

Towards an Integrated Agric-Park Mentorship Model: An Exploratory Study on Youth Agribusiness Development

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ABSTRACT

Youth unemployment in South Africa remains a pressing socio-economic concern. This paper introduces the Vertical Integration of Agric-Park Mentorship Scheme (VIA-PAYMES), a conceptual model designed to support young graduates in establishing sustainable agribusinesses. Rooted in social constructionism, the model is informed by Mosaic Theory, the Zone of Proximal Development (ZPD), and Scaffolding Theory, offering perspectives on how mentorship and experiential learning contribute to agripreneurial development. VIA-PAYMES proposes a vertically integrated agro-enterprise approach that combines mentorship, production, processing, and marketing within a unified 'farm city'. Drawing on conceptual analysis rather than empirical fieldwork, the study introduces the VIA-PAYMES concept, which incorporates mentorship by experienced commercial farmers, structured training in production and agro-processing, and vertical integration within the agricultural value chain. As an exploratory and practice-oriented study, it aims to inform future pilot programmes and guide policy discourse on inclusive agricultural transformation. The paper highlights the potential of such a model to promote youth employment, rural development, and food security in developing economies.

Keywords: Agribusiness, Youth Unemployment, Conceptual Model, Mentorship, Skills Development.

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1. INTRODUCTION

This paper adopts a policy- and practice-oriented approach to conceptualise a strategic intervention framework to enhance youth participation in agriculture. While not based on empirical field data, the analysis integrates theoretical models to propose a viable and evidence-informed solution.

Over the years, South Africa has implemented various local and national economic development strategies, offering economic support through frameworks and programmes such as the New Growth Path (NGP), Expanded Public Works Programme (EPWP), Community Work Programme (CWP), National Development Plan (NDP), and, more recently, the South African Economic Reconstruction and Recovery Plan (ERRP). The latter specifically aims to mitigate the economic impact of the coronavirus pandemic. These programmes share common goals of stimulating employment, reducing poverty, and promoting inclusive growth and equality. Despite major policy interventions, the persistence of youth unemployment, poverty, and inequality reflects deep-rooted structural economic challenges that predate the COVID-19 pandemic (South African Economic Reconstruction and Recovery Plan, 2021). This is further illustrated by labour market data from the third quarter of 2024, which shows that South Africa's agricultural sector accounted for approximately 935,000 employed individuals—representing a modest 5.5% of total employment (Statistics South Africa, 2024).

Although the sector plays a critical role in ensuring national food security and sustaining rural livelihoods, its limited contribution to overall employment highlights a critical challenge: the agricultural labour market remains underutilised as a driver of inclusive job creation. This is particularly concerning given South Africa's persistently high unemployment rates, especially among youth and rural populations (Mama, 2020; Oluwatayo & Ojo, 2024). Nevertheless, the sector holds considerable untapped potential for labour absorption, particularly through the expansion of smallholder farming and agri-entrepreneurial initiatives. This contextual backdrop underscores the imperative for innovative and inclusive approaches, such as Via-Paymes, that establish sustainable pathways for greater youth economic participation in agriculture.

In 2022, around 16.3% of households in South Africa were engaged in agricultural activities (Statistica, 2022), a figure with growth potential. Encouraging young people to pursue agribusiness, promoting expansion, and supporting business integration through effective policies,

funding, and support from both governmental and non-governmental stakeholders can boost youth participation in agriculture. The current South African model does promote youth engagement in agribusiness through broad-based policies, funding support, training programmes, and land access initiatives facilitated by multiple stakeholders such as the Department of Agriculture, Land Reform and Rural Development (DALRRD), the National Youth Development Agency (NYDA), and various non-governmental organisations (Chibonore, 2022). However, its implementation is often fragmented, mentorship is inconsistent, and linkages to markets remain weak (Boye et al., 2024). Training is largely decentralised, while mentorship is typically informal or short-term in nature (Girard, 2017).

In contrast to these fragmented efforts, we propose the Vertical Integration of Agric-Park Youth Mentorship Scheme (Via-Paymes), also referred to as “Integrated Farm City.” This vertically integrated agro-enterprise model combines farm settlement, mentorship, and single-entity control of the entire farming value chain within a designated “farm city.” Vertical integration involves combining different stages of production, processing, and marketing within a single business (Bryant et al., 2022; Oltra-Mestre et al., 2021), and in this case, within a single agricultural ecosystem managed for efficiency and youth empowerment. The Via-Paymes model draws inspiration from several successful international models that demonstrate the transformative potential of youth-focused, integrated agribusiness interventions. For instance, the Songhai Centre in Benin (West Africa) exemplifies agroecological integrated farming and entrepreneurship. It operates as an integrated farm, incorporating a training centre and an agro-industrial hub that combine crop production, processing, marketing, and skills development for youth. Young people are trained in areas such as crop production, post-harvest handling, value addition (e.g., drying and packaging), marketing, and business management. The key pillars of the Songhai model—strong mentorship, self-sufficiency, and the use of renewable energy—have proven critical to its success and serve as a reference point for the Via-Paymes approach.

