget. The cost of such partnerships, however, is not expected to be grave, given the fact that most of the services provided by these local initiatives are delivered free of charge since they are sponsored by other international or national organizations that aim to promote entrepreneurship in Egypt. The university could also play a vital role in supporting forging these partnerships but covering the economic costs, but since it is not obliged to do so, there is no direct economic impact on public universities.

- Political Criteria:

The IDI conducted with local initiatives working on promoting entrepreneurship, such as E-Youth, have shown that there is a strong will on part of these initiatives to assist student-led clubs operating in Egyptian public universities to enhance their effectiveness, especially with regards to content design. This is in line with Egypt's Agenda 2030. This is also true for the student-led club's leaders. These efforts, however, have to be welcomed by the student-club's academic advisor and the university at large, which might pose a challenge.

- Administrative Criteria:

The imbedded red tape inside Egyptian public universities might impede the implementation of this policy alternative. Getting permissions to partner with these external entities might pose a challenge.

- Technical Criteria:

The technical aspects would include having the needed working spaces and devices for team meetings to brainstorm and design the content material and Training of Trainers (ToT) training for students who will be responsible for delivering the learning material to their respective club delegates. This, however, might not pose a significant challenge given that these trainings can be held virtually instead of in person.

2. Student-led entrepreneurial clubs need to integrate a strategy in their plan to further support the student projects that are developed.

- Effectiveness Criteria:

Most student-led clubs tend to not provide further support for the student-led business projects/plans beyond the ideation phase. Based on the IDIs, initiatives that stem from student-led entrepreneurship clubs usually struggle to grow and turn into an MSME. The struggle is usually due to the lack of further mentorship, providing required resources especially the fund, and support to strengthen the startup to grow and flourish. student-led entrepreneurial Accordingly, clubs need to integrate a strategy in their plan to further incubate the student projects that are developed by connecting students with relevant third parties that can support them with further incubating their projects. This in turn would enhance the effectiveness and sustainability of the student-led initiatives

operating inside Egyptian public universities. This strategy would delineate the broad statements of direction to connect and raise the awareness of the club delegates with promising business plans that appear during the idea generation phase with relevant organizations that can provide them with further support in the form of office space, education and mentorship, administrative functions access to investors and capital, such as, university business incubators (UBI) and accelerators and university business research centers.

- Economic Criteria:

The development and integration of such a strategy will not pose a significant economic burden on the student-led clubs. This, however, would reflect positively on the Egyptian economy overall, because it would have the potential of increasing the numbers of MSMEs established, which in turn would help accelerate Egypt's progress towards achieving national and international development targets. It would also have a positive impact by reducing unemployment rates among Egyptian university graduates.

- Political Criteria:

Based on the results of the IDIs, most of the entrepreneurship student-led clubs operating inside Egyptian public universities are content with focusing mainly on equipping their delegates with entrepreneurship skills, they are not enthusiastic about providing them with extra support to help them further develop their business ideas. There is no clear interest in further supporting and/or monitoring the long-term impact of the club activities beyond the ideation phase, in fact some of them view it as an added burden. This is attributed to two key aspects; first, these student-led clubs are run by students who as soon as they graduate are no longer interested in monitoring the impact of their work, rather the success of their leadership is solely measured by their ability to implement the target number of activities. Second, it would add extra work on student-led clubs to work on connecting their respective delegates with other entrepreneurship initiatives. Hence, there is a need to foster the will and incentivize student-clubs to offer further support. This challenge, however, is not as prominent when it comes to the public university and other entrepreneurship initiatives (i.e., UBI).

- Administrative Criteria:

The proposed category needs to be supported/complemented by а comprehensive coordination strategy adopted on the university level to help student-led clubs cooperate with other entrepreneurship initiatives to further support student projects. The student-led club would also offer the technical support to help develop and design this strategy, especially in the write-up phase. The current agenda of public universities to implement and achieve sustainable development makes the realization of this policy alternative more

promising. Moreover, the bureaucracy might be an administrative obstacle that hinders the policy alternative or makes it inactive.

- Technical Criteria:

There will be no need for advanced technological requirements involved in this stage other than offering physical spaces, computer labs and material for the student-led club members to design and develop the strategy. This also includes meeting rooms that would bring together student-led clubs with potential entrepreneurship entities that may support in the implementation of this strategy.

Second Category:

3. International and national donors need to channel more long-term, and sustained funds to organizations supporting student-led clubs.

- Effectiveness Criteria:

Entrepreneurship student-led clubs resort mainly to unstable fundraising activities. In fact, many student-led clubs depend on year-by-year sponsorships and some others generate fees from the members' and delegates' participation. These unstable fundingmodalitiesposeasignificantriskonthe sustainability and effectiveness of the clubs' activities and impact. Accordingly, facilitating ways to channel long-term, and sustained funds to local organizations supporting student-led clubs, such as Greenish, by international and national donors will reflect positively on the sustainability of these student-led clubs operating inside Egyptian national universities.

