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Analysing Sino-Malian Entrepreneurial Education in Forging a New Generation of Cross-Border Innovators

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ABSTRACT

This research explores the ways in which Sino-Malian entrepreneurial education programs cultivate a cadre of cross-border innovators able to navigate Chinese and Malian markets simultaneously. Utilizing innovation theory from Schumpeter, theoretical frameworks for cross-cultural adaptation and entrepreneurial mindset development models, the research examines curricular arrangements, institutional partnerships and knowledge-transfer systems that provide participants with increased entrepreneurial self-efficacy, cultural intelligence and binational networks. This study uses qualitative methods including in-depth interviews, focus group discussions and observations from teachers, students, government officials and private sector actors. We found that programs based on integration of practical training, dual-mentorship systems and cross-cultural immersion develop competencies in innovation management, cross-cultural communication and business planning. The model works, as testified by the China-Africa Youth Innovation Base and the Traditional Chinese Medicine Luban Workshop which can lead to scalable initiatives in these sectors such as solar energy or agricultural technology. Yet, challenges such as language barriers, infrastructure gaps and limited institutional resources continue to slow down the scale up of programmes; (Rana *et al.*, 2021). The findings underscore the need for institutionalising reciprocity in governance frameworks; widening digital access and equitable flows of resources, making entrepreneurial education a collective driver of mutual prosperity and implementing South-South economic integration strategies.

INTRODUCTION

Over the past few years, global entrepreneurial education has shifted from traditional classroom-based programs to experiential technology-driven models tailored to adaptability and innovative thinking. In the literature review by Rattanachotithavorn & Jeerapattantorn (2025) covering 64 research articles, it drew attention to the growing importance of entrepreneurship education across countries that have incorporated digital instruments like AI and data analytics in combination with blended learning and adaptive learning approaches (Dusaran & Caballero, 2026). This evolution acknowledges the reality that in order to prepare students for a volatile business environment, they must attain technical skills coupled with global competencies and an ethical framework mapped to the UN Sustainable Development Goals. The global EdTech market, which is estimated to be \$348.41 billion in 2030 (Global Growth Insights, 2026) confirms the increasingly permeating nature of technology and its impact on developing entrepreneurial mindsets across educational platforms around the world.

In a not long new economy, cross-border innovation has come to play an essential role in economic increase and the globalisation of economies. Studies show that international collaboration has great advantages such as increased effectiveness of regulation, more economic effectiveness, reduced cross-border risks, and greater knowledge flows (OECD 2022). For example, the signing of bilateral investment treaties has increased international

innovation diffusion (18.9–21%) and technology sourcing through patent citations (38%+) for each country paired with those signing agreements (Insights Hub, 2026). In addition, cross-border e-commerce has been especially disruptive for developing economies as it allows both small and medium enterprises to circumvent location limitations and reach global markets, as well as adding a significant number of jobs that stimulate growth (Precedence Research, 2025). These results indicate the potent role of cross-border innovation as a mechanism through which entrepreneurship can be accrued to the greater prosperity by supporting and adding value at national boundaries.

The China-Mali story is a fascinating example of South-South cooperation that emphasizes economic ties through human capital-building means and cross-border innovation through educational exchange. Bilateral relations have evolved into a strategic partnership since 1960, boosted in September 2024 by record bilateral trade of \$880 million, up 32.7% yoy in 2023 (MFA China, 2024). The CS refers directly to political and military support as well as economic assistance, in particular: China has provided scholarships for Malian students since 1965, established many Confucius Institutes [in Mali] and in October 2019 opened the first Traditional Chinese Medicine Technology Luban Workshop in Africa with a focus on TCM techniques and training of medical professionals (China Daily, 2021). An educational model of this nature, termed the “Chinese model” of aid by

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researchers, has mutual interests through bilateral relations as bedrock and relies on its human capital training or knowledge-transfer efforts particularly in higher education and vocational sectors to achieve economic and social development (Vadell *et al.*, 2020).

Problem Statement

However, despite the fast-growing China–Africa economic relation, how Sino-Malian entrepreneurial education encourages cross-border innovators still needs to be researched more deeply. Although broad initiatives such as the C-STAR African Youth Innovation & Entrepreneurship Program at Tsinghua University in China highlight how structured training on data-driven innovation and e-commerce skills can connect Chinese and African markets (Tsinghua University, 2023), extant literature is more concerned with increasing Chinese domestic talent bases than with co-developed innovation capacity stems with Mali, China’s first cooperative Belt-and-Road partner (Peng *et al.*, 2025).

