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The influence of privatised agricultural extension on downward accountability to smallholder tea farmers

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ABSTRACT

Purpose: To assess the extent to which privatised extension service, which is premised to be demand-driven, delivers downward accountability to smallholder farmers who are both owners and users of agricultural services.

Design/methodology/approach: The research collected data through focus group discussions with smallholder tea farmers and key informant interviews after which the information were corroborated with semi-structured interviews with 104 smallholder farmers.

Findings: Our findings show that KTDA (Kenya Tea Development Agency) extension service has in recent years embraced methodologies that allow two-way information exchange and farmers' involvement in planning, implementing and evaluation of extension programmes. While this transition has provided opportunities for increased accountability and empowerment of smallholder farmers, downward accountability is limited by among others; presence of multiple accountabilities, a heavy top-down governance structure, higher incentives for upward accountability, limited resourcing of extension delivery, excessive workload and unrealistic targets on the part of extension staff and weak extension–research–farmer linkages.

Practical implications: The findings of this study may be used by policymakers, extension practitioners and organisations delivering extension services to improve downward accountability and quality of advisory services

Theoretical implications: The paper contributes to the debate on outcomes of privatisation on extension provision using the accountability lens in an area dominated by perceptions on costs and payment for the services.

Originality/value: The literature on downward accountability on privatised extension services is lacking. The paper also extends the framework for assessing the performance of pluralistic extension services to develop and apply a framework for assessing downward accountability in privatised extension.

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1. Introduction

In recent years, interest has grown among extension scholars and development practitioners in new modes of delivering extension services (Rivera and Alex 2004; Muyanga and Jayne 2008; Yimer, Abay, and Degu 2019). These new modes entail a 'pluralistic advisory system', where private and public sectors, along with non-profit groups, are involved in providing extension services (Birner and Anderson 2007; Birner et al. 2009). Specifically, interest has been on the role of the private sector in providing efficient extension services (Chapman and Tripp 2003; Muyanga and Jayne 2008; Feder, Birner, and Anderson 2011; Odhong', Wilkes, and van Dijk 2018).

Previously, extension services in many developing countries were largely public sector-led, funded and delivered by state agencies, based on diffusion of innovation model (Swanson, Farner, and Bahal 1990; Umali and Schwartz 1994; Odhong', Wilkes, and van Dijk 2018). The diffusion of innovation model worked mainly through the Training and Visit (T&V) approach, where extension staff and other specialists transferred knowledge to 'contact farmers' in villages, who were in turn were expected to disseminate the acquired knowledge to the local communities (Musa, Aboki, and Audu 2013; Ateka, Onono-Okelo, and Etyang 2019).

However, public sector-led extension and its dominant model T&V have been criticised in the literature for being centralised, rigid and non-accommodative to two-way flow of ideas and decision-making (Birner and Anderson 2007; Musa, Aboki, and Audu 2013). The delivery of T&V also represented a heavy fiscal burden to governments – a situation which was made worse with diminished funding from the multi-lateral funding agencies (Birner and Anderson 2007). In addition, the approaches used were not very flexible and offered resource-poor farmers recommendations that were less aligned with their context, technical and financial circumstances (Antholt 1991; Hulme 1991; Kidd et al. 2000; Musa, Aboki, and Audu 2013). As a consequence, most of the promoted technologies were not adopted by a considerable mass of farmers, leading to limited impact (Feder, Ganguly, and Anderson 2006).

In the light of these challenges, privatisation of extension services has been promoted with the assumption that the private sector is generally free of administrative and political constraints and is, therefore, more likely to allocate resources efficiently (Kidd et al. 2000; Chapman and Tripp 2003; Anderson and Feder 2007; Birner and Anderson 2007; Musa, Aboki, and Audu 2013; FAO 2016a). The idea is that by paying for extension services, private extension systems would be demand-driven and therefore make extension service providers to be more responsive to farmers' needs, including those who are poor and marginalised (Leeuwis 2004; Klerkx, De Grip, and Leeuwis 2006; Birner and Anderson 2007; Birner et al. 2009; Nettle et al. 2017). Demand-driven extension systems are expected to be more downwardly accountable to farmers, and as a consequence, more effective (Chapman and Tripp 2003; Chipeta 2006; Birner et al. 2009; Feder, Birner, and Anderson 2011; FAO 2016a). Downward accountability relates to the ability of those being served evaluating the actions of service providers; demanding answers; and based on the evaluations, imposing sanctions or rewards (Hall et al. 2007).

In the context of agricultural extension services, downward accountability involves increasing participation of farmers in decision-making (Rivera 1996; Nambiro, Omiti,

and Mugunieri 2006), on among others, having a choice of extension service provider, giving input on extension content and delivery methods, as well appraising the quality of extension services delivered (Neuchatel Group 2006). However, as an FAO expert consultation observed, given the inequality in the power structure, those receiving services often have a 'weak voice', as well as limited capacity to articulate and negotiate their priorities with those delivering the services (FAO 2016b). The implication is that accountability is often upward to bureaucratic hierarchies, influential members of the community, donors or service providers (Bitzer, Wennink, and Piters 2016; FAO 2016b).

There is a growing body of literature mainly focusing on the process, opportunities and challenges of setting up privatised extension services (Chapman and Tripp 2003; Rivera and Alex 2004; Birner and Anderson 2007; Faure, Desjeux, and Gasselín 2012; Labarthe and Laurent 2013; Bitzer, Wennink, and Piters 2016), the effectiveness of extension services, especially with regard to productivity (Rivera and Gustafson 1991; Kidd et al. 2000) and willingness to pay for extension services (Ajayi 2006; Farinde and Atteh 2009). Different studies have shown that private sector extension agencies have been effective in improving agricultural production, especially among producers of high-value crops (Kidd et al. 2000; Davis and Place 2003; Jafry, Kingiri, and Nderitu 2014; Ateka, Onono-Okelo, and Etyang 2019). However, a number of scholars critical of the private extension systems argue that the majority of farmers in developing countries are poor and are therefore not able to meet the cost of extension services. The implication is that a number of private extension providers tend to focus on serving large-scale farmers or smallholders practising high-value enterprises (Davis and Place 2003). Other studies have shown that the effectiveness of privatised extension systems has been weakened by challenges such as staff shortages, limited involvement of farmers in the design and implementation of extension programmes, lack of incentives for extension workers, and weak linkages between extension, research and farmers (Chapman and Tripp 2003; Davis 2008).