- Economic Criteria:

The COVID19- pandemic has put a strain on the international flow of donor funding, gradually improved. although it has Nevertheless, it has yet to return to its average rates. Moreover, given several entities responsible for promoting sustainable livelihoods were not able to meet their targets by the set deadlines due to the outbreak of the pandemic and the increased need for no-cost extensions, donors may be more reluctant now than ever to channel long-term funding because it would come with a high economic risk. Moreover, donors tend to be more inclined towards the idea of fund diversification in terms of channeling their funds to different projects instead of cascading them all in mega projects. Additionally, this policy alternative contains the downside of impeding the transformation of local initiatives' ability to adopt more self-reliant and independent business and funding models, which reflect negatively on their sustainability. Nevertheless, if this policy alternative is effectively adopted and implemented by international and national donors, this would have a positive impact on spurring cooperation and partnerships between entrepreneurship local initiatives and university students, which will promote entrepreneurship, and in turn positively impact the overall performance of the Egyptian economy.

- Political Criteria:

This policy alternative is in line with the rising will and general direction of international organizations geared towards promoting youth empowerment by fostering self-reliance through enhanced livelihoods opportunities. However, trust needs to be built between national and international donors in the ability and effectiveness of local NGOs in promoting entrepreneurship, so that they would be willing to provide long-term funding.

This will have a positive impact on the current organizations registered as local NGOs working with student-led clubs to promote entrepreneurial ecosystem in ensuring their sustainability and widening their impact. On the other hand, university presidents will likely be suspicious of NGOs that support student-led clubs which receive funds from foreign entities for security reasons and therefore may not give them the permission to operate inside the university, which in turn would have a detrimental effect on this policy alternative.

- Administrative Criteria:

Monitoring and evaluation plans and indicators as well as effective regular operational and financial/auditing reporting system need to be established. Moreover, initiatives aiming at promoting entrepreneurship need to have the authority and resources to support the implementation of long-term projects that cover the longterm funding received in terms of staff and resources. Red tape and lengthy processes of acquiring long-term funds may impede this process. Likewise, the difficult and lengthy administrative process for external entities to acquire permission to operate inside universities by partnering with studentled clubs may further act as a challenge in implementing this policy alternative. However, as previously mentioned, the student-led clubs and local initiatives aiming to promote the entrepreneurial ecosystem are characterized by a high level of adaptability in developing strategies to cope with such obstacles, which might help in operationalizing this policy alternative.

- Technical Criteria:

There will be no need for advanced technological requirements involved in this stage, other than having a well-suited physical place to have an office/place for the funding seekers, and the necessary banking requirements.

- Political Criteria:

TThis policy alternative is in line with the rising will and general direction of international organizations geared towards promoting youth empowerment by fostering self-reliance through enhanced livelihoods opportunities. However, trust needs to be built between national and international donors in the ability and effectiveness of local NGOs in promoting entrepreneurship, so that they would be willing to provide long-term funding.

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- Administrative Criteria:

Monitoring and evaluation plans and indicators as well as effective regular operational and financial/auditing reporting system need to be established. Moreover, local initiatives aiming at promoting entrepreneurship need to have the authority and resources to support the implementation of long-term projects that cover the longterm funding received in terms of staff and resources. Red tape and lengthy processes of acquiring long-term funds may impede this process. Likewise, the difficult and lengthy administrative process for external entities to acquire permission to operate inside universities by partnering with studentled clubs may further act as a challenge in implementing this policy alternative. However, as previously mentioned, the

student-led clubs and local initiatives aiming to promote the entrepreneurial ecosystem are characterized by a high level of adaptability in developing strategies to cope with such obstacles, which might help in operationalizing this policy alternative.

- Technical Criteria:

There will be no need for advanced technological requirements involved in this stage, other than having a well-suited physical place to have an office/place for the funding seekers, and the necessary banking requirements.

4. Fostering association between external national and international organizations and student-led clubs to provide mentorship, incubation, growth, and acceleration to initiated entrepreneurship startups and ideas from them.

- Effectiveness Criteria:

This policy alternative would address directly the main issue tackled in the problem statement. Based on the IDIs, the major problem that is faced by startups and projects from student-led entrepreneurship clubs is lack of fund and further incubation, proper growth, and acceleration. They usually seek these services after the ideation process to start their startups and/or help them to overcome their encountered obstacles. Moreover, nearly very few to almost zero organizations can currently provide these services, and even if they are available, they merely provide services for the projects formulated under their umbrella. Hence, undergraduate students need experts, mentors, and funds to pursue their entrepreneurial projects and startups to turn them into established SMEs. Therefore, Egyptian public universities need to foster the association between external national and international organizations which can offer these services and student-led clubs.

- Economic Criteria:

Fostering such an association has a direct and indirect economic impact. The direct impact is that it would not be costly for the Egyptian public universities. On the contrary, it would benefit these universities to have a ratio from the generated revenues as one of the agreed terms, so it would go to their treasuries and help them in other activities. On the other hand, the established startups that turned into SMEs would be assets in the Egyptian economy and spur progress towards the realization of Egypt's national development targets and UN Agenda 2030. Moreover, there will be the indirect economic impact. The national, external, and international partners would also cover their costs by negotiating their terms of association with student-led clubs and the universities for managing the revenues or covering the cost.