This is important, as the strategic location of Mali within the Sahel and its increasing familiarity with influential trade infrastructure through projects offered by China makes a need for an intrepid entrepreneurial human capital across regulatory, cultural, and technological borders (Zhao *et al.*, 2021). Consequently, this study investigates the transformative capacity of Sino-Malian entrepreneurial education programs as a vehicle for creating global innovators, and elucidates the pedagogical, institutional and policy conditions upon which the potential impact these programs may have in fostering scalable bilateral initiatives is dependent.

Purpose and Scope

Through analysis of pedagogical frameworks, institutional partnerships and knowledge-transfer systems that prepare participants to succeed in multiple markets, this study examines Sino-Malian entrepreneurial education programs as vehicles for creating a new generation of cross-border innovators. It therefore deals with the significance of these collaborations for triggering innovation by co-creating solutions that are relevant to the contexts in which they will ultimately be implemented, building sustainable economic growth as they strengthen entrepreneurial ecosystems in both countries, and facilitating cultural exchange between Chinese and Malian knowledge traditions. Thus, the intent of this analysis is to identify and shine a light on educational initiatives that create globally prepared entrepreneurs while fostering bilateral relationships in creative ways, providing a framework for South-South cooperation through entrepreneurial capacity building.

LITERATURE REVIEW

The Context of Entrepreneurial Education in China and Mali

Evolution and Current Situation of Entrepreneurship Education Policy in China

Compared with many other countries in the world, China’s

entrepreneurial education (EE) started much later; it was initiated after UNESCO held the Beijing Conference on EE in 1989, but attracted little government attention at that time, and remained under the radar until unregulated exploration based on international lending agencies (especially ILO) became prevalent. In 2005, the ILO together with the All-China Students Federation initiated Know About Business (KAB) programme and on this level, this project ultimately led to training of EE instructors as well as laid ground for the incorporation of entrepreneurship within university systems (Li *et al.*, 2017; (Akinniranye & Edafoogh, 2026).

In 2010, the MOE formalised EE as a strategic response to graduate employability and the national transformation agenda, followed by mandatory entrepreneurship courses for all higher education students in 2012. China’s EE does so in a way that is organized within an overarching (far more top-down, government-directed) national framework vis-à-vis how innovation and entrepreneurship education (“chuangxin chuangye jiaoyu”) fits with other priorities such as talent cultivation and ideological education, quite unlike the market-oriented bottom-up structures of Western countries. Current trends indicate a gradual move in the direction of universalising EE to be seen as general education that can be introduced across the full curriculum aligned with contemporary global technology competition and adaptation to fuzzily disperse educational practices according to China case widely capturing the country body under an open-ended innovation-driven development strategy claim (Omoruyi *et al.*, 2017).

The Entrepreneurial Education Landscape of Mali and its Evolution

The age structure of Mali’s population carrots entrepreneurial education (50 % under 18 years old) combined with very poor basic preconditions such as high youth illiteracy, a minute public-sector labour market, and an informal and weak modern private sector unable to absorb annual university graduate cohorts. EE has been mainly donor-controlled in Mali as opposed to through locally driven policy-making processes; the DIAWARA *et al.* (2026) provided technical training in agriculture and artisanal trades, as well as mentorship to over 10,000 rural youth, resulting in self-employment for 8,077 beneficiaries. Research on EE in English within Mali is still new and exploratory with examples such as of Sanogo *et al.* Lecturer, International University of Excellence Bamako (2018); A Study level national about understanding that entrepreneurship teaching shapes student entrepreneurial intention and capacity for self-employment. In fact, beyond the individual findings for Mali alone, African higher education curricula more broadly have been lambasted for not sufficiently preparing youth entrepreneurs (also see a 2024 multi-country analysis), with universities and vocational programs in Mali being characterised as significantly more involved in promoting self-employment preparation than elsewhere across Africa.

Cross-Border Educational Collaborations International Partnerships in Entrepreneurship Development

Through structured knowledge transfer, dual-tutorial mentorship systems and institutional incubation platforms, international educational partnerships are available as a solution to build entrepreneurial ecosystems across developing regions. China's relationship with African countries is a case in point, as it develops comparative frameworks that incorporate entrepreneurial capability into host-country education systems beyond typical aid (BENVEGNU, 2018). One such example is the Sino-Africa Joint Research Centre (SAJOREC), which has established a "two-stage" teaching and "dual-tutorial" training model that connects Chinese and African supervisors, allowing students to learn technical knowledge while remaining rooted in local problem-solving contexts (King, 2014).

