

Regional and branch economy Региональная и отраслевая экономика

Research article

UDC 330

DOI: <https://doi.org/10.18721/JE.19303>

EDN: <https://elibrary/GSLFHN>



PERFORMANCE MANAGEMENT FRAMEWORKS IN COMMERCIAL AND SMALLHOLDER FARMING (THE CASE OF ZIMBABWE)

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Abstract. Zimbabwe's economy remains agriculture-based, as it provides the country's livelihood, employment, and food security. However, the issue of farm productivity and farm sustainability lies in the effectiveness of the performance management frameworks (PMFs) designed and applied within different farming systems. This paper presents literature review on performance management models in the sphere of commercial and smallholder farms in Zimbabwe. Based on empirical research on performance measurement, management practices, institutional structure, and policy instruments, the review compares the nature, drivers, and barriers of PMFs implementation across two systems. The results also reveal that commercial farms, characterized by capital intensity, mechanization and formal management, are better positioned to adopt structured PMFs that align with business and policy objectives. Smallholder farms, on the other hand, rely on informal, advisory-based monitoring of performance which is limited by available assets, access to credit, and existing data collection capacity. The research focuses on evidence gaps concerning farm-level data, which should be integrated by incorporating technical performance indicators into sustainability and viability metrics. The paper concludes with policy and practical recommendations for strengthening farms at both the farm and institutional levels, promoting evidence-based decision-making and agricultural transformation in Zimbabwe.

Keywords: performance management framework, agricultural efficiency, commercial farming, smallholder farming, Zimbabwe, monitoring and evaluation, results-based management, agricultural policy, farm productivity, institutional frameworks, sustainability

Citation: Chingovo C. (2026) Performance management frameworks in commercial and smallholder farming (the case of Zimbabwe). *π-Economy*, 19 (3), 39–52. DOI: <https://doi.org/10.18721/JE.19303>



СИСТЕМЫ УПРАВЛЕНИЯ ЭФФЕКТИВНОСТЬЮ В КОММЕРЧЕСКИХ И МЕЛКИХ ХОЗЯЙСТВАХ (НА ПРИМЕРЕ ЗИМБАБВЕ)

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Аннотация. Экономика Зимбабве по-прежнему основана на сельском хозяйстве, поскольку оно обеспечивает средства к существованию, занятость и продовольственную безопасность страны. Однако вопрос производительности и устойчивости фермерских хозяйств заключается в эффективности систем управления эффективностью (СУЭ), разработанных и применяемых в различных системах земледелия. В данной статье представлен обзор литературы по моделям управления эффективностью в сфере коммерческих и мелких фермерских хозяйств Зимбабве. На основе эмпирических исследований по измерению эффективности, методам управления, институциональной структуре и политическим инструментам обзор сравнивает характер, движущие силы и барьеры внедрения СУЭ в этих двух системах. Результаты также показывают, что коммерческие фермерские хозяйства, характеризующиеся капиталоемкостью, механизацией и формальным управлением, находятся в лучшем положении для внедрения структурированных СУЭ, которые соответствуют целям бизнеса и политики. Мелкие фермерские хозяйства, с другой стороны, зависят от неформального, основанного на консультациях мониторинга эффективности, который ограничен имеющимися активами, доступом к кредитам и имеющимися возможностями для сбора данных. Исследование сосредоточено на пробелах в изучении фактических данных о фермерских хозяйствах, которые следует восполнить путем включения технических показателей эффективности в индикаторы устойчивости и жизнеспособности. В заключение статьи приводятся политические и практические рекомендации по укреплению фермерских хозяйств на уровне фермерских хозяйств и учреждений, содействуя принятию решений на основе фактических данных и сельскохозяйственной трансформации в Зимбабве.

Ключевые слова: системы управления эффективностью, эффективность сельского хозяйства, коммерческое сельское хозяйство, мелкое фермерство, Зимбабве, мониторинг и оценка, ориентированное на результаты управление, сельскохозяйственная политика, производительность сельского хозяйства, институциональные рамки, устойчивость

Для цитирования: Чингово К. (2026) Системы управления эффективностью в коммерческих и мелких хозяйствах (на примере Зимбабве). *П-Economy*, 19 (3), 39–52. DOI: <https://doi.org/10.18721/JE.19303>

Introduction

Zimbabwe's economy remains fundamentally agrarian. Agriculture contributes approximately 17% of the country's GDP, provides employment to 60–70% of the population, and supplies 60% of industrial raw materials [1, 2]. Following the post-Land reform period, this sector has undergone significant structural transformation, resulting in a dualistic farming system comprising commercial/medium-scale farms and smallholder/communal farms [3]. Land and agrarian reform in Zimbabwe has created a dualistic farming structure [22].

Performance management systems have gained recognition as important instruments for enhancing agricultural productivity and sustainability. A performance management framework (PMF) is defined as a formalized system that establishes goals, performance measures, monitoring mechanisms,



feedback loops, and operational adjustments. However, the implementation of PMFs within Zimbabwe's specific agricultural systems remains poorly understood and inadequately documented.