- Political Criteria:

The current political agenda might put such associations under the microscope but an explicitly stated political will to encourage the universities and their students to start their business and create job self-employment opportunities would assist in overcoming the aforementioned challenge. Thus, although these policy categorizations may be difficult to establish at first, once the outcomes of increased MSMEs materialize, and this would facilitate the realization of these policy recommendations.

- Administrative Criteria:

The bureaucracy of paperwork and red tape inside Egyptian public universities might hinder the implementation of the policy alternative, as well as impede its effectiveness. Getting permissions might pose a challenge, but the bigger challenge would be explaining the new process to the student affairs offices who would be responsible for handling relevant the paperwork and files.

- Technical Criteria:

There will be no need for advanced technological requirements involved in this stage, rather than offering a baseline of computer labs and providing a physical place for the services seekers.

Third Category:

5.Integrating a model/strategy for coordinating entrepreneurial activities at all levels across universities and student-led activities.

- Effectiveness Criteria:

Fostering such an association has a direct and indirect economic impact. The direct impact is that it would not be costly for the Egyptian public universities. On the contrary, it would benefit these universities to have a ratio from the generated revenues as one of the agreed terms, so it would go to their treasuries and help them in other activities. On the other hand, the established startups that turned into SMEs would be assets in the Egyptian economy and spur progress towards the realization of Egypt's national development targets and UN Agenda 2030. Moreover, there will be the indirect economic impact. The national, external, and international partners would also cover their costs by negotiating their terms of association with student-led clubs and the universities for managing the revenues or covering the cost.

- Economic Criteria:

The integration itself would provide the chances for the student-led activities to collaborate for advancing their projects when they seek out the missing services inside their entities from somewhere else inside the university, which might cost less than seeking the same service from external entities outside the campus. The cost of the integration model itself would not be expensive compared to its valuable economic outcomes, especially that the implementation would be reliable on the resources available inside the campus. Moreover, the integration strategy for all the entrepreneurial activities across the Egyptian public universities would give a realistic overview of the status of the entrepreneurial eco-system inside the Egyptian public universities. Hence, it will help governmental and non-governmental organizations have the data for any upcoming decisions/policies that intend to promote for entrepreneurship and its role in the Egyptian economy.

- Political Criteria:

The policy alternative is acceptable and appropriate and fit the ongoing agenda of Egyptian public universities to pursue entrepreneurship and its activities inside their campuses. In addition, there is no legal impediment to implement such a model to integrate all of the entrepreneurial activities inside the campus. Also, there is a great possibility that the response of the universities and faculties would be high as it would act in their favor to place the university's rank higher for its extracurricular activities represented in the entrepreneurial activities. However, the student-led clubs might be unresponsive to this policy due to their sense of competition between each other and their constant urge to be prevailed; or they would be responsive in manner of showing their strengths and achievements rather than seeking collaboration and cultivating efforts.

- Administrative Criteria:

The proposed category has the authority and resources to support this alternative and implement it in terms of staff and resources. In addition, the current agenda of public universities to implement and achieve sustainable development would increase its possibility to be supported and ensure their commitment in its implementation until 2030. However, if the agenda changes, there is a great possibility that the policy will not have the same enthusiasm for it. and eventually would be discarded and/or neglected. Moreover, the bureaucracy might be an administrative obstacle that hinders the policy alternative or makes it inactive. However, if the will is available and presented, then it would be executed.

- Technical Criteria:

The technical aspects would include having the needed devices to organize, coordinate and document the entrepreneurial activities inside the Egyptian public universities such as computers. It would also be better if there is a webpage in the university's official website dedicated for this integration.

6. Amend policy no. 23 for 2018 for science and technology parks, labs, and innovative incubators to include the student-led entrepreneurship clubs inside Egyptian public universities.

- Effectiveness Criteria:

This policy alternative aims to enable student-led clubs to act as both commercial and academic entities. Hence, it would solve the financial and logistic problems for the student-led clubs to act as semi-independent organizations that can collaborate with external organizations, whether national or international, in multiple ways for events, activities, and funds. On the other hand, it would enable them to seek partnerships with experts and corporations to help the initiated startups by the students to have further mentorship and acceleration so they would have a better chance to turn into established SMEs. Therefore, it will enable the student-led clubs to transcend into fully functioning entities that can formulate deals and collaborations that serve their vision and mission and fulfill their entrepreneurship potentials.

- Economic Criteria:

The Supreme Council of Universities and Egyptian public universities would not endure any extra costs unless for offering a physical place for the student-led entrepreneurship clubs to act as their office/center to run their activities. Moreover, this alternative would generate revenue for the universities with functioning student-led clubs under its umbrella based on its potential in advancing the initiated startups by the students into established SMEs. Hence, it would economically be beneficial in the long run for Egypt.

