The cost implication of the use of the micro Computerized Documentation System/Integrated Set of Information System (CDS/ISIS) application software in the library and its effectiveness in performance operations was evaluated to determine the cost – effectiveness. The study population was made up of all the staff involved in the computerization and cataloguing operations of the library. A questionnaire was used to collect data, while percentage and table were used to present the data. The study revealed that the use of CDS/ISIS is more cost effective at the library of Raw Material Research and Development Council, (RMRDC) Abuja because it is given to non-profit making organizations free of charge by UNESCO. When compared with the manual system, the computerized system costs more but it is more effective. In spite of the effectiveness of Computerized (CDS/ISIS) had great potentials as a library application. It is recommended that computer appreciations be included in the curriculum of library schools. Library staff that are using CDS/ISIS should be sent on training and retraining especially at advanced level on how to effectively use CDS/ISIS which will enable them fully understand how to apply (CDS/ISIS) to the functions and management of libraries and its information source, and to serve their clientele better. Since (CDS/ISIS) is not supplied with support services like training and maintenance of the software, users should form a functional user groups in their respective state. The user groups can provide relevant training on the use of CDS/ISIS.