The relevance of the study is grounded in several key considerations.

First, agriculture occupies a central position in Zimbabwe's economy. Consequently, any improvement in agricultural performance directly contributes to poverty reduction, food security, and economic growth. Although enhancing agricultural productivity is a priority of the National Development Strategy (NDS-I) for 2021–2025, progress is constrained by the ineffectiveness of existing PMFs [4].

Second, the institutionalization of results-based management within Zimbabwe's public sector requires insight into how national performance models can be translated into farm-level practice [5].

Third, systematic production inefficiency persists. The average technical inefficiency among smallholder farms is 77%, indicating substantial room for improvement [6].

Fourth, climate vulnerability is intensifying and demands adaptive capacity, as illustrated by the 2019–2020 drought, which affected over five million people.

Fifth, the digital divide between commercial and smallholder farmers is likely to exacerbate performance disparities [28].

Research object is Zimbabwean farming systems' agricultural performance management.

Research aim is to comparatively examine PMFs in both Zimbabwean commercial and smallholder farming sectors in order to identify practices and factors influencing effectiveness, thereby informing policy formulation and remedial measures.

Research objectives are as follows:

- To theorize performance management structures within the agricultural context and to clarify key terminologies, including effectiveness and PMF.
- To conduct a comparative analysis of factors affecting agricultural efficiency across the two farming systems, identifying similarities, differences, and their implications.
- To identify research gaps and to develop evidence-based policy and practice recommendations.

Literature review

Within agricultural systems, performance management has attracted substantial scholarly attention. Nevertheless, the existing literature remains fragmented with respect to theoretical orientations, geographical contexts, and methodological approaches.

The theoretical foundations of agricultural performance management center on two interrelated concepts: effectiveness and PMFs.

Effectiveness refers to the degree to which farming systems achieve their goals. It encompasses four dimensions: production effectiveness (attainment of production targets), economic effectiveness (realization of financial objectives), institutional effectiveness (compliance and governance), and sustainability effectiveness (long-term viability, including soil health and climate resilience) [12]. Effectiveness should not be confused with efficiency, which concerns input-output optimization. A farm may be technically efficient yet ineffective if its outputs do not align with market demand [13].

A PMF is defined as a coordinated set of practices, tools, and procedures for developing performance objectives, measuring outcomes, analyzing results, providing feedback, and ensuring corrective action [10,14]. According to [12], a PMF comprises five main building blocks: objective setting, performance measurement, performance evaluation, feedback mechanisms, and integration of the framework with overall organizational governance. Within an agricultural context, a PMF must be capable of accommodating biological production cycles, seasonal variations, spatial diffusion, diverse stakeholder participation, and – in the case of smallholder systems – the integration of subsistence and commercial objectives [17, 18].

PMFs represent institutionalized designs for applying performance management within specific organizational or sectoral environments [17]. Several theoretical frameworks have shaped the literature

on agricultural performance management. Integrated performance measurement systems require coordination across organizational levels [15].

Result-based management emphasizes clearly defined expected outcomes, rational models linking operations to results, progress measurement, and accountability [20]. Integrated results-based management has been adopted as the organizational performance framework for Zimbabwe's agricultural sector, where performance is structured around impact, outcome, output, and input [5].

The balanced scorecard extends performance measurement beyond financial metrics to include customer perspectives, internal processes, and learning and growth dimensions. Performance measurement in smallholder value chains requires simplified frameworks [19]. In agricultural applications, this approach incorporates financial profitability, market satisfaction, production efficiency, farmer training, and environmental stewardship [18]. Sustainability effectiveness encompasses long-term viability, including soil health and climate resilience [8].

Technical efficiency analysis, using methods such as Data Envelopment Analysis (DEA), provides quantitative performance management based on input-output relationships [7]. This technique has been widely employed in smallholder research in Zimbabwe [4, 24].

Methods and materials

This paper adopts a systematic literature review method to examine performance management practices within Zimbabwe's commercial and smallholder farming systems. The study applies a comparative analytical approach to synthesize existing empirical evidence.

A comprehensive search was conducted across several electronic databases, including Scopus, Web of Science, Google Scholar, AgEcon Search, CAB Abstracts, and African Journals Online. The search covered publications released between 2000 and 2024 — a period corresponding to the post-land reform era in Zimbabwe. The search strategy focused on three thematic areas: performance management (including frameworks, measurement, monitoring and evaluation, results-based management, efficiency, and productivity); the agricultural environment (encompassing farms, agriculture, farming systems, crops, and livestock); and the geographical context (Zimbabwe and Zimbabwean). In addition to peer-reviewed literature, reports from the Food and Agriculture Organization of the United Nations, the Zimbabwe Ministry of Lands, Agriculture, Fisheries, Water and Rural Development, the Zimbabwe National Statistics Agency, and other relevant organizations were also consulted.

