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REPATRIATION OF THE BRAIN DRAIN TO BRAIN GAIN

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Abstract: The development stagnation or lack thereof of rural areas in South Africa is fast becoming unprecedented because of the loss of much human capital to urban areas. Therefore, the paper aims to conceptualize and analyze the implications of the brain drain in rural areas. The central argument of this paper is that the unprecedented relocation of youthful and educated human capital from rural to urban areas perpetuates underdevelopment in these areas. This shift of skilled and educated population can be noted as brain drain and with the antagonist arguing that it is brain gain in urban areas. Consequently, rural areas experienced depopulation, which did not spark interest in investment toward development. In that, the proliferation of underdevelopment facets in rural areas can be attributed to the loss of losing human capital from people with skills, knowledge, expertise, abilities, and capabilities migrating from rural to urban areas. Therefore, most rural areas need more capacitated people to enhance their socioeconomic conditions. This conceptual paper adopts a literature-based methodology to assess and critique the repatriation of the brain drain from urban areas to rural areas and decentralize development to benefit people in rural areas. It finds that rural areas still need to be developed due to brain drain (loss of human capital) and rural-urban migration. It recommends that people with the necessary skills, knowledge, and experience return to the communities to decentralize and reindustrialize rural areas for better living standards. Keywords: Brain-drain, Brain-gain, Human Capital Migration, Rural Areas,



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## **INTRODUCTION**

Brain drain is an informal expression that refers to the migration of highly skilled individuals and professionals from one location or industry to another (Young, 2023). Brain drain is typically observed in developing nations when talented individuals leave their home countries for more favorable prospects elsewhere. Young (2023) concedes that brain drain leads to the depletion of skilled individuals considered vital for countries, industries, and organizations. This term commonly refers to the departure of specific professionals, such as doctors, healthcare workers, scientists, engineers, or financial experts, and signifies the significant loss incurred by their absence. However, the term "brain drain" is used mainly by scholars and discussed in a much broader context, referring to international migration. While on that breath, Srivastava (2020) economically refers to the term 'brain drain' as 'human capital flight.' The author, Srivastava (2020), referred to the European milieu. Thus, E.U. nations like Romania, Poland, Italy, and Portugal experience a

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pronounced impact from brain drain. In contrast, countries such as Sweden, Ireland, Estonia, and Denmark observe the converse phenomenon known as brain gain (Srivastava, 2020).

It is necessary to comprehensively understand the concept of 'brain drain' to give context to this paper. Many rural areas in South Africa are marred with the challenges of losing human capital because highly skilled, experienced, knowledgeable, and capable of developing rural areas contributing to rural development are migrating to urban areas (Aghaei et al., 2023). It is further compounded by the high rate of depopulation in rural areas, which led to most school infrastructure being abandoned, and a need for more investment in rural infrastructure such as roads, health, and water. Therefore, the ramification of rural-urban migration, which causes brain drain affects many rural communities (Srivastava, 2020). This results in the depletion of valuable human resources and hampers the potential economic progress of the communities (Srivastava, 2020). Hence, when highly skilled individuals leave rural areas, there is a depletion of expertise and knowledge within the community, which can hinder the progress of local industries and limit opportunities for innovation and growth. Most importantly, brain drain also has social and cultural implications.

As educated young individuals leave rural areas in pursuit of better prospects, the demographic makeup of the community changes, resulting in an aging population and a loss of diversity and vibrancy (Young, 2023). Understanding that urban areas are a vital focus in the growth and development of the country, it only benefits the few, such as the elites & middle class, and sidelines rural areas (proletariat). However, the problem is that the continuous influx of human capital to urban areas creates a stagnation of underdevelopment in rural areas. Therefore, this perpetuation of the influx of people to urban areas needs to be improved to ensure the ability and support the potential to build community profile and community development. For a country to have holistic development, a narrow development focus in urban areas in South Africa must be revised. This paper is grounded in the human capital theory and will be discussed below.

**Human Capital Theory.** Human Capital Theory (HCT) is significant in understanding how the economy influences education and in explaining the economic significance of education (Buyruk, 2020). The HCT was first established by Becker et al. (1962) and further strengthened by Rosen (1976), implying that every worker has specific skills and talent (Wallstreetmojo Team, 2023). The HCT posits that people gain knowledge and skills, known as human capital, through various endeavors, with education and training being the primary means of acquiring them (Buyruk, 2020). According to Ross (2021), the human capital theory demonstrates that individuals can enhance their productivity and potential by acquiring higher education and improving their skills through training. Buyruk (2020) contends that human capital theory guides the behavior of individuals in their pursuit of education. Based on the fundamental premise of human capital theory, individuals engage in cost-benefit analysis when deciding whether to pursue education.

