Setting:
Best arm $arm_1 \sim \text{Bernoulli}(\mu_1)$. Pulled m times. Success: a_1. Fail: b_1. $a_1 + b_1 = m$
Second best arm $arm_2 \sim \text{Bernoulli}(\mu_2)$. Pulled n times. Success: a_2. Fail: b_2. $a_2 + b_2 = n$

So, new samples will be $u_1 \sim \text{Beta}(a_1, b_1), u_2 \sim \text{Beta}(a_2, b_2)$.

According to a close form derived by Evan Miller,

$$\mathbb{P}(u_1 > u_2) = \sum_{i=0}^{a_1-1} \frac{B(a_2 + i, b_1 + b_2)}{(b_1 + i)B(1 + i, b_1)B(a_2, b_2)}$$

The monotonicity is not obvious. I tried 3 methods. They all end up with some form $\int f(a_2)g(a1, b1, b2)$ where $f(a_2)$ is not always greater or less than 1.