- Political Criteria:

The policy alternative might raise some concerns as the officials could prefer avoiding adding student-led clubs to policy no. 23 for 2018 to avoid the speculations of having undergraduate students profiting illegally or unprofessionally from the club or wasting money without using it properly. Hence, the acceptability, appropriateness and responsiveness of the alternative might be low for the decision makers despite its legality due to having similar situations in universities' incubators (e.g., iHub). However, restrictions and regulations are recommended to be included within the alternative such as proposing extra eligible criteria for student-led clubs that would classify them into who is worthy to be included based on their potential to provide an impact. Also, it is recommended to have extra supervision from the universities and/ or faculty boards on the financial agreements for these student-led clubs under this policy alternative to avoid individual financial gains from the students yet leaving them a window of freedom to guide the money for their club's needs.

- Administrative Criteria:

The Supreme Council of Universities and Egyptian public universities must refer to the Ministry of Higher Education and Scientific Research to admit the policy to the parliament to be discussed and approved. The specified category by this policy alternative has the power to pressure for considering it and shedding the light on its importance in fostering the efforts of the student-led clubs inside the Egyptian public universities as a long-term sustainable solution to solidify the Egyptian economy through creating startups that can develop into SMEs and enhancing the students' entrepreneurial skills for better employability.

- Technical Criteria:

The technical aspects would include having computers and/or laptops and other equipment such as projectors to carry on the work of the student-led clubs, their meetings, and presentations.

7. Fostering association between academia and student-led clubs to put on content that bridges the gaps between the academia and labor market and at the same time to provide valuable content for the delegates inside the clubs.

- Economic Criteria:

This policy alternative would improve the provided content inside the student-led entrepreneurship clubs so it would help them have a better and efficient framework to start in their pursuit in the entrepreneurship field. On the other hand, the alternative helps in bridging the considered gap between academia and labor market and participation of academia in the entrepreneurship field through collaborating in student-led clubs in such a manner to elevate their provided content to be more sophisticated, correct and meet the students' needs. The collaboration would help the students who are in charge of designing the content to create more comprehensive and specific learning objectives, design activities and collect data that would achieve their mission and have an impact on entrepreneurship in Egypt.

However, one of the downsides could be that academics might not accept the idea of 'contributing' rather than managing or directing the content path and eliminating the students' involvement in creating the content or deciding its approach. Consequently, it might eliminate the creative touch of the students and their input that is related to what they want to learn and skills to gain.

Hence, the situation could go back to square one, and instead of bridging the gap, it would only widen.

- Economic Criteria:

Some academics will not be interested to get involved unless there are financial incentives or rewards, as they already have a lot on their plates inside public universities. Hence, any financial rewards would be an obstacle as Egyptian public universities and studentled entrepreneurship clubs have neither flexible nor enough budget for such an option. Moreover, the economic impact of their involvement would be a long term to be measured, and some of them might be interested only in monetary gain.

- Technical Criteria:

There are no sophisticated technological device and software involved in this alternative other than computers or laptops to carry on the execution. However, the technicalities of designing and developing content would be the involved technical aspect, as not all academics can weigh in equally in such a matter with students-led entrepreneurship clubs. Hence, the ones who can provide the service from the academic side might not be free to do so. On the other hand, students who are responsible for the content might not have the necessary background to keep up with the academics. So, the differences between their technical background might be an obstacle.

- Political Criteria:

The policy alternative is acceptable and appropriate to a great extent for both parties: academic faculty and student-led entrepreneurship clubs. It might be praised as it checks many boxes for the requirements of quality assurance and accreditation of education when it comes to academia helping students to fulfill their goals in many aspects not only academically. Also, the academic staff should contribute in developing the society socially, economically, and culturally through different activities and studentled clubs could be one of the ways to do it. Moreover, there are no legalities to hinder implementing this alternative. However, the response might not be as big as hoped because academics might not be convinced with the importance of these clubs or join them to fill in papers of quality assurance and accreditation of education for their own favor. On the other hand, student-led clubs might not be interested in such a collaboration because they created these clubs to fill the gap that they have faced inside the lectures and faculties. So, the idea might be deemed worthless or an infinite loop from what they are trying to escape.

- Administrative Criteria:

The proposed category has the authority and resources to support this alternative and it is easy to be implemented in terms of staff and skills. In addition, the current agenda of public universities to implement and achieve sustainable development would increase its possibility to be supported and ensure their commitment in its implementation until 2030. However, if the agenda changes, there is a great possibility that the policy will not have the same enthusiasm for it, and eventually would be discarded and/or neglected.

VI. Implementation and Implementing Parties (Action Plan)

The proposed policy alternatives have common implementing parties except for one alternative that needs advocacy before implementing it.

These policy alternatives would be addressed to the Supreme Council of Universities, the presidents of Egyptian Public Universities and their vices for student affairs; deans of faculties and their vices for student affairs where student-led entrepreneurship clubs exist; entrepreneurs; external international and national entities that work on promoting entrepreneurship ecosystem, such as UN organizations, GIZ, ILO, USAID, E-Youth, Greenish; interested organizations and student-led and entrepreneurs; and entrepreneurship clubs leaders, directors, and their academic advisors.