Studies were selected for inclusion based on the following criteria:

- They must focus on agricultural performance in Zimbabwe;
- They must address either commercial or smallholder farming systems;
- They must have been published in English between 2000 and 2024;
- They must contain empirical evidence or a substantive analytical component.

Any study not satisfying these requirements was excluded from the review.

For data extraction, a standardized form was used to record the following information from each study: author(s), year of publication, study type, farm type under investigation, performance dimensions analyzed, key findings regarding performance drivers and constraints, institutional and policy context, and identified research gaps. The extracted data were then synthesized using thematic analysis [18]. The findings were organized into three comparative categories: commercial farming systems, smallholder farming systems, and a cross-system comparative analysis.

The proposed framework distinguishes between strategic and operational levels of performance management. The strategic level encompasses farm business planning and alignment with national and sectoral policies, which together set the overall direction for performance management. This strategic guidance informs the operational level, where decisions are made concerning inputs, field operations, labor, mechanization, and crop or livestock mix. Performance at the operational level is measured through key performance indicators, benchmarking, and efficiency analysis. The results

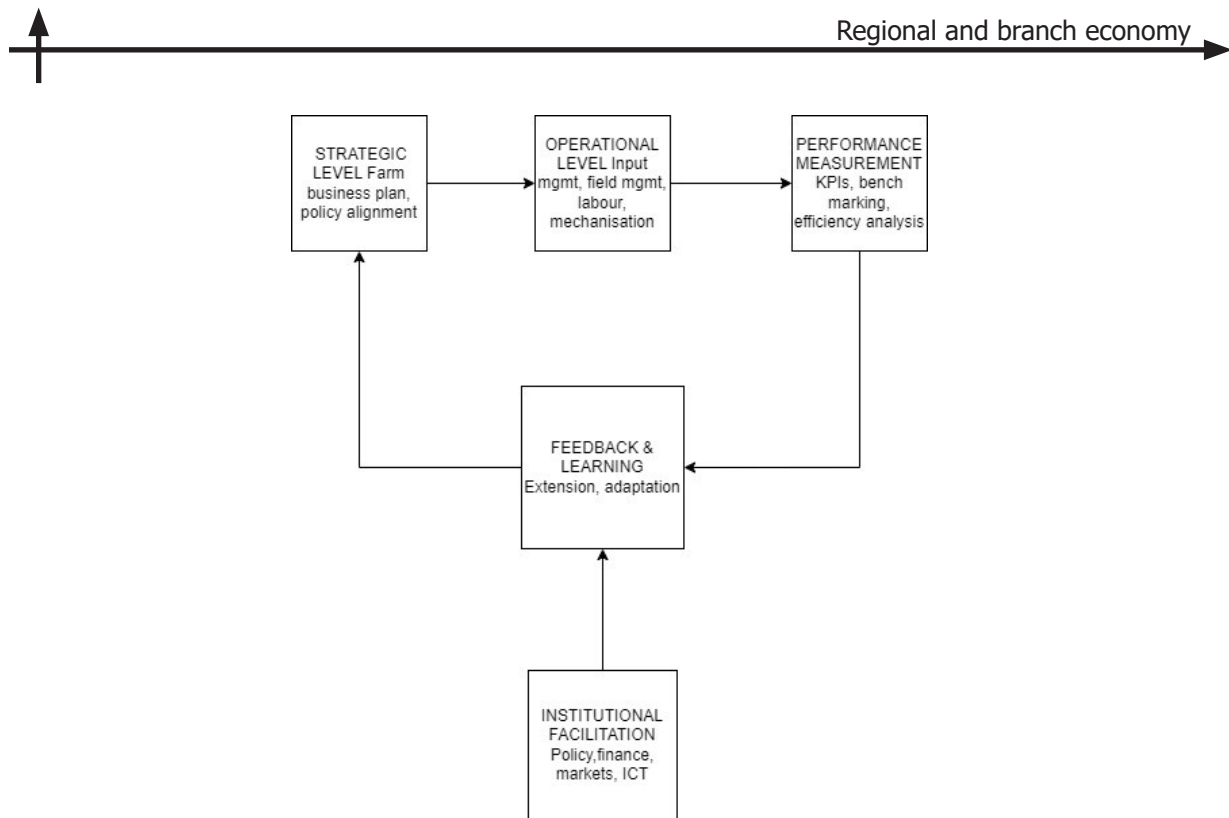


Fig. 1. Fundamental process diagram of a PMF in farm systems that illustrates five key dimensions and their relationship

of this measurement are then channeled into feedback and learning processes — including extension services and managerial decision-making — which, in turn, inform adjustments at both the strategic and operational levels. Supporting the entire system are institutional and organizational mechanisms, such as policy frameworks, access to finance and markets, training programs, and information and communication technology (ICT) tools. This cyclical process is designed to drive continuous improvement and adaptive capacity in farm performance management.

