The power of collaboration in the forestry industry – a harvesting contractor's perspective

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Forwarders working in collaboration

Mechanisation and technological advances have contributed to changes in the dynamics of the forestry industry over the past 40 years. It is expected that with these continual advances there will be further dynamic changes at an ever-increasing rate. Now more than ever there is a need for clear vision and understanding from all parties within the supply chain to capture the benefits of these advances.

Industry structure

Forests or plantations are generally government-owned or owned by large corporations with superannuation funds as major shareholders. These entities generally have long-term supply arrangements with either domestic processors, or shorter-term agreements with exporters. The demand for fibre is strong and forecast to remain strong in the long term.

Contractors (silviculture, harvesting and haulage) are often originally family-based companies with short to mid-term contracts (one to five years). Frontline equipment has an effective lifespan of five to seven years. In the sawmill and processing industries there are generally large corporate players with long-term supply agreements to secure plant investment.

Each group is very dependent on each other. Mechanisation and technology have reduced the number of contractors, who have needed to increase in size or become specialised to support the increasing occupational health and safety, environmental, capital, training and management requirements. Due to the nature and size of contracting businesses, company owners and/or directors generally are personally guaranteeing their company's debts. The increase in capital requirements has not necessarily led to longer-term contracts, resulting in a stifling of innovation and training opportunities within the contracting sector.

What is collaboration?

The *Cambridge English Dictionary* defines collaboration as 'the act of working together with people

or organisations to create or achieve something.' Is an open tender for existing work an act of collaboration? I would argue that if a contractor is operating efficiently, safely and meeting environmental and production targets, then they have the systems in place to meet any reasonable key performance indices (KPIs) that could be provided by a principal contractor.

This contractor's systems would include a planned training programme, access to a structured preventative maintenance programme, and good experienced and competent supervisors and employees. The contractor probably has some surplus capacity to cover most unplanned breakdowns and would also be carrying a stock buffer of product.

Often due to government policy (government-owned plantations), or the perceived need of corporates to get the best price, a contractor doing the above work is faced with a situation of having to re-tender for this work. More often than not they will win this work back, but the delay and disruption to the business will come at a cost, and will be included in their tendered rate so that viability and return on investment can be maintained.

Tender versus negotiated outcome

The different impacts of a tender and negotiated renewal are summarised in Table 1.

Table 1: Tender versus negotiated outcomes

Tender	Negotiated outcome
Cost of disruption (grower and contractor)	No disruption
Time stands still while tender process happening	Innovation continues
Employee uncertainty	Employees engaged and focusing on the future
Equipment bought tender to tender (little innovation during term of tender)	Regular planned updating of equipment
Well-prepared tenderers with good history are generally successful. Often the outcome can be forecast prior to the tender being issued	Ability to modify equipment or method of operation through regular planned equipment change over
Often delays in getting equipment following completion of tender as orders cannot be placed until outcomes are known	With annual reviews ability to reset or modify KPIs

In the above scenario the delay from the start of tender to receipt of new equipment would be generally at least 12 months. The contractor could be faced with three to six months of utilising old equipment before receipt of the new equipment, and will often have several machines of a similar age that will be becoming less reliable.

The contractor with negotiated outcomes will have had good interaction with their principal contractor, have an understanding of any changes in equipment needs, and will be able to execute a planned replacement programme. This will enable them to manage capital requirements and keep the average age of their equipment at a more consistent level. Advances in technology can be incorporated, employee training and back-up support can be planned, and longer-term contractor business plans can be aligned to the principal contractor's strategy and goals (business plan). There is also the ability to align with the future goals and aspirations of the processors who receive the product for processing.

There will still be a place for some tendering of work by the forest grower. It might be parcels of new work, or work that a contractor has been doing that did not meet KPIs. These opportunities to still tender should be sufficient to provide the necessary benchmarks for the forest growers to compare with negotiated contract prices.

The cost-effective solution

The other issue for tender outcomes is that the cheapest price is not necessarily the most cost-effective (see Table 2).