Overall, despite a growing body of literature on private extension systems in Sub-Saharan Africa (SSA) (Chapman and Tripp 2003; Davis and Place 2003; Davis 2008; Mbeche and Dorward 2014; Mose et al. 2016; Ateka, Onono-Okelo, and Etyang 2019; Sylla et al. 2019), the understanding on the extent to which extension services, which are premised to be demand driven, deliver downward accountability is limited. This paper assessed the extent to which a private commodity organisation, providing extension to smallholder tea farmers delivers downward accountability. Specifically, the paper sought to address the following questions: (1) Does privatisation of extension services lead to greater downward accountability? (2) What influences the extent to which downward accountability is achieved in privatised extension services? Answers to these questions could offer important insights for policymakers and extension practitioners on how to design new extension programmes with enhanced downward accountability. The paper also offers a new framework for evaluating pluralistic extension providers' capacity to deliver downward accountability to smallholder farmers.

The paper is organised as follows: Section 2 presents the context of the current study, Section 3 presents the analytical framework, while the methods employed are presented in Section 4. The results and discussions are presented in Sections 5 and 6, respectively. The paper ends with a conclusion in Section 7.

2. Context of the present study

This paper uses the case of a commodity privatised extension in Kenya – the Kenya Tea Development Agency (KTDA) extension service – to explore the extent to which demand-driven systems deliver accountability and responsiveness to the users: the smallholder farmers. KTDA was previously a parastatal which was privatised in 2000 following dissatisfaction by farmers on its service provision (Mbeche and Dorward 2014). The organisation manages 69 ‘autonomous’ tea factory companies which are owned by smallholder tea farmers who contribute about 63% of the tea produced in Kenya (Mose, Mbeche, and Ateka 2016; Agricultural and Food Authority 2019; Ateka, Onono-Okelo, and Etyang 2019). Its relationship with the tea factories is governed by a 10-year management contract that mandates KTDA with the responsibility of overseeing the running of smallholder tea factories – including extension service.

Following privatisation, KTDA took over the management of tea extension and decentralised its delivery to factory companies. The newly formed KTDA argued that these changes would deliver accountability to smallholder farmers (KTDA Annual Report 2000). There is, however, limited understanding on the extent to which privatised extension systems, which have been promoted as demand driven, deliver accountability to smallholder farmers. Apart from KTDA, privatised extension is also provided by local and multinational agribusiness firms largely focusing on horticultural produce for export and in the dairy sector (Muyanga and Jayne 2008). The KTDA model provides a suitable case for researching downward accountability since the smallholder farmers are both users and owners of the privatised extension systems.

3. Analytical framework

In the literature, there are many frameworks that can be used to evaluate the performance of agricultural advisory services (Birner et al. 2009; Ragasa et al. 2016). While these frameworks provide a wide range of indicators for evaluating the performance of agricultural extension services, they are limited in the extent to which they address power relations and interests among stakeholders; variables which are central to downward accountability (Christoplos 2003, 2010; FAO 2016b). Additionally, the existing frameworks also lack specific indicators that can be applied in the assessment of downward accountability. In this study, we develop a framework for evaluating the extent to which privatised extension services deliver downward accountability to smallholder farmers, following a review of recent literature (e.g. Chapman and Tripp 2003; Davis and Place 2003; Birner and Anderson 2007; Davis 2008; Birner et al. 2009; Kibwika, Wals, and Nassuna-Musoke 2009; Cohen and Lemma 2011; Christoplos 2012; Mbeche and Dorward 2014; Ragasa et al. 2016; FAO 2016b; Nettle et al. 2017; Ateka, Onono-Okelo, and Etyang 2019; Sylla et al. 2019; Kabir, Knierim, and Chowdhury 2020).

The literature review identified 10 broad indicators to assess if an extension system is capable of delivering downward accountability to smallholder farmers. These included: (1) participation of farmers in decision-making, (2) farmer empowerment, (3) responsiveness of extension to the needs of farmers, (4) interaction and participatory dialogue, (5) decentralised delivery of extension services, (6) inequality in the power structure, (7) sustainability, (8) financing, (9) inclusivity and (10) private sector coordination and

regulation. These 10 pre-categories were then used to structure key informant interviews (KIIs) which reshaped the categories and generated the questions for the FGD and survey interviews. In the end, these indicators were refined into four themes, which include governance structures, delivery systems, extent to which extension responds to the needs and aspirations of farmers and the modes of financing of extension services (Table 1).

The focus on governance structures is important since privatisation is expected to provide mechanisms through which users of extension services can influence decision-making (Birner and Anderson 2007; Mbeche and Dorward 2014). However, lack of capacity among smallholder farmers to articulate and negotiate priorities with those providing the services can limit accountability (Kidd et al. 2000; Chapman and Tripp 2003; FAO 2016b). Assessment of privatised extension therefore needs to examine the extent to which service providers provide mechanisms that give users of extension services ‘a voice’ (FAO 2016b) or engage with power relations between users and service providers (Mbeche and Dorward 2014).

Involvement of farmers in the design and implementation of extension programmes is also important for accountability (Birner et al. 2009). This mainly entails action-learning processes with farmers in order to enhance experimentation and joint discovery (Kibwika, Wals, and Nassuna-Musoke 2009). It also involves farmers having a choice on the extension service provider and delivery approaches, giving input on extension content and appraising the quality of extension services (Neuchatel group 2006; Kibwika, Wals, and Nassuna-Musoke 2009; Kabir, Knierim, and Chowdhury 2020).

