

## **Regression analysis on experience based factory model for software development process**

### **ABSTRACT**

Software organizations are still struggling to reuse the best of their knowledge and experiences in future projects. Often, when there are changes on employee re-assignment, a lot of time and effort are spent for knowledge transfer activities. This however may not assure that all knowledge and experiences are well transferred and shared; some could be missing or misplaced. In this study, a model has been proposed for managing knowledge and experiences based on experience factory approach to provide a more efficient and effective experience management for software development community. Experience Factory is an infrastructure that aims for reuse of products, processes and experiences gained during a system life cycle. A set of components have been identified as the predictors of the model which eventually forms the two main organizations: project organization and experience factory organization. This study further has gone through a correlational survey research to verify the relationship between the identified predictors towards the experience factory goals. Reliability analysis has been conducted to validate the measures, while correlation and regression analyses have been carried out to examine the relationship between the constructs and the goals. Results reveal that reliability of the model is high and construct validity is satisfactory. Experience factory organization is found having more positively significant towards experience goals as compared to project organization; however, there is no significant impact towards the model due to inexistence of causal relation.

**Keyword:** Experience factory; Regression analysis; Correlational research; Software development process