



Using Development Economics to Respond to the COVID-19 Pandemic: The Potential of Education and Enterprise Projects in Dar es Salaam

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The CDI Research paper series has brought together students to produce collaborative, peer-reviewed and cross-disciplinary research focused on practical issues affecting vulnerable communities in Dar es Salaam. This series would not have been possible without the efforts of the volunteer student researchers and staff at CDI who have worked tirelessly during their academic year to produce these papers. Additional thanks must also go to the academics and alumni of the University of Cambridge who provided their expertise in the reviewing process, and also to CDI's partners at Kite Dar Es Salaam for their support throughout.

FELICITY GARVEY

Student Innovation and Research Director

This research paper has been produced by the Development Economics research working group to support the future development of CDI projects.

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Executive Summary

This paper aims to investigate the economic relationship between the COVID-19 pandemic and education and enterprise in Tanzania, with the purpose of informing future projects for the Cambridge Development Initiative (CDI). Preliminary secondary research indicated that the education and enterprise sectors were most affected by the pandemic, and in distinct ways. Thus, this report focuses on these two sectors individually.

This paper identified the following key challenges in the area of education:

- Negative effects on students' wellbeing and mental health, with impacts on educational attainment and performance, as well as long-term productivity.
- Pupils are more likely to leave school early due to the pandemic, as returns to secondary school are low and underestimated by students and parents.
- There is high decentralisation and little coordination between schools and stakeholders. This, combined with a dearth in teaching quality, has led to incredibly varied levels of academic achievement across the country.
- COVID-19 exacerbates pre-existing inequalities, as different schools have different levels of capacity to use ICT to provide support for at-home learning. Students from lower-income backgrounds are more likely to be at risk of child labour or at-home violence during long-term periods of disengagement in education.

With respect to enterprise and employment, the following key issues were identified:

- Current problems for small and medium enterprises (SMEs) include declining revenues, supply chain shocks and logistical blocks, declining consumer demand, restricted access to customers and suppliers, uncertainty, and lack of liquidity.
- The causes for these issues include limited access to financial services, high default rates, restricted access to collateral, and a low level of general and business education, including poor financial literacy skills.
- These issues are compounded by limited access to professional business development services (BDS).
- Dar es Salaam has especially high rates of informal and unprotected employment.

In light of the above findings, we propose three possible projects for CDI to develop:

1. An Education Resource Contributory Platform (ERCP), which aims to address the need for improvement in teaching ability, resources and greater coordination in teaching and curriculum implementation. The platform would allow teachers to post content such as lesson plans, worksheets and digital learning activities.
2. An After-school Development Programme, which addresses the need for additional support for students, peer-to-peer learning, the improvement of parental support practices, and imparting the positive effects of education. This would support students and parents, and collaborate with alumni, and local NGOs to encourage students to continue their education for as long as possible.
3. An E-Learning and Business Advisory Hub, aimed at strengthening the performance and capabilities of young SME owners by addressing the need for financial literacy skills, essential business training, and enterprise development services, thus providing much-needed, accessible business development services to ensure the sustainability and growth of the SMEs sector post-pandemic.

Table of Contents

Executive Summary.....	2
Table of Contents.....	3
1. Introduction.....	4
2. Identifying the Problems and their Causes.....	7
2.1 Education.....	7
2.2 Entrepreneurship.....	12
3. Proposed Solutions for Action by CDI.....	17
3.1 Education Resource Contributory Platform (ERCP).....	17
3.2 Afterschool Development Programme in Collaboration with KITE.....	20
3.3 E-Learning and Business Advisory Hub.....	22
4. Conclusions.....	25
References.....	26

1. Introduction

As one of the largest economic shocks of the past century, the COVID-19 pandemic has taken a toll on the global economy. A year into the crisis, while more economically developed nations have been able to invest in health and fiscal policies to ensure a relatively rapid recovery, less economically developed countries have been hindered by pre-existing economic and infrastructural challenges. Countries in East Africa have been particularly affected by the pandemic, due to their characteristically “larger informal sectors, weaker health systems and generally lower capacity governance systems” (World Bank, 2020a). In addition to this, lockdowns are often deemed to be too expensive and governments lack the necessary resources to effectively handle the impacts of the pandemic. Therefore, the economic impacts are considerable and likely to last for a long time after the end of the pandemic is declared.

There have been 509 reported cases of COVID-19 in Tanzania with 21 reported deaths (WHO, 2021), however no information has been released by the government since May 2020 when President John Magufuli announced that coronavirus had been defeated by prayer (Mwakideu, 2021). According to the Oxford Stringency Index, the government of Tanzania has adopted the world’s most lenient policy measures in response to the pandemic (Hale et al., 2021) and due to the denial of the pandemic, the data is unreliable. In macroeconomic terms, Tanzania’s economy grew by 6.3% in 2019 and was forecasted to grow by 5.3% in 2020; the adjusted forecasted growth for 2020 in light of the pandemic was, however, only 2.0% (Deloitte, 2020). Key sectors, including tourism, construction, and agriculture were all negatively affected by the pandemic, with the latter suffering a growth reduction of 2%, and millions of job losses (ibid.). The disruption in global supply chains has halted investments in infrastructure and the development of important projects such as the expansion of energy infrastructure and the Isaka-Kigali Standard Gauge Railway project between Tanzania and Rwanda. Economically, the pandemic is predicted to have greater consequences due to these indirect impacts on industry and labour, rather than due to direct health effects (Keogh-Brown et al., 2020).

This report focuses largely on the microeconomic dimension and focuses on two areas of the economy that the pandemic has significantly affected and that are likely to be at the centre of the recovery: education and enterprise. The COVID-19 crisis has highlighted pre-existing issues in education, including barriers to participation in secondary education, the lack of coordination among schools, and the role that education plays in exacerbating socio-economic inequalities, as some students’ education is more affected by the pandemic than others. Nonetheless, as there has been much discussion in the academic literature about the importance of continuing education during the pandemic and beyond (Todd, 2020; Msigwa, 2020) and the ways in which this can be done, it appears that educational reform is likely to be an important part of both the recovery after the pandemic and future development policy. This is needed to ensure that future shocks and crises do not disrupt education in the same way that COVID-19 has. Moreover, in terms of the role of enterprise, although the pandemic has presented some unpredictable challenges for which few firms could have been prepared, it has also clearly highlighted the type of support and guidance that they need, during the crisis, but also to be sustainable in the long run. Harnessing the potential of successful small and medium

enterprises is essential in the process of generating and formalising employment, which is a crucial part of ensuring decent work and economic growth.

The report is organised as follows: Section 1 introduces the research; Section 2 identifies the education- and enterprise-related problems and their causes; Section 3 presents the evidence-based solutions that we propose for CDI; and Section 4 concludes.

Section 2.1 focuses specifically on educational access and attainment. Although Tanzania has seen progress in expanding access to education, COVID-19 has highlighted several challenges. Firstly, the pandemic accelerated the importance of ensuring equality in educational technologies; secondly, students' wellbeing and mental health have been negatively impacted, with effects on educational attainment and performance, as well as long-term productivity; and thirdly, the pandemic increased the likelihood of school dropouts. Alongside COVID-19, other underlying limitations include poor infrastructure, cultural norms, early marriage, teenage pregnancy, the low rate of returns to education and the even lower perceived benefits.