The second policy alternative (amend policy 23 for 2018) in the second priority category would be addressed first to the Supreme Council of Universities, the Ministry of Higher Education and Scientific Research to propose the amendment to the Egyptian Parliament to have the alternative discussed and approved in order to implement it.

VII. Conclusions and Recommendations

The decision rule is to recommend the seven policy alternatives that would effectively address on multi-levels the current situation of the student-led entrepreneurship clubs inside public Egyptian universities through enhancing their efforts and activities to have impactful outcomes.

The ideal situation is to have student-led entrepreneurship clubs that can produce both tangible (startups and entrepreneurship ideas) and intangible (entrepreneurial skills for students and enhance their employability rate) outcomes that enhance the Egyptian economy, promote self-employment, and accelerate progress towards achieving national and international development targets. To achieve this hoped-for situation, the seven policy alternatives that have been proposed earlier in this policy paper would be implemented through a proposed timeline based on their ability to be executed to gradually. The timeline of implementing the proposed alternative shows the top effective alternatives that can be executed immediately, then alternatives that can be executed at a later stage and then alternatives that would support in creating the optimum situation to foster the student-led entrepreneurship clubs and their activities to reach their fully hoped potential.

Effectiveness, political and then economic criteria were the main criteria that have been taken in consideration accordingly for arranging the policy alternatives in the below timeline then administrative and technical criteria in a manner that addresses the problem statement.

The policy paper team recommends the following timeline based on the convenience of the recommendations to be executed:

A tentative outline for the recommended execution:

• The policy recommendation:

Strengthening partnerships and cooperation mechanisms with external entities working on promoting an entrepreneurship ecosystem.

• The relevant main players:

Entrepreneurial student-led clubs inside Egyptian public universities (the responsible academic councilor/coordinator and the leader of the club).

Local Egyptian entities specialized in entreprenuership that are external in terms of operating outside the Egyptian public universities campuses (e.g., E-Youth, Greenish).

The Supreme Council of Universities. Egyptian Universities Faculties (deans and heads of student affairs). Mediating organizations (e.g., Oxfam).

The stakeholders:

Student-led clubs and undergraduate students Egyptian universities and faculties Local Egyptian entities specialized in entreprenuership

A guideline for steps to take:

Realistically, the first step that Oxfam should take in case of implementing this policy recommendation is to reach out for the academic councilors/coordinators and the leaders of entrepreneurship student-led clubs to ensure their approved willingness to partake in the proposed collaboration of the recommended policy.

VII. Conclusions and Recommendations

Top Priority

- Strengthening partnerships and cooperation mechanisms with external entities working on promoting the entrepreneurship ecosystem.
- Fostering the association between academia and student led clubs to put on content that bridges the gap between the academia and labor market and at the same time to provide valuable content for the delegates inside the clubs.
- Integrating a model/strategy for coordinating entrepreneurial activities at all levels across universities and student led activities

Second Priority

- Fostering the association between external national and international organizations and student led clubs to provide mentorship, incubation, growth and acceleration to initiated entrepreneurship startups and ideas from them.
- Amending law no. 23 for 2018 for science and technology parks, labs, and innovative incubators to include among them the student led entrepreneurship clubs inside Egyptian public universities.

Third Priority

- Student led entrepreneurship clubs need to integrate a strategy in their plan to further incubate the student projects that are developed.
- International and national donors need to channel more long term, and renewal sustained funds to organizations supporting student led clubs.

Second, Oxfam could implement the recommended policy through approaching the entrepreneurial student-led clubs inside public universities to persuade them to seek local Egyptian entities specialized in entreprenuership or through approaching these local external entities (e.g., E-Youth or Greenish) to collaborate with entrepreneurial student-led clubs in the following aspects:

- 1. Designing a clear vision and mandates for the entrepreneurial student-led clubs.
- 2. Engaging in effective needs identification for the provided entrepreneurship activities inside the clubs that meet the needs of the job market.
- 3. Offering/ providing adaptable and customized entrepreneurship courses like startup investment, employment promotion, and other relative courses such as legal for startups, advanced business development.

4. Providing TOT programs in planning and delivering the sessions that interpret/deliver the entrepreneurship courses learning objectives to better equip the enrolled students for the needs of the job market.

Thirdly, after securing the collaboration between the entrepreneurship student-led clubs and the local entities, Oxfam should seek the assigned/responsible academic councilor/coordinator of the entrepreneurial student-led club to check the needed regulations of approval for such collaboration. The process of approval would include the approval from the faculty's head of student affairs and the dean.

After the approval, the local entities and student-led clubs will start working together. In this step, a supervision is required from Oxfam along with the academic councilor/coordinator to ensure the facilitation of the collaboration to obtain and document its foreseen outcomes.

VIII. Limitations and Expected Obstacles

- Expected barriers:
- Faculties might hinder the approving process until they verify the local external organizations and their agenda for security purposes.
- Local external organizations might not be willing to collaborate without having a direct expected monetary outcome/ financial benefit to cover the costs of providing the previously mentioned services for entrepreneurial student-led clubs.
- Securing a fund to cover the costs of providing these services could be an obstacle, as it will mean a fourth party to join the collaboration in which may result in complicating the approval process and the collaboration itself. Hence, it will be better if there is a possibility for Oxfam to provide the financial aspect of the collaboration. Another possible solution could be including/ placing the collaboration under the umbrella of CSR for the local entities, which will result in tax deduction as a financial compensation in return of the collaboration.

