This thesis is a competitive behavior analysis of the motorcycle market in Thailand, with consideration the main Entrepreneurs, i.e. Honda, Yamaha, Suzuki and Kawasaki, in order to determine the factors effecting demand and supply, and to study the level of the motorcycle market concentration. The thesis' study method starts with an explanation of motorcycle industrial history, 1983-1999, concerning production, sales, competition and import-export figures, leading to an analysis of possible factors effecting demand and supply within the motorcycle market by using the "Two Stageleast Square". Subsequently, the thesis will measure the concentration ratio, using "Concentration Ratio", "The Herfindahl Summary Index" and "The Comprehensive Concentration Index". The thesis will conclude the competitive behavior by using "The Bertand Model" to analyze the Reaction Function of entrepreneurs in the main categories of motor-cycles models, family, sport-family and sport models. The result of study is the significant factors of demand are price, national income and oil price. In supply side are price, interest rate and expected production index and the reasonable both of demand and supply functions are logarithm. The result in level of the concentration shows the existence of leader power in market. Analysis of behavior shows that there is non-price competition in this market. Changes in price is brought about by changeable costs caused by changes the model of motorcycle. Although the advertise doesn't affect competition, the advertise has purposed to maintain the market shares of entrepreneurs