Results

PMFs in commercial farming systems

The literature analysis of commercial and medium-scale farming indicates that explicit performance management structures are rarely reported. Nevertheless, implicit performance management behaviors can be observed across multiple studies. A synthetic assessment of the available evidence reveals seven key dimensions.

1. Strategic alignment and scale objectives

Studies on A2¹ resettlement farms show that deliberate choices are made concerning farm size, enterprise mix, mechanization, infrastructure investment, labor composition (permanent versus seasonal workers), and market positioning [3, 25]. Commercialized pathway farms exhibit clear business planning, in contrast to struggling farms, which lack strategic direction.

2. Resource mobilization and financial management

Profitable commercial farms actively utilize bank credit and farm loans, contract farming agreements with processors or exporters, joint ventures with investors, and government input support programs wherever possible [3]. Budgeting, cash flow management, and investment appraisal are practiced as financial management processes; however, systematic financial PMFs are scarcely documented.

¹ A2 farms in Zimbabwe are medium-to-large scale commercial resettlement plots created under the Fast Track Land Reform Program starting in 2000, designed for commercial production rather than subsistence. They are categorized as commercial units, often with individualized ownership, intended to replace former white-owned commercial farms by providing land to local, often skilled or professional, farmers.

3. Operational efficiency and input management

These encompass land utilization rates, deployment and maintenance of mechanization, optimization of fertilizer and chemical application, management of labor productivity, and scheduling of irrigation where needed [27]. Studies report substantial variation in operational efficiency: some A2 farms achieve utilization rates nearly equivalent to pre-reform levels, while others operate considerably below capacity.

4. Output and market orientation

These include production quantities per enterprise, sales revenues and realized market prices, value addition (through processing or grading), contract compliance and buyer relations, and export performance where applicable [23].

5. Monitoring and control capacity

The ability to monitor and control distinguishes high-performing commercial farms from poor performers. Critical aspects include managerial qualifications and training in agriculture, commercial farming experience, record-keeping systems and data utilization, performance review procedures, and managerial flexibility [3].

6. Institutional and market linkages

These include relationships with input suppliers, buyers, extension agents, mechanization service providers, and farmer organizations [23].

7. Feedback and adaptation mechanisms

These are characteristic of successful commercial farms. In such farms, planting decisions are adjusted in response to market price signals, input regimes are modified following yield response analysis, and enterprise mix is adapted based on profitability experience [3].

The process of commercial farm PMF (fig. 2) begins with the formulation of strategic business objectives. From these objectives, specific key performance indicators (KPIs) are derived, including yield per hectare, cost per unit, labor productivity, and sales revenue.

Data are collected through farm management information systems, field record and market sales records. Performance analysis is then conducted using benchmarking and variance analysis. Feedback mechanisms enable adjustments in subsequent production cycles and support reporting to farm boards, investors, and lenders.

Considerable heterogeneity exists in commercial farm performance. Based on the findings of [3], three distinct performance trajectories can be distinguished:

- commercialized farms – achieve output levels comparable to pre-reform commercial agriculture;
- aspirant farms – demonstrate gradual improvement, yet remain constrained by limited access to capital;
- struggling farms – generate low output and have limited market access.

The key determinants of performance reported in the literature include access to finance, management capacity, level of mechanization, market linkages, land tenure security, and policy environment [3, 23, 26, 27].

PMF in smallholder farming systems

Smallholder PMFs differ fundamentally from commercial systems due to resource constraints, institutional context, and the mixed objectives of subsistence and commercial production. A synthesis of the literature identifies seven characteristic components.

1. Household goals and food security

Smallholder performance management is shaped by household goals and food security considerations, which extend beyond purely business objectives [9]. These include generating non-food income, managing risks associated with drought and price fluctuations, accumulating assets (e.g., livestock), and fulfilling social obligations [25].