Lack of coordination

The recommended policy alternatives require a high level of coordination within the implementing parties. The coordination itself could be a challenge due to the complex and lengthily bureaucratic system inside the Egyptian public universities which requires a lot of paperwork from the different external entities and organizations, and leaders of student-led entrepreneurship clubs and their advisors. The challenge could come also from the student affairs officers who handle the paperwork if they are not comprehending the essence of these student-led clubs, their specific proposed policies that need to be implemented and the parties that they need to address to keep the cycle going on. Most likely, they would need specific training and

supervising to make sure that everything is on track.

No direct monetary incentives

There are no direct tangible monetary incentives for the parties involved in the academic part starting from the Supreme Council of Universities ending with the academic advisors for the student-led entrepreneurship clubs. The proposed policy alternatives may be considered as extra work without the possibility of being compensated monetarily for it, which might affect their interest in being a part of the implementing parties.

The uncertainty of approval and its duration on part of the Egyptian Parliament:

Proposing a policy to be amended to include student-led entrepreneurship clubs by the Egyptian Parliament would require a huge amount of mobilization to consider the topic and accept to debate about it inside its committees. Although the possibility of mobilization is ensured to happen, the approval of the Egyptian Parliament is not. One of the possible reasons for rejection would be the fear of having undergraduate students who can have direct access to large sums of money through deals and collaborations with external entities and organizations through funds, grants, and investments. Strict supervision from multiple parties could be proposed as guarantees to direct the money to its intended purposes. Moreover, the process itself for considering the amendment, discussing it, and reaching the final resolution is also uncertain time wise. There is no fixed timeframe to rely on to know when the policy amendment would be approved or not.

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Appendix 1: The interviewed stakeholders

COMET:

COMET is a student-led club in Faculty of Commerce, English Section, at Cairo University. It stands for Conference on Marketing, Economics, and Trade. It was founded in 2003 to bridge the gap between academic studies and practical life after graduation and provide students with the needed skills and knowledge to enter the labor market in Egypt. COMET has several academic councils, such as auditing, marketing, stock market and entrepreneurship. The entrepreneurship committee was founded in 2007 as a response to the rise of entrepreneurship. Facebook Page: https://www.facebook.com/COMET.cu/

PhAI:

PhAI is a student-led activity (club) in Faculty of Pharmacy at Cairo University. It stands for Pharmaceutical Association for Investment. It was founded in 2008 to develop the skills and knowledge of the students in the business and investment fields to increase their employability and their chances to start their own investments.

Facebook Page: https://www.facebook.com/phai.cu/

Greenish:

Greenish is an Egyptian foundation (NGO) founded in 2017. Based on its website, it aims to "raise awareness about the environmental issues facing Egyptian local communities." Greenish collaborates with student-led clubs inside public universities to spread its idea through multiple ways such as "art, capacity building and awareness campaigns." Although entrepreneurship is not explicitly mentioned, Greenish aims to initiate entrepreneurial projects that aim at solving environmental issues in extraordinary ways. It also provides trainings and events in different aspects of business and entrepreneurship to their partners from student-led clubs.

Website: https://www.green-ish.org/en

Appendix 1: The interviewed stakeholders

Enactus:

Enactus was previously SIFE (Students in Free Enterprise) and changed into Enactus (Entrepreneurial Action Us) to present its core value, which is "using entrepreneurial actions as catalyst for progress." It was founded in 1975. Enactus has a long outstanding relationship with the Egyptian universities, both public and private, as a student-led organization that promotes for entrepreneurship through creating projects that serve the local communities of Egypt. Although there were some turbulences in its relationship with the Egyptian universities at some point, Enactus continues to serve its purpose and strengthening its relationship with the Egyptian universities. Egypt won Enactus world cup three times in a row, in 2019, 2020, and 2021.

Website: https://enactusegypt.org/

E-Youth:

E-Youthwas established in 2016 as a social enterprise that aims to empower Egyptian youth through educating, training, and connecting them with suitable resources in the field of Entrepreneurship, Employability and Personal Development. They offer training, mentorship, coaching, and project management services and offers networking events.

Website: https://www.eyouthegypt.com/

IEEE:

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. It aims to foster technological innovation and excellence for the benefit of humanity. IEEE offers a number of ways to get involved with technical and local communities. These communities are active participants in research and authorship, conferences, and important conversations about today's most relevant technical topics locally and globally. Website: https://www.ieee.org/about/vision-mission.html

The ASU Innovation Hub (iHub):

iHub was Launched in June 2015, it serves as a resource for students from across ASU interested in entrepreneurship and innovation. The offered extracurricular programs offered by the iHub are designed to help students think, innovate and build. The iHub resources provide the required support for students and graduates to grow their skills, ideas, and ventures at any stage of development and covers a wide range of disciplines.

