New Intellectual Capital Delivery Model in Lower Developing Countries

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Abstract. Knowledge and intellectual capital are the two major resources that influence the setting up of higher education in developed and developing countries. The rising digital era has been crucial in transitioning from heavy dependence on physical assets such as labor to intangible assets such as intellectual capital with the help of digital and social media platforms. Intellectual capital can be considered an essential aspect of the knowledge economy, and together with innovation, they are the mediating factor in the economic growth of most countries. This is because they drive companies to have a competitive advantage in the market and offer talents to multiple industries, significantly increasing their revenue and value. In essence, the idea of intellectual capital has spread around the globe and especially in developing countries where the number of students has been reported in the past decades. However, developing countries still face a challenge in acquiring intellectual capital because of the underlying factors, including poverty and gender inequalities. With the help of a literature review, this report analyses the new intellectual capital delivery model in lower developing countries such as South Africa and Nigeria. The intellectual capital delivery in education is currently delivered through various online education platforms and media.

1. Introduction

It is important to find an effective way to improve the intellectual capital of low-income developing countries. In order to reach the threshold of human capital, regional economic growth will be negatively affected by the global economy. Due to long-term conflicts between different races, various diseases, pestilence, and industrial damage to the environment, Africa had become the most concentrated continent in the developing countries because of its previously dominant position in the West and corrupt political power. As the lowest level of economic development in the world, the total trade of the whole of Africa only amounted to 1% of the world’s total trade in a year.

Due to the low level of development and the poor economic situation, education, which relies on adequate financial and human resources, has a low overall standard and a slow pace of development in the backward regions of Africa. The popularizing rate of higher education plays an important role in the increase of intellectual capital level. As shown in Figure 1, over the past 50 years, the higher education gross enrolment ratio has risen significantly around the world, but the gap between countries remains stark. In 2015, the gross enrolment ratio in tertiary education in the United States was nearly nine times that of Sub-Saharan Africa. In some lower developing countries in Africa, the ratio of higher education enrollment has increased, but the share of the population with completed tertiary education has increased slowly or even decreased (see Figure 2). As a result, the level of intellectual capital in African lower developing countries has grown slowly over the past 50 years and is much lower than the level of intellectual capital in developed countries, influenced by the low popularizing rate of higher education. Educational resources are represented by tangible resources, such as teaching facilities, and intangible resources, such as teachers, educational philosophy, and the quality of students. Although in recent years, through international aid and increased government funding for education, the necessary external conditions such as teaching facilities are gradually improving, there is still a large gap with developed regions. The intangible educational resources are difficult to improve quickly by simply increasing financial support. This is evident in the current state of educational resources in Africa's backward regions, such as the lack of teachers due to the scarcity of highly educated personnel, and the uneven quality of students due to gender discrimination and poverty [1-3].

The growth of intellectual capital can not only promote the development of enterprises but also seems to be related to countries' economic development and social transformation. At present, some European countries have...
tried to promote the socialization transformation by applying intellectual capital at the national level. Through the case study of China, education can also play a huge role in social transformation in developing countries [4]. At the same time, it has been shown that in the context of globalization, when the level of human capital exceeds a certain threshold, the trend of globalization and the growth of human capital will play a great role in promoting the economic development of lower developing countries [5,6]. On the contrary, when the threshold of the human capital level is not met, globalization will negatively impact this region's economic growth [7]. Therefore, it is extremely necessary to find a way to effectively improve the intellectual capital of lower developing countries.

It has become one of the biggest challenges in improving education how to increase intellectual capital. In the history of lower developing countries, there have been a variety of delivery methods of intellectual capital aimed at achieving intellectual capital growth, such as talent introduction. However, the existing methods have some problems such as high cost or low efficiency. Due to the incompatibility between the local cultural system and foreign education system caused by cultural hegemony, most of the cultural aid methods adopted in the past ended in failure. This incompatibility leads to a contradiction between students' values and the educational system, with the phenomenon of not being able to apply what they have learned in practice, for example by applying Western concepts in their studies and indigenous values in their lives, thus leading to inefficient delivery of intellectual capital. Therefore, the integration of indigenous culture with the introduced knowledge system is an important issue in promoting the development of local education and the progress of the world cultural system [8]. On the basis that the net growth of intellectual capital will promote the social transformation of lower developing countries, this paper will propose an intellectual capital delivery model to realize the net growth according to the current situation and local cultural system of these kinds of countries and the emerging economic model. The model aims to improve the intellectual capital of lower developing countries in a more flexible way by providing intangible educational resources, such as teachers from or with experience of living in the area, who understand the local culture, using educational concepts and systems that are compatible with the values of local students.

