In practical optimization problems, uncertainty in parameter values is often present. This uncertainty needs to be taken in account when taking real-life decisions. Such issues, where the parameters of the problem lie in the sets with a given shape, can be solved by a type of linear optimization called robust linear optimization. Special cases of these robust optimization are problems, where the sets depend on decisions. In this thesis we will focus on these special problems. The main aim of this thesis is to reformulate the classical form of the problems, leading to formulations which can be solved by standard computational software. We will then use these formulations in numerical study, focusing on behavior of robust shortest path in graphs.