

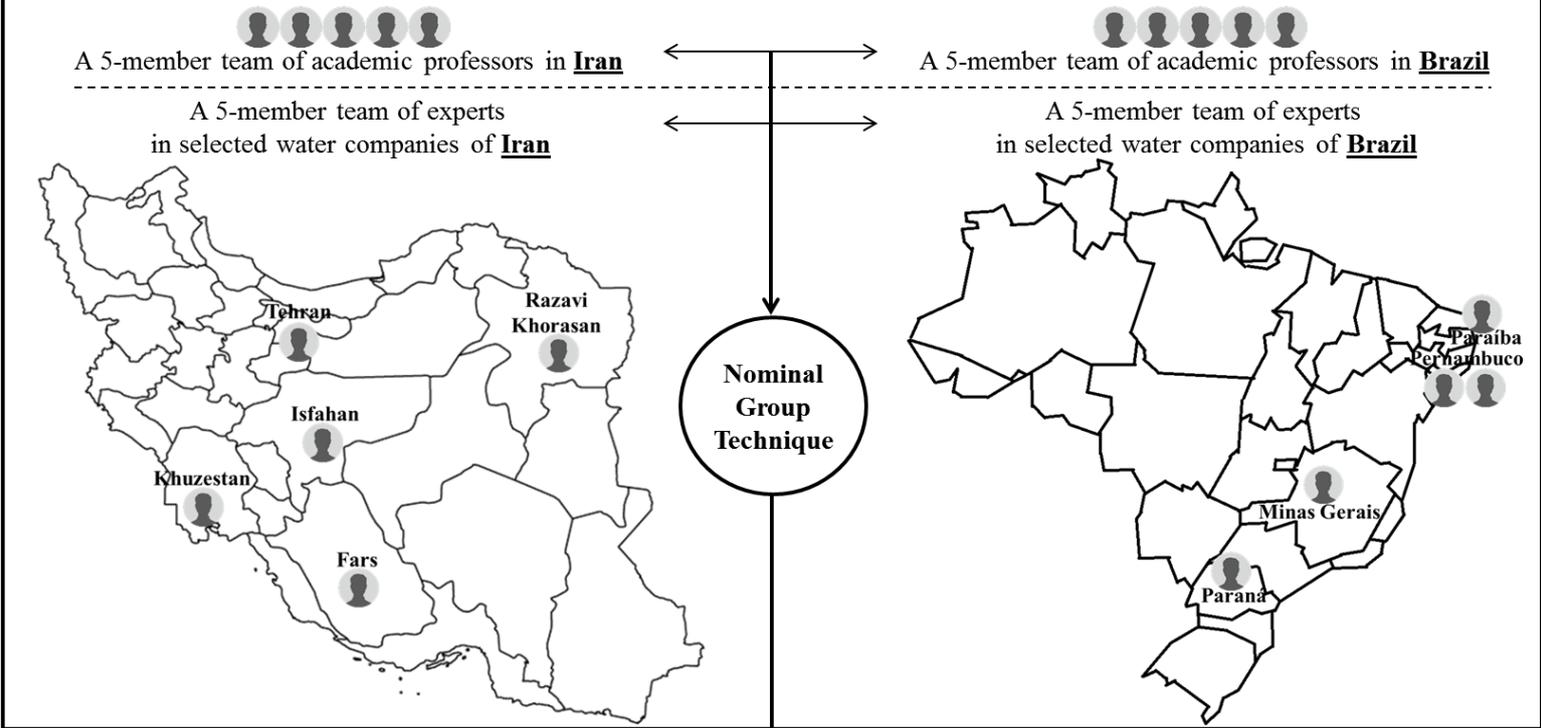
Assessment of the Knowledge-based Decisions of Experts in Iran and Brazil for Maintenance-Rehabilitation Planning (MRP) of the Urban Water Pipes

Step 1:

Determination of the effective criteria for MRP of the pipes

Step 2:

Knowledge-based group decision-making of Iranian and Brazilian experts to rank the criteria using the nominal group technique



Step 3:

Non-weighted
decision-makers

Comparison of the viewpoints of Iranian and Brazilian experts

Weighted
decision-makers

Figure 1: The methodology steps in this work

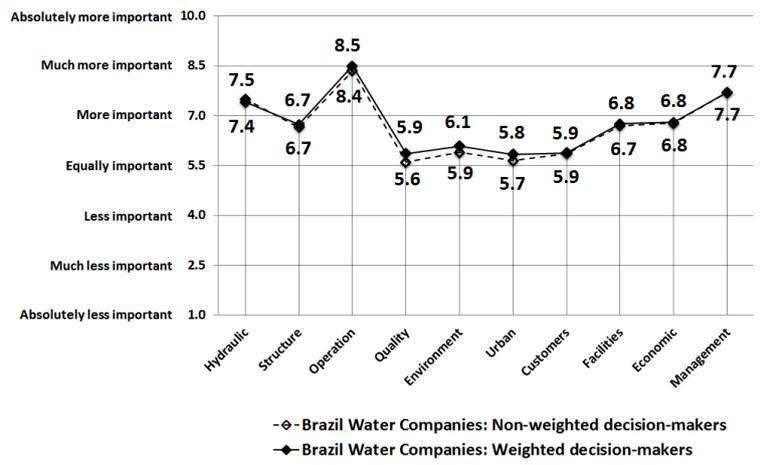
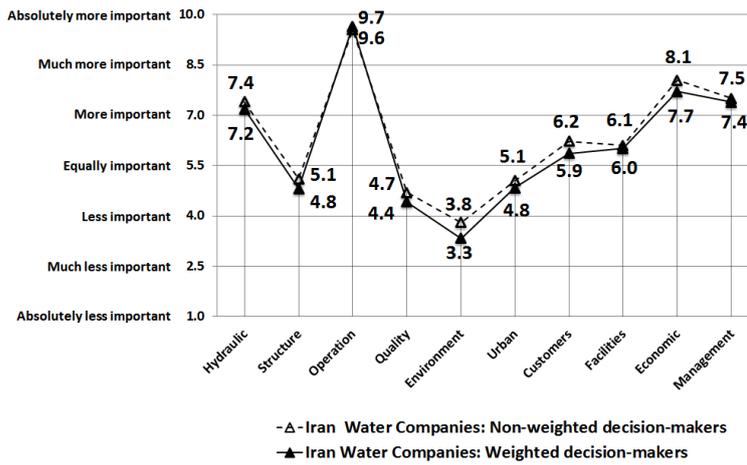
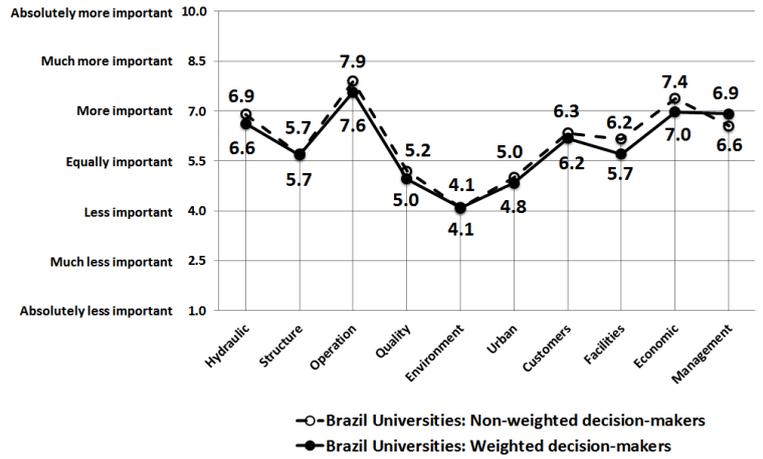
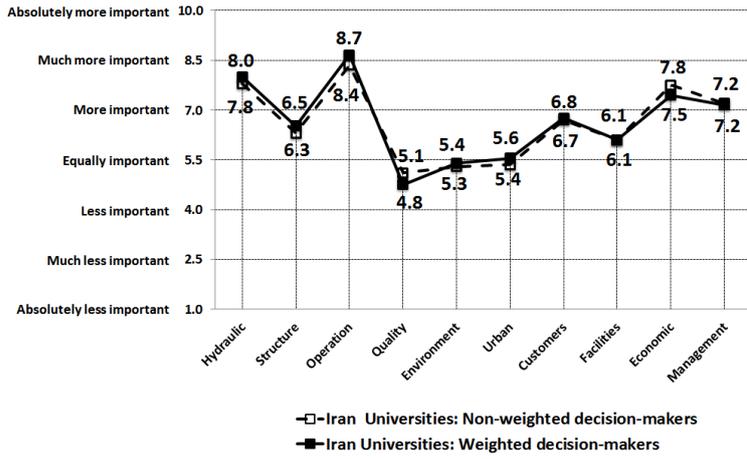