Fig. 1. Gross Enrollment Ratio in Tertiary Education, 1970 to 2015 [9]

2. Literature Review

Intellectual capital belongs to intangible assets. The proposal of intellectual capital is the result of the deepening of human capital theory and the development of the knowledge economy. As an important component of human capital, intelligence has been gradually recognized by society in the West. However, the rise of the high-tech industry has endowed the concept of intellectual capital with a new connotation. The market value of the high-tech industry far exceeds the value of its tangible assets, and the contribution of its physical capital to its final products (services) is far less than that of intangible capital. People began to find that intangible capital such as personnel skills, efficient management, brand loyalty, and so on are the main sources of excess earnings of enterprises. Therefore, people think that the sum of this intangible capital should be called intellectual capital. The knowledge economy is a consumptive economy of intellectual resources, which mainly depends on the input of knowledge and intelligence. It can be said that the knowledge economy is based on the input of intellectual capital, and intellectual capital is the foundation of the knowledge economy.

Intellectual capital is widely used at the enterprise level. Many studies have shown that the growth of intellectual capital can promote significant growth of enterprise performance and innovative development. However, the definition and function of intellectual capital at the macro level are not clear yet [11]. At present, some European countries have tried to promote the socialization transformation by applying intellectual capital at the national level. Through the case study of China, UNESCO also provides a more detailed and specific analysis of the huge role education can play in helping to transform societies in developing countries [12]. Existing research suggests a non-linear relationship between globalization, human capital development, and productivity growth. The threshold for human capital development is 45.07%; at any level below the 45.07% threshold, globalization and human capital development have a negative impact on productivity growth. However, high human capital (when it exceeds the threshold) has a significant positive impact on productivity growth. That is, while low human capital...
is detrimental to productivity growth, high human capital above a threshold level can increase productivity [13-15]. Therefore, in order to better capitalize on the globalization trend to achieve productivity development, lower developing countries should raise their level of intellectual capital so that it reaches above the threshold.

Under the influence of colonization, education in lower-developing countries is easily influenced by the international agenda and the educational model of developed countries, but this is very problematic because lower-developing countries have their own educational ecosystems. It is essential to identify the real educational needs and priorities of lower developing countries and strengthen research capacity [16]. In the education of South Africa, indigenous culture is only combined with the Western education system on the surface, but on a deeper level, the world outlook and values brought by the education of this region are greatly separated from the indigenous cultural system. The separation between the introduced education system and the indigenous culture has brought great obstacles to the development of local education. Some studies have shown that indigenous culture plays a positive role in promoting the sustainable development of nature. The model of international education is gradually changing. In order to achieve sustainable development goals, international education assistance to lower developing countries has been carried out on a large scale, but the effect is limited. In order to promote educational development in lower developing countries, it seems necessary to establish suitable partnerships and reform education models [17].

Currently, the factors causing educational demand inequality in many developing countries include social and economic factors. In terms of social factors, the discrimination against women in social values and traditional culture will lead to a serious shortage of women's demand for higher education [18]. While many developed countries start to embrace the value of inclusiveness, the status of women remained low in the deep-rooted indigenous culture, which blocks the path to higher participation in education. As for economic factors, the thought of high cost and low return of higher education also greatly reduces the demand for higher education in poor families [19]. The opportunity cost for attending education of this region are greatly separated from the indigenous cultural system. The separation between the introduced education system and the indigenous culture has brought great obstacles to the development of local education.

Under the influence of colonization, it is problematic that education in lower-developing countries is easily influenced by the international agenda and the educational model of developed countries because these countries have their own educational ecosystem. It is essential to identify their real educational needs and priorities and strengthen their research capacity [24]. Therefore, in order to achieve the increase of intellectual capital of lower developing countries, proposals have been made to establish suitable partnerships and reform educational models.