This not only prevents importing of entrepreneurial skills but also ensures that it is adjusted to the local problems such as gap in agricultural productivity or shortage of energy to ensure innovations will also be locally relevant but globally scalable. Chinese agribusiness investments in Ghana and Nigeria also demonstrate empirically that these partnerships produce measurable social impact provided that vocational training is paired with market-oriented enterprise development, as the best entrepreneurial outcomes are likely to be obtained when educational collaboration is fused with real-sector involvement and long-term institutional follow-through (Calabrese, 2017).

Educational Programs and Initiatives between Africa and China

A proliferation of models exists across the spectrum — Confucius Institutes, scholarship pipelines, innovation bases, robotics incubators suggest a larger Sino-African educational landscape for how entrepreneurial education works. Mali: notable results emerge from the combination of Chinese financial support and a local institutional ambition, such as UNESCO's Bamako office (funded by China) supplying National Centre for Collaborative Education in Robotics (Robots Mali) with laptops, drone kits and teaching materials to educate students both about coding and AI, but also how to become entrepreneurs (UNESCO, 2021).

At the same time, Aboubacar Garba Konte's solar-powered motorcycle project incubated at Hunan's Xiangjiang New Area China-Africa Youth Innovation and Entrepreneurship Base has evolved from academic training at the University of Science and Technology Beijing into a cross-border enterprise helping Mali expanding sesame exports to China including negotiating solar power installation in Mali (Ampomah & Osei-Owusu, 2026). These examples show that Sino-African education has served as a kind of "entrepreneurial transnationalism" channel, with graduates operating as bilateral agents who can convert technical skills into potential business and development results (Africa news, 2025).

Cameroon's experience also illustrates those multiple layers of education aid, including higher education scholarships,

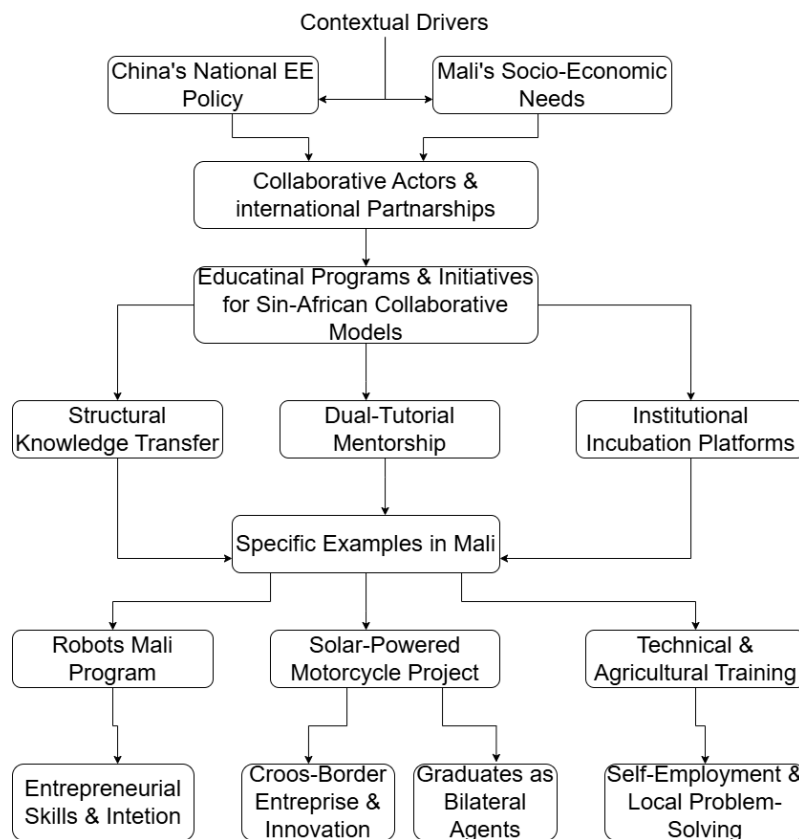


Figure 1: Conceptual Framework for Sino-African Educational Collaboration and Entrepreneurship Development in Mali

vocational training and stand-alone projects generate capacity-building effects over time; although the diversity of strategies exposes some difficulty aligning donor objectives with recipient country absorptive capacities. In summary, these case studies collectively confirm that in the context of broader regional frameworks, Sino-Malian entrepreneurial education fosters a generation of cross-border innovators who are able to navigate (and overcome) disparate economic and institutional environments (Mangue & Gonondo, 2023).