The value recovery that a contractor can obtain through better equipment, better trained and more professional operators, and better management systems can flow straight through to the bottom line of the forest grower. The cost of harvesting and haulage is generally the single most expensive process in the plantation cycle. There is always the temptation for the cost accountant within the plantation company to take the easy option of trying to accept a lower harvesting rate and on paper achieving a better return for the grower.

However, if this contractor has any one of the following processes that are below standard the cost of these flaws will not necessarily become apparent until later:

- A lower value recovery
- Higher rejection of A grade products
- Environmental and safety systems
- Inconsistent production
- Poorly trained operators
- Lack of management systems
- Poor maintenance system.

This cost will be borne by the grower in lost opportunity, reduced value recovery, the engagement of additional short-term capacity, or the costs associated with rectifying environmental damage (direct cost damage to forest grower's reputation), just to name a few.

The same can also apply if the grower has foresters on the ground. This can happen through pressure

Table 2: The value recovery equation of the cost-effective solution

Product	Relative value	Scenario 1	Gross value	Scenario 2	Gross value	Scenario 3	Gross value
Sawlog A	130	20%	26	21%	27.3	25%	32.5
Sawlog B	110	20%	22	21%	23.1	21%	23.1
Sawlog C	90	20%	18	21%	18.9	22%	19.8
Sawlog D	70	10%	7	11%	7.7	16%	11.2
Pulp	50	30%	15	26%	13	20%	10
		100%	88	100%	90	104%	97
				Increase	2.27%	Increase	9.77%

from above to reduce in coupe costs, e.g. thinking that the cost of grading a road or putting a couple of extra loads of gravel on the road will flow directly to their performance bonus only to have operations stopped at a later date, or requiring several extra loads of gravel to keep going.

The old adage of a stitch in time can save nine is very appropriate in forestry. Planning is an integral component of any harvesting operation, and proactive planning through good communication and collaboration between the forest grower's operational staff and the contractor's crew is vital to having a successful and profitable operation.

What can contractors bring to the table through collaboration?

By growers and processors working with contractors and communicating their vision and future requirements, and providing longer-term contracts, contractors can then plan their future training, equipment, management and financial requirements.

A structured equipment replacement programme ensures that contractors have access to the latest developing technology. Contractors can also provide for their workforce certainty in employment, offer additional training to complement technology, and provide career pathways for employees.

Machines are capable of recording vast amounts of data about the wood being harvested, and this information is very beneficial for short-term harvest planning and can be used to reconcile and improve forest modelling by comparing forecasts to actual results. This data also allows the opportunity for the reduction of supervision costs by forest growers and moving towards an auditing programme to monitor contractor performance.

Contractors are employed to do a job, so let them do the job, and with greater accountability and

Clearfall operation in Gippsland

New harvester ready for work

professionalism. Contractors are starting to employ foresters within their businesses, and this is a trend I would expect to see increase in the next few years.

What should a contract include?

With the capital requirements that contractors face, the contract must be 'bankable' and give comfort to financiers that it provides the ability to support the financial requirements of the contractor. The contract needs to be clear on the contract task and the responsibilities of all parties. It should have key trigger points within the contract term and detail a review method. The contract review should be conducted at least annually or immediately if issues become apparent, e.g. bad audits for safety, environmental or value recovery.

Forward scale read out

Contracts should also be explicit about rules regarding data exchange. Data about the trees should be available to the grower, and data about machine operation should only be available to the contractor. This should be spelt out in the contract and if there is the agreement of the parties to extend this agreement variations should also be noted. Data provision is a value-added service and contractors should be fully compensated.

Summary

Collaboration between all parties in the supply chain and the continued use of developing technology will allow forest growers to maximise the value recovered from their forests. The correct use of technology requires well-trained and professional operators.

By sharing the gains made by increased recovery forest growers can pass on some of these, to ensure continual improvement (training, equipment and contract tenure) and save operational costs to the grower through reduced supervision.

There must always be a clear 'win/win' for all involved in the supply chain to ensure success.

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