Due to Covid-19, the digital transformation process of the higher education system is accelerating, which provides a good foundation for the digitization of educational resources [25]. The transformation of global education models and the emergence of new economic models have brought new possibilities for intellectual capital transfer in underdeveloped parts of Africa. In order to solve the problem of disharmony between local culture and the introduced education system, an education platform initiated by local residents will be proposed as a new modality for intellectual capital delivery, which is based on the platform economy. On the supply side of the platform, Western cultural systems are not directly introduced, but online teaching and digital education resources are introduced to realize purer intellectual capital delivery and sharing. Taking telemedicine teaching as an example, there is evidence that the series of telemedicine education lectures have played a role in promoting the popularization of educational resources worldwide during the pandemic [26]. In terms of knowledge supply, the gig economy and sharing economy are adopted to solve the problem that unaffordable costs and the lack of faculty hindered the growth of intellectual capital in the past. In other words, educational talents in

3. Building the New Intellectual Capital Delivery Model: Online Education Platform

3.1 The Brief Analysis of the Online Education Platform

In the education of South Africa, indigenous culture is only combined with the Western education system on the surface, but on a deeper level, the world outlook and values brought by the education of this region are greatly separated from the indigenous cultural system. The separation between the introduced education system and the indigenous culture has brought great obstacles to the development of local higher education. Some studies have shown that indigenous culture plays a positive role in promoting the sustainable development of nature. Hence, it is crucial to promote the integration of local culture and the introduced knowledge system for the increase of local intellectual capital [22]. The model of international education is gradually changing. In order to achieve sustainable development goals, international education assistance to lower developing countries has been carried out on a large scale, but the effect is limited [23]. In lower developing countries, building a suitable partnership and strengthening research capacity is important for the increase of intellectual capital. Under the influence of colonization, it is problematic that education in lower-developing countries is easily influenced by the international agenda and the educational model of developed countries because these countries have their own educational ecosystem. It is essential to identify their real educational needs and priorities and strengthen their research capacity [24]. Therefore, in order to achieve the increase of intellectual capital of lower developing countries, proposals have been made to establish suitable partnerships and reform educational models.
developed areas conduct online teaching and knowledge transfer through the network platform in their spare time. In order to effectively promote the intellectual capital level of backward African countries, the platform will provide more targeted educational resources closely related to the social problems of underdeveloped regions, and conduct online lectures with more educational talents from this region or who understand the current situation of this region. On the demand side of the platform, because of the sociocultural and economic factors, the demand for education in the African lower developing countries is limited. Due to the rise of the attention economy, mass media will be used to promote the equality of information, so as to improve the current situation of insufficient demand for education. At the same time, with the development of digitalization, the media of knowledge dissemination is changing, and mass media have made great contributions to intellectual capital delivery [27]. However, due to the diversity of information spread by mass media, it includes both false information and real information, hence, it is necessary to distinguish the authenticity and accuracy of information. Most of the information spread by mass media has the characteristics of attracting people's attention, but its accuracy is weak, so mass media will be mainly used to increase the demand for education. To meet educational needs, the online education platform will be used to share authentic and accurate online educational resources for the people in the backward areas of Africa, so as to promote the transfer of intellectual capital. The following is a detailed analysis of the education platform.

3.2 Function1: Using Zoom for Online Teaching to Provide Digital Teaching Resources

3.2.1 Analysis of the Shortage of Teachers in Backward Countries

The shortage of teachers in low developing countries is a menace that affects most students from those regions and prevents them from achieving their dreams. The issue is also experienced in developed countries such as the United States, where the Economic Policy Institute predicted that the shortage of teachers will fall to one hundred and ten thousand by 2025 [28]. The shortages of teachers in the low developing countries lie in the government's poor education support, high poverty levels, and discrimination. The governments in such countries are focused on spending more on industrialization and healthcare, and only a tiny portion of the budget is spent on education. The teachers, therefore, receive low salaries and turn to other careers for survival. The lack of enough teachers prevents the proper delivery of intellectual capital as the learners lack enough teachers to participate in classroom work [29]. After the Covid-19 pandemic, most students have been forced to drop out of school because of the lack of teachers who had shifted to other careers by then. This spring’s campus shutdowns led to a quick rush to “remote learning” [30]. Because of Covid-19, traditional educational models have been challenged with training. It also made people see the feasibility of distance education and digital education. More and more universities used online platforms, such as Zoom, for remote teaching. The lack of technology in most slow-developing countries has also led to fewer hiring processes. Low technology leads to a slow hiring process and the appointment of lower-quality teachers.

