OBJECTIVES: Trastuzumab has been widely used in treatment of HER2 positive breast cancer because of its proved effectiveness and safety by many studies but its economic impact with low-income countries like Viet Nam has not been assessed yet. The aim of this study is to evaluate the cost-effectiveness of trastuzumab in combination of standard therapy versus standard therapy in treatment of metastatic HER2-positive breast cancer. METHODS: A Markov model was developed with 3 states (stable disease, progressive disease and death) to simulate a hypothetical cohort of 1,000 metastatic HER2-positive breast cancer women of an age group of 50-69 years old with the same criteria as in the previous study group. Chemotherapy with ACD regimen (Doxorubicin, Cyclophosphamide, Docetaxel) was compared with ACD regimen plus trastuzumab. The cycle length of model was 1 month and time horizon was lifetime. Both cost and Quality-adjusted life-years (QALYs) were discounted annually with 3% discount rate. Probabilistic sensitivity analysis was also conducted. RESULTS: Combination of trastuzumab and standard therapy compared with standard therapy in treatment of metastatic HER2-positive breast cancer resulted in an additional 170 million VND (658,8 vs 487,9 million VND) and 0.81 QALY (1.77 v s 0.96). The incremental cost-effectiveness ratio resulted in VND 208,76,442 49/QALY, which was less than willing to pay (WTP) of Viet Nam (VND 350,360.00). The model validation demonstrated the cost-effectiveness of metastatic HER2-positive breast cancer women has been considered to be cost-effective. Sensitivity analysis showed that the most affecting factors on the cost-effectiveness of trastuzumab is trastuzumab’s price and patient’s weight. CONCLUSIONS: Combination of standard therapy is cost-effective in treatment of metastatic HER2-positive breast cancer women in Vietnam. Trastuzumab’s price and patient’s weight are the most affecting factors on the cost-effectiveness of trastuzumab.