The literature has also shown that the ability of extension services to be responsive requires expansion of scope to include links across the value chain (Chapman and Tripp 2003; Leeuwis 2004; Klerkx, De Grip, and Leeuwis 2006; Birner and Anderson 2007; Davis 2008; Birner et al. 2009; Christophlos 2010; Cohen and Lemma 2011; Nettle

Table 1. Framework for analysing downward accountability in privatised extension services

Accountability indicator	Description
Governance structures	<ul style="list-style-type: none"> • Extent to which decentralisation has occurred – to what extent are local offices empowered to make decisions • Presence of administrative and governance structures with inbuilt accountability mechanisms (reporting, answerability, procedures for M&E) for addressing farmers’ needs • Presence of a system to manage multiple and competing interests and power games among stakeholders (who wields control and power in the systems is important for accountability)
Extension delivery	<ul style="list-style-type: none"> • The extent to which extension approach enables farmers to identify and decide on their own development priorities • The extent to which farmers are empowered to identify and solve problems on their own using knowledge and local resources • Extent to which farmers are involved in planning, implementation and M&E • Inclusivity of women and other marginalised groups/areas.
Relevance and responsiveness to farmers needs	<ul style="list-style-type: none"> • Extent to which extension system expands its scope beyond production to include other support services such as providing market information, microfinance, insurance • Extent to which the scope of services is consistent with beneficiaries’ needs and expectations • Extent to which extension has strengthened the research, extension and farmer linkages
Funding for extension services	<ul style="list-style-type: none"> • Presence of sustainability mechanisms – e.g. farmers willingness to pay for the services • The extent to which farmers consider extension service to be value for money

et. al.2017; Kabir, Knierim, and Chowdhury 2020). In addition, collaboration with other public and private actors allows extension service providers to extend, and thereby improve, their outreach abilities. The lack of collaboration between research, extension and other actors creates a dysfunctional advisory system (Nettle et al. 2017). The literature also points to the importance of farmers' payment for extension services as a mechanism for delivering downward accountability (Christoplos 2010). However, a key empirical question is whether farmers think the services provide value for money.

Overall, this framework provides specific indicators for assessing downward accountability, focusing on four thematic areas (governance, extension delivery, responsiveness to farmers' needs and financing of extension) that are relevant in the performance of extension systems.

4. Methodology

Study area

The study was conducted in Kisii and Nyamira counties which are the leading tea producing regions in western Kenya. The two counties are characterised by an increase in the number of tea growers, declining farm yields and wide variability in the distribution of farm sizes. The counties have over the years consistently received lower payment for tea proceeds, commonly known as bonus, compared to other regions in the country (Agricultural Food Authority 2019). These features provide a useful context for studying downward accountability. The study utilised data from six factories (Kiamokama, Rianyamwamu, Nyankoba, Nyamache, Nyansiongo and Ogembo), randomly selected from the list of KTDA managed factories in the two study counties. The locations of the selected factories are shown in Figure 1.

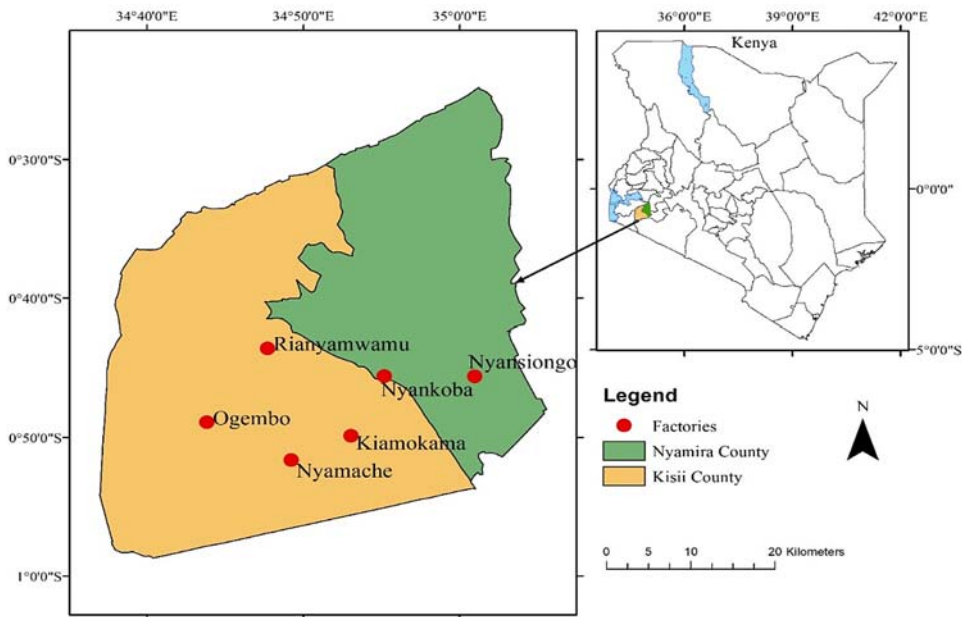


Figure 1. Map of study areas.

Data sources

Data for the study were collected at different times (in 2009/2010 and later in 2016/2017). The study used the combination of methods which included KIIs with stakeholders in the tea sector and focus group discussions (FGDs) with smallholder farmers. These were then corroborated with semi-structured interviews with smallholder tea farmers.

Key informant interviews (KIIs)

KIIs were conducted prior to the FGDs and targeted officers from the local county government, KTDA, Agriculture and Food Authority (regulator), Ministry of Agriculture, farmers' representatives and extension scholars and professionals. Key informants were identified for their official or other direct involvement in the tea sector. Information obtained from the interviews enabled refinement of the indicators of downward accountability that were applied in the development of the final tools for FGDs and semi-structured interviews.

Focus group discussions

FGDs were conducted to gain an in-depth understanding of various issues including the experiential accounts of farmers' perceptions, concerns and processes in tea governance and the interactions and relationships between the farmers and other relevant actors in the extension service chain. Other information collected from the FGDs included; extent to which existing extension systems are aligned to the farmers' needs, involvement of farmers in the planning, implementation and evaluation of extension processes and level of satisfaction with the KTDA extension system. The study conducted a total of 18 FGDs; three each in the selected case study factories. Each FGD had 10–12 participants selected with the help of the local agricultural officers. Selection took into consideration gender and differences in demographic characteristics.

