Results after dividing the data according to labels distribution

**MODEL: Multinomial Naive Bayes**

The precision for this classifier is 0.832167832168

The recall for this classifier is 0.769230769231

The f1 for this classifier is 0.730672835936

The accuracy for this classifier is 0.769230769231

Here is the **classification report**:

precision recall f1-score support

Engagement 1.00 0.62 0.76 13

Marriage 1.00 0.27 0.43 22

irrelevant 0.73 1.00 0.84 56

avg / total 0.83 0.77 0.73 91

Here is the confusion matrix:

[[ 8 0 5]

[ 0 6 16]

[ 0 0 56]]

Result for **cv cross validation** with first files of data (relevant and irrelevant)

**5 CV for same data yielded following scores**

[ 0.61904762 0.5952381 0.64285714 0.5952381 0.5952381 ]

**10 CV for same data yielded following scores**

[ 0.61904762 0.61904762 0.66666667 0.66666667 0.57142857 0.66666667 0.57142857 0.71428571 0.61904762 0.61904762]

**Result for K-folds (k = 10) cross validation with first files of data (relevant and irrelevant)**

[0.52380952380952384, 0.61904761904761907, 0.80952380952380953, 0.7142857142857143, 0.66666666666666663, 0.5714285714285714, 0.66666666666666663, 0.61904761904761907, 0.7142857142857143, 0.38095238095238093]

**Average accuracy** achieved with k-fold (k = 10) cross validation is 0.628571428571