The furniture and handicraft industries are among the dollar earners that can help boost the countryside economy. It is estimated that furniture export will be more than $500M in the next few years.

China and Vietnam are the leading bamboocraft competitors in Asia, with the Philippines lagging behind in terms of facilities and equipment needed by the furniture and handicraft industries. One such important equipment which can convert bamboo into various products such as bamboo veneer, is the bamboo veneer lathe. At present, there is no locally available bamboo veneer lathe that can produce a wide range of thickness. The Forest Research and Development Institute (FPRDI) has an antiquated version that can only make veneer with maximum width and 1.0 mm thickness.

Bisana et. al. (FPRDI) designed and fabricated a modified bamboo veneer lathe. The equipment was developed using locally available materials except for gear motors and frequency inverter. It will greatly contribute to the global competitiveness of bamboo-based industries.

The modified version was patterned after the veneer lathe being used in FPRDI for laboratory experiments. This new lathe can produce 0.5-2.0 mm thick bamboo veneer. It was fabricated by AYCAFIL Industrial, the project cooperator in Balibago, Sta. Rosa, Laguna. It was tested and debugged at the cooperator's site under the supervision of the project staff. With this technology, bamboo can be converted into high-value products, which can be developed into exportable products such as tabletops, floor tiles, and other laminates.

Three investment profile scenarios were drawn and tested for the bamboo veneer lathe. These were: a) firm sells all the bamboo veneer lather produced; b) firm uses 100% veneer produced for furniture and handicraft production; and c) firm sells 70% of bamboo veneer produced and uses 30% for furniture production.

Findings:

- Internal rate of return (IRR) for investment scenarios a, b, and c, were favorable at 119.34%, 1,559.78% and 65.15%, respectively.
Separate technology fora and demonstrations in Angeles City and Iloilo City had revealed an urgent need for the technology. Technical viability has been rated "very good" to "excellent" in both areas. The equipment has been rated "affordable" in Angeles City and "affordable" to "expensive" in Iloilo City.

With the latest trends in the use of engineered bamboo products in the furniture and construction sectors, the bamboo veneer lathe showed bright prospects for commercialization. However, veneer clipper, dryer, and blade sharpener should be integrated in the technology package. Also, the equipment needs to be tried for veneering wood for maximum utilization.