Figure 2: The bipolar scales obtained by non-weighted/weighted decision-makers

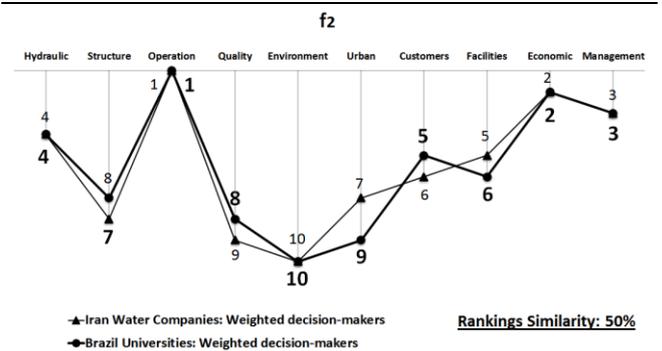
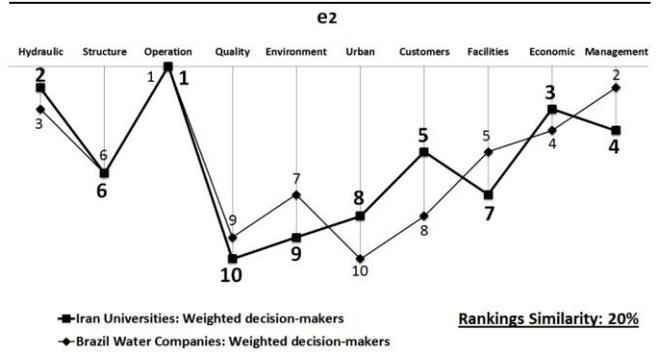
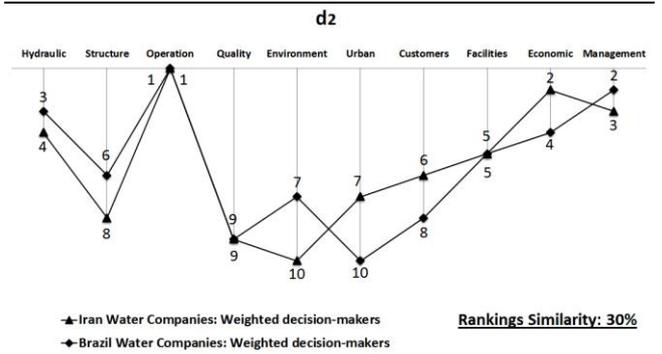
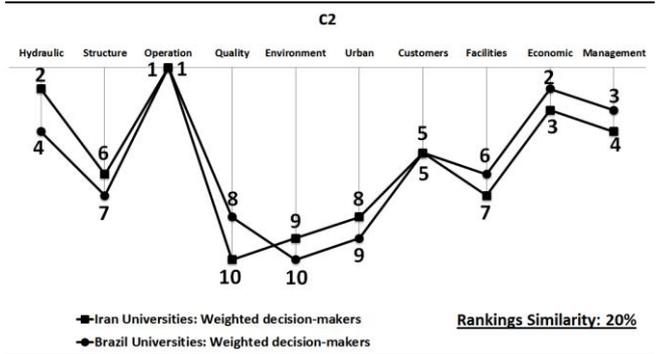