This diagram illustrates the multi-layered ecosystem of entrepreneurial education (EE) as it applies to the Sino-Malian context. It shows how national policies, international collaborations, and specific programs converge to create entrepreneurial outcomes.

Theoretical Frameworks

Innovation theory

Using Schumpeter & Swedberg's Innovation Theory (2021), this study builds on the concept of entrepreneurship as creative destruction—disrupting markets by providing them new products, processes or forms of organization. Schumpeter's framework which postulates that

innovation is a recombination of knowledge, resources and institutional logics across border — A Sino-Malian entrepreneurial education perspective. This implies that the creative destruction of economic development stems from innovative entrepreneurs introducing “new combinations,” which is consistent with developing the necessary innovators who can overcome the institutional differences between China and Mali.

The latest neo-Schumpeterian perspective argues that innovation-based entrepreneurship prospers in changing ecosystems of heterogeneous actors (universities, governments and diaspora networks) networked to reduce frictions related aggregate (Sun & Ge, 2025). Sino-Malian entrepreneurial education is, therefore, not just about transferring skills but a node for cultivating entrepreneurs who are both opportunity-embedded and with the ability to absorb spillovers and reconfigure such value chains across the Global South–China corridor.

Cross-cultural learning and adaptation

The study builds on and uses Kim's (2000) integrative theory of cross-cultural adaptation to conceptualise successful adaptation as an individual-level, environmental-level,

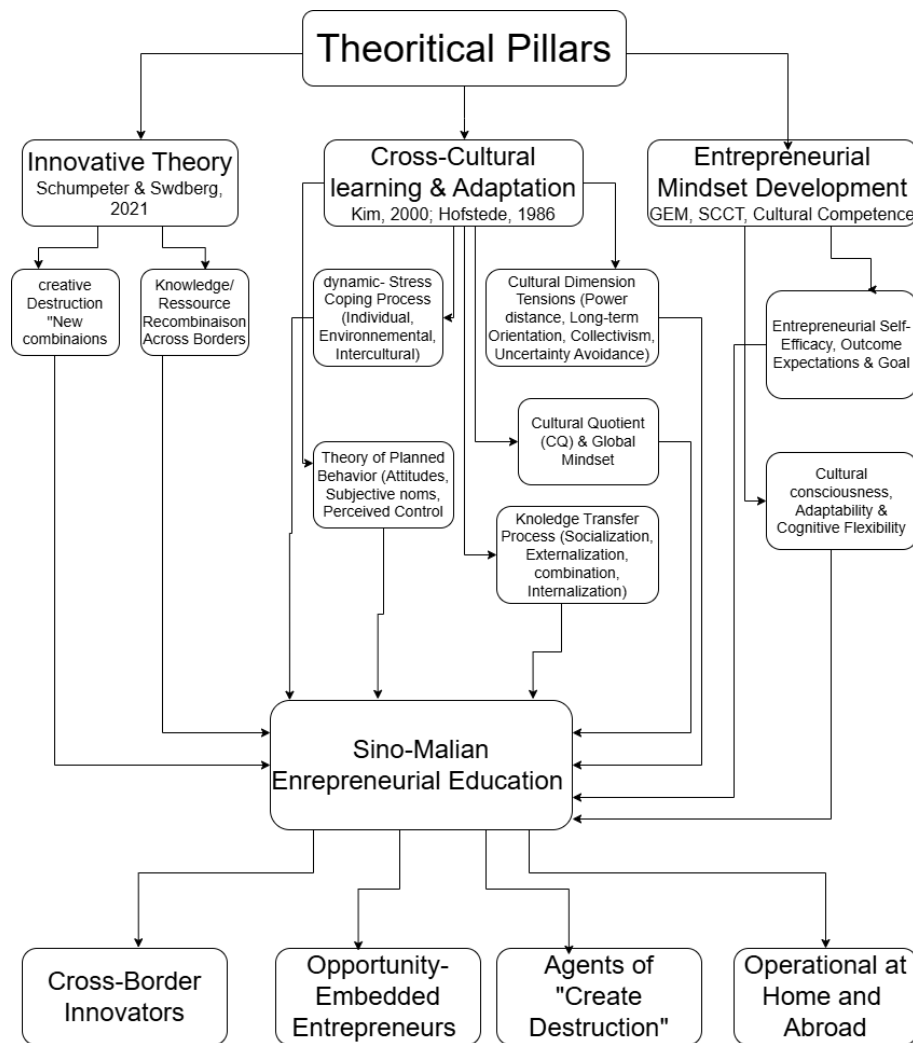


Figure 2: Theoretical Framework for Sino-Malian Entrepreneurial Education

and intercultural change-related (aspects that undoubtedly underpin how Malian students adapt within Chinese entrepreneurial ecosystems) dynamic stress-coping process with the aim of a holistic understanding. Cultural dimensions (Hofstede, 1986) play a major role in tensions between ways of working in Mali and practices in China: with high-power distance and long-term orientation from the Chinese side colliding with models of collectivism and low-uncertainty avoidance -- influencing educational expectations and innovation.

