Application of a Combined SWOT-AHP: Determining Stakeholder Perceptions of New Jersey’s LSRP Program for Strategic Planning

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Background
Codified in 2009, New Jersey’s Site Remediation Reform Act (SRRA) set forth major modifications in New Jersey’s Department of Environmental Protection (NJDEP) administration in the remediation activities of over 20,000 contaminated environmental properties. The main goal of SRRA was to establish the Site Remediation Professional Licensing Board in order to create a licensures process for the Licensed Site Remediation Professional (LSRP). The program shifted the responsibilities of NJDEP’s Site Remediation Case Managers to the LSRPs. The LSRPs are licensed private individuals who are able to provide remediation services without any delayed approval from the NJDEP. This allows for timelier remediations of contaminated properties that are protective of “human and safety and the environment”. In essence, the state privatized a major portion of the NJDEP remediation program. The NJDEP now has resources available to increase the amounts of “No Further Actions and/or Completed” cases. In the ten years following its inception, the amount of these case in the three largest urban cities have increased by 46% as compared to the prior ten. By allowing for quicker remediations, the program has increased the amount of properties available for redevelopment, in turn reducing the stresses on economic, social and environmental factors by creating healthier sustainable cities and indirectly reducing the need for degradation of external undeveloped lands, also known as “Urban Sprawl”.

Research Question
Only three US northeastern states (Massachusetts, Connecticut, and New Jersey) have implemented such extensive privatization of their environmental remediation programs. To increase the awareness of the privatization successes to other states that are struggling with the amounts of properties in need of remediations, increasing the rates of remediations, or to assist New Jersey’s program a Strength, Weakness, Opportunities and Threats - Analytical Hierarchical Process (SWOT-AHP) technique was applied to determine stakeholder’s perceptions. The analysis of the perceptions would determine the programs areas of success and stakeholder concerns that are outside the normal data statistics.

Hypothesis
SWOT-AHP is a known technique used to identify variables of implementing and maintaining a program. The technique was applied to four stakeholder groups to assess each groups’ preferences regarding the current LSRP program. The groups include Government and Legal Entities (GLE), Business and Trade Organizations (BTO), non-government organizations (NGO), and the LSRPs. Based on respondents’ preferences, these variables are ranked and hierarchy structure.

Methodology
The SWOT-AHP survey process was conducted in three stages. The first stage involved interviewing experts and stakeholders that were conducive in the implantation of the New Jersey’s LSRP program to generate a listing of SWOT-AHP factors. The second stage involved an online surveying the individuals from the four stakeholder groups on their preferences of selected pair-wise comparisons of the SWOT factors to determine the rankings within the SWOTs. The final stage involved an online surveying the same individuals on their preferences of the selected pair-wise comparison of the highest ranked SWOT factors as determined from the previous survey. This was to determine the ranking of between SWOT factors.

Results
The overall priority scores for the NJDEP stakeholders were 0.2748 and 0.3333 for the strengths and opportunities, and the sum was 0.6081 which implies that the total GLE in favor for the LSRP program was 61.8%. Using the same methodology, it is inferred that following groups were in favor for the program by 43% for BTO, 40% for LSRP, and 26% for NGO. There were three groups ranked for the same highest individual priority factors (O1) for opportunity 32% for GLE, 42% for BTO and 37% for NGO, while the significant concern was the threat priority factor of 29% for NGO (T1), whereas when compared during the overall priority produced a threat scoring of 56% for NGO.

Bibliography