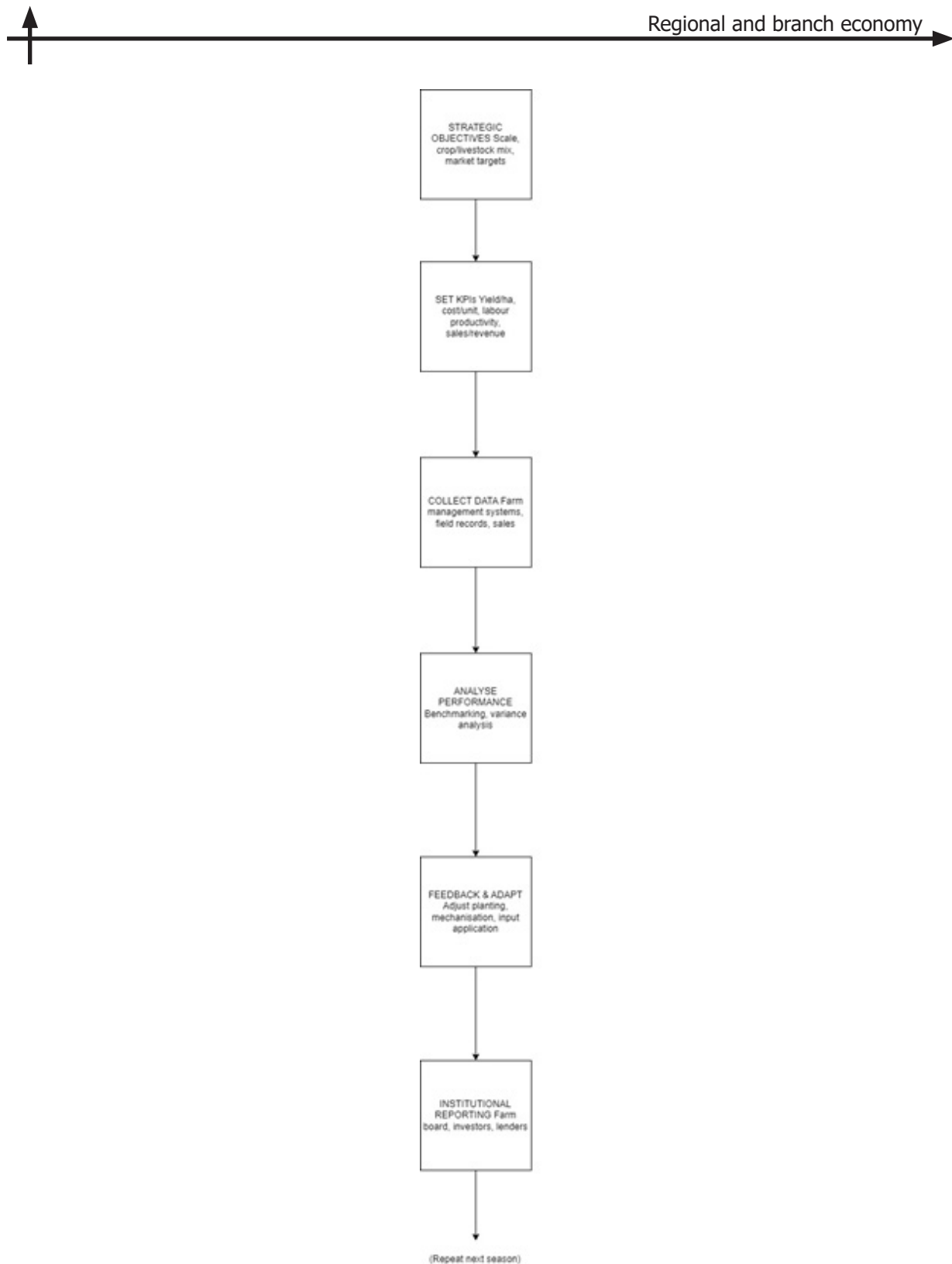


Fig. 2. Simplified process diagram of a commercial farm PMF

2. Extension services as the main information source

Extension services constitute the primary source of information guiding smallholder performance management. They provide recommended practices, seasonal forecasts, problem diagnostics, demonstrations by model farmers, and group training [1].

Table 1. Key components of performance management in commercial farming systems

No.	Component	Description	Evidence in Zimbabwe context
1.	Strategic alignment and scale objectives	Farm business plans, capital investment, scale of operation	A2 farms investing in mechanization and permanent labor [3]
2.	Resource mobilization and financial management	Access to credit, contract farming, joint ventures	Finance mobilization as critical driver [3]
3.	Operational efficiency and input management	Efficient use of land, labor, mechanization, inputs	Implied in medium scale studies [3]
4.	Output and market orientation	Production volumes, market sales, value addition	Commercial farms oriented to markets [23]
5.	Monitoring and control capacity	Farm managers, data tracking, performance review	Better performing farms had skilled managers [3]
6.	Institutional and market linkages	Inputs suppliers, buyers, extension, contract farming	Market linkages as key [23]
7.	Feedback and adaptation mechanisms	Adjusting practices based on performance data	Less explicit in literature – gap identified

3. Adoption of best management practices

A key area of smallholder performance measurement is the adoption of best management practices. Emphasis is placed on improved seed varieties, appropriate fertilizer use, crop diversification, soil and water conservation, post-harvest management, and pest control [25, 26]. Adoption rates serve as proxy performance indicators.

4. Efficiency measurement

Smallholder performance is also measured through efficiency studies, which examine yield per hectare, input-output ratios, and efficiency scores derived from frontier analysis [4, 24]. For example, in [1], mean technical efficiency among smallholder irrigation maize farmers was estimated at 77%, indicating substantial potential for improvement.

5. Informal monitoring and peer learning

Informal monitoring and peer learning processes operate where capacity exists. These include farmer record-keeping, observation of neighbors' practices, farmer group discussions, demonstrations by lead farmers, and traditional knowledge sharing [28].

