A Dynamic Strategy Map Model for National Park Management

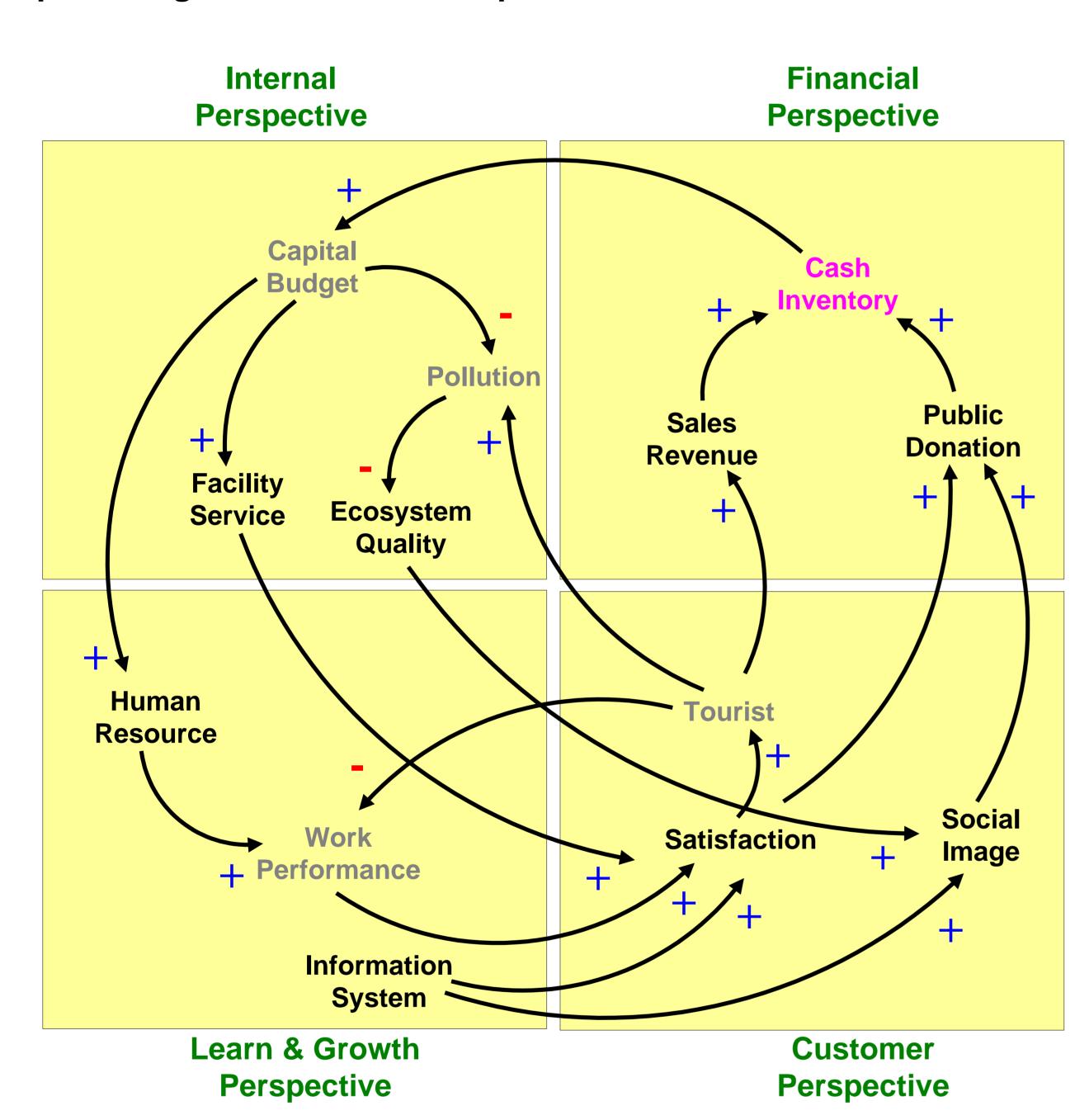


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