A second set of challenges includes the minimal coordination among schools and the decentralisation of decision making, as well as a lack of quality teachers. It has been noted that many teachers placed in primary and secondary school performed poorly in examinations and some struggle with the content they themselves teach. However, the Ministry of Education, Science and Technology's COVID-19 response appears to have seemingly improved pass rates (despite the interruption of schooling) due to recent efforts to increase coordination, centralisation and monitoring. Importantly, the causes of teacher and curriculum inadequacy is multifaceted with factors predating the onset of the COVID-19 pandemic. These include the purposeful decentralisation of the decision-making process in schools by the government, the lack of coordination within schools between various stakeholders, and the shortage of qualified teachers.

Section 2.2 presents the research on employment and enterprise, focusing on small- and medium-sized enterprises (SMEs), and showing that the impact of the pandemic on Dar es Salaam SMEs has magnified the pre-existing constraints on the enterprises. Current problems include declining revenues, supply chain shocks and logistical blocks, declining consumer demand, restricted access to customers and suppliers, uncertainty, and lack of liquidity. The causes for these issues span motivational factors, limited access to financial services, high default rates, restricted access to collateral, and a low level of general and business education, including poor financial literacy skills. Importantly, these issues are compounded by limited access to professional business development services (BDS), although such services are recognised by a significant number of entrepreneurs as vital for their entrepreneurial activities. The current employment circumstances in Dar es Salaam further solidify the need for the growth of the SME sector, given the high rate of employment in the informal sector, which offers insecure employment, particularly in the face of an exogenous shock such as a pandemic, poor working conditions and no opportunities for advancement.

Section 3 presents the three possible future projects for CDI that our research suggests would be most effective in tackling the current challenges in education and enterprise. The first solution, the Education Resource Contributory Platform (ERCP), aims to address the need for greater coordination in teaching and curriculum implementation, improved

teacher ability, and increased teaching resources. The second solution, the Afterschool Development Programme, addresses the need for additional curricular support for students, peer-to-peer learning, the improvement of parental support practices, and imparting the positive long-term effects of continuing education. The final solution is an E-Learning and Business Advisory Hub, which aims to strengthen the capabilities and performance of SMEs in Dar es Salaam by addressing the need for financial literacy skills, essential business training, and enterprise development services of young SME owners, to ensure the sustainability and growth of the SMEs sector post-pandemic.

2. Identifying the Problems and their Causes

2.1 Education

2.1.1a Access to education

In recent years, Tanzania has made significant progress in improving access to education. Following the adoption of the 2002-6 Primary Education Development Plan and the 2004 Secondary Education Development Plan, almost all children of primary school age are now enrolled, and secondary school enrolment has increased significantly from 5% in 1997 to 32% in 2019 (UNESCO, 2020c). Dar es Salaam has been active in increasing primary and secondary school enrolment in recent years. It had the highest performance in Tanzania's Primary School Leaving Examinations (PSLE) in 2018, with a pass rate of 91.58% compared to a national average 76.5%, which has been gradually rising in recent years. As Tanzania's largest city and former capital, Dar es Salaam also has a particularly high Lower Secondary Gross Enrolment Ratio (GER) of 61.8% which is significantly above the national average of 41% (URoT MoEST, 2019).

Alongside these positives, however, some challenges persist and have been aggravated by COVID-19. First, COVID-19 accelerates inequity in access to educational technology. While a few non-governmental English-language schools have online learning materials, the students of more than 10 million primary and 1.9 million secondary state schools could not access such platforms during the first month of school closure (ESRF, 2020). Very few state schools had the funds to purchase the hardware needed to promote online learning. As a result, children had no access to reading materials on a regular basis (Moshi, 2020).

In terms of ICT diffusion in secondary schools, Ngeze (2017) gathered data from all Tanzanian educational districts and discovered that the majority of schools do not have ICT infrastructure. In Dar es Salaam, the student-to-computer ratio in the study was 31:1. However, the study discovered some promising aspects of ICT penetration in Tanzania, such as the fact that the majority of secondary school teachers (77%) own a laptop, smartphone, or both. This could imply that they are able to use these methods in their teaching if they are shown how to do so.

The disruption in education has a negative influence on students' well-being and mental health. In an interview with teenagers, the interviewees mentioned that they were happier at school than at home since school provides many sports and recreational opportunities that are unavailable at home (Ngutuku, 2020). Following the reopening of schools in June 2020 after 3 months of closure, new guidelines around school terms were established – the break was reduced from two weeks to one week at the end of August, and two hours were added to the regular timetable to assist students in catching up (Msigwa, 2020). This new system may place greater strain on students due to the increased workload affecting their performance and well-being.

The pandemic will also likely intensify the factors that sometimes discourage young people from taking a linear path through the education system, such as the need to pursue jobs and support their families. Students from lower-income families are often subjected to increased pressure to work in order to sustain their families (ILO, 2018). The dependence on this income makes it more difficult to return to school after the crisis. In particular, after periods of disengagement from the school system, older students at the

secondary and tertiary levels are more likely to drop out permanently (ESRF, 2020). This is a serious problem because the enrolment in higher secondary schools is low in Dar es Salaam: the GER is 7.82%, only marginally higher than the national average of 6.65%. The pandemic could hinder the expansion in access to secondary education.

Long-term economic contraction in Africa as a result of COVID-19 jeopardises the ability of countries to invest in secondary education at a time when aggregate demand is declining while demand for education is growing, in part due to growing youth populations (Barford and Coombe, 2019). This would have long-term consequences for Dar es Salaam's future labour force, including impacting labour market entry point and career progression (*ibid.*). Productivity growth necessitates the acquisition of skills through a high-quality, modern secondary education that prepares workers to face a digitised, rapidly evolving, and globalised world of work. Disruptions in schooling can result in long-term disengagement, affecting students' social relationships, peer-to-peer interactions, and social skills (Moshi, 2020).

2.1.1b Causes

Factors that may contribute to low enrolment in secondary education include inadequate transport infrastructure, failure to pass the Primary School Leaving Evaluation (PSLE) and high school fees. An estimated 2 million children aged 7-13 are out of school in Tanzania, many of whom come from poor households. Secondary school-aged children from the poorest households are three times less likely to attend school than children from wealthier households (UNICEF, 2018). Minimal education regulations also contribute to low enrolment at secondary school level. 1.6 million students who failed the PSLE were prevented from entering secondary school in 2016 (*ibid.*).

A significant barrier to increasing girls' participation in secondary education is teenage pregnancy. Tanzania has achieved gender parity in primary education enrolment. However, while girls are more likely to complete primary education, boys are more likely to transfer to lower secondary education (EPDC, 2018). Additionally, less than a third of girls who enter lower secondary education complete it (Human Rights Watch, 2018). UNICEF (2018) found that in 2016, teenage pregnancy led to nearly 3,700 girls dropping out of school. Additionally, more than a third of girls in Tanzania are married before the age of 18, and girls from poorer households are twice as likely to be married before the age of 18 than girls from wealthier households.