6. Institutional linkages

Several institutional linkages influence smallholder performance. These include government and non-governmental organization input subsidy programs, credit and savings groups, output markets, farmer organizations, and research-extension-farmer linkages [26].

7. Adaptation and resilience

Given climate variability, smallholder models emphasize adaptive actions. These include adjusting crop portfolios, diversifying enterprises, modifying practices based on observed results, and adopting risk-coping behaviors [25, 28].

The process of smallholder farm PMF (fig. 3) begins with the setting of household objectives which balance food security, income generation, and risk management. Based on practical experience and experience-based recommendations, farmers make decisions concerning crop mix, input quantities, and the number of laborers to recruit.

Yields, inputs usage, and costs are monitored through simple data collection. Performance assessment is conducted through consultations with extension agents, neighbors, and groups of farmers. Institutional linkages – providing access to credit, markets, and extension services – help farmers to modify their future plans by adjusting practices or reallocating resources.

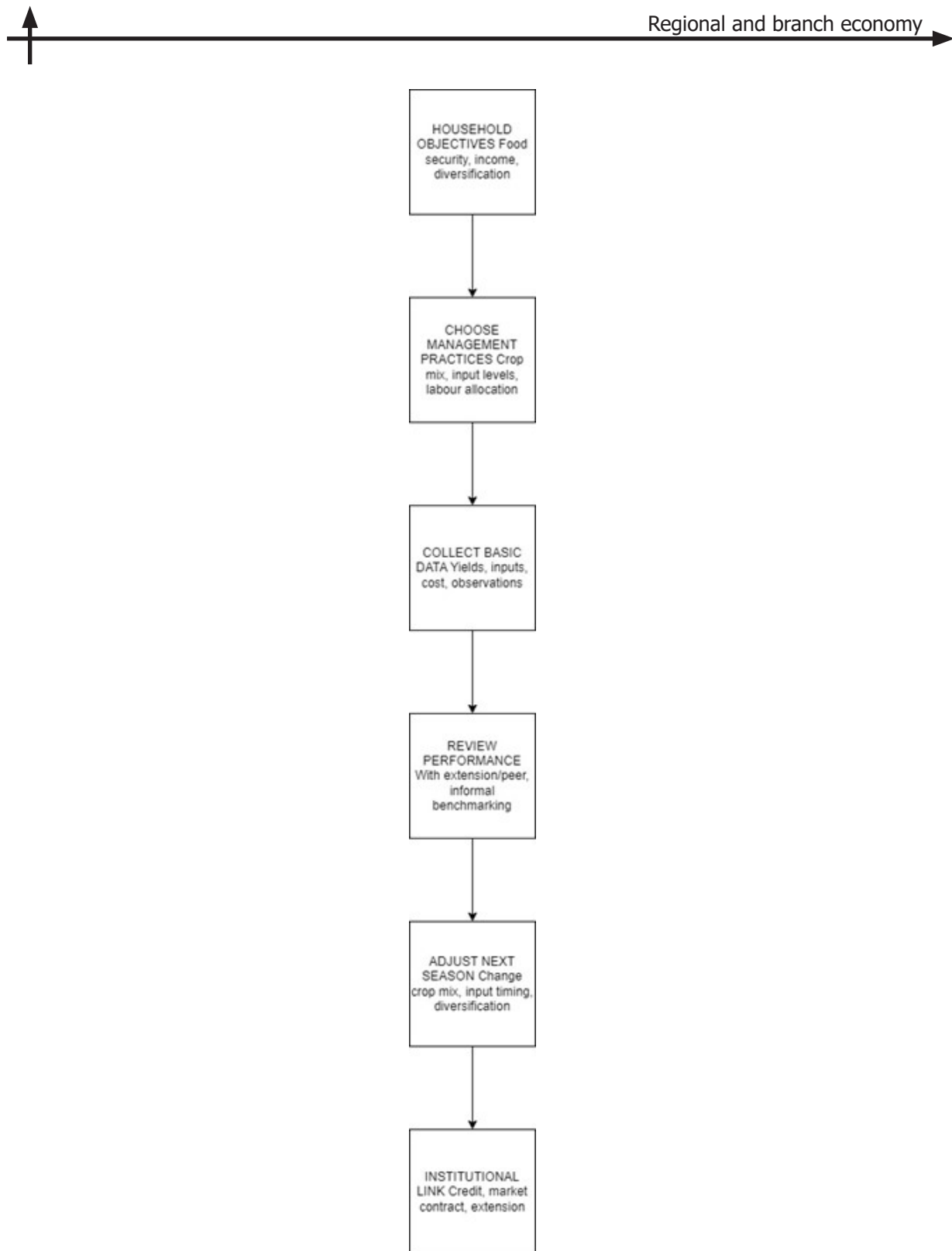


Fig. 3. Simplified process diagram of a smallholder farm PMF

The literature reports several important findings regarding smallholder performance:

- Technical efficiency gains – There is potentially significant room for improvement in technical efficiency, with a mean efficiency score of 77% [4].
- Benefits of diversification – Crop diversification is well documented to lead to higher productivity, income, food security, and nutrition security [28].