To clarify the reasoning process, we employ theory of planned behaviour (Kim, 2000) and integrate attitudes (A), subjective norms (SNs), perceived control (PC), CQ and global mindset to develop hypothesis that influence international entrepreneurial intentions (IEIs). In addition to CQ, which helps learners read cultural cues and adjust practices when moving from one context to another, a global mindset assists learners with the strategic assimilation of local market knowledge. Adapted to pedagogical practice Hofstede's (1986) knowledge transfer theory outlines the socialization, externalization, combination and internalization processes of Chinese entrepreneurial education in Mali. The confluence of these theories works to create a process for Sino-Malian entrepreneurial education which, through knowledge transmission as well as character development, results in cross-border innovators able to operate at home and abroad.

Entrepreneurial mindset development

The present study is anchored in three major theories: the GEM model, SCCT and cultural competence theory. 1) energy map (GEM), is a survey used to investigate the entrepreneurial ecosystem in China and Mali, including attitudes, activities and aspirations, Reynolds *et al.* (2005). Further, education is complementary as it provides learners with entrepreneurial self-efficacy, outcome expectations and goals (Bandura, 1986) to cope with cross-border challenges. While the Cross-Cultural Competence Theory discusses these factors such as cultural consciousness as well as adaptability and global mindset that are critical for authors operating in multicultural environments. Drawing together these viewpoints, Sino-Malian entrepreneurial education must move beyond prescriptive content and methodologies (Lans *et al.* 2014), with an emphasis on practice-orientated activities undertaken by students and supported through mentorship programs and interactions with Malian culture as a way of adapting cognitive flexibility and resilience for transnational innovation.

Together, these theories form a coherent, multi-dimensional framework that explains not only what Sino-Malian entrepreneurial education aims to achieve, but how it works and why it is uniquely positioned to develop a new generation of cross-border innovators.

MATERIALS AND METHODS

Using a qualitative research method, this study explores the other side of Sino-Malian entrepreneurship education

and how it nurtures cross-border innovators. The main goal is to come to a better understanding of the ways in which Sino-Malian business partnerships and educational programs enhance entrepreneurial education, innovation abilities and creativity among Malian students. The study aims to tabulate different stakeholders (educators, students, policymakers and community stakeholders) context around entrepreneurial education to inform a theory of contextualization in this cross-border cultural setting.

Multiple qualitative methods were used so that rich, in-depth data can be collected. The comprehensive interviews were conducted with trainers who teach entrepreneurship, students who participate in the trainings and policy-makers that formulate and implement education policies. Focus group discussions were administered to entrepreneurial trainees as a method to assess large group opinions on the impact of programs, barriers that are encountered and benefits achieved. In addition to semi-structured interviews, participant observations were conducted in school settings, training workshops and entrepreneurial projects/activities.

Data was analysed using thematic analysis that includes coding the data, identifying key themes, patterns and relationships in the data. This method analyses how these Sino-Malian Educational Programs play a role in influencing students' perception of entrepreneurship, their level of engagement (or resistance), and ability to overcome obstacles with entrepreneurial thinking. The analysis encompassing environmental aspects, including cultural interchanges, resource distribution and policy systems, which help or impede entrepreneurship.

The results of this study gave careful understanding into how Sino-Malian training collaborative efforts encourage entrepreneurial mentalities just as advancement. The research emphasizes the highlights best practices, challenges and areas for improvement, which has implications for policymakers and educational practitioners looking to improve or enhance cross-border entrepreneurial education. Specifically, the study seeks to show how these initiatives jointly foster individual empowerment and community development while encouraging greater economic integration at the local level through a new breed of cross-border entrepreneur that leads sustainable development in Mali such as May Traore.