The qualitative data from the FGDs were broken into different sets or units of text with the help of NUDIST software and then tagged and ascribed to different themes based on the governance framework in [Table 1](#). In addition, the analysis focused on the use of phrases and narratives from the field data to explain particular issues.

Semi-structured interviews with smallholder tea farmers

The semi-structured interviews targeted smallholder tea farmers who were selected through a two-stage procedure. Firstly, two enumeration villages were selected in each of the six selected factories. A list of tea farmers was then generated with the help of the village elders. From the list, 8–12 respondents were randomly selected (proportionate to the number of farmers in a village) and interviewed in each village. This sampling procedure yielded a total of 104 respondents. The interviews collected information on household demographics (age, gender, household size, education, income) and indicators of governance, delivery, relevance and sustainability of extension systems. Data from the semi-structured interviews were coded and exported to Stata (v. 14) for descriptive analysis.

The descriptive analysis revealed that the majority of the respondents were male (88%), middle aged (50 years) with secondary education (60%). Most of the respondents

were generally poor with per capital incomes of \$1–\$2 per day (KES 15,000–30,000 per household per month). Overall, the characterisation of respondents in this study (Appendix) is consistent with the profiles of smallholder farmers reported in national statistics for the study area (Republic of Kenya 2018).

5. Results

Structure and organisation of KTDA extension service

This section assesses the organisational structure of the KTDA extension service and the relationships that exist between the different actors. Examining these relationships is important in order to develop the understanding on the extent to which downward accountability is integrated into the KTDA extension service.

The KTDA extension service is embedded within the organisation's three-tier governance structure; comprising a head office, regional office and the local factory management. The head office is responsible for the overall policy direction in the management of the smallholder tea factories, including development of protocols and procedures to guide field operations (including delivery of extension services to the farmers). The regional office¹ which is a decentralised arm of KTDA monitors the implementation of the head office directions (including those on delivery of extension services). The next level in the KTDA structure is the local factory management, which comprises officers deployed by KTDA to oversee the day-to-day running of the factories as part of the management agreement. The team has overall responsibility for various factory operations including organising for logistics of tea collection, processing and delivery of extension services.

KTDA's organisational structure provides a number of mechanisms for delivering downward accountability to smallholder farmers. First, a factory is an independent company in its own right, fully owned and controlled by smallholder farmers through shareholding. The highest decision-making organ within the factory company is an Annual General Meeting (AGM) made of all the farmers who are shareholders. The AGM elects the company directors and receives and approves plans and reports on the functions of KTDA. The relationship between factory companies and KTDA is defined by a 10-year rolling management contract. The management agreement, at least in theory, places the factory company at a position to demand accountability from the management agent – KTDA Head office. Second, in order to ensure that the Head office is accountable and responsive to the needs of factory companies, the KTDA Head Office is run by a Board consisting of non-executive members representing farmers and executive directors charged with the day-to-day activities of the company. The farmers' representatives are therefore expected to provide mechanisms for downward accountability. Third, the factory management who are representatives of the KTDA head office are also expected to report to the factory board and AGM (by virtue of the management agreement). In addition, smallholder farmers elect directors into the factory company board every 3 years as a mechanism of ensuring that they are accountable and responsive to them.

Overall, Figure 2 shows that while the KTDA extension system has different mechanisms for downward accountability, the factory management who implement day-to-day extension services are faced with multiple systems, of sometimes conflicting accountabilities.

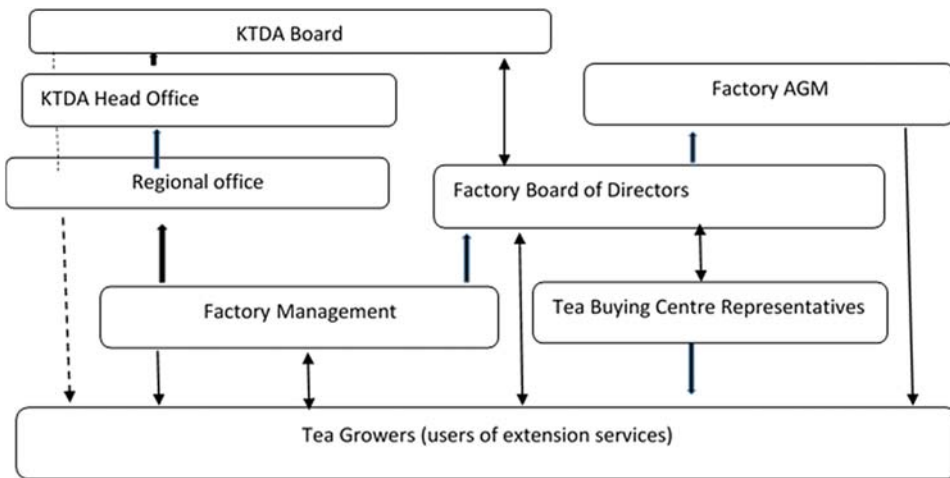


Figure 2. Multiple accountabilities in KTDA extension service.

Our results reveal that there is a strong incentive within KTDA's extension decision-making structure to account upwards. As shown in [Figure 2](#), the factory management (who carry out the actual implementation of the extension service on the ground) regularly report upwards (thick bold line) to the regional and head office but only occasionally reports to farmers (thin line). The factory management also reports regularly to the factory company Board, but this has not resulted in greater downward accountability.

Our findings show three main reasons for KTDA decision-making structure's incentive to account upwards. First, despite the fact that the management agreement between KTDA and the 'autonomous' factory companies provides for strong downward accountability, KTDA controls these companies beyond their initial agreement. Discussions with farmers in FGDs revealed that KTDA head office maintains control of the design of the extension service to which the regional and local factory management are all answerable to. Thus, the structure of the KTDA extension service is dominated by bureaucratic procedures, is top-heavy in decision-making and characterised by strong upward accountability. Second, KIIs indicated that despite farmers' representatives sitting in the KTDA and factory company boards, there are limited mechanisms outside the 3-year election cycle to hold these directors to account downwards. As observed by one respondent, farmers have resorted to non-institutional mechanisms such as protests:

Our director promised us many things during the campaigns, including improving extension services and yearly bonus. But since he was elected, he has not dealt with our concerns. Most directors promise many things when they are campaigning to be elected but once they are elected, farmers are on their own. The only language they understand is maandamano (mass demonstrations).