Lulle et al. (2021) show that groundbreaking theories on human capital are significant because, in their analysis, the term 'human capital' refers to the knowledge, skills, competencies, and other qualities individuals possess that apply to economic endeavors. HCT suggests that migrants can be classified into different groups based on their educational levels, such as those with lower education, tertiary education, or students (Lulle et al., 2021). However, it recognizes that all individuals who are migrating are knowledgeable and constantly engaged in the process of learning. Lulle et al. (2021) linked HCT as the primary driver of organizational performance through employees' productive skills, experience, and knowledge.

The principles of the HCT should also be linked to contributing to the development of rural areas by bringing back highly skilled and semi-skilled personnel to rural areas. Understanding that human capital is mainly linked to urban areas and its hegemony is prevalent in urban areas, it must



be reimagined and applied in rural areas. Therefore, the concentration of human capital in urban areas must be decentralized to rural areas. Hence, rural areas need more skills, academics, knowledge, and expertise, ultimately leading to the underdevelopment of rural areas. Through this theory, the socioeconomic development of rural areas would be attained through different practices of livelihoods by those with the necessary skills and expertise.

### **METHODS**

This study adopted a literature-based methodology to analyze and critique the implications of the brain drain on rural areas in the sense of decentralizing development. This methodology is purely qualitative, which seeks to provide an in-depth discussion and analysis of the phenomenon under investigation. It enables a thorough interrogation, assessment, and critique of the literature. Moreover, the methodology is also descriptive (Selelo, 2021).

**Data Collection.** Due to the nature of this study (qualitative), data was collected through a desktop, which is a critical review of the literature. In that sense, the author reviewed and collected literature through journal articles, reports, books, and other publications on the cloud. Through this tool, the author gathered qualitative data to interrogate the subject under investigation and achieve its purpose critically.

**Data Analysis.** Qualitative content analysis is a method that aims to summarize unprocessed information by grouping it into categories or themes through logical deduction and understanding (Kuckartz, 2019). This approach relies on the researcher's diligent analysis and continuous data comparison, allowing themes and categories to emerge naturally. Qualitative content analysis primarily relies on an inductive approach, where exploring subjects and themes and their conclusions are firmly based on the data (Lindgren et al., 2020). Therefore, the qualitative content analysis allowed the researcher to establish and analyze the themes in-depth to achieve its purpose. The purpose was also achieved by critically examining literature to understand other scholars' different debates and views and draw necessary suggestions.

Brain Gain, Brain Waste, Brain Drain. This section seeks to discuss brain gain, brain waste, and brain drain.

**Brain Gain.** Perusing the works of Reissová et al. (2021) and Bedi et al. (2023), brain gain is when people with education and skills return to the country of their origin to give remittances to their families. In this study, brain gain should be understood as contributing to community development by those with the necessary skills, knowledge, experience, and education (human capital). It is essential in building community profile, community participation, and largely Local Economic Development (LED). Meanwhile, Elo et al. (2020) regard the phenomenon of feminization of migration and the valuable contributions of highly skilled female migrants to economies, whether through their professional careers or entrepreneurial endeavors, as continuing to be disregarded or underestimated, which ultimately contributes to brain waste.

**Brain Waste.** Soto et al. (2016) contend that brain waste refers to the underutilization of skills. Pires (2015) indicates that brain waste refers to a scenario in which an individual experiences a skill downgrade, meaning they are employed in a job that demands a lower skill level than they have attained. Brain waste occurs when a skilled person invests in education but needs to reap the rewards of acquiring human capital. This situation arises when a skilled migrant finds themselves working in an unskilled position (Pires, 2015). Therefore, brain waste should be understood in this study as the individuals with good skills, knowledge, and education lacking the opportunities to utilize their knowledge, skills, and education to facilitate and contributes towards community development.



**Brain Drain.** As a point of recapitulation, brain drain is a term that can also describe the migration of skilled individuals from one company or field to another in pursuit of improved remuneration or prospects (Young, 2023). Much emphasis and focus have been on brain drain because it provides the core argument of this paper. Brain drain differs from brain gain and waste because it mainly focuses on migrating individuals with excellent skills and expertise from their country or rural areas to other places where they could utilize them.