Additional models also reinforce the viability and impact of this integrated approach. The IITA Youth Agripreneurs (IYA) programme in Nigeria and other African countries focuses on agribusiness incubation and integrated value chains. At the same time, the One Acre Fund in East Africa has effectively deployed youth-inclusive contract farming and input-service delivery to support rural livelihoods. In India, the Green Colleges Programme provides integrated training and

enterprise development opportunities for rural youth, demonstrating the importance of combining practical agricultural skills with business acumen. Similarly, initiatives such as the Agripreneurship Alliance and SAFIN Youth Agribusiness Hubs in Uganda and Kenya showcase the value of coordinated support across the value chain, leveraging ICT, innovation hubs, private sector partnerships, and entrepreneurship training to attract and retain youth in the agricultural sector. Collectively, these models highlight key success factors that have informed the Via-Paymes framework: (i) end-to-end value chain support—from inputs to markets; (ii) practical skills and entrepreneurship training that go beyond primary production; (iii) access to land, finance, and mentorship; (iv) incorporation of processing and packaging for value addition; (v) market-driven models with private sector engagement; and (vi) the strategic use of ICT to appeal to and empower youth.

The Via-Paymes model offers a structured, end-to-end approach in which young people are integrated within agri-parks that provide access to land, agricultural inputs, training, processing facilities, and market connections. Mentorship under the Via-Paymes scheme is formal, long-term, and led by experienced commercial farmers. As part of the proposed initiative, we recommend that commercial farmer-mentors be incentivised through a combination of financial, non-financial, and policy-based mechanisms. These may include monthly stipends, milestone bonuses linked to mentee progress, and transport allowances, as well as non-financial recognition such as awards, media visibility, and subsidised inputs. Policy support could include formal integration into agricultural extension systems and public–private partnerships. A digital tracking and payment platform, supported by mentee feedback and performance monitoring, will further ensure transparency, accountability, and sustained engagement. This integrated approach is not reflective of any existing or prior government mentorship scheme but represents a novel intervention designed to systematically address the gaps identified in current youth agricultural programming.

Participants operate within a controlled, vertically integrated value chain, thereby enabling measurable business outcomes. Importantly, mentorship in this model is conceived as a reciprocal learning relationship in which the mentor and mentee work collaboratively to achieve mutually defined goals. This approach not only enhances the mentee’s skills, knowledge, and abilities but also fosters a supportive environment for professional growth and innovation (Taylor & Black, 2018; Parker, Xu & Chi, 2022). The proposed mentorship strategy for youth in agribusiness

incorporates structured, long-term guidance from experienced commercial farmers, delivered within vertically integrated agri-parks. In contrast to the existing informal and fragmented mentorship approaches, this model embeds mentorship within the day-to-day operations of the agricultural value chain—spanning production, processing, and marketing. Each mentee will be paired with a mentor through a performance-based agreement that outlines specific roles, timelines, and measurable deliverables. The model facilitates real-time experiential learning in a controlled setting, thereby enhancing young people's preparedness for participation in commercial agribusiness. It will be centrally coordinated through a digital platform that monitors progress, provides timely feedback, and connects mentees with funding opportunities and market access. This model aims to promote sustainability, strengthen accountability, and support the development of viable agribusiness enterprises.

According to the Quarterly Labour Force Survey (QLFS) for Quarter 4 of 2024, youth aged 15–24 and 25–34 years continue to experience the highest unemployment rates in South Africa, at 59.6% and 39.4%, respectively. Although the graduate unemployment rate is lower at 8.7%, it remains a cause for concern given the level of investment in higher education. The Via-Paymes project directly responds to this pressing need for youth employment by targeting young male and female graduates from tertiary institutions interested in farming as a business. The scheme aims to mobilise, train, and support young graduates to establish sustainable careers in farming and agro-processing, contributing to broader efforts to create full-time employment opportunities within the agricultural sector. As part of its implementation, youth participants may be placed on land reform farms or in traditional communal areas, enabling access to underutilised land and aligning with national priorities related to land reform, rural development, youth employment, and agricultural transformation. The Via-Paymes project is designed to provide a structured, blended training model that addresses the disconnect between theoretical knowledge and practical skills in agricultural enterprise development. The programme combines experiential learning with theoretical instruction, targeting key components of the agricultural value chain while placing strong emphasis on entrepreneurship. Participants will engage in three interrelated training components. Firstly, on-farm apprenticeships, which constitute 60% of the programme, will allow trainees to work alongside experienced farmers, acquiring hands-on knowledge in contemporary farming practices, agronomic planning, and sustainable production systems. Secondly, classroom-based instruction