Similarly, semi-structured interviews with tea farmers showed that the level of interaction between farmers and the KTDA officials and their representatives in the factory board (directors) was limited ([Figure 3](#)).

As [Figure 3](#) shows, farmers' interaction was relatively stronger with buying centre committee members who are local-level representatives but lacking influence on key

decisions. Due to the limited access to KTDA and their representatives, farmers in FGDs reported that they had resorted to non-institutional mechanisms of demanding accountability. These include (with proportions who used the mechanism in parenthesis); uprooting of tea (8%), boycotting tea picking (15%) and demonstrations (27%). On the extreme, some farmers reported that they had accepted that the lack of accountability is a reality one has to live with. In that regard, one farmer observed;

I could not believe when I saw my payslip. I was expecting about Ksh.18 000 bonus payment which I had planned to use to pay school fees for my children, but they deducted everything leaving me with just over Ksh. 2000. One of my neighbours was also deducted almost everything. We wanted fertilizer, but to deduct us at once was just a joke ... they should have asked us. I was disappointed and as a result, I have uprooted almost a third of my tea and planted other crops. I have raised the issue of high deductions for KTDA services with committee members over and over but nothing seems to be done. Sometimes one has to accept the situation and move on.

Third, although AGMs are important participation exercises in which farmers are meant to make or approve important company decisions, the reality is that farmers have little influence in the decisions made in these meetings. As one FGD participant observed, ‘I stopped attending AGM meetings because even if you make a suggestion, it will not be used’. Similarly, as observed in many FGDs, some factory-level managers and frontline extension staff often work with influential farmers, local politicians, government officials and local police officers to consolidate power which allows them to defeat accountability.

Overall, while the decision-making structure has an inbuilt mechanism for downward accountability; effectiveness is compromised by the presence of multiple accountabilities and incentives to account upwards. This is due to a complex decision-making structure, consolidation of power and bureaucratic procedures and limited mechanisms for holding farmers representatives to account.

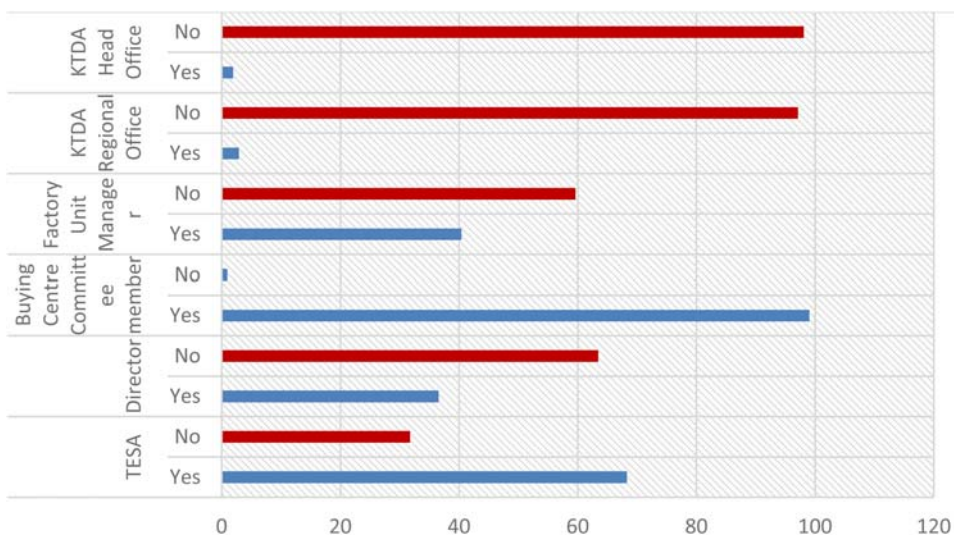


Figure 3. Level of extension actors' interaction with farmers.

The delivery of extension services

The design of extension packages for the KTDA extension system is undertaken at the head office by the field services department, but delivery is done through the Tea Extension service assistants (TESAs) at the factory level. At the factory level, the KTDA extension system has a performance contracting system which acts as a mechanism for delivering downward accountability. Under the system, extension staff are expected to meet a set of key performance indicators, including a specified number of training events (farm visits, farm demonstrations and field days) per unit time, resolution of grower queries, yields and quality of produce. KIIs with KTDA staff indicate that these targets are set by the KTDA head office and are similar across the factories, which raises the question on the extent to which these targets are aligned with local needs. Observations across the study factories showed that a number of these targets were not met, a situation attributed to the high number of farmers that an extension assistant is expected to serve (on average an extension assistant is expected to serve a catchment area of over 5000 farmers which many of them considered unrealistic).

In addition, interviews with farmer representatives revealed that extension assistants were mostly overwhelmed with various activities some of which are outside the extension mandate such as administrative and clerical duties. This was corroborated by an extension assistant who indicated that workload, lack of opportunities for career progression and inadequate transport facilitation to reach farmers were key constraints affecting the delivery of extension services.

We are so few of us yet management expects us to deliver on training events, farm visits, and field days and also deal with farmers' complaints among many responsibilities. You see, they don't even facilitate us in doing the job and yet they expect us to meet these targets.

In order to make the extension system more responsive, KTDA has recently (beginning from 2010) introduced FFS methodology to complement the conventional approach of visiting farmers (Ateka, Onono- Okelo, and Etyang 2019). The FFS approach employs a practical on-farm training programme that covers various topics on crop husbandry, livelihood diversification (e.g. Poultry rearing, and kitchen gardens) and financial management. Interviews with farmers who have participated in the FFS programme revealed that farmers are involved in identifying priority areas at the beginning of the programme and participate in influencing the activities of the field school. This reflects an increased level of empowerment for participating farmers. This is in part because the FFS methodology allows farmers to engage in 'hands-on' observation and experimentation, while extension agents act as facilitators rather than as conventional teachers (Hiller, Onduro, and de Jager 2009).