Website: http://ihub.asu.edu.eg/

Appendix 2: Law no. 23 for 2018

الجريـدة الرســمية – العــدد ١٦ مكــرر (أ) -الســنة الحاديـة والســتون ٥ شــعبان ســنة ١٣٤هــ، الموافــق ٢١ أبريــل ســنة ٢٠١٨م

قانون رقم ۲۳ لسنة ۲۰۱۸ بإصدار قانون حوافز العلوم والتكنولوجيا والابتكار

باسم الشعب رئيس الجمهورية قرر مجلس النواب القانون الآتى نصه، وقد أصدرناه:

(المادة الأولى)

يُعمل بأحكام هذا القانون في شأن حوافز العلوم والتكنولوجيا والابتكار، وتسرى أحكامه على هيئات التعليم العالى والبحث العلمي المشار إليها في المادة (١) منه.

(المادة الثانية)

لا تخل أحكام القانون المرافق بأى مزايا أو إعفاءات ضريبية أو غيرها من الضمانات والحوافز المقررة لهيئات التعليم العالى والبحث العلمى أو الشركات التى تؤسسها بمفردها أو بالاشتراك مع الغير وفقًا للقانون المشار إليه.

(المادة الثالثة)

يصدر رئيس مجلس الوزراء اللائحة التنفيذية للقانون المرافق خلال ثلاثة أشهر من تاريخ العمل به.

(المادة الرابعة)

ينشر هذا القانون فى الجريدة الرسمية، ويعمل به من اليوم التالى لتاريخ نشره. يبصم هذا القانون بخاتم الدولة، وينفذ كقانون من قوانينها.

صدر برئاسة الجمهورية في ٥ شعبان سنة ١٤٣٩هـ (الموافق ٢١ أبريل سنة ٢٠١٨م).

عبد الفتاح السيسي

Appendix 2: Law no. 23 for 2018

قانون حوافز العلوم والتكنولوجيا والابتكار

مادة (۱)؛

في تطبيق أحكام هذا القانون، يقصد بالكلمات والعبارات التالية المعنى المبين قرين كل منها:

- (أ) هيئات التعليم العالى والبحث العلمى: الجامعات الحكومية، والأهلية، والمراكز والهيئات والمعاهد البحثية التابعة للوزارات المختلفة.
 - (ب) الوزير المختص: الوزير الذي يتولى الإشراف على الجامعة، أو المركز، أو الهيئة، أو المعهد البحثي.
 - (جـ) السلطة العلمية المختصة؛ مجلس الجامعة، أو مجلس إدارة المركز أو الهيئة أو المعهد البحثي.
- (د) مشروعات البحث العلمى أو التطوير: المشروعات التى تهدف إلى ابتكار أو تطوير تطبيقات جديدة من المعارف أو الخدمات، وتتطلب الحصول على موافقة السلطة العلمية المختصة.
- (هـ) أودية العلوم ولتكنولوجيا: مناطق تنشأ فيها حاضنات تكنولوجية وشركات، تهدف إلى تعزيز الابتكار وتطوير التكنولوجيا، ونقلها، وتسويقها بالتعاون بين الجهات المعنية المحلية والدولية، وذلك لدعم الاقتصاد المبنى على المعرفة، وللوصول إلى منتجات محلية الصنع.
 - (و) الحاضنات التكنولوجية: المعامل والكيانات الداعمة للبحث العلمى والابتكار التى تنشأ بغرض تقديم خدمات الأعمال والتسهيلات الفنية والعلمية لمشروعات البحث العلمى وآليات المساندة والاستشارات الفنية للمبتكرين والشركات الناشئة من خلال مخرجات البحث العلمى، للوصول إلى نماذج أولية قابلة للتصنيع.
 - (ز) مخرجات البحث العلمى: المعارف الفنية، أو الملكية الفكرية، أو براءات الاختراع، أو النماذج الصناعية، أو نتائج البحوث والخدمات أو الخدمات المبنية على الابتكار.

مادة (۲)؛

لهيئات التعليم العالى والبحث العلمى إنشاء أودية للعلوم والتكنولوجيا وحاضنات تكنولوجية بقرار من الوزير المختص بعد موافقة السلطة العلمية المختصة. وتبين اللائحة التنفيذية لهذا القانون ضوابط وإجراءات إنشائها، وتنظيم عملها وإدارتها.

مادة (۳)؛

لهيئات التعليم العالى والبحث العلمى منفردة أو بالاشتراك مع الغير استغلال البحوث العلمية للنهوض بالمجتمع وتوفير موارد ذاتية لها للنهوض بأغراضها في مجالات البحث العلمى والتنمية وخدمة المجتمع، وذلك على النحو الذى تبينه اللائحة التنفيذية لهذا القانون، دون الإخلال بأحكام قانون حماية حقوق الملكية الفكرية الصادر بالقانون رقم ٨٢ لسنة ٢٠٠٢

مادة (٤)؛

لهيئات التعليم العالى والبحث العلمى تأسيس شركات بمفردها أو بالاشتراك مع الغير فى مجال تخصصها البحثى بهدف استغلال مخرجات البحث العلمى، وللسلطة العلمية المختصة الموافقة على اشتراك الباحثين فى تلك الشركات بنسبة تحددها، وذلك مقابل استخدام مخرجات البحث العلمى والتطوير التي تقوم الشركة باستخدامها أو استغلالها. ولا يجوز للشركات المنشأة طبقًا لأحكام هذا القانون أن تجرى تصرفًا من شأنه المساس بحصة هيئات التعليم العالى والبحث العلمى فى رأسمال الشركة إلا بعد موافقة الوزير المختص.

