**Model formulation for DBS Multiplier Option1**

**Decision variables**: *xi,j,* binary variable,

* if 1 the *ratei,j* is chosen
* 0, otherwise

**Parameters:**

DBS Parameters:

* *ratei,j,* the rate applicable for
  + *i* condition, being the total transactions amount (income + 4 categories: spending, investment, insurance and loan on monthly basis)
  + *j* condition, being the number of categories for which client has the transactions
* *st\_rate*: standard rate applicable for the certain amount

Customers Parameters:

* *t***:** total transactions amount (income + 4 categories: spending, investment, insurance and loan)
* *c:* number of categories
* *AccountBalance:*balance on the account
* bands for return computation in objective function
  + *band25*:
  + *band25*\_diff:
  + *band50*:
  + *band50\_diff*:
  + *band50\_2*:
  + *band100\_diff*:

**Objective function:**

**Constraints:**

Constraints related to number of transaction type

Constraints related to total amount of transactions

Lower bounds

*Upper bounds*

*Only one rate is chosen*