However, despite efforts to scale up, participation in FFS among the tea farmers, semi-structured interviews with farmers revealed that only about 33% of the respondents had participated in the FFS training. In addition, FFS is weakened by an apparent bias in favour of more accessible locations and limited attention to marginalised groups, especially women. For instance, while women have a chance to be selected as lead trainers, there have been cases where some have failed to attend the induction training, due to gender roles or inability to secure authorisation from spouses. Further, the results show that despite the improved penetration of mobile phones and rural radio

stations in Kenya (Clarkson et al. 2018), KTDA has not integrated these modes of communication into their extension system.

Our findings indicate that KTDA has made attempts to reform its extension system to address weaknesses of delivery through the adoption of the FFS approach. Although FFS appears to promote a two-way flow of information, its implementation has not yielded the anticipated impact due to limited penetration. While the results show that a considerable share of farmers (65%) have improved their farming skills and access to inputs (38%), a wide majority (over 70%) believe that the extension service has not improved as expected since its privatisation. Similarly, slightly over half of the respondents (56%) did not consider that KTDA extension offers value for money (Figure 4).

Overall, while there are improvements in KTDA extension delivery, downward accountability is hampered by lack of motivation for extension staff, inadequate resourcing of extension delivery and limited penetration of FFS and use of ICT to support farmer training.

Relevance and responsiveness of extension packages

This section assesses the scope of the KTDA extension in responding to the emerging needs of smallholder farmers. Traditionally, the KTDA extension has been focused on training farmers on improved crop husbandry. However, the scope of extension has been widened to include the provision of market information and linking farmers to microfinance institutions. Our findings also show that KTDA extension service has introduced initiatives to address intra-household gender inequalities in the tea business. This involves an innovative approach that allows women to be co-registered with their spouses for part of the farm and therefore directly earn from the tea sales. This is an improvement from the previous practice where despite providing most of the labour in the farm, women would not access incomes from tea proceeds. KIIs also revealed that KTDA is implementing a sustainability programme to respond to climate change and adaptation. Under the programme, farmers are trained on tree planting and food security and nutrition.

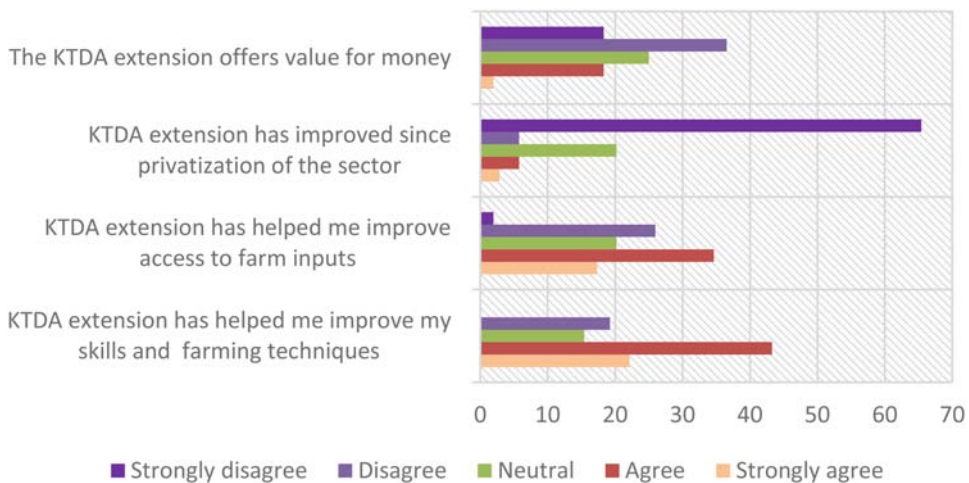


Figure 4. Farmers perceptions on KTDA extension delivery.

While the expansion of scope has begun to respond to changing dynamics of small-holder agriculture, KIIs showed that the KTDA extension system continues to pay limited attention to the non-tea agricultural enterprises such as dairy, maize and banana farming which most tea farmers also practice. These enterprises have separate needs which were previously served by the public extension system. However, with the collapse of the public extension system, the KTDA model does not fully address the extended needs of the farmers, beyond the tea enterprise. Over half of the respondents in semi-structured interviews (56%) felt that the KTDA extension service did not fully respond to their needs. Equally, the proportion of respondents who were not satisfied with the KTDA extension system was relatively high with regard to the service not being available when needed (52.2%), accuracy of information (30.1%) and relevancy (31.8%). The key gaps identified by farmers during interviews were lack of access to information on labour-saving technologies for tea harvesting, soil testing and methods for rejuvenating moribund or ageing tea plantations. Poor access to quality and affordable fertiliser and lack of understanding on the variability in bonus payment across factories were also frequently mentioned in FGDs.

Effective linkages between research and extension are important for the sustainability of a privatised extension service. Key informants indicated that previously, the KTDA extension system was strongly linked with the Tea Research Foundation of Kenya which was a centre solely dedicated to tea research. However, recent reforms (2013) in the agricultural sector led to the merging of all agricultural research organisations in Kenya, under the Kenya Agricultural and Livestock Research Organisation. While the change was intended to enhance coordination in the research ecosystem, it has also compromised the capacity of the extension system to respond to farmer's needs. Interviews revealed that the amalgamation of crop research bodies has resulted in tea receiving diminished attention, despite its significant contribution to the economy. The consequence is that the industry-led tea research has largely collapsed.

Funding of KTDA extension services

In most countries, agricultural extension has long been funded by the government or donors (Van den Ban 2000). However, more recently, a variety of mechanisms for financing extension are emerging as a result of privatisation. Our findings show that KTDA finances its extension activities through cost recovery based on the percentage of the farmer's production. The recovery is made on a monthly basis regardless of whether the farmers directly benefited from the extension service or not. Farmers interviewed did not have a problem in paying for extension. This was corroborated among participants of FGDs as observed by one respondent.

