

$m_Y(k)$	no. of effective ratings collected in the $k$ -th cycle
$m_N(k)$	no. of neutral ratings collected in the $k$ -th cycle
$m(k)$	no. of offers sent out in the $k$ -th cycle
$M_Y(k)$	no. of effective ratings collected up to the $k$ -th cycle
$M_N(k)$	no. of neutral ratings collected up to the $k$ -th cycle