3.2.2 Conditions for Distance Education.

The improved technological integration has also led to an increased usage of mobile devices, providing an opportunity for distance education. Technology companies have set up their marketing shops in various African countries, including South Africa, Nigeria, and Kenya enhancing the demand for distance education, especially for postgraduate students already in professional fields [31]. Technological devices have made it easier to access digital and social media, such as Youtube and LinkedIn, which are all critical in networking and learning new information. Indeed, Africa has recently been leapfrogging communications technologies at a level and pace, unlike any other continent. This rapid adoption may be partly responsible for the "African renaissance" and the recent rise in economic growth rates. E-learning through these technological devices will assist in this transformation [32]. According to the GSMA, smartphone adoption is rising rapidly in sub-Saharan Africa, with smartphone connections in the region reaching 49% of total connections in 2021. In terms of mobile connection quality, the GSMA reports that 3G adoption in sub-Saharan Africa peaks in 2022, accounting for 56% of all connections. At the same time, 4G and 5G are growing rapidly in this area. By 2025, 4G will account for a third of mobile connections. The level of infrastructure in the region, such as mobile networks, therefore provides the basic conditions for online teaching and learning [33]. E-learning involves using technology to learn, commonly known as online learning, computer-assisted learning, or ICT in education. It incorporates both the curriculum and instructions and has since become a new term representing a new model of education that may incorporate an “ecosystem” of networked communities and a variety of learning resources, as stated by Jennifer [34]. Nevertheless, it provides sites for improving the delivery of intellectual capital.

3.2.3 The Response of the Online Education Platform to the Problem.

The online education platform could reduce the cost of education. After the abolition of tuition fees in some African countries, enrollment rates have increased significantly. For example, because of the abolition, the enrollment rate in Ghana increased by 12%, Kenya by 18%, Ethiopia by 23%, and Malawi by 51%. 759 million adults are illiterate and do not have the necessary awareness to improve their living conditions and those of their children. Therefore, it is essential to improve and maintain enrolment by providing parents with information about the value of education. According to the Stanford Social Innovation Review, investing in exam results and
scores is no longer an effective way to focus on education. The new education model should combine traditional content with important financial, health, and management skills. Students should practice teamwork, leadership, and critical thinking. They should also contact entrepreneurial projects. The last is to provide better resources for teachers. Computer-aided learning will inevitably improve education in developing countries and improve the educational experience of teachers and students. Computers should have age-appropriate software learners and technically educated employees who know how to maintain computers. Then comes the high-cost solution. The OER platform is an educational material produced and approved for free use by others. OER comes in many forms - from courses to homework to textbooks. OER exists in all levels of education from kindergarten to university. OER began to influence public awareness in the form of Khan Institute, MIT Open Course Software, and Washington Open Course Library. California legislators proposed legislation to establish a free digital library of university textbooks, which could save millions of dollars in education costs for college students in the state every year. OER can enable learners to learn by themselves, some teachers to strengthen classroom learning, and education providers to reduce teaching costs. Obviously, open education resources can significantly reduce the cost of education while maintaining the quality of learning materials.

The solution to this problem can be to find some experienced teachers. First of all, we must use accurate programs to reduce school costs. It is better to view the data of the latest teacher resources. For example, in the past few years, the school has had a large budget, which is used as a benchmark for staff expenditure or examination results to show which departments perform better than others. Some unplanned expenses need to be budgeted, such as salaries of new employees or employees on vacation.

### 3.3 Function2: Working with Local Media to Promote Education Needs

#### 3.3.1 Analysis of the Low Demand for Higher Education in Lower Developing Countries

Another major problem undermining the delivery of intellectual capital is that the demand for higher education in many developing and LDC countries faces many obstacles, such as discrimination between cities and rural and between genders. The prejudices against certain groups of people deeply rooted in social values and traditional cultures, the mental pressures exerted on children in poverty and the attitudes of parents which tend to discourage young children from receiving an education are all factors that have contributed to low demand for education in lower developing countries, especially in Africa.

