



IMPACT ASSESSMENT OF LESS FRICTION JACQUARD IN SILK HANDLOOM WEAVING

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ABSTRACT

Silk handloom weaving is one of the important textile activities in Tamilnadu province of India providing large scale employment to the rural people. In order to reduce drudgery that has been encountered in this sector and simultaneously to improve the quality and productivity of silk saree weaving, less friction jacquard was developed by Central Silk Technological Research Institute, Bengaluru. Its performance was tested in terms of pulling load required to operate the jacquard for shed opening that invariably results in drudgery during weaving. The laboratory trial results revealed that the pulling load of 240 hooks capacity less friction jacquard was significantly less than that of conventional jacquard by 38 %. Moreover, 3356 less friction jacquards of varying hooks capacities were provided to the weavers to address the drudgery issue and the impact assessment of the equipment was carried out after one year of its installation through a survey, by randomly selecting, thirty weavers who were provided with 240 hooks capacity less friction jacquard and the paired *t*-test for the productivity of less friction jacquard gadget *vis-à-vis* conventional jacquard was worked out. Based on the questionnaire survey data, it is found that the less friction jacquard has the advantages of ease of maintenance, better saree quality, longer card life and less noise level. When compared with conventional jacquard, the silk saree production of less friction jacquard has increased by 19 %, pulling load that results in drudgery decreased by 25 % and daily earnings has increased by 25 %.

Key words: Earnings, less friction jacquard, production performance, pulling load, silk productivity.