will focus on agri-finance, business literacy, marketing, and entrepreneurship. These modules will be facilitated by invited experts and industry practitioners, ensuring both theoretical depth and practical relevance aligned with current market dynamics. Thirdly, industry rotations within agro-processing units will expose participants to post-harvest management, food safety protocols, packaging, and value addition processes through structured internships.

This hybrid approach aims to equip youth not only for primary production but also to enable their meaningful participation across the entire agricultural value chain—from farm to market. Quarterly performance evaluations will be conducted to monitor progress, with mentorship provided by experienced commercial farmers. Additional support will be provided through strategic collaborations with public extension services and private-sector stakeholders. These partnerships will provide both general and specialised extension services that complement the mentorship process, enhancing the programme's overall effectiveness, reach, and sustainability. The Via-Paymes project seeks to cultivate a new generation of entrepreneurial agripreneurs capable of contributing to and innovating within the agricultural economy. Youth attitudes towards agriculture in South Africa are largely characterised by disinterest and scepticism. According to Magagula and Tsvakirai (2020), despite governmental efforts to promote agricultural entrepreneurship, youth uptake remains limited due to entrenched negative perceptions and underexplored socio-economic factors. The Via-Paymes project aims to address these challenges through the development of practical skills in production and agro-processing, the provision of agribusiness linkages and mentorship, and exposure to successful agribusiness models. These interventions will create structured and dignified pathways into the sector, thereby promoting a positive shift in youth perceptions and promoting greater engagement in agricultural careers.

To operationalise these interventions, the project will establish targeted agribusiness linkages through partnerships with agricultural cooperatives, small, medium and micro enterprise (SMME) development agencies such as the Small Enterprise Development and Finance Agency (SEDFA) and established agro-processing facilities. These entities have been identified based on their relevance and alignment with the scheme's goals. For instance, SEDFA has supported agri-entrepreneurs through blended finance models and enterprise development programmes, demonstrating the feasibility of such engagement within youth-focused agricultural initiatives. Within the Via-Paymes model, these actors are expected to play a crucial role in providing technical

support, facilitating market access, and promoting entrepreneurial development. While these partnerships are proposed at this stage, they reflect realistic opportunities that can be pursued during implementation. In addition, public–private platforms will be harnessed to enable active participation across agricultural value chains. Further strengthening these linkages, the Via-Paymes project will align with institutional market opportunities, such as South Africa’s National School Nutrition Programme (NSNP), which received an allocation of R1.5 billion under the 2023–2025 Medium-Term Expenditure Framework (Department of Basic Education [DBE], 2023). This could offer an immediate and reliable market outlet for mentees’ produce, alongside other targeted procurement avenues such as correctional services and public healthcare facilities. These mechanisms aim to reduce the risks associated with early-stage agripreneurship and instil confidence among young graduates entering the sector. The scheme will prioritise vertically integrating primary production, processing, and marketing at a small-scale (cottage industry) level. Under the Via-Paymes model, a recent graduate can generate income through cottage industries by cultivating high-demand crops such as leafy greens, herbs, and microgreens in controlled environments aimed at niche markets. Value addition will be achieved through packaging, branding, and, where applicable, organic certification. Direct-to-consumer sales—via farmers’ markets, online platforms, or farm-to-table initiatives- are expected to increase profit margins. The model also incorporates elements of agri-tourism, including farm tours and educational workshops, which could serve as supplementary income streams. Furthermore, integrating small-scale processing activities, such as herb drying or juice extraction, and collaborating with local restaurants or retail outlets can expand market access. The model also emphasises the strategic use of grants, startup funding, and low-cost technologies to enhance operational efficiency and sustainability.