Family is an important enabling and constraining factor for female students to progress to secondary school. Using a sample of 100 female secondary school students in Dar es Salaam, Posti-Ahokas (2014) found that peers, educated elders and religious groups also provided important support for students, with school-related factors playing a more marginal role in students' decision to attend school. Secondary education was given instrumental and intrinsic value by students who wanted to continue their education beyond lower secondary school in order to achieve personal and professional goals. Furthermore, education is seen as the key to the transition to adulthood and to a good life (*ibid.*).

Another factor that may be a deterrent to secondary education is that the returns to education may be underestimated. In a metastudy of estimates of returns to schooling around the world, Montenegro and Patrinos (2014) find that Tanzania has the fifth

highest female return to schooling of 19.2%. Despite this, education is largely not perceived to be as valuable as it actually is. The causal link between education and poverty reduction is often seen as poverty reduction leading to greater access to education, rather than education leading to poverty reduction (United Nations Conference on Trade and Development, 2002). Nikolov and Jimi (2018) find that in Tanzania, people consistently underestimate expected earnings for each level of education. Individuals underestimate the average income of individuals with primary education levels by 74%, while they underestimate income of those with secondary education levels by 79%. Factors associated with these misconceptions included low income, age, poverty and low educational attainment. That is, people with less education tend to have more misperceptions about the true return to education.

2.1.2a Lack of coordination among schools

Amidst the COVID-19 pandemic, the United Republic of Tanzania Ministry of Education, Science and Technology (MoEST) initiated a Response and Recovery Plan (URoT MoEST, 2020a) that focused on coordinating teachers, Ward Education Officers and School Quality Assurers to ensure the continuation of learning during and increase support following the pandemic. This involved MoEST providing frameworks for teachers, customised response plans for schools, accelerated learning materials, new learning programmes and centralised monitoring and evaluation. Government statistics suggest that this has improved the previously poor coordination of teachers and curriculum. Despite schools being closed for 3 months, The National Examinations Council of Tanzania (2021) reported increases in pass rates for 2020 examinations, including a 1.18% increase in PSLE (primary school) pass rates and a 5.19% increase in Form Four pass rates.

One of the leading challenges of the Tanzanian education system is a deficiency of coordination and a decentralisation of decision making. A study conducted by Gastor Mapunda (2018) revealed that the “functions of curriculum developers, teachers and the national examinations council [were] barely coordinated” with regards to the National English Language Examinations. This is reflected in English Language having the lowest A-C pass rate of 40.30% in the 2017 PSLE (URoT MoEST, 2018). The Mapunda (2018) paper recommended that the MoEST establish an oversight unit, similar to the Education Sector Taskforce for COVID-19 which has recently proved to be highly effective. Additionally, the use of ICT in distributing curriculum resources via TV and radio (Msigwa, 2020) and the increased capacity to coordinate due to the provision of laptops to Ministry Officials, Quality Assurance Officers and Ward Education Officers has proven highly beneficial.

The other key challenge is the lack of quality in teaching. It has been noted that many primary and secondary school teachers performed poorly in examinations and some struggle with the content they teach themselves (Mazana et al., 2020). Tanzania has had a history of Teachers Continuous Professional Development (TCPD) programmes which have not been as effective as hoped. These have improved teaching but have not been sufficiently coordinated and have had limited funding (URoT MoEST, 2020b). Part of the achievement of MoEST’s Response and Recovery Plan was to train 80% of teachers to provide remedial programmes and the budget to do so provided by COVID-19 accelerated funding (URoT MoEST, 2020c). The increased coordination also enabled clear objective setting. The ability of the MoEST’s coronavirus response to seemingly improve pass rates

despite the interruption of schooling suggests the need to continue this increased coordination, centralisation and monitoring.

2.1.2b Causes

The causes of teacher and curriculum inadequacy is multifaceted, including factors predating the onset of the COVID-19 pandemic. The lack of coordination of teachers and curriculum implementation is partially due to the Tanzanian government purposefully decentralising the decision-making process in schools (Komba, 2017). This was implemented to increase efficiency in provision of education in the same way quasi-markets in education have been widely introduced in the Global North. However, Komba (2017) finds that decentralisation is unsuccessful without an effective accountability framework. The study found that while the term 'accountability' was widely used in Tanzanian educational policies, there was a lack of accountability in practice. Existing accountability arrangements were found to be confusing, in that it was unclear who was responsible for good or bad performance. Therefore, accountability frameworks are a key area in which coordination channels can be built.

Curriculum implementation is further hindered by the lack of coordination within each school between the school head, teachers, students and parents. Bishangirwa (2017) found that the heads of schools often manage the curriculum themselves rather than involving teachers or students. This results in a lack of cooperation and commitment from teachers and students and a high workload for the school heads. Additionally, Bishangirwa suggested that accountability of curriculum implementation needs to be increased by improving the participation of parents/guardians in managing the secondary education curriculum.

A key causal factor of the lack of adequate curriculum implementation is the shortage of teachers. A case study conducted by Projest (2013) found that the shortage of qualified teachers was the main barrier to curriculum implementation faced in Tanzanian secondary schools. This resulted in some subjects being taught far better than others and increased indiscipline of the students. While the study found that the school administration would use secondary school leavers, part-time teachers and remedial classes to address this shortage, this was insufficient. Data from the UNESCO Institute for Statistics (2020a; 2020b) shows a sharp increasing trend in the pupil-teacher ratio in both primary and secondary schools in Tanzania from 2016. More specifically, the Pupil-Qualified-Teacher-Ratio (PQTR) in government primary schools in Dar es Salaam was 48.22:1 in 2019 (URoT MoEST, 2019) which increased to 50.55:1 in 2020 (URoT MoEST, 2020d). Similarly, the PQTR in Government secondary schools in Dar es Salaam increased from 28.58:1 in 2019 (URoT MoEST, 2019) to 30:1 in 2020 (URoT MoEST, 2020e). It is likely that this recent rise is partially due to the disruption from the COVID-19 pandemic, although it remains a part of the overall increasing trend.

The quality of teaching is another issue. With regards to the National English Language Curriculum, Mapunda (2018) found that some teachers were ill-equipped to fulfil the pedagogical demands of the 2005 syllabus of the National English Language Examinations. This was exacerbated by the fact that curriculum developers, teachers and the national examinations were insufficiently coordinated (Mapunda, 2018). According to an assessment conducted by Mpapalike (2013), it was found that most of the science teachers they studied based their teaching on expository inquiry classroom instruction,

rather than practical work. This is a barrier of curriculum implementation as it is difficult to engage students and teach them effectively with this teaching style. The study also found that there was a shortage of qualified science teachers and insufficient resources which partially accounts for these issues. Further, many science teachers were found to be inadequately equipped to implement formative classroom assessments. Overall, the researcher recommended that science teachers should be given further assistance with regards to the pedagogical demands of the curriculum. They also suggested the use of continuous assessment to assess students' progress which would accelerate the teaching and learning process.¹

2.1.3 COVID-19 exacerbating pre-existing inequalities

The potential for long-run, inequality-exacerbating consequences resulting from the way in which the pandemic has affected education are numerous. First, there is the inequality between schools. This arises as the few private, English-speaking schools have significantly more technological capacity and are able to ensure that their pupils' access to education is uninterrupted and of relatively the same quality, despite the lack of in-person teaching, due to switching to online platforms and the provision of resources (ESRF, 2020; Moshi, 2020). However, more than 10 million pupils in government-run primary schools and 1.9 million pupils in secondary schools do not benefit from platforms of this kind (ESRF, 2020). The inequality does not only exist between private and public schools, but also between low- and middle-income households, as the latter are more likely to be able to access e-learning when that option exists (Moshi, 2020). Low-income households are also less likely to include a literate parent, thus making poor children less likely to receive help with their studies at home (ibid.). The COVID-19-related demands in terms of technology, parental support, and at-home learning further perpetuate the already-extant difference in performance between pupils who could and who could not access better education, resources, and help before the start of the pandemic.