- Extension effects – Consistent positive correlations exist between extension contact and both efficiency and adoption of best practices [4, 28].
- Mechanization limitations – Long-standing constraints on mechanization continue to limit labor productivity.
- Gender dimensions – Female-managed farms experience significantly more constraints in access to resources and services.

The following performance determinants are consistently reported in the literature: human capital, access to extension services, access to credit, access to markets, security of land tenure, weather conditions, and social capital [4, 23, 25–28].

Table 2. Key components of performance management in smallholder farming systems

No.	Component	Description	Evidence in Zimbabwe context
1.	Household goals and food security	Generating non-food income, managing risks associated with drought and price fluctuations, accumulating assets (e.g., livestock), and fulfilling social obligations	Smallholder farms prioritize food security and risk management over profit maximization [9, 25]
2.	Extension services	Recommended practices, seasonal forecasts, problem diagnostics, demonstrations by model farmers, and group training	Extension contact positively correlates with technical efficiency and adoption of best practices [1, 4]
3.	Best management practices	Input application, crop diversification, mechanization where possible	Diversification study [25], mechanization review [26]
4.	Efficiency measurement	Technical efficiency, resource use efficiency	Mean technical efficiency 77% [1]
5.	Informal monitoring and peer learning	Farmer records, peer learning, extension visits	Extension-farmer interactions [1]
6.	Institutional linkages	Access to inputs, credit, markets, value chains	Smallholders lag in ICT access [28]
7.	Adaptation and resilience	Response to climate variability, risk management	Diversification study emphasizes resilience [25]

Comparative analysis

Comparative analysis reveals systematic differences between commercial and smallholder PMFs.

Commercial farms exhibit greater promise for implementing formal PMF approaches due to the presence of business plans, hired managers, investments in farm mechanization, and market orientation. Nevertheless, systematic frameworks for commercial farms remain incompletely described in the literature.

In contrast, smallholder farms rely on informal structures, with feedback mechanisms operating through extension services and peer learning. These informal arrangements are not closely aligned with formal business KPIs.

Commercial farming systems

- Drivers: access to finance, mechanization, managerial capacity, and market linkages.
- Barriers: land tenure uncertainty and policy inconsistency.

Smallholder farming systems

- Drivers: extension contact, training, and diversification.
- Barriers: low asset bases, poor levels of mechanization, underdeveloped credit markets, climatic risk, and weak institutional linkages.

Table 3. Comparative analysis of PMFs

Dimension	Commercial and medium farms	Smallholder farms
Formality of PMF	Higher potential for formal PMF	Lower formality; informal monitoring and feedback
Key performance indicators	Yield/ha, sales revenue, cost/unit, labor productivity, asset growth	Yield, input-output ratio, income, food security, resilience
Data and monitoring tools	Farm management systems, digital tools possible	Manual records, extension visits, peer learning
Institutional linkages	Credit markets, contract farming, mechanization services	Extension services, donor programs, small-scale credit
Adaptation to risk and climate	Focus on scale, market, mechanization	Focus on diversification, resilience, resource constraints
Barriers to PMF implementation	Policy, tenure, finance bottlenecks	Asset base, market access, low data capacity, climate risk
Implication for improvement	Standardize KPI dashboards, link to finance	Simplified PMF tools, strengthen extension, resilience metrics

The comparative analysis yields several implications for the design of performance management frameworks.

- For commercial farms – PMFs should incorporate both financial and production indicators, supported by robust databases and linked to investment decisions.
- For smallholder farms – PMFs require simple, low-cost structures embedded within extension systems and peer learning networks. These frameworks should include resilience indicators alongside productivity measures.
- For both systems – Improved institutional connections and alignment with national frameworks, such as RBB [4], are essential.

The effectiveness of a PMF depends not solely on the structure of the framework itself, but also on the facilitating institutional environment. Key enabling factors include secure land tenure, reliable markets, accessible credit, effective extension services, and a stable policy environment.

Conclusion

This review has critically analyzed PMFs within Zimbabwean commercial and smallholder farming systems and has yielded several important findings.

First, the paper has conceptually clarified the notions of effectiveness and PMF within agricultural contexts. Effectiveness refers to the achievement of goals at the production, economic, institutional, and sustainability levels. It should not be confused with efficiency, which focuses on input-output optimization [7, 11]. A PMF consists of coordinated procedures for target setting, measurement, evaluation, feedback, and adjustment, whereas performance management frameworks define the form and rules governing these procedures [14, 16].