This concept aligns with the Sustainable Development Goals (SDGs) and South Africa’s Vision 2030, focusing on attracting youth to agriculture with innovative and creative ideas. It will contribute to a modern, commercially oriented agricultural sector while creating jobs, reducing poverty, addressing food insecurity, and promoting local economic development. The Via-Paymes model is designed to generate both direct and indirect employment by providing accessible opportunities for youth and women across the agricultural value chain. It also aims to enhance local food production, reduce reliance on imports, ensure year-round supply, and support the growth of

microenterprises. The promotion of entrepreneurship, education, and sustainability within communities is expected to alleviate poverty, strengthen local economies, and build long-term resilience, particularly in food-insecure and urban areas. Exploiting agricultural value chains can enhance food security, create job opportunities, and strengthen farm-city resilience. The Via-Paymes model will equip young farmers with the tools, knowledge, and resources necessary to farm profitably and sustainably. Supported by experienced mentors drawn from established networks of commercial farmers, such as AgriSA, as well as agricultural cooperatives and industry associations, the model will provide guidance across key areas, including production, processing, and market operations. Each mentor will undergo a thorough vetting process to ensure they possess substantial expertise, while curriculum delivery will be further supported by qualified extension professionals, ensuring that participants receive a comprehensive, practical, and industry-relevant learning experience. The model includes a 12-month on-site incubation programme, potential access to startup capital through microgrant facilities, and structured quarterly mentorship reviews to ensure ongoing development. Each mentee will also receive a personalised farm-to-market business plan. This holistic approach will foster job creation and broader socio-economic development, empowering young farmers to thrive within the agri-business sector.

2. PURPOSE OF THE PROJECT

The Via-Paymes model will offer a structured framework for aspiring young farmers to establish sustainable, commercially viable agricultural enterprises. It aims to address critical barriers that young entrants to the sector traditionally face through a more integrated, market-oriented approach. Specifically, the model will:

1. Provide structured, face-to-face mentorship with vetted commercial farmers and agri-processors, ensuring the transfer of practical knowledge, the development of business acumen, and continuous support throughout the incubation phase.
2. Facilitate access to farm incubation zones linked with well-established commercial farmers, offering mentees access to land, production infrastructure, technical resources, and an environment that mirrors real-world farming enterprises.
3. Offer personalised microgrants and input support, sourced through potential collaborations with public, private, and development partners—to enable mentees to overcome initial

capital barriers, procure quality inputs, and invest in scalable production systems. While specific funding arrangements are yet to be formalised, the model anticipates leveraging existing youth-focused agricultural support initiatives to ensure sustainability and broad applicability.

4. Promote cottage industry development, enabling mentees to move beyond primary production into value addition and localised processing for niche markets and government procurement programmes, thereby enhancing profitability and market resilience.
5. Implement clear exit strategies aimed at transitioning mentees into fully independent agripreneurs within three to five years, equipped with market linkages, operational farms, and the capacity to expand or diversify their businesses.

What sets this project apart is the layered support from ideation to execution - through structured incubation, vertical value chain participation, formalised mentorship, and market facilitation. This contrasts with existing interventions that provide disjointed services without long-term transition strategies.

3. RESEARCH METHODOLOGY

This study employs an exploratory, theoretical research design to conceptualise the Vertical Integration of Agric-Park Mentorship Scheme (Via-Paymes) as a potential model for addressing youth unemployment in agriculture. Through the Via-Paymes, we analyse relevant theories and synthesise existing knowledge to propose a structured, mentorship-driven agribusiness model. Grounded in social constructionism, the study highlights the role of social interactions in shaping agripreneurial development. It examines how mentorship, agricultural training, and business development can be systematically structured to support young agripreneurs. To guide this analysis, the research applies mosaic theory, the Zone of Proximal Development (ZPD), and scaffolding theory to explore learning processes, skill acquisition, and the progressive development of mentees under the guidance of experienced farmers.

The research methodology involves:

- **Theoretical Analysis** – Examining social constructionism and mentorship theories to establish a conceptual foundation for Via-Paymes.

- **Descriptive Approach** – Identifying patterns, trends, and challenges in youth agribusiness development through academic literature.
- **Modelling** – Utilising a conceptual diagram to illustrate the structure, processes, and expected outcomes of Via-Paymes.
- **Systematisation and Generalisation** – Synthesising findings to formulate a structured, adaptable framework that can be debated, critiqued, and potentially adopted in South Africa and other developing countries.

This methodological approach provides a comprehensive theoretical foundation, enabling the development of an evidence-based, scalable framework that can be refined through future empirical studies.

4. LITERATURE REVIEW

Young people are important socio-economic assets, capable of boosting Africa's economic productivity (Alliance for a Green Revolution in Africa [AGRA], 2015). Their resourcefulness, energy, innovativeness, and adaptability make them central to socio-economic development (Ataei et al., 2020; Hsu, Chao, & Chao, 2021). However, youth unemployment remains widespread globally, with rising populations exacerbating the issue (United States Agency for International Development [USAID], 2016).