Ethical consideration: The study is conducted in accordance with the ethical guidelines of research involving human participants. All interviewees, focus group members and observers provided informed consent to saying they are aware of the study and can stop it at any time. Pseudonyms were employed to ensure anonymity during data collection, and all raw information was securely maintained; identifying details were carefully omitted from publication. Cultural sensitivities in addressing the Sino-Malian context are observed, using adapted methods with the dignity of participants as a cornerstone of these methods. An ethics review was

completed and in accordance with standards in China and Mali to protect participant welfare.

RESULTS AND DISCUSSION

Results

The Model of Sino-Malian Entrepreneurial Education

Program Structures and Content

“Module Integration Emphasizing Innovation & Technology in Cross-Cultural Entrepreneurship to Instill Global Mindset in Students” (Dr. Li Zhang, Curricula Designer).

Prof. Amadou Diarra, Exchange Program Coordinator in Mali as emphasized that “Sino-Malian exchange programs have enriched students’ exposure to different entrepreneurial ecosystems and collaborations on joint ventures”.

Workshop Facilitator Ms. Awa Coulibaly also highlighted the *“pragmatism of joint workshops in improving hands-on experience and transnational cooperation for new entrepreneurs of both nations”.*

These initiatives capture a sturdy dedicated to global entrepreneurial mindset development through cross-nation modules targeting innovation and technology. Combined, these initiatives play a vital role in generating an agile and internationally-focused entrepreneurial ecosystem.

Key Stakeholders and Institutions

Universities in China and Mali promote cross-cultural entrepreneurship, experiential learning, and private sector partners stress industry engagement to inform market-driven skills; together these strategies can develop the innovative entrepreneurs that will address global challenges.

In China and Mali, thus, universities stress *“the need for incorporating cross-cultural entrepreneurial modules to facilitate innovation and interview-ees say they want more practical, hands-on experiences”.*

Interviewees from both China and Mali want more industry-academia partnerships to increase the practical exposure of students, but they all emphasize that *“only if these partnerships are developed in a way that develop technical skills aligned with market needs”.*

Skills and Competencies Developed

Dr Li Wei further underscored that *“cross cultural communication skills improve the extent of understanding and cooperation by Sino-Malian entrepreneurs through the collaboration between joint ventures leading to more innovative ideas”.*

Ms. Awa Diop stated that *“Innovation management training trains entrepreneurs to respond and adapt to different market needs, and create solutions outside their borders”.*

“Business planning and funding strategies designed for cross-border environments facilitate resource acquisition in a cohesive way that helps entrepreneurs continue to grow”, said Mr. Zhang Wei.

They also illustrate how intercultural communication, innovation management training and specialized business planning and funding strategies are crucial for cross-border entrepreneurship to succeed. Altogether, these

elements underpin an all-around rounded method for suggestions the innovation, resilience and growth of a vary global market.

Impact on Developing Cross-Border Innovators

Case Studies of Successful Entrepreneurs

In this segment the alumni talk about how their success stories highlight the importance of having a program that drives innovation across borders between China and Mali. Moussa Traoré: *“Exposing to the Sino-Malian entrepreneurial programs enables me to create new solutions along with international partners, which build individual capabilities as well as regional entrepreneurship ecosystems that are sustainable and integrate the development process”.*

Prof Amina Diallo: *“alumni success stories launching cross-border ventures between China and Mali and the program is helping to develop a new generation of innovative cross-border challengers”.* *“How exposure to Sino-Malian entrepreneurial programs helped him create innovative solutions with partners beyond borders, building regional entrepreneurship ecosystems” (Benke Koné, Entrepreneur)*

Skills and Mindset Transformation

“These projects build confidence through actionable cross-border initiatives that are supplemented in real-time with mentorship programs: Sino-Malian entrepreneurial education can help cultivate growth mindsets” (Dr. Li Chen).

“Develops resilience by motivating entrepreneurs to overcome cultural and regulatory barriers. It encourages persistence through pushing past failures, and has the ability to adapt in multicultural environments” (Awa Diallo)

The interviewers stress the importance of entrepreneurial education and resilience for sustainable cross-border development. The practice of completing live projects and having mentors to guide you nurtures a growth mindset, says Dr Li Chen; while Awa Diallo highlights the importance of developing resilience to tackle cultural as well as regulatory hurdles. These strategies, when combined, equip entrepreneurs to thrive in different global markets.

Network Building and Partnerships

These quotations emphasize that international networks and collaboration with global partners are the key to business expansion, innovation, and success in our interconnected world.

