Information technology has made enormous changes in to the way in which the business enterprises operate today. This is very much true for service industries like banks which experienced tremendous change in their business process. On the other side, due to LPG (Liberalization, Privatization and Globalization) era, customers especially bank customers have become more demanding and choosy. In this competitive world, the success of business will be based on how effectively they utilize the information technology tools for satisfying the needs of the customers at the right time, right place and at the right cost. There are number of delivery channels available in the banking industry to reach the customers. The widely used technologies like ATM, Internet Banking, Mobile Banking, SMS banking etc are satisfying the needs of the customers. But the effectiveness of usage of these tools decides the success of the functioning of banks. This research was an attempt to identify customer satisfaction on the e-banking services offered by banks with special reference to online banking. This was assessed with the help of five dimensions (Security, Performance, Training, Reliability and Ease of use) identified through various review of literature. A questionnaire was constructed and circulated and finally 250 questionnaires with complete responses were included in the study to identify their satisfaction about e-banking services provided by the banks in Tamil Nadu. The data collected were analyzed using the statistical tools like Multiple Regression, Chi Square and Simple Percentage analysis. Based on the results, suggestions were given to bankers for …