South African youth continue to face alarming levels of unemployment and poverty, with a growing proportion classified as not in employment, education, or training (NEET) (De Jongh et al., 2024). In recent years, concerns regarding youth unemployment have expanded to include the rising issue of NEET status, emphasising the urgent need for effective interventions (Rahmani & Groot, 2023). As Cieslik, Barford and Vira (2022) noted, Sustainable Development Goal 8, Target 8.6, specifically commits to substantially reducing the proportion of young people categorised as NEET by 2020. While some progress has been achieved in most European Union countries, the situation in Sub-Saharan Africa has, according to Cieslik et al. (2022), worsened over the past decade. Poverty remains a persistent barrier, preventing many young people from pursuing further education or developing entrepreneurial initiatives, thereby deepening their NEET status (Matli & Ngoepe, 2021). Addressing the NEET challenge requires targeted interventions and innovative policy responses to promote sustainable socio-economic development (De Jongh et al., 2024). A

key solution is promoting youth entrepreneurship (Lez'er et al., 2019; Chinomona et al., 2020; Hsu et al., 2021). Youth entrepreneurship is crucial for development (Boris & Parakhina, 2022) and a key driver of rural growth (Ataei et al., 2020). It empowers young people economically by creating jobs, reducing unemployment, promoting self-employment and innovation, encouraging youth to return to their hometowns, and lowering reliance on formal employment (Lez'er et al., 2019; Ataei et al., 2020; Hsu et al., 2021).

Even with the widespread unemployment, youth remain hesitant to engage in agriculture, despite its abundant opportunities (FAO, 2014; 2017). This reluctance may stem from factors that hinder entry into the sector (Magagula & Tsvakirai, 2020). These include (i) difficulties securing land, (ii) lack of access to finance/working capital/credit, (iii) limited production and market information, (iv) minimal access to advanced technologies, (v) lack of knowledge and practical skills, (vi) poor working conditions and labour intensity, (vii) high risks, especially due to climate change, (viii) challenges in scaling up production, (ix) market entry complexities, (x) market fluctuations, and (xi) logistics and services issues (AGRA, 2015; Sanginga, 2015; The Water Wheel, 2022). Other constraints include (i) lack of policy coordination, (ii) limited access to land and water rights, (iii) rising input prices and market concentration, (iv) high operational costs, (v) poor infrastructure, and (vi) limited skills development in new technologies, enterprise management, and ICT (Xaba & Mandizvidza, 2017; Mtombeni et al., 2019).

The goal is to reduce entry barriers to farming as a business and encourage the younger generation to establish profitable agricultural enterprises. To this end, the Via-Paymes model will address some of these barriers by facilitating land access through partnerships, providing microfinancing, offering capacity-building initiatives, and establishing formal mentorship programmes, among other targeted interventions. It is essential to shift their perception of the sector in a positive direction. However, re-orientation alone is insufficient; schemes are needed to help young people set up sustainable agribusinesses, spanning from primary production to value addition and marketing. This approach aligns with the South African Economic Reconstruction and Recovery Plan (ERRP) 2021, which emphasises building an inclusive economy and promoting greater youth participation across all economic levels. As articulated in the National Youth Policy 2020–2030 (Republic of South Africa, 2020), the ERRP remains a critical framework for advancing youth employment, skills development, and entrepreneurship, particularly within key sectors such as

agriculture. It would be encouraging to see youth-driven rural economies strengthened by growth in the agricultural, trade, and service sectors (USAID, 2016). The Via-Paymes initiative supports new agribusinesses by facilitating youth entry into agribusiness, agro-processing, and product marketing at a cottage industry level. It also addresses skill gaps through tailored training and mentorship from experienced commercial farmers.

5. MENTOR AND MENTORSHIP

The mentorship programme is a key component of the Via-Paymes initiative. Mentors will play a significant role in promoting, motivating, and guiding new entrants as they establish sustainable agribusinesses. These mentors will be individuals with expertise in agriculture, agribusiness, and agro-processing, possessing a broad set of knowledge, skills, experience, resources, and social networks (Thindisa & Urban, 2018; Khowa & Mukasi, 2021). New entrants will likely face challenges at various stages of their business setup, requiring support from those with experience in primary production, agro-processing, and product marketing. The literature highlights a gap between formal education and its practical application, emphasising the need for ‘coaching and mentoring support’ to bridge it (Lemma et al., 2016). This is crucial as it shapes the new entrant’s perceptions and interest in agribusiness (Chipfupa & Tagwi, 2021).