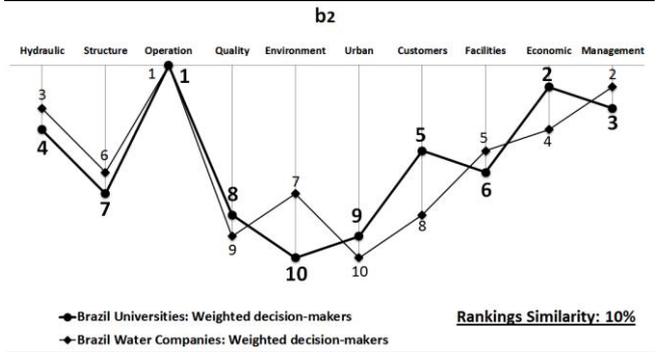
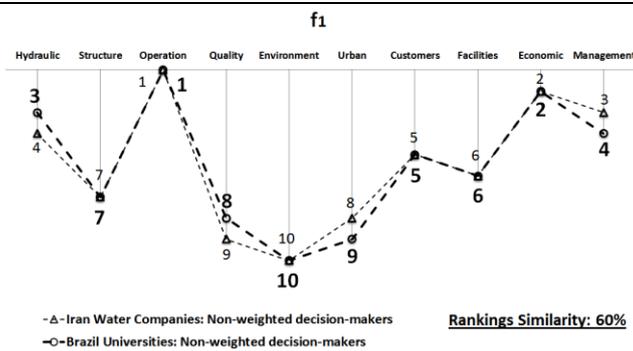
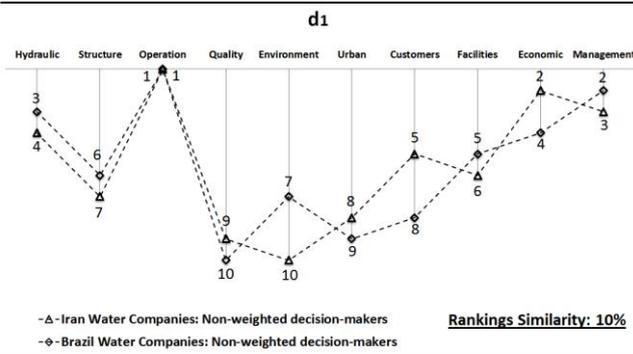
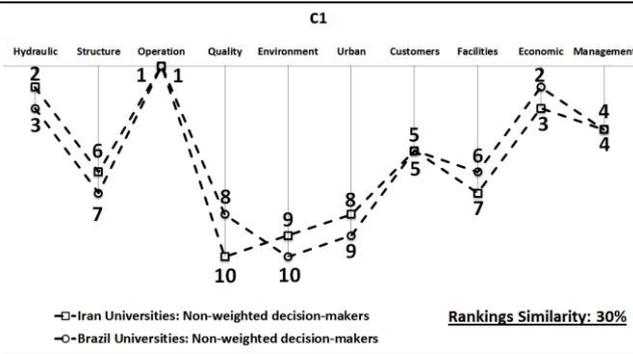
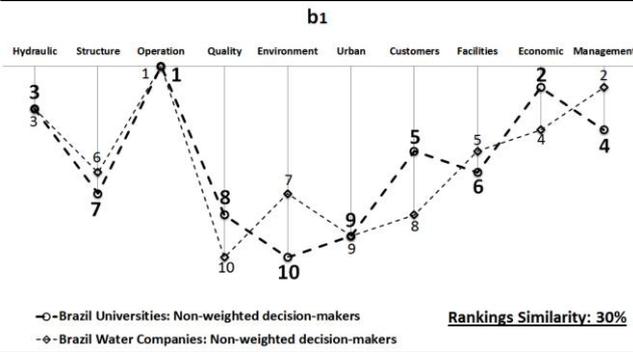
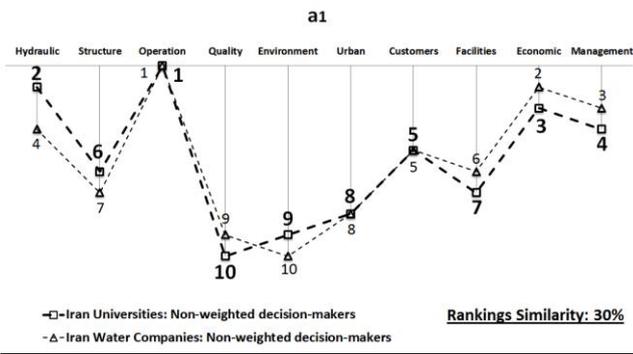