The Return of Human Capital to Rural Areas. The World Bank (2023) refers to human capital as the collection of knowledge, abilities, and well-being individuals acquire over their lifetimes, empowering them to reach their full potential as valuable contributors to society. Šlaus and Jacobs (2011) corroborate the perceptions of the World Bank by implying that the idea of human capital pertains to the role of individuals as both a resource and a driving force for economic advancement and societal progress. Moreover, Aghaei et al. (2023) concede that human capital fosters economic growth and significantly reduces inequality. By fostering human capital growth, the capacity to eradicate extreme poverty and foster more equitable communities. However, at this juncture, human capital appears to be focused and concentrated in urban areas. Therefore, human capital should be drawn from urban areas to rural for better development and enhanced living standard. In that sense, the World Bank (2023) emphasizes that achieving this goal necessitates dedicating resources to nourishing individuals, providing healthcare, offering excellent education, generating employment opportunities, and enhancing skills.

Human capital is vital for addressing inequality and facilitating upward social mobility in communities (Qin & Kong, 2021). Allocating resources toward developing human capital in rural areas is the most potent and equitable approach to fostering economic activities such as businesses, employment creation, and infrastructure development. Goldin (2016) shows that investing in human capital yields good returns. For every investment made, there must be returns. In this case, human capital's Return on Investment (ROI) would be improved living conditions with better health care, education, infrastructure, reduced poverty, employment creation, and business development. A recent study by Qin and Kong (2021) found that human capital enhances entrepreneurship development. Meanwhile, Zaborovskaia et al. (2020) state that human capital can improve digital infrastructure. All these views collated together are necessary for the development of rural areas, provided that human capital is brought back to the rural areas to be the foundation to resuscitate and improve local economic development.

**Causes of Rural-Urban Migration.** There are different reasons for the migration of people from rural to urban areas. It is well documented that different areas harbor either pull or pushing factors. This study focuses on two factors for such a movement (push and pull factors). Push factors drive individuals to leave a particular location and relocate elsewhere for various reasons (Thet, 2014; Kanayo et al., 2019). Common push factors include decreased productivity, high levels of unemployment and underdevelopment, unfavorable economic conditions, limited prospects for progress, depletion of natural resources, and occurrences of natural disasters. These challenges push individuals to move from home to urban areas to find solace and, more significantly, good opportunities and better living standards. Some of the contributing factors that push people toward urban areas are due to ineffective domestic capacity development strategies, leading to an imbalance between the availability and demand for labor (Kanayo et al., 2019). Young (2023) asserts that to effectively decrease the extent of brain drain, it is crucial to comprehend the issue comprehensively. It is necessary to understand the factors that push and attract individuals, motivating them to leave for rural to urban areas. Hence, it is unsurprising that the average taxi driver/cleaner in major



American cities is an individual of African or Asian descent who holds one or multiple university degrees from their original countries.

Pull factors are elements that entice migrants to a specific area. The factors that pull many people towards urban areas include appealing employment opportunities, higher wages, convenient amenities, improved working conditions, and attractive facilities (Thet, 2014; Kanayo et al., 2019; Mlambo & Adetiba, 2020). Khan (2021) posits that part of the pull factors is that urban areas have advanced technology compared to rural areas. Kanayo et al. (2019) contend that some of the non-economic factors in terms of pull factors are that some individuals want to be close to their families, spouse, wives, and husbands. While non-economic push factors may be fleeing from a war or civil unrest (Kanayo et al., 2019). However, Mlambo and Adetiba (2020) studied the concept of brain drain in teachers, and their study found that teachers mostly prefer to teach in urban areas. Part of their reasons is that there is a better pass rate than in rural areas and convenient access to different services. On the same line, Khan (2021) concurs that in recent times, there has been a noticeable increase in the movement of intellectual talent, particularly among academics and researchers in higher education. Furthermore, most higher education institutions are located in urban centers, which propels most students to leave their homes for universities. It is a basis for the movement of the youth from rural areas to urban areas.

Pull and push factors confirm two fundamental requirements of neoclassical macroeconomic migration theory, which state that labor force migration is driven by disparities in the level of welfare among different countries and that the migration of highly skilled workers is a result of variations in the returns on intellectual capital across countries (Kazlauskiene & Rinkevičius, 2006; Mlambo, & Adetiba, 2020). Even though people are moving to urban areas for a better life, they also experience challenges such as urban poverty, as discussed below.