Mentors are crucial to the success of programmes (Beverly, 2020). For this reason, connecting young farmers with networks of successful farmers to build work and social relationships is critical to achieving Via-Paymes' goals. Some may question the need for mentors instead of agricultural extension and advisory services (EAS). However, mentors will not replace extension field agents; both will play distinct but important roles in supporting new entrants. Traditional extension services, according to Campbell, DeLong, and Diaz (2023), do not fully meet the needs of new and emerging farmers. The complexity of socio-economic conditions and agricultural dynamics at both local and global levels is beyond the scope of traditional extension services. Mentoring, therefore, goes beyond advice, helping mentees identify challenges and collaboratively develop solutions by drawing on the mentors’ experience (Lemma et al., 2016).

Mentors address the actual needs and challenges of their mentees, with literature showing that farmers prefer learning from fellow farmers (Spanaki, Karafili & Despoudi, 2021; Sapbamrer &

Thammachai, 2021; Okori et al., 2022; Rust et al., 2022; Kreft et al., 2023). This process helps nurture the mentee's basic knowledge and skills (De Ossorno Garcia & Doyle, 2021; Venktaramana et al., 2023), while mentors enhance their knowledge, skills, and experience through coaching, counselling, guidance, and support (Sarabipour et al., 2022; Davis et al., 2023). The mentorship programme aims to develop young farmers' agribusiness knowledge, ease their entry into production and value addition, boost their confidence, provide agricultural networks, and help them establish self-sustaining agribusinesses.

6. THEORETICAL FRAMEWORK APPROACH

6.1. Mosaic Mentoring Approach

Mosaic mentoring is a “new approach that emphasises utilising a collection of mentorship approaches to maximise outcomes based on individual and/or domain-specific needs” (Khatchikian, Chahal & Kielar, 2021: 5480). In mosaic mentoring, multiple mentors assume different mentorship roles during mentees' capacity development, enabling mentees to benefit from diverse mentors' experiences (Wahab et al., 2016; Khatchikian et al., 2021). This approach emphasises the need for mentors to fill different roles based on their interests and capabilities; in other words, the specific areas in which they are best suited to provide training (Economopoulos et al., 2014). This is seen as a multidimensional guidance model (Han & Onchwari, 2018; Alam, 2019), in which several mentorship approaches or strategies can be integrated to create a hybrid mentorship model that is flexible and wide-ranging (Khatchikian et al., 2021).

6.2. Zone of Proximal Development (ZPD) and Scaffolding

The Zone of Proximal Development (ZPD) is a concept originally developed by Vygotsky to evaluate children's intelligence and development (Zonzi et al., 2014; Yusuk, 2018). Vygotsky observed that children can surpass the expected level of intelligence or performance for their age when they collaborate with adults to solve problems (Zonzi et al., 2014). The inference is that, over time, children develop the capacity to independently perform specific tasks and solve problems when they interact socially with more knowledgeable peers or adults. Though ZPD was created to explain children's development, Vygotsky inferred that this rationale could also apply to cognitive processes for adult learning (Clapper, 2015). Additionally, ZPD can be applied to any field of

discipline, including mentoring (Binti Kamarudin & Binti Darmi, 2020). “The ZPD is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978: 86).

Wood, Bruner, and Ross introduced the concept of scaffolding in 1976 while attempting to describe tutoring within the ZPD (Binti Kamarudin et al., 2020). The association between the two concepts has been noted in several works (Songer, Shah & Fick, 2013; Van de Pol et al., 2015; Gonulal & Loewen, 2018). Scaffolding is a form of practice that can be undertaken in ZPD; however, ZPD need not entail scaffolding (Clapper, 2015).

“Scaffolding suggests a temporary and flexible system that can be quickly and easily assembled and disassembled once the learning task is accomplished, at which point the learner’s ZPD is expanded and scaffolding is moved to the new edge of the learning frontier” (Morgan & Skaggs, 2016: 3). Scaffolds, in the literal sense, are temporary support structures used to brace builders and their work materials during the construction of buildings (Niedenthal & Alibali, 2009; Van de Pol et al., 2015). Conversely, when applied to the concept of teaching and learning, scaffolding suggests that a learner can achieve goals that would otherwise be unattainable with the right support (Davis & Miyake, 2004).

Unique to scaffolding is the gradual removal of support as learners reach the point where they can accomplish specific tasks unaided. Over time, scaffolds are reduced or removed. This is done to give learners more control, encourage them to master their tasks, and take responsibility for their development (Wass et al., 2011; Songer et al., 2013; Binti Kamarudin et al., 2020).