They deduct every month some fees to pay extension assistants but it is not so much! I have not heard any farmer complaining on this particular deduction [extension] but the deductions for fertilizer and costs of factory projects is what has brought poverty [sic]. Fertilizer costs are too much for us small scale farmers.

While participants in FGDs did not have a problem with paying for extension services, slightly over half of the respondents (56%) in semi-structured interviews felt that the service did not offer value for money. This may be associated with the fact earnings

from the tea enterprise have continued to decline while the costs (especially for inputs) have continued to rise.

6. Discussion

Privatised extension emerged in response to a need to strengthen capacity for demand-driven extension and respond to the needs of farmers. In this section, we discuss the implications of privatisation of the KTDA extension service on downward accountability in the context of wider literature. We do this in relation to the two research questions posed at the outset of the paper. First, whether privatisation of KTDA extension service delivers downward accountability to farmers who are owners and users of the service. Second, we discuss what influences the extent to which downward accountability is achieved in privatised extension services.

Central to the success of privatised extension services is organisational structures which provide incentives and mechanisms for downward accountability (Birner et al. 2009). Our study shows that while the KTDA decision-making structure appears to have inbuilt mechanisms for both upward and downward accountability, the presence of multiple accountabilities compromises its effectiveness. Extension officials at the local level have a clear hierarchical structure for reporting on their key performance indicators to factory management, who in return report to the regional and head offices of KTDA. On the other hand, the extension officials have to report to the 'autonomous' Board of Directors at the factory level and the farmers annual general meeting – a mechanism which is expected to deliver downward accountability. The paper shows that the decision-making structure's incentive to account upward exceeds the need to deliver downward accountability for three reasons.

First, the head office wields extensive control on many decisions that have implications on the capacity of the system to deliver on the farmers' needs. As Mbeche and Dorward (2014) observe, KTDA inherited the patronage control which was previously held by its predecessor and other government agencies which limits its ability to deliver downward accountability. This could be because the 10-year rolling contract to provide management services to tea farmers (including for extension) limits the opportunity for competition by potential alternative service providers. As Davis (2008) suggests, reforming governance structures is not sufficient; it requires a transformation of institutional arrangements and incentives for the delivery of downward accountability. Consistent with our findings, Kibwika, Wals, and Nassuna-Musoke (2009) observed that clients' power may be undermined in places where a monopoly situation exists with little or no choice of service providers. These findings suggest that accountability of extension to farmers could involve farmers having a choice of the extension service provider (see also Neuchatel Group 2006).

Second, the paper shows that mechanisms to foster demand for downward accountability within KTDA's decision-making structure are weak. There is evidence to show that farmers' representatives at the buying centre and at the factory Board who are expected to demand accountability on behalf of the farmers often work in cahoots with KTDA managers for their own benefits. This might be explained by the fact that there are limited mechanisms outside the 3-year election cycle to hold these representatives (especially the directors) to account. As Hilary, Ssenguya, and Kibwika (2017) argue, there is a risk

that platforms created in order to articulate demand can be hijacked by a few elite farmers (in our case directors) who connive with service providers around their own interests, unless farmer organisation is supported to demand accountability. Similarly, despite farmers forming the highest decision-making body at the factory level, a few of them participate in annual general meetings due to high opportunity costs and perceptions that their opinions may not count (Mbeche and Dorward 2014). Third, demand for upward accountability involving meeting high set targets makes extension agents to be more inclined to meeting supervisors' demands than actually addressing specific farmers concerns.

Privatisation of extension services is premised on the notion of shifting from a top-down transfer of knowledge approach to two-way flow of ideas and decision-making (Umali and Schwartz 1994; Musa, Aboki, and Audu 2013; Odhong', Wilkes, and van Dijk 2018). The paper shows that the KTDA extension service has to a large extent operated a top-down system in which extension officers visited farms or organised field days for the purpose of 'transferring knowledge' to the farmers. While this approach put in place operational targets for extension officers, such as number of visits or field days organised, it relied largely on T&V-based approaches with its implementation reflecting little scope for processes for participation and a two-way flow of ideas and decision-making. As Birner et al. (2009) show, results-based management approaches that respond to farmers needs have a potential to deliver downward accountability. However, such incentives need to work alongside broader structural arrangements such as larger operational budgets, increased recognition of individual achievements, institutional changes offering greater individual autonomy and alternative downward accountability mechanisms (Swanson and Rajalahti 2010).

In recent years, however, there are significant changes in KTDA's extension ideology towards methodologies that emphasise information flow, adult learning and stakeholder participation and use of farmer group approach for extension and grower mobilisation. The FFS approach which is currently being mainstreamed into the KTDA extension system is a learner-centred approach with farmers carrying out 'hands-on' observation, experimentation and evaluation while extension agents play a facilitating role rather than as traditional 'teachers' (Ateka, Onono- Okelo, and Etyang 2019; Hiller, Onduro, and de Jager 2009). By 2019, KTDA was running 4300 field schools countrywide each with an average of 30 farmers (KTDA 2019) which represents about 20% of the smallholder tea farmers in Kenya.

The integration of FFS, coupled with positive impacts in terms of uptake of recommended practices and yields (Ateka, Onono- Okelo, and Etyang 2019; Sylla et al. 2019), reflects an increased level of empowerment among the smallholder farmers. However, participation has continued to remain low. Downward accountability is constrained by various factors including the low participation among farmers, unrealistic performance targets for extension agents, an over-bearing influence by a powerful administrative structure and an apparent bias in favour of more accessible locations and limited attention to marginalised groups (widows, disabled etc.). These findings suggest that the integration of participatory learning approaches such as FFS is important for enhancing downward accountability of an extension system, but is by no means a sufficient condition. In addition to the introduction of participatory learning methods, extension systems must progressively work towards developing mechanisms that can allow different typologies of smallholder farmers to articulate their needs and demands (Friis-Hansen, Duveskog, and Taylor 2012; Taylor, Duveskog, and Friis-Hansen 2012;

Ateka, Onono- Okelo, and Etyang 2019). Emphasis should also be paid towards the creation of transformative approaches for promoting inclusivity, eliminating elite capture while minimizing the negative influence from extension administrators (Leeuwis 2004). As Birner et al. (2009) observe, extension agents require new skills to respond to the changing role of agricultural extension services and the move from the transfer of technology to participatory methods.