There are some important potential long-run effects of disengagement in school. Since schooling plays an important role in the social development of young people and affects their social relationships, socio-emotional skills, peer-to-peer interactions, and sense of citizenship, any significant interruption or change in their engagement with education can have long-term consequences across these aspects (ESRF, 2020). During the Ebola epidemic, in Sierra Leone, the rate of adolescent pregnancies increased sharply, likely due to school closures. Consequently, adolescent mothers are not likely to return to school; and due to their low level of educational attainment, the investment in their children's education and health is likely to be lower, thus perpetuating a poverty cycle (ibid.). In addition to this effect on girls, research in Tanzanian communities shows that young people are at higher risk of violence, neglect, and abuse when spending more time at home and if they are unsupervised, they are more likely to engage in risky behaviours involving drugs and crime (Moshi, 2020). Lastly, there is also the risk of being pulled into child labour when parents lose their income, thus causing children to attend school less, or even drop out of education (ibid.).

¹ Furthermore, Kinyota (2018) identified that African scientists and their achievements do not feature in textbooks used in Tanzanian schools. This subliminally limits students' creativity as it undermines the students' identities as science producers and owners (ibid.).

2.2 Enterprise

2.2.1 A snapshot of employment in Dar es Salaam

Tanzania has a very youthful population, with a median age of 18.2, and 20.4% of the population being between the ages of 15 and 24 (CIA, 2021). However, youth unemployment is a pertinent issue in the country, and especially in urban areas, where 17.4% of young people are unemployed. The situation is especially grave in Dar es Salaam, where the figure is as high as 28.8% (Banks, 2016). The distribution of unemployment is also skewed against women: in 2014, 21% of young Tanzanian women were not in education, employment or training – twice as many as men (National Bureau of Statistics Tanzania, 2014).

There are few employment possibilities available in Dar es Salaam for young people who lack in education, mainly due to the fact that there are not enough jobs available in the first place; therefore, missing out on education makes individuals less competitive for the few opportunities which do exist (Barford and Coombe, 2019). As a result, uneducated youth often take up work as day labourers or in petty trading. As the job market is unusually competitive due to the low number of jobs, even educated young people struggle to find employment. To make it more difficult, the Tanzanian education system necessitates attending vocational training colleges to acquire the skills required to join the formal employment sector. This, coupled with their lack of preferred employment opportunity, usually means that the skilled young people only find formal employment after a few years of struggling (Ndyali et al., 2016).

Many young Tanzanians instead find employment in the informal sector because of the relative ease of entry and low requirements for education, skills, technology and capital. It was found that graduates in Dar es Salaam without skills are 23% more likely to be employed than skilled graduates, when factoring in informal employment (Ndyali et al., 2016). When considering the informal sector, which accounts for 75% of the jobs in Dar es Salaam (Kilimwiko, 2020), one of the earliest impacts of COVID-19 on the economy is the immediate loss of revenue for informal sector businesses, leading to unemployment and an increase in poverty (ILO, 2020). On the other hand, due to unemployment in SMEs as well, some formal SME workers become informal workers, starting their own informal microbusinesses to gain some income – thus, increasing underemployment as well (ibid.). Workers in the informal sector are the most affected group by the pandemic, as they are most likely to face the difficult choice between destitution or catching the virus (ILO, 2020). Moreover, the majority of workers in the sector have a high chance of exposure to the virus due to the nature of their job and the lack of health and safety precautions that exist in formal employment. If they fall sick, informal workers often lack access to insurance-covered medical care; therefore, medical services can create debt and perpetuate poverty (ibid.).

Moreover, as most Tanzanian women who are employed work in informal sector jobs that are low-paying and insecure, they are among the first to lose their jobs due to the pandemic (ESRF, 2020). The Ebola epidemic brings important lessons in terms of the long-run economic impact on women. Research shows that, in Liberia, the economic activity of men returned to pre-outbreak levels soon after the government measures (such as travel restrictions) subsided – whereas, for women, the impact on their livelihoods and economic security had a more long-lasting effect (Matope, 2020). Steps

must therefore be taken to ensure that this same gender disparity in livelihood return does not occur following the COVID-19 pandemic.

The economic impact of COVID-19 is expected to have significant and ongoing economic impacts in Tanzania. Urban informal workers will comprise a majority of the additional 500,000 Tanzanians that are estimated to fall below the poverty line because of the pandemic (World Bank, 2020a). The impact of COVID is likely to be felt for several years, and workers are likely to face difficulty in finding an alternate source of income in the wake of the pandemic. Steps thus need to be taken to train informal workers in the skills needed for formal employment, generate more employment in the formal sector and help support the formalisation of currently informal employment opportunities.

2.2.2a Enterprise problems in the wake of COVID-19

The growth of the Small and Medium Sized Enterprises (SMEs) sector is widely recognised as a key engine of economic development (OECD, 2003).² Enterprise creation absorbs unemployment, generates revenue, increases productivity, contributes to human capital creation, and cuts the transaction costs of economic activity. SMEs are also the backbone of the Tanzanian economy, accounting for 95% of all enterprises, employing over 5.2 million people and representing about 35% of the country's GDP (Tanzania Invest, 2014). Given the acute youth unemployment crisis in Tanzania, where between 650,000 and 750,000 youths enter the labour market every year, young people are particularly active in starting and operating small business operations as a channel of employment creation, albeit recording a high failure rate (Ng'habi, 2013). A study commissioned by the Ministry of Trade and Industry (2012) indicates that 47% of SME owners are younger than 35 years old, which also reflects the proportion of under 35s in the population. Over 460,000 of a total of more than 3 million Tanzanian SMEs are located in Dar es Salaam (MTI, 2012: 14). However, although Tanzania has one of the highest entrepreneurship rates in the world, it ranks only 141 in the Ease of Doing Business Index and many studies document that the performance of its SMEs sector is severely constrained (World Bank, 2014: 25; World Bank, 2020b).