6.3. Application of the ZPD and Scaffolding Concepts to the Via-Paymes Model

A mentor is described as a person who facilitates the development of another (Binti Kamarudin et al., 2020), while mentoring entails a more experienced individual working with a less experienced person (Terblanche, 2011). Salim (2021) described a mentee as a less experienced person who receives advice, knowledge, support, and guidance from a mentor, who is a seasoned and reliable individual. This indicates that a mentor shares experiences, insights, and constructive criticism with a mentee to help them grow, gain confidence, and accomplish their goals, whether personal or

professional (Nyanjom, 2020). A mentor serves as a support system, coach, or advisor within an agri-business model (Rao et al., 2024; Kademani et al., 2024). They guide mentees through obstacles, help them set goals, and assist them in making decisions by drawing on their own experiences (Sarabipour et al., 2022; Blake-Beard, Shapiro, & Ingols, 2021). Mentees benefit from mentoring by gaining new skills, expanding their horizons, and gaining confidence (Groves, 2021; Russell, Stewart & Brooks, 2023).

The Via-Paymes model aligns with the ZPD concept by engaging more experienced agricultural entrepreneurs with broader agribusiness knowledge, capacities, and networks (KCN) as mentors. Their role will be to guide and direct new farmers (youth [male and female] and young graduates from tertiary institutions) with far less experience and KCN towards a pathway until they can independently operate their agricultural businesses successfully. The concept of scaffolding involves mentors providing provisional support to mentees until they become self-reliant. At which point (three to five years), mentors progressively withdraw their support to allow mentees to continue growing. In essence, mentors provide scaffolding to mentees as a support structure to help build their experience and KCN. Stone (1998) recognised four major characteristics of scaffolding, which rest on the premise that scaffolding involves face-to-face working interactions between adults and learners (Davis & Miyake, 2004).

The fundamental principles of scaffolding are integral to the development of the Via-Paymes model, wherein the mentor:

- (i) facilitates learners' engagement in tasks that exceed their current intellectual capacity or independent control;
- (ii) systematically assesses learners' existing cognitive abilities to provide appropriate and targeted support;
- (iii) possesses the capability to offer diverse forms of instructional assistance; and
- (iv) provides support systems that are inherently temporary, gradually diminishing as learners develop competence and autonomy.

We opined in the model that the mentors will be able to:

- (i) motivate mentees to take business decisions, which ordinarily, mentees may consider as high-risk;

- (ii) draw up a proper situational analysis of their mentees and innovate appropriate support systems to assist mentees in areas where they require immediate support;
- (iii) be creative with developing different types of support unique to specific situations, and
- (iv) gradually withdraw their support once mentees begin to demonstrate their capacity to become independent agricultural entrepreneurs.

7. THE INTEGRATED FARM CITY

The Integrated Farm City Model offers a strategic approach that integrates various agricultural practices to improve efficiency, sustainability, and productivity by connecting different farming sectors. It features essential elements such as crop production (including maize, soybean, and vegetables), a feed mill for livestock and poultry, a poultry farm (for both broilers and egg production), a broker farm for distribution, and a processing plant for adding value to products. The model illustrates relationships and flows among entities using arrows, while icons and visuals depict the various activities and systems involved in the integrated farming method. This comprehensive approach supports sustainable practices by using waste from one area as input for another, maximising efficiency and productivity.

Utilising waste as a resource for other processes enhances both sustainability and productivity. The incorporation of agriculture-related imagery aids understanding of each component, and the design provides a clear layout that guides viewers through the integrated farming system's flow. Ultimately, this framework encourages collaboration and interdependence among farming sectors to boost agricultural sustainability and output.