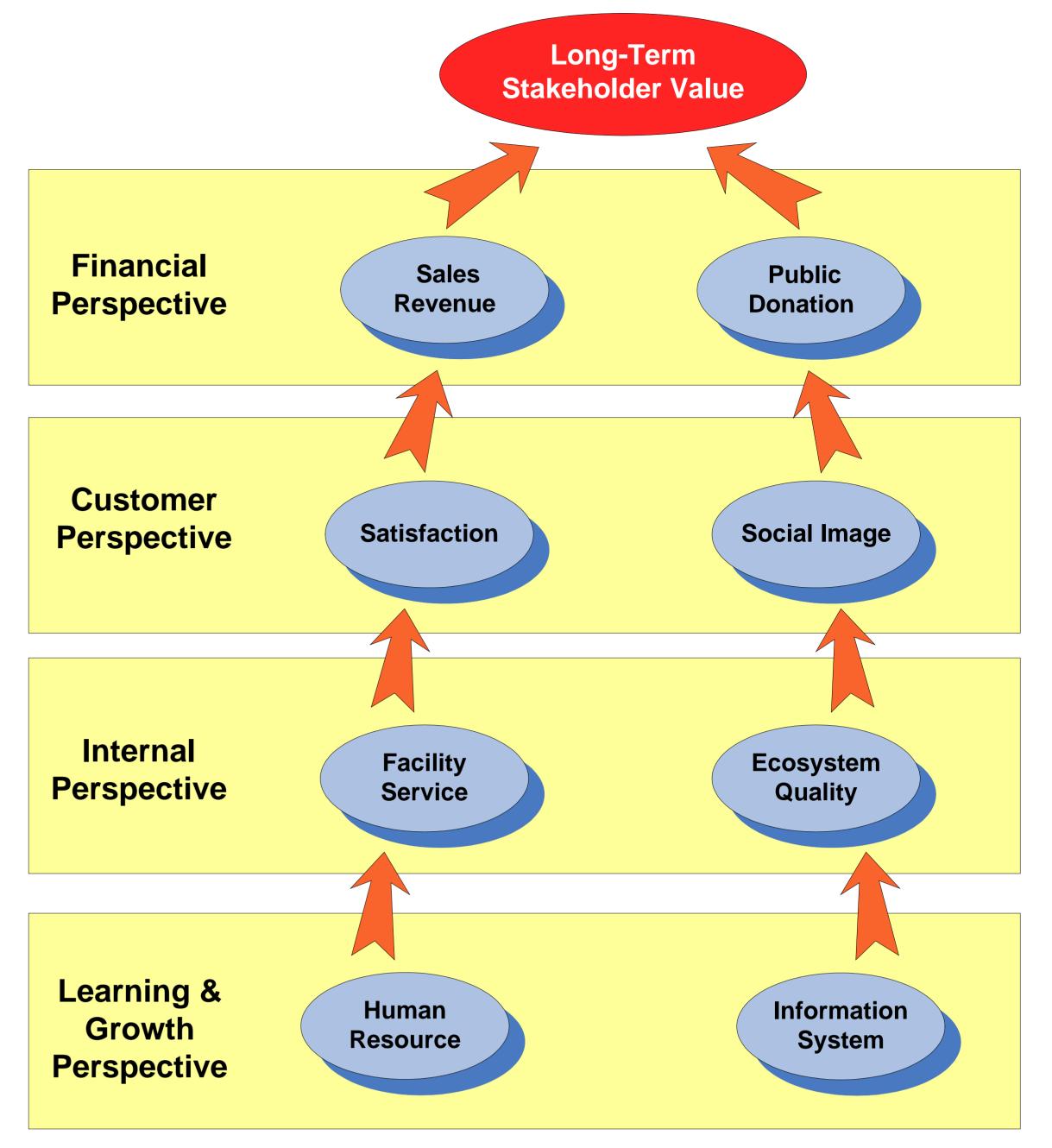
Tsung-Ting Ko, Helmholtz-Zentrum Geesthacht, Institute of Coastal Research, Contact: tsung.ko@hzg.de