Before the outbreak of COVID-19, the most frequently cited factors that inhibited SMEs performance in Dar es Salaam have been severe capital constraints, limited access to providers and business knowledge, poor technological capabilities, infrastructure problems, and high costs of regulatory compliance. Capital constraints affect over 70% of SMEs due to low rate of formal registration, lack of collaterals and SMEs tailored financial products, and information constraints about financial services (Magebe, 2019: 46). Apart from the underserved SMEs financing ecosystem, poor numerical and financial literacy skills, limited know-how and market research, and the lack of business training among SMEs owners, especially for younger and new entrants, also inhibited enterprise creation and scaling-up (World Bank, 2014). Business owners also cite inadequate access to business development advisory services, limited access to suppliers and technology, imperfect competition due to smuggling, and unreliable utility services as important constraints to SMEs flourishing (Magebe, 2020; Madatta & Chen, 2020).

² Drawing on the nomenclature of the Tanzanian government, the SMEs sector is divided into micro, small and medium enterprises. Micro enterprises are mostly informal business operations involving up to 4 people. Small enterprises hire between 5 and 49 employees. Medium enterprises engage between 50 and 99 employees (Ministry of Trade and Industry, 2002: 3)

Recent assessments of the impact of COVID-19 on Tanzanian economy estimate that although according to the Oxford Stringency Index the country has imposed the world's most lenient restrictions, the impact of the pandemic on Dar es Salaam SMEs has negatively impacted and magnified the pre-existing constraints (Hale et. al, 2021). Regional reports indicate that SMEs will be hit by supply chain shocks, logistical blockages, declining consumer demand, restricted access to customers and suppliers, prolonged business uncertainty, and weak liquidity positions of consistently under-financed SMEs (Deloitte, 2020). The dependence of Tanzania on imports from China and India has also exacerbated the shortage of consumer products, intermediate and capital goods, as well as raw inputs from suppliers. For example, over 60% of SMEs in the agricultural sector have reported significant negative impacts on their ability to source agricultural inputs for sale due to the pandemic (African Fertilizer and Agribusiness Partnership, 2020). Declining shipping activity in the port of Dar es Salaam has dramatically affected SMEs involved in trading and manufacturing activities, as well as those involved in cargo transportation (World Trade Organisation, 2020). Women entrepreneurs engaged in cross-border trade, especially in the beauty and textile industries, have also been particularly affected due to declining sales, mobility restrictions, and dependence on imports, with 80% of respondents in the retailing business being forced to temporarily halt their business (UNDP Tanzania, 2020: 53).

Declining consumer demand and disruptions in tourism, export-oriented manufacturing, and intermediate inputs have reduced SMEs revenues and the disposable incomes of employees. Therefore, consumption growth is estimated to decelerate from 5.2% in 2019 to 2.4% in 2020 (World Bank, 2020b). About 60% of SMEs expected a decline in revenues of more than 10% (UNCDF Pulse Survey, 2020). In terms of cash and liquidity positions, only 50% of enterprises were deemed apt to keep their businesses open for more than 6 months in the current economic environment and 53% of SMEs owners considered paying wages the most serious financial problem (UNCDF Pulse Survey, 2020). The deterioration of the credit market due to mounting non-performing loans and the weakening of the liquidity position of the banking sector has also reinforced the already precarious access to finance for SMEs.

Local surveys show that more than half of Tanzanian SMEs have reduced their business operations capacity by at least 50% and almost 40% of SMEs expected to lose over third of their revenue in the wake of the pandemic (UNDP Pulse Survey, 2020). In response, the Ministry of Finance and Planning has accelerated payment of domestic arrears and VAT refunds (World Bank, 2020b). However, lack of formal business registration and licensing, limited access to government information, and poor business crisis management skills of the entrepreneurs have hindered the effectiveness of SMEs support schemes. Only 4% of the surveyed SMEs reported to have received tax cuts and over 80% of them have not received any government support, the vast majority being unaware of the existence of such programmes (UNCDF Pulse Survey, 2020).

2.2.2.b Causes

Despite having one of the highest business densities in the world in terms of firms per working population, the performance of the Tanzanian SME environment is hindered by financial, knowledge, technology, and infrastructural constraints, which prevent them from expanding, diversifying, and building resilient and profitable productive capabilities. The majority of Tanzanian businesses are small, short-lived, unspecialised, and informal operations run by self-employed micro-entrepreneurs (World Bank 2014).

The latest national data available, while somewhat outmoded, indicated that 68% of Tanzanian firms are tiny one-person operations and only 3% have five or more employees (MTI, 2012). The precarious state of the Tanzanian enterprise landscape makes businesses highly exposed to financial shocks, which has been most recently emphasized by the damaging effects of the pandemic on the livelihoods of millions of enterprising but financially vulnerable individuals.

Understanding the factors that obstruct the performance of Tanzanian SMEs first requires the specification of the entrepreneurial profile of Tanzanian business owners. Most Tanzanian non-farm micro-entrepreneurs can be described as ‘reluctant entrepreneurs’: individuals who are forced into starting small business operations out of necessity rather than choice due to limited opportunities for conventional employment (Banerjee & Duflo, 2012). Conventional categories of ‘self-employment’ versus ‘wage employment’ used in official statistics often obscure the diversity of employment relations in Tanzania (Rizzo et al., 2014). Many self-employed micro-entrepreneurs identified in official statistics are in fact casual workers who work as drivers, technicians, and petty traders in the informal sector. Only 10% of SMEs owners say that the decision to start a business was driven by the ambition to test out a business opportunity and about half of them would give up entrepreneurship for a salary-paying job (FSDT, 2012: 8).

Apart from the motivation factor, self-employed small business owners in Tanzania also have low levels of education, typically lower than in the formal sector. Surveys indicate that less than 3% of business owners located in Dar es Salaam have received university-level education and only about 20% of them have finished secondary school (MTI, 2012). Furthermore, over 70% of respondents did not receive any business education before starting their business (MTI, 2012). The limited business awareness, exposure, skills, and experience of entrepreneurs severely inhibit the proliferation of profitable, sustainable, and resilient businesses in Dar es Salaam. The low education levels, high costs of on-the-job training, and scarce access to training resources prevent knowledge spill overs and reproduce the high transaction costs of scaling-up businesses. Furthermore, SMEs growth is also repressed by limited access to financial services. Almost a third of Tanzanian entrepreneurs identify working capital constraints as the most critical factor that prevents them from expanding their business (MTI, 2012). One of the reasons behind the severe capital constraints is the poor business and financial literacy skills of business owners, high degree of business informality, such as lack of financial records, and insufficient collateral. For example, only 43% of small business owners keep financial records and less than 5% of them have registered their business, which contributes to their insulation from funding opportunities (World Bank, 2014).

Entrepreneurs perceive the formal requirements imposed on them as too stringent, whereas financial intermediaries perceive business owners in the informal sector as a risky group due to the large number of defaulters. Almost 70% of SMEs owners say that they do not have access to financial services provided by formal financial institutions (Magembe, 2019). Furthermore, even eligible entrepreneurs have restricted capacity to access loans due to the inability to provide collaterals and lack of knowledge about how to search for funds or to draft a business plan. Access to capital should be determined by business viability rather than access to collateral. However, lack of business training often

translates into business ideas with poor viability, inability to identify markets, diagnose problems, differentiate products, and draft convincing business plans.