**Urban Poverty.** Cano (2019) understands urban poverty as the array of economic and social challenges observed in developed cities stemming from a blend of factors, including the pursuit of better living conditions, growing individualism, societal fragmentation, and the division of the job market resulting in social division. The author, Cano (2019), explicitly shows that urban poverty has been studied and categorized into two significant perspectives. Firstly, the underclass approach, which is a theory that stipulates that poor people are responsible for their poverty. Secondly, the poverty approach is a theory that believes poverty is produced and reproduced by structural social forces. Therefore, the conceptual analysis of urban poverty requires one to focus on both theories highlighted by (Cano, 2019) to understand and cover all the causes of urban poverty holistically. The warning is that analysts perceive this as an undesirable precursor to emerging poverty issues such as the proliferation of urban slums in densely populated cities. This warning is already transpiring because most South African towns and cities are congested with people, mushrooming and unplanned human settlements, pollution, and traffic congestion. Individuals residing in urban areas with a high population density are likely to experience illness, drug abuse, and crimes, to name a few.

Although urban areas have attracted politicians and academics, Benassi and Morlicchio (2019) show that most towns and cities experience new urban poverty. Hence, this new urban poverty is characterized by the proliferation of slums; there is still a great deal of unemployment and pollution, amongst others. This study maintains that although urban areas are seen as safe nets and places of opportunity, they could be better. Urban areas must not be seen as a nostrum of escaping poverty but rather be an alternative to betterment living standards. Mthiyane et al. (2022) argue that brain drain or rural-urban migration leads to the misallocation of labor between rural and urban areas and raises urban unemployment and poverty. Thus, this migration from rural and urban areas causes



stagnation of rural areas in terms of socioeconomic development. The Organisation for Economic Co-operation and Development (OECD) (2020) predicts that more than 68% of people globally will reside in urban areas by 2050. In 2022, South Africa's urban population was reported to be approximately 68.33%. This massive urbanization implies that urban areas would continue to face challenges such as urban unemployment and poverty. For that reason, this paper calls for a reversal in the development agenda towards rural areas to salvage the potential woes that may arise in urban areas. The development of manufacturing industries and training institutes can curb rural-urban migration or repatriate human capital to rural areas.

**Decentralization and Reindustrialization of Development in Rural Areas.** Using layperson's terms, one understands decentralization as a process of relinquishing power and development from central or state government, local government bodies, and non-governmental and private organizations to local and deep rural areas characterized by poverty, unemployment, and inequality. This process allows individuals in rural communities, mainly economically disadvantaged, to experience several benefits (World Bank, 2008). These include, as per the World Bank (2008), (i) participating in the decision-making processes that directly impact their daily lives, (ii) assessing the results and consequences of their own decisions, (iii) reducing the likelihood of misunderstandings, (iv) gaining a better understanding of the challenges and complexities involved in administration, planning, and management and (v) accepting accountability for failures or setbacks. Gow and Van Sant (2019) show that decentralization of development from centralized authorities to local levels enhances resource management and community engagement, a crucial aspect of achieving sustainable development. Equally, supporters of decentralization maintain that local governance enhances community involvement in rural development.

The World Bank (2008) indicates that decentralization can facilitate the expansion of national government ministries' service coverage to a more significant number of local regions. It can also enhance political representation by providing diverse political, ethnic, religious, and cultural groups with a voice in decision-making processes (World Bank, 2008). Moreover, decentralization can alleviate central department leaders from ordinary responsibilities, enabling them to focus more on policy-related matters. In situations where it is successful, decentralization helps alleviate the obstacles in decision-making that often arise due to centralized government planning and control over significant economic and social activities (World Bank, 2008). Decentralization is a broad concept that includes different types in its nature. The following paragraph below outlines different types of decentralization that could enhance rural areas' development.

Political decentralization involves distributing political rights between the central and local governments. It includes granting local governments certain rights in personnel appointments, dismissals, and economic management by the central government (Xiong & Shen, 2019). Economic decentralization pertains to the division of rights in allocating economic resources between the central and local governments (Xu & Li, 2023). It encompasses fiscal decentralization and financial decentralization. Fiscal decentralization entails granting local governments greater autonomy in fiscal revenue and expenditure compared to the central government (World Bank, 2008; Xu & Li, 2023). Financial decentralization involves market forces significantly allocating financial resources, while local governments only possess regulatory authority (Xiong & Shen, 2019). The following paragraph below shows the nexus between decentralization and brain drain in a way showing how the repatriation of brain drain to rural areas could assist in decentralizing centralized development in rural areas.