Figure 3: The pairwise comparison of the rankings of criteria

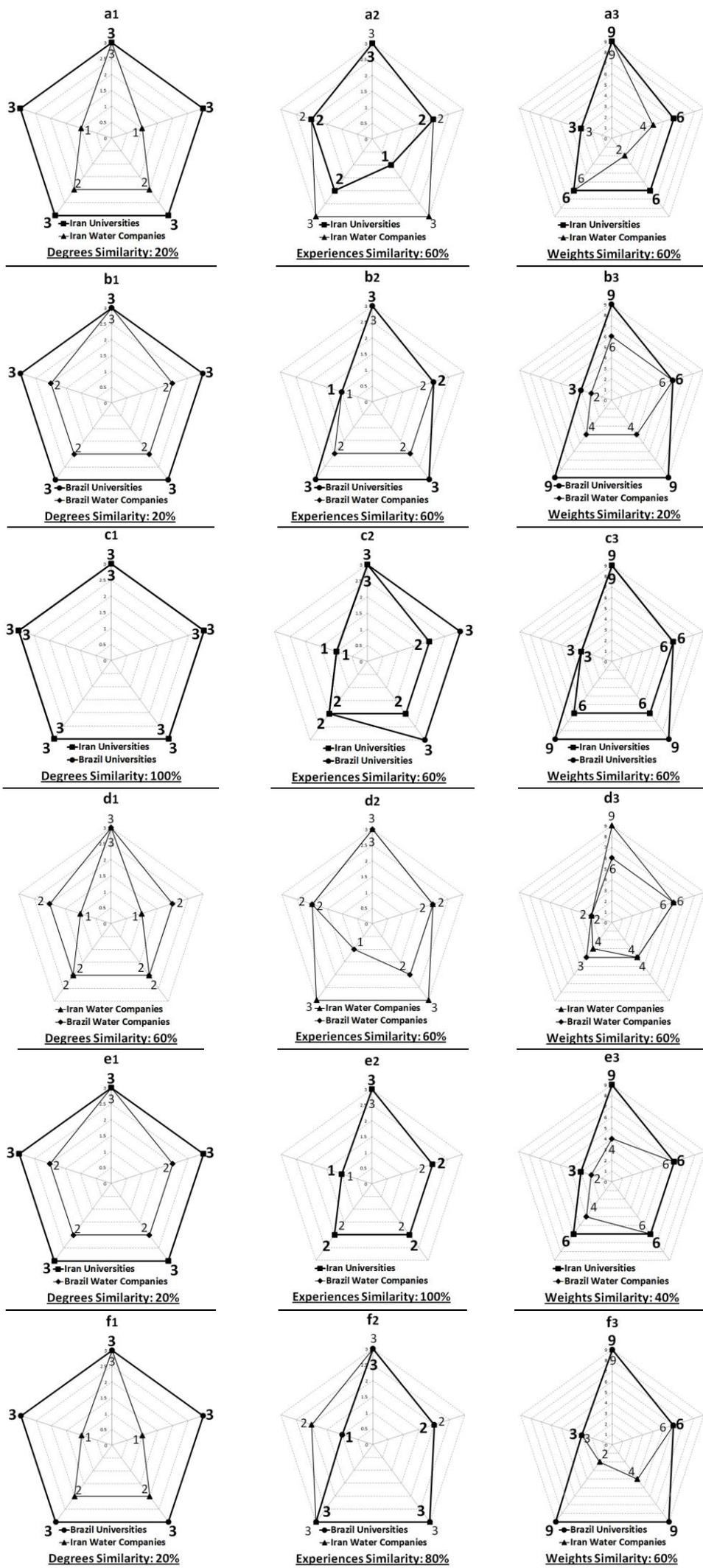


Figure 4: The pairwise comparison of decision-makers' weights and their profiles