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Holomorphic Prioritization of Sets within Decagram of Strategic Decision Making of POSM Using Operational Research (OR): Analytic Hierarchy Process (AHP) Analysis

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Abstract : There is decagram of strategic decisions of operations and production/service management (POSM) within operational research (OR) which must collate, namely: design, inventory, quality, location, process and capacity, layout, scheduling, maintain ace, and supply chain. This paper presents an architectural configuration conceptual framework of a decagram of sets decisions in a form of mathematical complete graph and abelian graph. Mathematically, a complete graph is undirected (UDG), and directed (DG) a relationship where every pair of vertices are connected, collated, confluent, and holomorphic. There has not been any study conducted which, however, prioritizes the holomorphic sets which of POMS within OR field of study. The study utilizes OR structured technique known as The Analytic Hierarchy Process (AHP) analysis for organizing, sorting and prioritizing (ranking) the sets within the decagram of POMS according to their attribution (propensity), and provides an analysis how the prioritization has real-world application within the 21st century.

Keywords : holomorphic, decagram, decagon, confluent, complete graph, AHP analysis, SCM, HRM, OR, OM, abelian graph
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