Given all the types of decentralization from the latter paragraph, the human capital concerned with those types of decentralization becomes a focal point of attention. Community development is



attainable if those with political, financial/fiscal, and economic skills are harmonized together and brought to rural areas. However, decentralization is not a universal solution and carries certain drawbacks. Decentralization might only be efficient in some cases, particularly for standardized services that rely on routine processes and networks (Dick-Sagoe, 2020). It can lead to a loss of economies of scale and central government control over limited financial resources networks (Dick-Sagoe, 2020). Additionally, inadequate administrative or technical capabilities at the local level can result in less efficient and effective service delivery in some areas of the country.

## **RESULTS AND DISCUSSION**

As per the above literature, it is succinct that brain drain has unpleasant outcomes for the development of rural areas. Literature shows that the perpetuation of underdevelopment in rural areas results from a loss of human capital drawn from rural to urban areas. While much focus is given to urban areas and understating that urban areas are the growth poles of every country, rural areas become victims of brain drain or suffer from the illness of brain drain. However, to ameliorate such an illness of brain drain, the return of human capital and decentralization of development is critical to ensure the sustainable development of rural areas. At the heart of it, harnessing and taking advantage of local resources could also aid in improving development in rural areas.

This paper also demonstrated that brain waste and brain drain drags the development of rural areas. Therefore, people with relevant skills that could enhance rural development must utilize such skills for the benefit of his/her family and, primarily, the community. It is because charity can only begin in the family or the community. If charity begins outside the family or home, it must be ditched because it does not benefit local people. Therefore, the remittances that individuals get from urban areas should not only benefit urban areas but must also assist in uplifting the development of rural communities. This paper also outlined some of the pillars which serve as part of the recommendations that could enhance the development of rural communities. In that, the pillars could only work if human capital is at the center of it and harnessing local resources.

**Pillars to Develop Rural Areas.** The pillars below are recommended and should be seen as something other than final alternatives to rural development. Due to the context of this study, the pillars below could make meaningful contributions towards the development of the community profile provided that human capital or people with skills, knowledge, education, and those that are semi-skilled be unified to put into practice the pillars recommended in this study. The pillars must be understood in decentralizing development and bringing back human capital. The pillars include, amongst others, (i) building economic and recreational centers (Malls), (ii) revitalizing farming, and (iii) supporting black informal businesses.

**Building Economic and Recreational Centres (Malls).** Introducing mall centers in rural areas can drive economic growth by attracting businesses, creating employment opportunities, and generating local revenue (McGreevy, 2016). These centers can act as commercial hubs, offering goods and services that were previously unavailable to rural residents. Moreover, the increased economic activity can lead to improvements in infrastructure, services, and overall quality of life. Due to limited options, rural areas often need help accessing diverse goods and services. Constructing mall centers can provide convenience to residents by eliminating the need for long-distance travel to obtain essential products. It can also enhance access to recreational facilities, entertainment venues, and dining options previously lacking in rural communities (Cloete, 2020).

Mall centers have the potential to diversify the local economy by attracting a variety of businesses. It can help reduce dependence on specific industries or agricultural sectors, fostering a more resilient economy. Furthermore, the presence of these centers can stimulate healthy



competition among businesses, resulting in improved product quality, better pricing, and increased consumer choices (Cloete, 2020). Rural areas often experience "retail leakage" as residents travel to urban areas for shopping, causing economic losses for the local community. Constructing mall centers in rural areas can help retain local spending within the community, supporting local businesses and preventing revenue outflows (BusinessTech, 2016).

Moreover, mall centers can serve as social gathering places, promoting a sense of community and providing spaces for social interaction. They can host community events, cultural activities and offer recreational facilities. It contributes to the social composition of rural areas, fostering community cohesion and strengthening community bonds.

**Revitalizing Farming.** The revival of agriculture in rural areas is vital in boosting local economies. By investing in advanced farming techniques, infrastructure, and agricultural technologies, rural regions can increase productivity and generate income for farmers (Rose et al., 2021). It, in turn, creates job opportunities, stimulates local businesses, and contributes to overall economic development. Breathing new life into farming in rural areas helps strengthen food security by boosting local food production (Bacco et al., 2019). By emphasizing diverse crops and sustainable farming practices, rural communities can reduce their dependence on imported food and strengthen local food systems. It ensures a reliable food supply, promotes self-sufficiency and resilience, and reduces vulnerability to external factors (Meemken & Bellemare, 2020).