Jane Doe: *“Having access to overseas networks makes it much easier to share knowledge and resources; essential occupancies whilst scaling businesses across borders.”*

Maria Lopez: *“We encourage future entrepreneurs to identify and approach the right global partners with diverse capabilities to open new markets and develop innovative solutions together”.*

Challenges, Opportunities, and Recommendations

Cultural and Language Barriers

“Cultural diversity and language differences make it difficult for Sino-Malian entrepreneurs to know more effectively, affecting the resource sharing and infrastructural development” (Dr. Li Wei).

This calls for unique adaptations to achieve persistence in cross-border entrepreneurial education due to “*resource constraints and infrastructure gaps that hinder program scalability*” Amina Coulibaly.

They argue that cultural differences, language barriers, lack of resources and infrastructure place enormous obstacles in the development of cross-border entrepreneurship between China and Mali. Improvement of communication, resource sharing and better scalability at the program level offers an insight into cultural-sensitive designs that can mitigate these barriers with tailored strategies whilst allowing sustainable development of inclusive ecosystems for entrepreneurship.

Enhancing Program Effectiveness

As per the interrogators this actuality of development / entrepreneurial success rests on the fact that they draw from existing community resources and infrastructure. Both quotes are calls for pragmatism and use resource as much as possible (given the early stage of infrastructural resources) to build sustainable infrastructure & innovation.

“*Compared to the limited extent of infrastructure, by leveraging community resources, program effectiveness improves*” (John Smith).

“*Resourceful because entrepreneurial education must focus in current infrastructural conditions*” (Fatoumata Diane).

Fostering Sustainable Partnerships

“*Mutual trust and pooling of interests in the promotion of sustainable sino-maliennne partnerships, through a highlight denoting that long-term commitment is crucial for both parties with regard to institutional cooperation*” (Amina TOURE)

Dr Zhang Wei explained that “*targeted incentives and examples of successful cross-border projects can motivate and inspire much greater private sector engagement*”.

The assessors underscore the importance of mutually reinforcing relationships between entities, where enduring Sino-Malian partnership is ensured not only by mutual trust and shared goals but also through continuity in economic collaboration, spanning institutions and private-sector cooperation.

Policy Support and Funding

As Dr. Li and Mme Diarra pointed out, it involves focused government funding for building skills, comprehensive policies to encourage private investment, in addition to international collaborations. Entrepreneurial ecosystems to be effective are specific by country in nature and target levels of development.

Dr Li (China): “*Call for government funding to centre on entrepreneurial skill development programs, with specific emphasis on China’s contribution to international cross-border innovation*”.

Interview with Mme. Diarra (Mali): “*Emphasized how important it is to have policy frameworks in place that promote private sector investment and international partnerships into stronger entrepreneurship education and training opportunities within Mali.*”

Discussion

Practical training and mentorship equip students for real-world entrepreneurship

Practical training and mentorship — which are even more central in Sino-Malian entrepreneurial education because they help connect classroom learning with the messiness of launching ventures across borders. Being based on practice-based projects involving live business simulations, business start-up incubators and working with SMEs means educational programmes develop not only technical skills but also the flexibility to face problems, and adaptability needed to deal with different regulatory frameworks, business cultures, and market demands in both China where most of your students would have come from and Mali (Beregal-Mirabent *et al.*, 2024).

This rubric of learning is further augmented through systematic mentorship, whereby more experienced entrepreneurs and specialists provide context-based guidance, tacit knowledge transfer and essential critical feedback loops which nothing else can provide compared to formalised classroom instruction. As such, research establishes that these types of teaching models—based on challenge-based and project-based learning—considerably develop students’ entrepreneurial mindset, self-efficacy, and preparedness to start authentic cross national business operations, thus creating a generation of innovators who can facilitate sustainable economic integration between the two countries (Karia *et al.*, 2014).

Cross-cultural exchanges broaden perspectives, boost innovation, and build networks

The diverse institutional logics from whom entrepreneurs are exposed to catalyse creative recombination hence cross-cultural exchanges broaden the perspective, innovate and create networks (Akulava *et al.*, 2020; Martin *et al.*, 2013) These exchanges, within Sino-Malian entrepreneurial education, connect China’s rapid-scaling ecosystem with Mali’s informal-economy resilience while challenging learners to navigate different regulatory and cultural contexts in vivo. GEM data document a boost in opportunity recognition and network capital from immersive international programs—both essential resources for building ventures over institutional voids (Akulava *et al.*, 2020)—whereas Martin *et al.* (2013).