The chronic capital constraints and low level of general and business education, including poor financial literacy skills, are also compounded by limited access to professional business development services (BDS). It is widely recognised that the delivery of demand-driven and cost-efficient business development service is a catalyst for market development and SMEs growth and integration in local, national, and international markets (OECD, 2004). Business development services serve as mediators between markets and improve business performance. Over the last decade, some segments of the Dar es Salaam SMEs owners have benefited from supply-driven business training services (Mbura and Bambaganya, 2015). However, the majority of small business owners are still largely either unaware of the benefits of such services or cannot afford them.

The National MSMEs Baseline Survey Report indicated that less than 1% of business owners have accessed business advisory services or used media sources to gather business information (MTI, 2012: 57). Nevertheless, more than half of respondents recognised the need for business development services that would help them access loans, conduct market and opportunity research, identify and engage with customers, acquire business management skills, and search for suppliers. Free access to such supporting services would also help business owners to reduce the cost of regulatory compliance, connect with other entrepreneurs, improve SMEs productivity and accelerate the implementation of digital solutions.

3. Proposed Solutions for Action by CDI

3.1 Education Resource Contributory Platform (ERCP)

Needs and output:

This solution involves the creation of an Education Resource Contributory Platform (ERCP) which would allow teachers to create, share and view education resources specific to the Tanzanian curriculum. It predominantly addresses the issues outlined in 2.1.2 including the lack of curriculum coordination, teaching quality, and lack of resources. It also aims to deal with inequalities between schools in Tanzania identified in 2.1.3, by being free, comprehensive, and open-source. This solution has been devised by the authors of this paper and, to knowledge, does not currently exist in Tanzania.

The premise of this is a platform on which teachers are able to post and edit content such as digital lesson plans, worksheets and interactive learning activities. This would be modelled similarly to BBC's Bitesize online learning tool but would be contributory, similar to Wikipedia. It would also allow teachers to easily communicate with other teachers in Tanzania.

Resources required:

This solution requires three types of input: web design of the platform; initial resource collation and/or creation; and methods to increase participation.

The first input, the platform has the following specifications:

- The platform should be formatted for phones as well as computers to maximise accessibility.
- Individuals must be able to create a free account on the platform as a “contributor”, but not as an “author” so that no posts can be published without approval. These would be approved by KITE, CDI volunteers or an advisory board during the pilot phase (see ‘Possible Extensions’).
- Users must be able to rate the usefulness of resources and flag anything that is deemed inappropriate.
- The platform should easily facilitate the creation of resources. This includes functionality of taking and uploading images and the ability to easily write mathematical and scientific equations using the platform’s software.
- The platform should organise posts into relevant categories and pages. For example, material for different grade levels should be presented on different, easily accessible, pages.
- The platform must have a separate function that allows teachers to communicate and collaborate with one another, similar to a forum

The second input, the initial resource collation and/or creation is designed to generate an incentive for teachers to start using the platform. This would involve a team of those familiar with the Tanzanian curriculum (primary or secondary) collating already-existing resources from open-source websites. Further resources may also need to be developed before it is launched. These would be relatively short lesson plans and worksheets.

The third input, methods to increase participation, involves advertising to schools in Dar es Salaam and, most importantly developing an incentive structure for contributors. Katmada et al. (2016) identified four mechanisms to sustain user participation in crowdsourcing platforms: reputation systems; gamification; social incentive mechanisms; and financial rewards with career opportunities. As the ERCP is designed to be a community movement, a mixture of social incentive mechanisms and reputation systems would be most suitable. Examples of current platforms that utilise these are Slashdot, Stack Overflow and Wikipedia. In practice, this would look like the following:

- The platform should have a way for participants to “upvote” users’ contributions, and receive positive feedback. Wang (2010) found that social image and user productivity were positively correlated in online reviewer platforms. Bederson and Quinn (2011) also found that participants were motivated by positive reactions to their work in a study of online ideas competitions.
- To trigger social motives, the platform should enable social interactions in general (Katmada et al., 2016). For example, Zooniverse is a platform where researchers can contribute their work and collaborate. The platform offers users the ability to create discussion boards, fora, blogs and competitions created by users to incentivise participation (Greenhill et al., 2014).
- Users must be able to gain recognition for what they have contributed. For example, Wikipedia displays a list of articles that users have edited on their user pages which allows users to gain recognition in the community (Bruckman and Forte, 2005).
- Public user scores should only be positive and scores must be generated as an aggregate of the different ways users can participate. This is to allow for fair recognition (Katmada et al., 2016). In the case of the ERCP this would be an aggregate of the number of activities posted, edits, conversations and votes. These would be weighted on a scale with activities receiving the largest weight and votes the lowest.
- To motivate newcomer participation, new posts should be readily seen so that existing users can edit and give feedback. This suggestion arises thanks to Burke et al. (2009) who identified that newcomers will contribute more if they are able to learn what is socially acceptable on the platform through observation and feedback.

Timeline and feasibility:

This solution will take considerable time and effort to develop and implement, making it a long-term proposal. The largest challenge is the development of the platform, however this should be feasible through the recruitment of student volunteers with the correct skillset. It would likely take six months to a year for a team to create it. The cost would depend on whether a website builder is used but should not be high. Alternatively, we would recommend using the content management system PYBOSSA as a free option that is targeted towards crowdsourced websites. The other cost would be the website domain, which is usually £5-£10 per year. While the website is being developed, another set of volunteers, including KITE and some Tanzanian teachers, would create the initial resource base. This would also take around six months. Once the website is up and running, it would require continued maintenance and oversight. Lastly, it will also take time for the platform to gain in popularity and to build a large number of users.

Implementation outcomes:

The first desired outcome is to reduce the negative impact of having less qualified teachers and inadequate resources. Teachers can follow lesson plans that more qualified teachers have posted and distribute free resources to students from this platform. The second desired outcome is to increase the coordination of curriculum implementation in Tanzania so that, through collaboration, more teachers are aware of the pedagogical demands of the curriculum and have the resources to meet these demands.

In terms of long-term, behavioural changes that this solution would create, these include: teachers across Dar es Salaam and Tanzania collaborating with one another; referring to a consolidated source of resources to guide their teaching; and being incentivised to create quality resources, not only for the benefit of their class, but also for that of other Tanzanian teachers.

Limitations:

- Internet penetration is still low in Tanzania. The CIA World Factbook of Internet Users estimates that 25.0% of population in January 2021 used the internet (Kemp, 2021), whereas the Tanzania Communications regulatory Authority estimate of internet users is 47.0% (Kemp, 2021). However, this percentage will be higher in our target area, Dar es Salaam. Although exact statistics could not be found, Research ICT Africa's Household and Individual ICT Access and Usage Survey 2017-2018 showed that 55.4% of urban residents in Tanzania used the internet (RIA, 2019). This percentage would have increased over time. For example, internet usage increased by 3.0% between January 2020 and January 2021 (Kemp, 2021). Therefore, while it is hopeful that the ERCP will reach a significant part of the population in Tanzania, it may disproportionately benefit teachers in wealthier schools or areas.
- The curriculum authority, NECTAR, may need to approve resources. However, this could also be an opportunity for collaboration which would increase the coordination of curriculum implementation in Tanzania. The platform, as specified earlier, already required posts to be approved before publication and so this function could be run with support from NECTAR.