Recent literature has identified the importance of expanding the scope of extension service in response to the changing dynamics of smallholder agriculture. This is an important mechanism for improving the responsiveness of extension service providers (FAO 2016b; Nettle et al. 2017). The findings of this study show that KTDA extension system has expanded its scope of services to include provision of market information, linking smallholder farmers to microfinance institutions, environmental sustainability and interventions on alternative livelihoods and food security. The increased scope of topics covered in the training (e.g. climate change, food security, nutrition) also suggest that the KTDA extension system is aligning itself with the rapidly changing context of smallholder farmers. There is a wide body of literature which support extension services that offer a wide range of advisory services along value chains so as to create increased competitiveness (Christoplos 2003; Swanson and Rajalahti 2010).

While KTDA extension service has also established working collaborations with the public extension system and some private actors (such as Rainforest Alliance and Global Alliance for Improved Nutrition [GAIN]), the service suffers from weak research–extension–farmer linkages. Recent literature shows that extension organisations which enhance collaboration and interaction with various public and private actors are better able to deliver downward accountability (Nettle et al. 2017).

Regarding the sustainability of services, the paper has shown that farmers were willing to pay for extension services that are responsive to their needs. However, the perception by over half of the survey respondents in that the services did not offer value for money suggests that the farmers may not be willing to support the services in the future – representing a sustainability challenge. Consistent with the literature, accountability plays an important role in the willingness to pay decision by farmers, but this is also based on the level of farming income and proper access to markets (Ulimwengu and Sanyal 2011; Uddin, Gao, and Mamun-Ur-Rashid 2016).

Theoretical implications and recommendations for future research

Based on this study, we reflect on the practical implications on the use of the new framework to evaluate downward accountability by researchers and extension practitioners. We also identify some limitations that can be addressed in future research. The framework was developed through an iterative process that began with 10 indicators which were later refined and validated through KIIs, FGDs and analysis of data. The final categories, governance, extension delivery, responsiveness and funding, represent the structure, process, scope and sustainability aspects of an extension service, respectively. Our application of the framework indicates that these aspects are comprehensive enough to facilitate a broad understanding of downward accountability in extension services. The framework provides specific indicators that can be used in assessing downward accountability in extension delivery. The other important lesson in the application of this framework is that researchers should go beyond just assessing

whether the indicators are present or not. For example, the presence of accountability mechanisms in the governance structure does not necessarily deliver downward accountability. The implication is that researchers should seek to unpack the contextual factors that explain how and why downward accountability is delivered or not. Similarly, the presence of participatory approaches in agriculture extension, while important, can be manipulated to suit certain actors' interests rather than enabling farmers' priorities. Therefore, future development of the framework lies in the operationalisation of the framework so that it offers standard ways of measuring the identified indicators under varying contexts.

Conclusions and policy implications

Privatisation of extension services has held the promise of improving downward accountability and by implication delivering on socioeconomic benefits to smallholder farmers. This paper assessed the extent to which a private commodity organisation providing extension to smallholder tea farmers delivers downward accountability. The paper has shown that KTDA has in recent years embraced methodologies that emphasise information flow, adult learning and farmers' involvement in planning, implementing and evaluation of extension programmes. Coupled with the fact that it has expanded its scope beyond crop husbandry to include advisory services on marketing, financial services, gender mainstreaming and environmental sustainability, the KTDA extension service has provided opportunities for increased accountability and empowerment of smallholder farmers. However, downward accountability is constrained by among other factors; presence of multiple accountabilities which means that the incentives for upward accountability outweigh the need for downward accountability, a heavy top-down governance structure, excessive workload and unrealistic targets on the part of extension staff and weak extension–research–farmer linkages. Our findings suggest, consistent with wider literature, that privatisation of extension services is not sufficient to deliver downward accountability. For privatised extension services to deliver greater accountability, it would require a deliberate process to manage the establishment of governance structures with inbuilt mechanisms, and the transformation of institutional arrangements and incentives for downward accountability.

Note

1. KTDA factories are organised into seven regional offices, which include Aberdare ranges (region 1 and region 2); Mt Kenya (region 3); Mt Kenya and Nyambene Hills (region 4); Kericho Highlands (region 5); Kisii Highlands (region 6); and Nandi Hills & the Western Highlands (region 7). The regions don't adhere to county borders and some traverse two counties.

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Appendix

Descriptive statistics of respondents in semi-structured interviews

Variable	Observations	Mean	Std. Dev.	Min	Max
Age in years	104	49.44231	15.19953	18	77
Household members	104	4.884615	2.082324	1	10
Farming experience	104	21.49038	13.47057	1	60
Altitude (m)	104	1933.159	126.7852	1735.6	2183.5
Distance to buying centre (km)	104	0.848269	0.722463	0.02	4

Variable	Level	Frequency	Per cent	Cum.
Gender	Male	92	88.46	88.46
	Female	12	11.54	100
Education	Pre-school	4	3.85	3.85
	Primary	25	24.04	27.88
	Secondary	63	60.58	88.46
	Tertiary	8	7.69	96.15
	University	4	3.85	100
Occupation	Farming	91	87.5	87.5
	Others	13	12.5	100
Credit	Yes	54	51.92	51.92
	No	50	48.08	100
Income	<5000	2	1.92	1.92
	5001–15,000	28	26.92	28.85
	15,001–30,000	71	68.27	97.12
	30,001–50,000	3	2.88	100
	contact with the KTDA extensionagent in the last 12 months	Yes	65	62.5
Participated in FFS	No	39	37.5	100
	Yes	35	33.65	33.65
Attended field day	No	69	66.35	100
	Yes	49	47.12	47.12
	No	55	52.88	100