Abstract—Text categorisation is a popular problem that has been studied extensively in the last four decades. This paper investigates different variations of vector space models (VSMs) and term weighting approaches using KNN algorithm. The base of our comparison in the experiments we conduct is the F1 evaluation measure. The Experimental results against different Arabic text categorisation data sets provide evidence that Dice and Jaccard Coefficient outperform the Cosine Coefficient approach with regards to F1 results, and the Dice-based TF.IDF achieves the highest average scores.