

**Universiti Teknologi MARA**

**Pricing Warrant Using Black Scholes  
Model: Comparison Between Implied and  
Historical Volatility**

**Khairul Nizam Bin Khairul Anuar**

**Report submitted in fulfillment of the requirements for  
Bachelor of Science (Hons.) Management Mathematics  
Faculty of Computer and Mathematical Sciences**

**November 2018**

## **STUDENT'S DECLARATION**

I certify that this report and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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**KHAIRUL NIZAM BIN KHAIRUL ANUAR**

**2016260156**

**NOVEMBER 30, 2018**

## **ABSTRACT**

Warrants are securities that will give the stockholder the right, but does not become an obligation to buy some securities at a certain price before a certain time. The purpose for this research is to study the pricing warrants using Black-Scholes Model. Several companies have been chosen from UiTM Data Stream library. The company is Boon Koon Group Bhd, Hovid Bhd, Kelington Group Bhd, MGB Bhd and Sersol Bhd. These companies were randomly selected from their company data that have been provided. In this study, there are Historical and implied volatility is implemented for identifying certain information for future use. Historical volatility was applied to describe the price movement of underlying assets. Meanwhile Implied volatility was applied to describe predict the potential of market for underlying market price in future. Among all companies, Sersol Bhd shows the most volatile for price movement of underlying price but shows less volatile from potential of market price compare to others companies. The pricing warrants is important because it will influence the market price in the future. Money-ness is the relationship between underlying prices with exercise price of the warrant. There are three type of money-ness which is in-the-money, out-of-money and at-the-money. From the study, Boon Koon Group Bhd, Hovid Bhd and MBG Bhd shows the companies is in-the-money and the other two shows out-of-money. It is indicated that companies with in-the-money type of money-ness will give the investor profit from their investment and for out-the-money are not profitable for investor to invest. From this study, it can be concluded that Black-Scholes Model is the best model to choose for calculating the pricing warrants.

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