Introduction

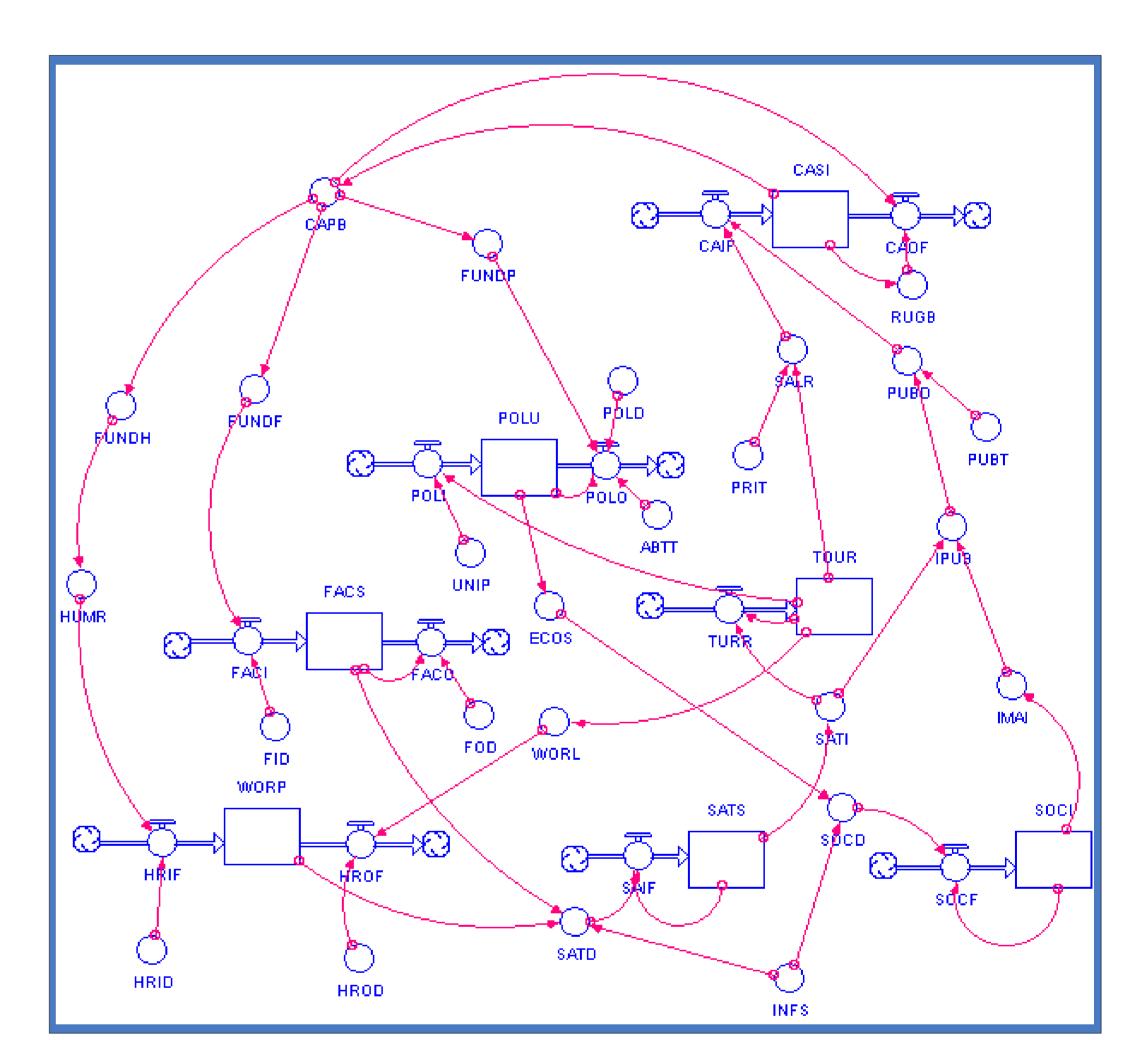
Strategy maps are diagrams that allow people to quickly visualize the performance of balanced scorecards which are used by managers to describe their goals to the companies. Such method could also provide a strategic performance management tool for national park managers to serve visitors and protect ecosystems. National parks usually are operated by non-profit organizations with the objective of pursuing longterm sustainable value, which is similar to the operation of commercial corporations. Therefore, the management of national park is divided into four perspectives (i.e. financial, customer, internal, learning and growth) which have directly or indirectly casual relationships between each other. While the strategy of one perspective will impact on other perspectives, the extinguished performance of one perspective usually does not reflect on the overall performance. In some cases, the properties of behaviours are counterintuitive so that an improving policy brings about negative results. Since the relationships among these perspectives are complicated and time delayed, it is difficult for managers to make correct decisions. This research aims to build a Dynamic Strategy Map (DSM) model to derive scenarios that support policy making. Sustainable management strategies to protect and manage natural resources can hopefully be developed using DSM model and implemented in the near future.