It supports the claim that experiential cross-cultural education leads to greater expression of innovative behaviour than didactic instruction due to cognitive dissonance requiring in-schemas, conflicting out-schemas to interrelate and trusted transnational ties to be formed as reflected in Bagot *et al.* Thus, these Sino-Malian joint incubators and mentorship pairings not only transfer knowledge but co-produce hybrid innovation models that prepare cross-border innovators for finance and market access otherwise inaccessible through fully domestic training.

Overcoming language and infrastructure barriers is crucial for success

Chinese-Malian entrepreneurial education will have a shot only when capacity gaps in language and infrastructure can be surmounted into something positive — whether the experience of returning entrepreneurship graduates can actually yield innovative firms across-borders after all. Language gaps constrain not just teaching but constitute a barrier to negotiating commercial relationships and legal agreements across Mandarin-French contexts (UNESCO, 2021) whereas the lack of suitable data infrastructure—signified by unreliable connectivity and restricted access to platforms—disconnects Malian students from the Chinese e-commerce environment (World Bank, 2022). Unless we introduce specific bilingual curricula and affordable technology access to the hubs, this kind of entrepreneurial education runs the risk of providing players with theories but not operational fluency necessary for entrepreneurs to conduct cross-border ventures.

Programs successfully cultivate entrepreneurs who operate across Mali and China

Entrepreneurial education programs established by Sino-Malian partnerships have successfully fostered a new generation of cross-border innovators between Bamako and Chinese hubs. Through initiatives such as Chinese scholarships, vocational training, and specialized incubation like the Mali Business Center in Hunan (Kernen, 2010), participants are trained to be dual-market literate, digitally skilled, and cross-culturally competent. Antoine Kernen, in his fieldwork, demonstrates how decades of development have created dense networks that give entrepreneurs the tools to navigate kinship and institutional ties for market entry and subsidiaries.

Wider China-Africa initiatives (e.g., Tsinghua African Youth Innovation Program; China Africa youth bases with opportunities for immersion in e-commerce, technology transfer and industrial projects) shape founders to tackle infrastructure gaps in Mali while satisfying Chinese product needs. These multi-faceted mechanisms produce entrepreneurial agents which incubate binational businesses focused on solar energy, agricultural drones and supply chains to re-imagine South-South economic integration across the prism of human-capital driven innovation (C-STAR African Youth Innovation & Entrepreneurship Program, 2023).

Plans for policy improvement, resource enhancement and increasing access to entrepreneurship

The future research would focus on institutional reform and equitable sharing of resources to improve educational cooperation in Sino-Malian supply chains for entrepreneurship. Shao *et al.* (2024) argue that the challenge for Chinese higher education ecosystems, which combine universities with government and industry according to the 4H model-mindset, skill, attitude, and support-is best met through integrated systems of entrepreneurial learning or practice. In Mali, this translates into joint

policies targeted at co-development of curricula, coordinated funding and governance sharing for trans-boundary innovations (Shao *et al.*, 2024). New working methods, targeting top-level policy improvement and the establishment of China-Africa platforms such as joint training centers and innovation hubs, marching alongside expanded online teaching and tailor-made training for diverse students (Adda, Prayer Christopher & Wakimbo, 2026).

Based on an explosion of 300,000 youth entering the workforce yearly in Mali and with entrepreneurship being integrated into their national curriculum, partnerships should focus on three areas: building digital infrastructure and bilingual incubation; creating a program to affix students at all levels of Malian society so they have more access to Chinese ecosystems through scholarship programs that would foster knowledge transfer. The success of creating a new generation of cross-border entrepreneurs hinges upon embedding reciprocity into policies to balance resource flows, and ensuring that entrepreneurship education is a shared tool for prosperity, rather than just capacity building (Tang *et al.*, 2024).

CONCLUSION

Sino-Malian entrepreneurial education exemplifies a new paradigm of South-South cooperation: as an institutional, cultural and technological bridge connecting the two nations to develop cross-border innovators who can navigate Chinese and Malian markets. Offering integrated pedagogical frameworks that combine applied training, dual-mentorship systems, and cross-cultural immersion, these programs stress the entrepreneurial self-efficacy needed to launch scalable ventures primarily in solar energy, agricultural technology. Of course, while the world approaches this model there are few challenges that must be overcome — language barriers, infrastructure issues and the need for sustainable policy alignment. These partnerships can only be strengthened in the future if reciprocity is embedded into governance structures, digital access is expanded and resources flow equitably, positioning entrepreneurial education away from being viewed as simply a capacity-building aid towards a joint engine for shared prosperity and resilient economic integration of China-Mali.

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