Reviving farming in rural areas enhances the overall well-being of communities by generating employment opportunities and supporting livelihoods. It provides farmers stable incomes, reduces rural-urban migration, and preserves local traditions and cultural heritage (Meemken & Bellemare, 2020). Additionally, agricultural sector growth has multiplier effects on other industries, such as agribusiness, food processing, and rural tourism. The revival of farming involves providing farmers with access to training, information, and technical support, which is human capital that would diversify farming. It facilitates adopting of modern agricultural practices, innovative technologies, and improved farming techniques (Bacco et al., 2019). That Bacco et al. (2019) categorize this new type of farming as "smart farming," whereby facilitating knowledge transfer and promoting innovation in the agricultural sector boosts productivity, efficiency, and competitiveness, contributing to the long-term development of rural areas.

Alongside revitalizing farming, fostering market linkages and promoting value addition can drive rural development. Developing local markets, connecting farmers with consumers, and supporting agri-entrepreneurship help farmers secure better product prices and increase their income (Bacco et al., 2019). Value-addition activities such as processing, packaging, and branding enhance the competitiveness of agricultural products, creating new business opportunities (Bacco et al., 2019). In summary, the revival of farming in rural areas drives economic growth, enhances food security, promotes sustainability, and improves livelihoods. A comprehensive approach encompassing infrastructure, market development, knowledge transfer, and environmental sustainability is crucial. By prioritizing the agricultural sector, rural areas can experience comprehensive development and create opportunities for their communities.

**Supporting Black Informal Business**. Small businesses serve as the foundation of rural economies. These enterprises can enhance economic growth by generating employment opportunities and local income. Small businesses often possess the potential to expand and hire residents, contributing to the economic vitality of rural areas. Small businesses aid in diversifying rural economies by introducing new industries and sectors (Hanaysha et al., 2022). Through support for entrepreneurship and innovation, rural areas can reduce their dependence on a single industry



or agricultural sector, enhancing the economy's resilience and adaptability to change (Hanaysha et al., 2022).

By supporting small businesses, local wealth can be retained within the community. When residents patronize local establishments, money circulates within the community, benefiting other businesses and contributing to community development (Selelo & Khwela, 2022). It fosters community resilience and cultivates a stronger local pride and identity. Small businesses often reflect the distinct character and culture of rural areas. They may offer locally crafted goods, traditional products, or services that showcase local expertise. Hence, supporting these businesses helps preserve local traditions, heritage, and cultural identity, making rural areas more appealing to residents and local tourists.

Small businesses provide essential goods and services that may be scarce in rural areas (Akpan et al., 2022). By supporting these enterprises, residents can conveniently access necessary items without needing long-distance travel. It improves quality of life and saves time and resources for rural communities. Small businesses in rural areas encourage entrepreneurship and empower individuals to pursue their business ideas. Rural residents can establish and expand their businesses by providing resources, training, and access to capital, fostering a culture of innovation and self-reliance (Phillipson et al., 2019). Collaboration and networking: Supporting small businesses encourages collaboration and networking among rural entrepreneurs. Establishing platforms for knowledge sharing, business partnerships, and collective marketing efforts strengthens the overall businesses in rural areas are essential for their development and the overall well-being of rural communities (Selelo & Khwela, 2022). Such support promotes economic growth, diversification, and the preservation of culture, while also enhancing access to goods and services. By investing in small businesses and cultivating a supportive environment, rural areas can nurture entrepreneurship, retain local wealth, and establish thriving, sustainable communities (Phillipson et al., 2019).

### CONCLUSION

Implementing comprehensive strategies that promote a supportive environment for competent individuals to succeed is crucial to addressing brain drain. It involves enhancing employment prospects, upgrading infrastructure and research facilities, boosting investment in education and training, and implementing policies that retain and attract talent. By cultivating an environment that facilitates professional development and provides appealing opportunities, countries and regions can alleviate the adverse impacts of brain drain and promote long-term sustainable development. It could also be linked to decentralization. Because decentralization allows for all to partake in community projects, brings a sense of community empowerment and ownership, directs the development of the community, and makes their own decisions for future purposes. It would attract more people to invest in community projects. Most significantly, this should be complimented by the people with relevant skills, and those that migrated to urban areas come back home to assist in developing their communities. However, the recommendations provided in this paper should be seen as "alpha and omega"; however, they can be regarded as some of the few recommendations that could enhance the local communities. It allows future researchers also to add recommendations that could benefit and improve rural areas.

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