وتحدد اللائحة التنفيذية لهذا القانون القواعد والشروط والإجراءات اللازمة لذلك، بما لا يتعارض مع مقتضيات الأمن القومى.

مادة (٥)؛

لهيئات التعليم العالى والبحث العلمى أن تجرى جميع التصرفات التى من شأنها تحقيق الغرض الذى أنشئت من أجله. ولها فى سبيل ذلك التعاقد بالأمر المباشر مع الأشخاص والشركات والمصارف والهيئات المحلية والأجنبية وجميع الجهات المعنية بتدبير الاحتياجات اللازمة للمشروعات البحثية، دون التقيد بالقوانين أو اللوائح أو القرارات الحكومية المعمول بها فى هذا الشأن.

مادة (٦):

لا تخل أحكام هذا القانون بأحكام القوانين والقرارات المنظمة لموارد هيئات التعليم العالى والبحث العلمى التى يدخل ضمن مواردها عائد استغلال مخرجات البحث العلمى.

Appendix 2: Law no. 23 for 2018

قانون حوافز العلوم والتكنولوجيا والابتكار

مادة (V):

تعفى هيئات التعليم العالى والبحث العلمى من أداء الرسوم الجمركية والضرائب بما فيها الضريبة على القيمة المضافة وذلك على الأدوات والأجهزة والمواد المستوردة اللازمة للمشروعات البحثية. ويشترط لمنح الإعفاء المشار إليه أن تقدم الهيئات المذكورة إقرارًا يفيد بأن هذه السلع والأدوات والأجهزة لازمة لتنفيذ مشروعاتها الىحثىة.

ويكون الإعفاء بالاتفاق بين الوزير المختص ووزير المالية، على أن يبدى وزير المالية رأيه خلال ثلاثين يومًا من تاريخ إرسال الأوراق إليه، ويعتبر مضى هذه المدة دون رد منه بمثابة الموافقة. ومع عدم الإخلال بأى عقوبات مقررة فى هذا الشأن، تستحق الضرائب والرسوم على السلع المعفاة إذا تم التصرف فيها للغير خلال خمس سنوات من تاريخ تمتعها بالإعفاء.

مادة (۸):

مع عدم الإخلال بمقتضيات الأمن القومى للبلاد، يكون للشركات الحق فى تمويل مشروعات البحث العلمى التى تتم الموافقة عليها من السلطة العلمية المختصة، ويُحسب هذا التمويل ضمن مصروفات وتكاليف تلك الشركات عند حساب الوعاء الضريبى لضريبة الأرباح الصناعية والتجارية، وللأفراد كذلك تمويل هذه المشروعات ويُخصم هذا التمويل من صافى الإيرادات الخاضعة للضريبة على الدخل.

مادة (۹):

تُعفى مكافآت الفرق البحثية لمشروعات البحث العلمى والتطوير التى تتم الموافقة من منح خارجية وفقًا للقواعد المعمول بها فى هذا الشأن.

THE PUBLIC POLICY HUB

Where Rigour Meets Creativity

The Public Policy HUB is an initiative that was developed at the School of Global Affairs and Public Policy (GAPP) in October 2017. It was designed to fill in the policy research gap in Egypt. It provides the mechanism by which the good ideas, plausible answers, and meaningful solutions to Egypt's chronic and acute policy dilemmas that are proposed by the country's best minds, the experienced and the creative from different age brackets, can be nurtured, discussed, debated, refined, tested and presented to policymakers in a format that is systematic, highly-visible and most likely to have a lasting impact.

It is designed to develop a cadre of well-informed and seasoned policy developers and advocates, while simultaneously fostering and promoting creative solutions to the challenges facing Egypt today. The project provides a processing unit or hub where policy teams are formed on a regular basis, combining experienced policy scholars/mentors with young creative policy analysts, provide them with the needed resources, training, exposure, space, tools, networks, knowledge and contacts to enable them to come up with sound, rigorous and yet creative policy solutions that have a greater potential to be effectively advocated and communicated to the relevant policymakers and to the general public.

Since its establishment, the Public Policy HUB has been supported by Carnegie Corporation of New York, UNICEF Egypt, and Oxfam. The Hub had partnerships with different ministries and governmental institutions like the Ministry of Social Solidarity, Ministry of Planning, Ministry of Health, Ministry of Trade and Industry, Ministry of Local Development, Ministry of Education, Ministry of Environment, National Council for Childhood and Motherhood, National Population Council, and General Authority For Transportation Projects Planning.

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