Extensive research has been done on e-Commerce to demonstrate the tremendous benefits it offer Businesses. However, SMEs especially in developing countries have not fully adopted e-Commerce solutions. Therefore there is the need to identify and measure the perceived importance of driving forces and barriers in the adoption of e-Commerce solutions among SMEs. A questionnaire based on the factors identified has been developed and face-to-face interviews were conducted with 15 SME Managers which were inclusive of survey sample of 61 Ghanaian SMEs. This research highlights findings from survey and interviews with SMEs in Kumasi, Ghana. Findings from this study shows that SMEs online sales is virtually nil, the most common e-Commerce application is the use of e-mail for communication and the main reason for having a website is to show basic information about product and services as well as contact information. Some of the barriers to e-Commerce adoption identified includes: lack of right technical skills, e-Commerce security, initial cost, resistance by people and culture, lack of interest by management, lack of developed legal and regulatory system. Among the implications of this study is that the findings provide a useful insight to governmental agencies, policy makers, e-Marketing experts, supply chain specialist to be able to assist SMEs who desire to deploy e-Commerce systems. Keywords: Small to medium-sized enterprises, e-Commerce, Surveys, Ghana