Discrimination against a specific group of people, such as women and people in poverty, has been a theme widely discussed in modern society. For LDC countries, this issue is yet to be mitigated due to many causes. For example, many countries and regions in Africa have been facing the problem of lacking attention and a mature social system which are strictly required to solve the problem of social prejudices. For the distance between each community and the school, the gap between rural and urban is huge. In particular regions of developing countries, the difference in the accessibility of education between rural areas and cities is larger than that of developed countries, which resulted from constraints in the budget and poor management of social systems under a relatively poor economy. There is also a lack of education resources available which leads to people in remote areas having to face the trouble of long travels for their basic rights. The limited access to education has discouraged the young generation from receiving basic education as the opportunity cost of education increases [35]. The second reason for educational inequality is gender discrimination, that is, parts of females in some developing countries do not have access to higher education for many reasons. Nepal serves as an example that demonstrates this issue in social norms. Nepal, which is not an exception in discriminating against women, has exhibited the problem of discrimination against women for a long period because of the traditional culture and the social form based on the hierarchical relationship of men and women. As a cultural tradition, discrimination has been accepted by women and applied by men as a social value. In Nepal's case, male sex preference for newborns is widespread throughout society. In this country, sexism exists throughout a person's life in many forms. There is a popular saying in Nepali that literally means that a delivered woman will get a goat and pumpkin to eat if she gives birth to a boy and daughter respectively, given that a goat is more valuable. There are different sets of behaviors for boys and girls to perform. Such discrimination has led to significantly low average schooling years of women in Nepal compared to men and has helped to establish the hierarchical relationship between men and women in the society and also helped to create many rigid gender norms that restrict women's opportunities and stifle their development in the private and public sphere [36]. The case of Nepal can also serve as an indication of the current situation of many regions in Africa, as a such phenomenon is also a common theme due to the social forms that fall behind the modern values we receive today.

The low demand for education in lower developing countries is also caused by mental pressures for children and the resilience of parents in poverty, which are factors easily ignored without an impeccable social conscience. A potential problem suggested is that overall, normal people and even educators have little understanding of how children from families living in poverty experience school, as opposed to children from more affluent families. We know little about how growing up in poverty affects children’s relationships with school friends and with teachers or ‘the problems of social inclusion facing poor children themselves’ although we do know that the more disadvantaged children have lower levels of subjective well-being in relation to their schooling compared to children from rich or middle-class family [37]. They often expressed concerns about having the right clothes, particularly for non-uniform days. Even with school
uniforms, they were concerned about having the right shoes or trainers. In addition, many young people whose families lived in poverty were unable to participate fully in school life because their parents simply could not afford it. But certain education policies have further contributed to their negative experiences through a toxic combination of test-based accountability, teacher evaluation linked to test scores, and the expansion of choice, particularly parental choice [38]. It is common that children had little right to choose their own ways of life, which further increases the mental pressure on students and discourages them from stepping into a higher level of education.

The lack of demand for education because of poverty is likely to get worse among poor people and form a cycle of the worsening situation in lower developing countries. As the stress exerted on students becomes more significant due to the lack of resources and increasing peer pressure, it is possible that many children have to leave school to work in order to support their families. Because dropping out of school due to poverty can in turn affect their future development, which will affect their annual earnings. In conclusion, poverty leads to reduced access to education, and a poor degree of education causes chronic poverty [39]. As the population is increasing and the gap between the rich and the poor has become wider, the importance of providing resources for children and raising the demand for higher education has to be stressed in order to deal with the problems deteriorating the societies of lower developing countries and regions.

3.3.2 The Response of the Education Platform to the Problem

One possible way to solve the problem of lack of demand for education is through relying on the wide influence of social media to raise attention to the issues relating to the economy and social structures which worsen the situation for children who have the right to receive an education. Nowadays the major function of media in Africa includes the responsibility to educate the people and empower them for effective participation in the democracy and development processes. The role of media in Africa includes helping to publicize actions aimed at bridging the digital divide between rural and urban areas, within the continent and between Africa and the rest of the world, stimulating and directing public awareness and debate on salient issues of national importance (land redistribution, constitutional review, resource control, housing, transportation) to enhance public participation in the policy process. And at the regional level, the functions include educating Africans on the workings of the African Union (AU) and the New Partnership for Africa’s Development (NEPAD) by mobilizing the people to play their roles in good governance initiatives such as the African Peer Review Mechanism (APRM) [40]. In addition to playing an important role at the societal level, the spread of social media can also help raise attention in the area of education. Governments and organizations are more likely to take action to raise the demand for education when the media is involved. This process can be realized as social media raises the intensity of interest by posting headlines and exaggerated descriptions which attract the public’s focus to consider education in a serious way. Following the pace of globalization, media from other continents has brought profound impacts on the daily life of African people since many years ago. Today the dominance of international media interests and their preference for Western-style commercial programming has not been physically coerced. Rather, according to Eko’s paper, the new media landscape has been rendered according to terms agreed to by global media players and numerous African governments and African investors. The larger population of workers, shopkeepers, farmers, and urban and rural poor have given their “consent” in a less direct fashion—to the extent that they have been attracted to the music, movies, programming, and other media commodities of the newly privatized, commercialized communication system. Nonetheless, one must recognize that African nations (at least as represented by their elites) are making conscious decisions regarding media, and for now, they must be considered junior partners in the emerging cultural hegemony, actively contributing to (but not leading) the construction of a negotiated global culture [41]. The success of social media infiltrating Africa has provided a good example of building a platform that improves education through cooperation with media.

