This thesis deals with measuring and managing operational risk in the context of Basel II. The main goal of this work is to analyze different methods for quantification of operational risk and evaluate which method is the most suitable according to its nature. This work outlines the milestones of Basel II, its goals and tools. It defines the operational risk and clarifies its categorization. This paper also concentrates on Basel Committee's requirements concerning the quantification methods and it discusses related problems. This work examines the widespread operational risk measurement approaches. Final part is devoted to operational risk management process.