A rights offer refers to an equity issue where all existing shareholders of the issuing company have right to sign up for new shares on a pro rata basis at a certain price and within a certain time period. Although the share rights issue is a vital process in financing of corporations, only few studies have investigated it. A company faces different alternatives when it comes to issuing equity. It can either go out broadly to the public with an offer like a public offering or more narrowly with an offer to a selected group of investors. However, the choice between initial public offer, private placement or share rights issue remains a major problem as there is no scientific procedure that has been established through empirical research. A study on factors determining share rights issue is of great relevance to firms, researchers and regulators alike emerging markets and Kenya in particular. The objective of this study was to determine the factors leading to choice of rights issue as a mode of corporate finance in Kenya. Specifically, the study sought to determine effects of firm size, investor sentiment, age of the firm ownership concentration, and financial strength on the choice rights issue as a mode of corporate finance. The study adopted explanatory research design. The population for this study consisted of all listed companies in Kenya while the target population comprised of all the listed companies from 2000 to 2010. Currently, there are 50 listed firms at NSE. According to the NSE database, 18 firms have used rights issues in the past with only 14 being between the year 2000 and 2010. The study will carry out a census of the 14 firms. This study used time series data exclusively obtained from NSE, CMA and audited financial statements of the respective firms. This was uniquely appropriate in explaining the relationships between the variables and assessing change over time. The data collected was analyzed using descriptive statistics, correlations, and linear regression analysis. This was achieved through the use of Statistical Package for Social Scientists (SPSS) and Microsoft Excel. The analysis sought to answer research questions and explain the nature and strength of associations between the dependent and independent variables. The output was presented in form of tables and figures. Multivariate regression analysis was utilised in fitting a regression model that describes the relationship subsisting between the dependent variables and independent variables.