Open Source Software (OSS) has made a major impact on the software industry, all over the world, both in the developed and as well as in the developing countries. Basically, the Open Source Software Project Management (OSSPM) is virtually distributed method of development with the involvement of volunteers as software developers, who are located geographically in various regions. In a broader perspective, Open Source Software is developed in a collaborative manner and it has created a substantial amount of software. Besides the steep increase in number of volunteers being actively involved in Open Source Software Development (OSSD), the software development procedure is often described as unstructured and unorganized. The Open Source Software concept offers not only low cost of technology acquisition, but also an efficient scheme of cooperation to exploit such technology. The most well-known and successful Open Source Software projects such as ‘Apache Web Server’ and ‘Linux Operating System’ have confirmed the attractiveness of open source project management as a new method of producing software. While open source software has proved to be popular and is often found to be better quality than proprietary software, it is still not clear as to what factors contribute, either directly or indirectly to this quality.

The Open Source Software release management is developed to retrieve the outcome and release with high quality software as per the
expectations of the computer users. The expectations of the computer users have no limit and their needs are fulfilled by developing various novel software. But in reality it is highly difficult to ascertain the exact needs and expectation, because when they fulfill a particular software need, automatically a new need emerges with high expectation in usage of more user-friendly software. Having observed the various dimensional needs of the computer users, a new model will be developed by exploring the impact of release management through world class quality.

So far the open source software developers have concentrated only on time based and feature based approach. It totally lack in concentration towards quality and human resource. This was identified as a major gap in this research, in order to fulfill the gap and assess the impact of release management; this integrated approach covering four major domains are developed for open source software users, who in turn may become open source software developers. The present software development highly influences the release management in OSSD which has been considered as one of the main areas of Open Source Software Project Management in terms of quality improvement.

The study was aimed at measuring the quality of Open Source Software among developers in Tamilnadu. For this purpose, first-hand information was collected from 400 Open Source Software Development Volunteers in Chennai and in Coimbatore. The data were collected with the help of a well structured questionnaire in the field. The collected data were subdued in to suitable tabular form. Appropriate statistical tools like
percentage, averages, ranges, standard deviation, chi-square test, multiple regression analysis, multiple discriminant analysis and factor analysis were employed.

Based on the results and the key findings, suggestions and conclusions were recapitulated and presented. The maximum level of quality maintained in open source software is among the female respondents, the young respondents (below 30 years) and unmarried respondents than the married category of respondents. The respondents who are working as software programmers and in other industry such as educational and training also maintain high level of quality in open source software. The analysis reveals that the respondents who gained 6-10 years of experience in IT sector and the respondents who earn below Rs.3 lakhs as additional income from open source software development activities maintain better quality in open source software. From the analysis, it is determined that the respondents who use communication tools have maintained high levels of open source software. It was found from the Henry Garrett Ranking analysis that majority of the respondents have opined that the problems such as “Software should define the Hardware Accessibility List (HAL)” and “Unable to identify the stable release of a software” are the major burning issues in maintaining the quality of Open Source Software.