In fact, the demand for Early Childhood Education (ECE) has been growing for decades in countries of Africa, which plays a significant role for children in the introduction of basic learning skills. In countries such as Nigeria and South Africa, there are many ECE centers that provide education for children by introducing classes with fewer costs and better access to resources [42]. The example of ECE development has demonstrated the trend of stressing the importance of education on a larger scale. With the help of social media, the platform is likely to have a wider impact on improving education status.

3.4 Evaluation of the Online Education Platform

With the acceleration of the digitalization process of the education system, the intellectual property rights of educational resources are becoming more and more prominent. The problem with the trend for teachers to put course materials on universities’ online education platforms is that the course materials are hard to be protected under intellectual property laws and will be spread over the Internet at fast speeds [43]. Similarly, there is no answer on how to ensure that the digital educational resources of the online education platform proposed in this paper come from formal channels, rather than infringe on others’ intellectual property rights. According to the available technology, choosing original content and the initial creation of educational resources is one way to ensure that the knowledge resources shared on this platform do not infringe on the intellectual property rights of others. Secondly, when creating and sharing educational resources collected on the Internet, it is important to find the author of the resource and obtain the author’s permission as far as possible. The timely filing of property rights and the establishment of an effective anti-
The level of intellectual property has significantly risen in the lower African developing countries in the past fifty years, although the number is still considered low compared to the developed countries. This paper has proposed an intellectual capital delivery model that incorporates the low developing countries' current situation and local cultural system in realizing net growth. The underlying information from other literature revealed that intellectual capital is a form of intangible asset that helps improve a company's competitive advantage. In building the New Intellectual Capital Delivery Model, the paper has first explained that the model of international education is gradually changing, and lower developing countries have partnered with various international agencies to establish proper education systems. The covid-19 pandemic also accelerated digital transformation and provided an opportunity for the transfer of intellectual capital. The paper thus introduced the aspect of using zoom as the first function of the online teaching model to improve digital teaching resources to curb the shortage of teachers in slow developing countries. Zoom is a technological platform, and because of the rising technology integration in the African continent, there is hope that schools will use this technology to curb book and teacher shortages and improve students' technological skills. Using zoom also reduces the cost of education in slow developing countries. The second function model proposed by the paper is working with the local media to promote education needs. One of the challenges facing the delivery of intellectual capital is the low demand for higher education in low developing countries. Therefore, this paper will become a guideline for addressing issues such as discrimination deeply rooted in social values and traditional cultures. The paper advises that social media should be used to raise awareness of the need for education, increase demand for higher education, and raise the intensity of interest and area of education. From a macro level, this paper will strive to offer solutions to guarantee the delivery of intellectual capital to develop countries and address the intellectual property rights of teachers participating in online education platforms.

4. Conclusion

The level of intellectual property rights of educational resources shared on this online platform. As the platform is highly public and the teaching resources are open to the public and educationally disadvantaged areas to the greatest extent possible due to the principle of knowledge sharing, the piracy and intellectual property security issues involved are weaker than for private education resources. The online education platform is primarily based on the principle of sharing knowledge for the public good, not for profit, and therefore does not require much in terms of the capital structure of the target countries, such as lower developing countries like those in sub-Saharan Africa. The platform aims to provide a viable solution to the low level of intellectual capital in the region and to provide the widest possible range of people with access to the educational resources that are lacking in the region at a low cost.

Reference
14. Zhang, C., Khan, I., Dagar, V., Saeed, A., & Zafar, M.