Second, commercial and medium-scale farms have a higher potential for formal PMF implementation, owing to their capital intensity, mechanization, management capacity, and market orientation. Medium-scale commercial farms in Africa's "native purchase areas" show varied performance trajectories [21]. Within commercial systems, seven key PMF elements have been identified: strategic alignment, resource mobilization, input management, output orientation, monitoring capacity, institutional linkages, and feedback adaptation [3, 23, 25]. Nevertheless, a comprehensive, literature-based PMF for commercial farms remains nonexistent; existing evidence points to implicit rather than systematic frameworks.

Third, the PMF characteristics of smallholder farming systems differ radically. They are informal, mediated by extension services, supported by peer networks, and integrated with household decision-making. Smallholder PMFs are characterized by seven components: household objectives, extension guidance, practice adoption, efficiency measurement, informal monitoring, institutional linkages, and adaptive responses [4, 28]. The mean technical efficiency of smallholder farms is 77%, indicating substantial room for improvement through more efficient use of existing resources without increasing input levels [4].

Fourth, comparative analysis establishes systematic differences between the two systems in terms of framework formality, goals, indicators, data systems, feedback mechanisms, institutional support, risk management strategies, and constraints. Performance drivers for commercial farms include finance mobilization, mechanization, managerial capacity, and market linkages, while barriers include land tenure uncertainty and policy inconsistency [3, 26]. Drivers for smallholder systems include extension contact, training, adoption of best practices, and diversification, while barriers include low asset bases, poor mechanization, underdeveloped credit markets, weak data systems, climate risk, and poor institutional linkages [4, 28].

Fifth, significant research gaps remain: the absence of explicitly reported PMFs in the Zimbabwean farm literature; a lack of comparative research across farm types; insufficient evidence on PMF application and its effectiveness over time; a deficiency of longitudinal performance studies; and a lack of articulation between national frameworks and farm-level performance management [5].

The dualistic nature of Zimbabwean agriculture requires differentiated approaches to PMF design.

Commercial farms need frameworks that combine financial and production metrics with well-developed data systems linked to investment processes. These farms should systematize performance management by establishing clear objectives, defining key performance indicators (including yield, cost per unit, labor productivity, and sales revenue), monitoring and reviewing performance regularly, and creating established feedback loops to enable adaptation [3]. The effectiveness of commercial farm PMFs would be enhanced by introducing standardized KPI dashboards connected to financial and investment decision-making.

Smallholder farms require simple, low-cost models embedded within extension services and peer learning frameworks, incorporating both resilience indicators and productivity measures. Suitable PMF instruments include yield per hectare tracking, input-output ratios, best management practice checklists, and resilience metrics such as crop diversification and soil fertility indicators [28]. Extension services, farmer group support systems, and peer benchmarking mechanisms should be used to sustain these frameworks.

Importantly, the effectiveness of PMFs is determined not solely by framework design but also by the facilitating institutional environment. Key enabling factors include secure land tenure, functioning input and output markets, accessible credit, effective extension services, well-developed farmer organizations, and stable policy environments [23, 27, 26]. In the absence of these foundations, even well-structured PMFs will fail to deliver performance improvements.

Land tenure insecurity continues to constrain productivity-enhancing investments on both farm types [26]. Policy inconsistency creates uncertainty that negatively affects long-term planning, particularly for commercial farms [27]. Poor institutional linkages limit smallholders' access to credit, inputs, and markets [27].

Opportunities exist to align national performance systems with farm-level PMFs. The Integrated Results-Based Management System and Results-Based Budgeting framework employed by the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development provide structuring principles that can inform the design of farm-level PMFs [5]. Commercial farms could benchmark their KPIs against national impact, outcome, and output levels. For smallholders, alignment would be facilitated through extension programs that translate national targets into farm-level objectives.

Future research

Several priority areas warrant attention in future studies:

- Empirical documentation of existing PMFs – Case study research focusing on current performance management practices in commercial and smallholder farms.
- Longitudinal impact studies – Research examining the effects of enhanced performance management structures on outcomes across multiple seasons.
- Digital PMF tools – Investigation of digital tools across different farm types, including their cost-effectiveness, usability, and associated farmer training needs.
- Translation of national frameworks – Study of how national Results-Based Management systems can be operationalized at the farm level.
- Integration of resilience indicators – Assessment of methods for incorporating resilience indicators into farm-level PMFs, particularly for smallholders facing environmental variability.
- Participatory action research – Collaborative research with farmers, extension agents, and policymakers to design, implement, and evaluate PMF innovations.

Addressing these research priorities would substantially advance knowledge of performance management in Zimbabwean agriculture and support evidence-based policy and practice. The ultimate objective is the development of PMFs that address the specific productivity, efficiency, and resilience needs of both commercial and smallholder farming systems, thereby contributing to agricultural transformation and rural development in Zimbabwe.

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Поступила: 17.12.2025; Одобрена: 24.03.2026; Принята: 01.04.2026.

Submitted: 17.12.2025; Approved: 24.03.2026; Accepted: 01.04.2026.