Possible extensions:

- If the government, or curriculum authority, wished to be involved, the platform could also allow teachers to directly communicate with officials to raise questions and needs.
- During the platform's development, an advisory board of relevant stakeholders such as Tanzanian teachers, education officials and pupils should be created. The board's role would be to ensure that the platform is relevant and helpful, and to take over the ERCP once it is established.
- Established educational platforms such as BBC Bitesize or the Geographical Association could be approached to contribute resources. These would need to be carefully selected to ensure compatibility with the Tanzanian syllabi.
- Paper versions of recent helpful posts could be periodically sent to schools with lower internet access to reduce inequalities.

3.2 Afterschool Development Programme in Collaboration with KITE

Need:

This programme seeks to address the need for additional curricular support offered to students, encouragement of peer-to-peer learning, improvement of parental practices and imparting the positive effects of education. This need exists particularly in government schools or in schools with less financing, where the majority of students come from disadvantaged backgrounds.

Output:

The output is a programme in which the students are offered curricular support, to relieve the parents' burden of providing educational support and to extend support beyond what students would receive in households where parents, particularly mothers, are already burdened with care responsibilities due to the pandemic. If a similar programme already exists in one of the targeted schools, we aim to extend it if it does not address the education needs to the greatest extent possible. Through drop-in sessions for parents, the programme can also help parents provide support, should they wish to allocate a certain amount of time to this responsibility. Moreover, the programme provides development opportunities for students in the targeted schools through collaborations with other local NGOs.

Resources required:

This solution requires: KITE volunteers, training for volunteers, the involvement of teachers and student representatives and methods to increase participation.

Volunteers need to be trained to be able to offer:

- Homework support, including technical support for using equipment such as laptops, tablets and/or phones, if such devices are used in the school curriculum.
- Advice on parental practices to support their child's study if parents attend the drop-in sessions, or through monthly text messages.
- Information about the positive effects of education and occasional nudges for students to continue staying in education. This suggestion is based on the identified causal effect that individuals tend to underestimate the returns to education, in terms of earnings.

This programme is intended to provide support where it is most needed – therefore, if a similar afterschool homework support programme already exists in a school and the Afterschool Development Programme would act in whatever support capacity still needed by that existing programme.

Student representatives can be drawn from alumni and/or current students of the school, and they can occasionally come to the Afterschool Programme to share insights into their educational experience as well as their career. An ideal student representative is a recent graduate who is passionate about their education and can attest to the fact that it has contributed to their career success. Their selection is intended to generate a peer effect. Research has shown that what and how information is delivered matters. Nguyen (2009) discovered that asking teachers to convey to parents and children the economic returns to schooling in Madagascar improved student attendance by 3.5 percentage points and test scores in Math, French and Malagasy by 0.2 standard deviations. This programme

resulted in a 118.34 standard deviation increase in test scores for every USD 100 spent. Moreover, while asking a role model from a poor background to share her/his educational experience and achievements had an effect on the test scores of poor children, asking a role model from a wealthy background had no effect. Therefore, it is important to ensure the proximity of these representatives to the students, in terms of family background, age and experience.

The methods to increase participation involve advertising to schools in Dar es Salaam and creating an incentive structure for participants. For example, students can participate in competitions or quizzes that require knowledge of more advanced contents of the curriculum. The student with the highest number of correct answers can be rewarded with a prize. The rationale is that the questions cannot be fully answered without knowledge of the later years of the curriculum, to encourage engagement with more advanced learning in the later years and provide motivation to continue schooling through this. Such questions could be accessed from the previously recommended ERCP. In order to generate long-term dynamic effects of the competition, it could be repeated or be made into several rounds. This is intended to ensure that the students are consistently motivated. Also, we intend to generate a 'learning effect': after seeing the benefits of entering this competition, more students may be willing to participate. Ideally, the financial rewards should be substantial to provide a large enough financial help to address the issue of high education costs or the need for young people to start working to support their family.

Another method to increase participation by the parents is to 'nudge' them in ways that require minimal intervention. Mo et al. (2014) discovered that sending weekly text messages to parents in Ningxia, China, improved students' Math achievement when accompanied by monthly quiz questions designed to assess parents' comprehension of the curriculum. Text messages alone had no such effect. As part of our intervention, the teachers could collect contact information of the parents and set up a directory. Monthly texts could be sent to inform them of the positive returns of education and ask them a few questions about whether they have attempted practices and exercises introduced in the drop-in sessions. The parents can self-select into these interventions: the drop-in sessions and the monthly texts are completely voluntary and parents are only provided help if they express their interest in learning more parental practices.

Implementation outcomes:

Ideally, through this we hope to reduce the negative impact of having less qualified teachers and inadequate educational resources. Katatumba (2007) found that parents in Dar es Salaam do not have sufficient time to share with their children after school hours and on non-school days. This programme is set up with the hope that students will have better access to curricular help and will be provided more supervision. The second desired outcome is to improve the willingness of students to stay in education once they are aware of the positive effects of education. Their attitudes toward schooling could be impacted by that of their peers and the successful alumni who share their stories, and through this exposure and reinforcement they might have more faith in education. Thirdly, this initiative hopes to influence parents' attitudes towards education, especially towards girls' education. This might be through the information provided by the volunteers and/or the positive response of the students. A study about parents' association revealed that most parents fail to contribute and attend meetings due to

financial difficulties, and a lack of awareness among parents about the importance of education (Rajabu, 2011). The programme is not able to compensate for financial difficulties, but aims to raise awareness among parents regarding the significance of education, as well as nudge students to prioritise investing time and effort in their education.

Another desired outcome is the reduction in drop-out rates at all levels of schooling, as the Afterschool Programme intends to improve attitudes toward schooling. Specifically, we hope that the students could take away transferable, job-related and practical skills from this programme, in addition to being better able to manage and comprehend their schoolwork. Second, we hope to extend educational support provided by the parents and provide a platform for them to witness the positive change of their children at school and to interact with the teachers. This can change parental attitudes towards higher education and increase willingness to invest in education.

Limitations:

- The scope of the programme is hugely dependent on the resource constraints of CDI and on the current popularity of such programmes. If such programmes already exist, CDI and KITE's involvement simply is to improve current practices; if not, setting up such programme will require significantly more resources and effort in convincing the schools about the need for an afterschool programme.
- The programme seeks to address the problem of high drop-out rate by correcting the misconception about the true return to education among students and parents. However, it is unable to resolve challenges arising from the costs of education and the need for children to start working to support their families.

Possible extensions:

- In the long run, the programme can be continued as a regular, self-sustaining afterschool programme without CDI/KITE's help if the pilot proves successful. The programme could be sustainably run by successful school leavers as a part-time job or volunteering opportunity, with help from recruited student representatives.