Causal Loop Diagram of DSM Model



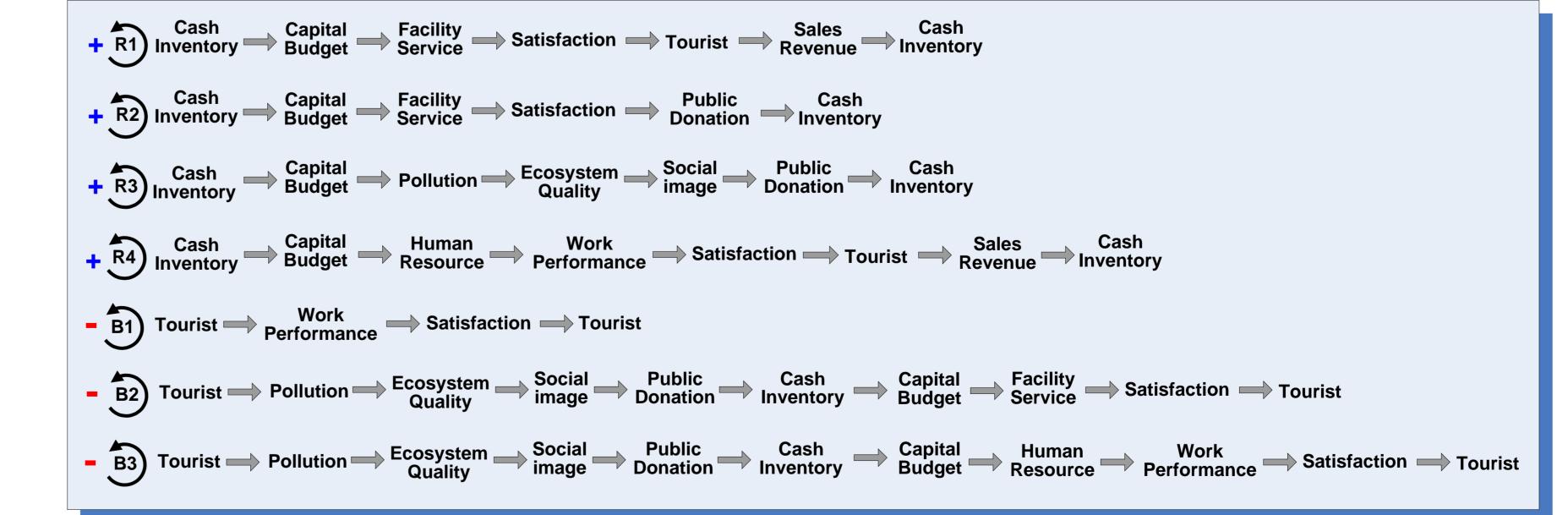
The Balanced Scorecard Strategy Map



Stock and Flow Diagram of DSM Model

Method

The DSM model integrates System Dynamics and Strategy Maps approaches to analyze the dynamic relationships among these perspectives and simulate the predicated performance of the scenarios. The DSM model is also capable of formulating composite strategies based on the preference information. It not only finds the key performance indictors which allocate limited resources on suitable places to achieve the operational goals, but assists the managers to take proper measures for long-term sustainable development instead of emphasizing short-term performance.



Reinforcing and Balancing Loops of DSM Model













