

Transaction Cost Analysis Case Study: Chad Cotton Sector PSIA

This PSIA set out to analyze the distributional impacts of a proposed policy reform to privatize and liberalize the cotton sector in Chad. The cotton sector in Chad is organized primarily around a vertically integrated state-owned enterprise, *CotonChad*, which has become an increasingly loss-making concern because it has been exposed to negative terms of trade, with declining world commodity prices for cotton fiber. Transaction costs arise within the hierarchical production structure where informational and incentive shortcomings persist. The following transaction cost analysis illustrates how to begin to structure thinking about transaction costs associated with contractual relationships; it begins by placing the actors in two basic categories: macro and micro institutional actors.

Macro-level Concerns

Macro-level actors are those sectoral agencies and organizations—including *CotonChad*—agricultural extension agencies, research outfits, and regulatory bodies. The transaction cost analysis informs the PSIA on the macro-level by highlighting the following two issues:

Privatization: maximization versus equity concerns

Because one of the objectives of privatization is to shift risk from the public sector to the private sector, PSIA must be attuned to variants of the adverse selection problem here. Bidding documents need to be structured in a way that does not offset perceived contractor risk. Under a management contract scenario, fixed payments need to be linked to variable payments to help the agent meet the principal's objectives of higher revenues for cotton producers. Under a concession arrangement, PSIA needs to consider how to structure the bid package to award points not simply on the basis of price—which would represent a rational maximization strategy of the transaction for the government—but also for technical approaches to pursuing the government's medium- to long-term objectives.

Privatization: contract negotiation with an experienced seller

Considering one of the basic notions of competitive markets—that buyers enjoy competition while sellers try to diminish it—PSIA must be conducted with a view to the future structure of the sector. For some time to come, privatization of the cotton sector in Chad will most likely mean the operation of a private monopoly (or monopsony). The international tender process is of principal concern as well as the resulting contract between the government and *CotonChad* on one side, and a private investor on the other. Considering the government's principal stated reform objective of raising revenues for cotton producers, great care will have to be taken in the PSIA process to guard against potential investors being able to use their experience to disproportionately strengthen their negotiating position in relation to the government of Chad to structure a contract that will allow too much risk to be passed on to cotton producers in the form of lower producer prices.

Micro-level Concerns

The micro-level actors include cotton farmers, farmer's organizations, transporters, and a particular institution called *Interface*, made up of agents employed by *CotonChad*. The transaction cost analysis informs the PSIA on the micro-level by highlighting the following two issues:

Payments and quality assurance: the role of the middlemen

CotonChad set up an intermediary structure, *Interface*, which is charged with distributing lump-sum payments to the delegates of cotton-producing villages at the time of harvest, as well as selling and distributing inputs (such as seed, fertilizer, farming implements, and so on) for the coming season. *Interface* is also represented on the five-person teams in the villages when cotton quality is rated for the different villages, because payment from *CotonChad* is based on three grades of cotton: high, medium, and low. *CotonChad* reports that 98 percent of the cotton it receives is of “high quality” and pays *Interface* accordingly (to distribute payments to the producers themselves). However, villages complain that their outputs are downgraded by *Interface* on the basis of poor sampling techniques and that they consequently receive lower payment from *Interface*. This complaint suggests that the PSIA will have to focus on a potential **principal-agent problem** associated with two factors. First, the quasi-public composition of *Interface*, which is basically an extension of *CotonChad*, will have to be reviewed in terms of the internal incentive structures associated with its role as the conveyor of critical information about input prices and in its capacity to monitor the quality of output and payment to delegates of cotton-producing villages. Second, direct channels of communication will have to be considered between *CotonChad*, its successor, and community-based organizations in cotton-producing areas because producers seem to be chronically deprived of critical information to be able to make adequate production decisions, particularly on the input-side.

Coordination and collective action problems

These problems include (1) systematically poor access to key information, particularly on the prices of inputs; (2) a lump-sum payment structure that lacks transparency; (3) a seemingly poor mismatch of governance and incentive structures; and (4) poor access to sources of rural/microcredit. These problems cumulatively explain village-level collective action problems and threats to social cohesion. Poor cotton farmers are purchasing inputs from *Interface* at the beginning of the season on credit extended to the village, producing nothing during the season, while actually re-selling their inputs elsewhere simply to alleviate critical cash-flow needs. At the end of the season when the individual is not able to repay, the village is held responsible. PSIA will have to focus on these and other community-level dynamics to propose critical accompanying measures to the reform process.

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