3.3 E-Learning and Business Advisory Hub

Need and output:

The free-to-use e-learning and online business advisory hub aims to strengthen the capabilities and performance of SMEs in Dar es Salaam by addressing the need for financial literacy, essential business training, and enterprise development services of young SME owners. Research studies on the impact of business development services (BDS) on the performance of Tanzanian SMEs have consistently found positive correlations between access to such services and SMEs growth (Mori in Gil and Klinecicz, 2015; Sospeter and Nchimbi, 2018; World Bank, 2014). However, the successful provision of BDS depends on their degree of embeddedness in the daily realities of beneficiaries and on demand-driven factors (Mbura and Bambaganya, 2014).

Resources required and platforms specifications:

Building the hub would have three main components: technical, content production, and operational. The first refers to the acquisition and customization of an open-source or commercial Learning Management System (LMS) (e.g. Moodle, Canvas, Learndash), the construction of a professional website, and the integration of the LMS within the website. Depending on the type and complexity of the chosen IT solution, we estimate that setting-up the platform in terms of information architecture, design, minimal functionalities, customization, integrations, and testing would require an IT-skilled person to work for about 40 hours.

The second component refers to the development of a library of business training materials, such as lectures, video tutorials, how-to guides, checklists, and quizzes tailored for the circumstances of local entrepreneurs. The content production is the most resource-demanding part of the project. It would require a team of business students to create an advisory board of local partners and entrepreneurs who would provide assistance in conducting needs assessments, formulating expected outcomes, selecting course content, and designing, testing, and publishing demand-driven training products. The inputs required for the content production part of the project will ultimately depend on the number of involved parties and the ability to build synergistic partnerships, as well as on the volume, depth, and sources of content material. A key success factor would be to draw on and produce tailored derivatives from creative commons resources and to obtain diffusion rights for copyrighted material from organisations driven by a public mission.

The third component refers to the management, promotion, and maintenance of the hub, which will require the mobilization of local partnerships for the promotion of its services, as well as a dedicated officer who will ensure the management and technical maintenance of the hub.

In terms of platform specifications, the following elements should be taken into account:

- The platform would provide a catalogue of self-paced courses in business essentials. The catalogue of courses would include both generalist courses in business management which would cultivate the entrepreneurial and business awareness of SMEs owners, and more tailored courses responsive to the local context, needs, and competitive pressures. Courses would include:
 - financial management (accounting, bookkeeping, cashflow management, access to finance)
 - sales and marketing (market research and segmentation, competition analysis, marketing channels and sales strategies, customer relationship management)
 - human resources (recruitment, motivation, evaluation)
 - operations and production (supply chains, inventory management, quality control)
 - legal and compliance
 - financial literacy module for high school and university students.
- Drawing on the HowToAcademy in crisis management aimed at SMEs business owners, launched by the European Bank for Reconstruction and Development in the wake of COVID-19, our platform could create a similar Crisis Management Module which could provide practical information and business tools aimed to

help entrepreneurs to respond to, manage, and survive crises and improve business resilience.

- Providing a high-quality, standardized set of course modules could also be the basis for establishing a certification system both as an incentive for participation and as a credential who could entitle the holders of certificates to other benefits provided by our partners.
- The platform could also facilitate access to information by developing off-the-shelf business management templates and guides on various topics relevant for entrepreneurs, such as business registration, writing of business plans, access to finance, regulatory compliance. Furthermore, maintaining a database of experts and local service providers for SMEs, such as credit institutions, could further improve the value of the platform to users.
- A dedicated page on the website would showcase best practices and case studies sourced from entrepreneurs who are willing to share their experience.
- The platform could also facilitate the creation of mentorship relationships between experienced entrepreneurs and aspiring entrepreneurs. This could be extended beyond Dar es Salaam, providing an opportunity for SME owners from advanced economies to mentor an entrepreneur from Dar es Salaam.
- The platform should be kept flexible and scalable to accommodate other ideas.

Timeline and feasibility:

The project would be implemented over several months. Apart from the recruitment and planning part, setting up the website and the LMS could take one or two weeks. The most challenging part of the project is to develop the content of the platform and incentivise young entrepreneurs to use it. We estimate that the process for creating a minimum viable version of the platform could take three months and developing it further could take between three and six more months. Given that the platform will be free-to-use and responds to what has emerged as a critical hindrance for SMEs performance, we expect the platform to create a snowball effect if initial usage occurs.

Limitations:

This does not address all of the deep-rooted, structural issues that cause the high rate of unemployment and informal labour in Dar es Salaam. Consequently, there is a risk that the SMEs targeted by this intervention would also be part of the informal sector or continue to face institutional challenges that cannot be solved through this scheme.

Possible extensions:

Partnerships could be created with other Business Development Service providers who would need help in digitalising their resources and diversifying their delivery channels. In order to extend the diffusion of financial literacy skills not only among entrepreneurs, but also aspiring entrepreneurs, a partnership with Junior Achievement Tanzania could be a particularly synergistic relationship. Furthermore, local authorities could be engaged to co-create incentives for entrepreneurs to join and graduate from the courses provided on the e-learning platform. Financing institutions could condition access to their products and services by making certain modules a requirement.

4. Conclusions

This report, having analysed education and entrepreneurship as possible limitations to personal financial security and broader economic development for young people in Tanzania, has come to three main conclusions. Firstly, through its inequality-exacerbating effects, the COVID-19 pandemic is likely to have long-term implications for students' educational attainment, performance, as well as their personal development. Secondly, there is a strong need for increased coordination among and within schools across the country, as well as centralisation of the decision-making process in educational institutions, so as to improve performance across the country. Third, the SMEs sector faces significant challenges, particularly for young entrepreneurs and for entrepreneurs coming from the informal sector; yet, there are valuable opportunities for SMEs to develop and to contribute to growth in the post-pandemic recovery period, should they receive sustainable support. In light of these findings, we advise that it is most pertinent for CDI to devise projects that focus on facilitating better educational support to students, particularly those from disadvantaged socio-economic backgrounds, and ensuring that they continue their education; on improving coordination in the education system; and on providing business development services to SMEs run by young entrepreneurs. Given the focus on young people, a possible collaboration for the CDI might be the NGO Restless Development, which also has a branch in Tanzania.

In terms of limitations to our research and recommendations, we acknowledge that our research is highly focused and does not address the plethora of other economic issues that must also be engaged with at this time of crisis. Nonetheless, given its project history, CDI is particularly well-equipped to tackle challenges in these areas. Furthermore, given the ongoing pandemic, our research has encountered some challenges in gaining access to data and collecting survey responses. The latter should be a priority for CDI before starting to develop and implement the proposed solutions. We have created two surveys to help us better understand the need and feasibility of our proposed solutions: one for teachers and parents in Dar es Salaam, and the other for business owners and employees. It is recommended that, when feasible, responses to these survey questions are gathered as this would lend CDI a useful perspective and a deeper understanding of the views of teachers on the extent of collaboration between schools, the usefulness of a platform such as the ERCP, the perspectives of parents, their role in their children's education and their views on afterschool programmes. In addition, conducting a survey in the future would help to elucidate the experiences of young entrepreneurs in Dar es Salaam, their specific needs and challenges, the real impact of COVID-19 on SMEs and the immediate and long-term needs during the recovery. Learning about these aspects before devising the solutions can help ensure that CDI's interventions are effective, sustainable and add real value to the community.

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