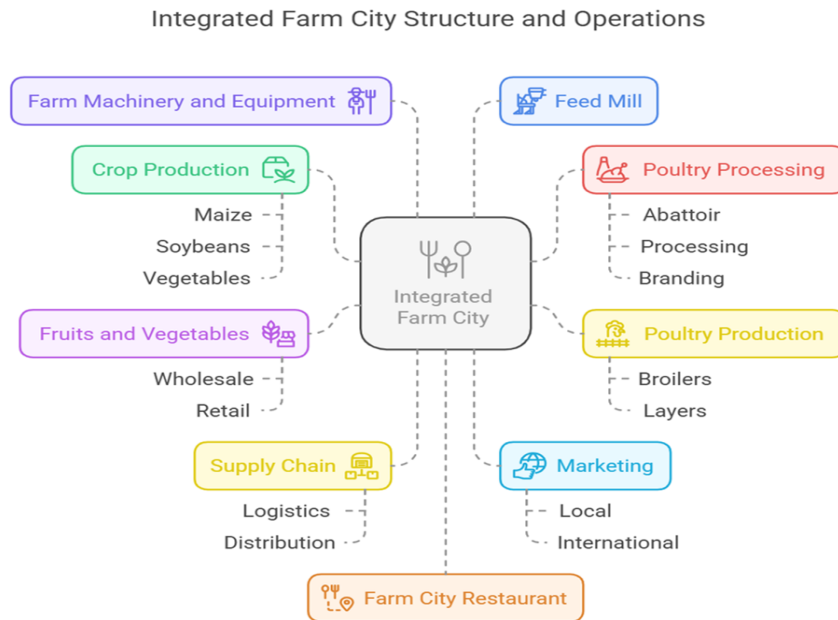


FIGURE 1: Integrated Farm City Model, Which Outlines a Holistic Approach to Agricultural Development and Food Production.

7.1. Guiding Principles of the Via-Paymes Model

1. The model advocates for sustainable agricultural methods that reduce environmental harm and promote resource conservation.
2. **Local Food Production:** By incorporating farms into urban settings, the model supports local food production, helping lower the carbon footprint of food transport.
3. **Community Engagement:** The model encourages community involvement in agricultural practices, fostering social bonds and increasing awareness of food systems.
4. **Biodiversity:** Utilising a variety of agricultural methods enhances biodiversity, leading to healthier ecosystems in urban areas.
5. **Resource Efficiency:** The model focuses on using resources like water, energy, and land efficiently to boost productivity while minimising waste.

7.2. Benefits of the Via-Paymes Model

1. **Enhanced Food Security:** Boosting local food production reduces urban regions' reliance on outside food sources, thereby improving residents' food security.
2. **Environmental Benefits:** The model encourages the creation of green spaces, mitigates urban heat islands, and improves air quality by blending agriculture with nature.
3. **Economic Opportunities:** Urban farming can generate jobs and invigorate local economies by supplying fresh produce and supporting nearby businesses.
4. **Health and Well-being:** Access to fresh, locally sourced food leads to healthier eating habits and encourages physical activity through community gardening projects.

7.3. Implementation Strategies

1. **Policy Support:** The Via-Paymes model aligns with existing national policies and frameworks on agriculture, youth empowerment, and land reform. To enhance its implementation, the government is encouraged to strengthen and adapt these policies—such as the National Youth Policy (NYP) 2020–2030, the National Development Plan (NDP) 2030, the Comprehensive Agricultural Support Programme (CASP), the Agri-Parks Policy Framework and Master Plan, the Presidential Employment Stimulus (PES) – Agriculture Stream, the Youth Employment Service (YES) Programme, and the National Policy on Extension and Advisory Services (NPEAS)—to facilitate land access and institutional support for youth who demonstrate strong interest and commitment in agriculture.
2. **Community Partnerships:** Cooperation among the various tiers of government, non-profits, community groups, and cooperative societies is crucial to the effective implementation of the Via-Paymes model.
3. **Education and Training:** Providing education and training programmes for residents of host communities on sustainable farming practices can empower them and enhance their capacity to adopt sustainable farming practices.

8. CONCLUSION

The Vertical Integration of Agric-Park Mentorship Scheme (Via-Paymes) emerges as an innovative model designed to empower young people—both male and female, including recent graduates—by providing structured pathways into agriculture and agribusiness. This concept seeks to bridge the gap between theoretical knowledge and practical application, ensuring that aspiring agripreneurs are equipped with the skills, resources, and networks necessary for long-term success. At its core, Via-Paymes integrates mentorship, training, and vertical-market linkages to create a sustainable, scalable agricultural ecosystem. The framework is built on the pillars of skills acquisition, resource accessibility, entrepreneurial development, financial literacy, and market connectivity, ensuring that youth farmers are not only supported in primary production but also empowered to participate fully across the agricultural value chain—from farm production to agro-processing and market distribution. In addition to promoting economic sustainability, Via-Paymes advocates for environmental stewardship through the adoption of sustainable farming practices, climate-smart agriculture, and regenerative techniques that align with global food security and ecological preservation goals.

A structured mentorship network comprising experienced commercial farmers, industry experts, and peer mentors is integrated into the scheme to foster a culture of shared learning, innovation, and resilience among emerging agripreneurs. This paper presents Via-Paymes as a conceptual, practice-oriented framework, grounded in theoretical models rather than as an empirical research study. It is intended to stimulate further pilot programmes, inform policy discourse, and serve as a catalyst for rural economic transformation and youth empowerment in South Africa.

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