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# THE SPORT-BASED HOLISTIC DEVELOPMENT MODEL: DYNAMICS AND MULTIDIMENSIONALITY IN INTANGIBLE VALUE NETWORK

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## Abstract

TITLE: THE SPORT-BASED HOLISTIC DEVELOPMENT MODEL:  
DYNAMICS AND MULTIDIMENSIONALITY IN INTANGIBLE VALUE  
NETWORK

### Objective of the Study

Previous literature is limited in fully addressing the dynamic and multidimensional characteristics of values of sports in business and society. A more integrated framework encompassing dynamic and multidimensional outcomes to various stakeholders longitudinally is essential for policy makers and relevant organizations to evaluate and make strategic decisions, regarding their investments in sport-based partnerships. It offers a holistic map with interrelationships and interactions within a group of stakeholders. It is called here, "The sport-based holistic development model: Dynamics and multidimensionality in intangible value networks (SBHDM\_DMIVN)."

### Theoretical Backgrounds

#### Dynamics in SBHDM

The value network concept portrays how value is co-created by a combination of different social and economic actors - partners, supplier, allies and customer - particularly for service sectors such as banking, music, advertising, entertainment, and telecommunication (Peppard & Rylander, 2006). In a value network concept, the relationships with other collaborators can influence the qualities of values and outcomes created in the network. In addition, one action of a member directly or/and indirectly influences the other members in a positive or negative way (Peppard & Rylander, 2006).

#### Multidimensionality in SBHDM

A thorough review of previous studies regarding what the potentials of sports are for each network participant including government,

corporations, nonprofits and the general public was conducted to identify the various value dimensions for each network participant in SBHDM. (e.g., Johnson et al., 2007; Rosentraub, 2008; Wicker et al., 2012; Cliff & Motion, 2005)

#### Proposed Methodological Approach

##### System dynamics approach for SBHDM\_DMIVN

System dynamics is a computer-based simulation modelling methodology used to understand dynamic behaviours in a large and complex system by visualizing the structure of causal relationships among variables with mathematical equations in the system (Sterman, 2000). Given the integrated and comprehensive nature of SBHDM\_DMIVN conceptualized in this study, the selection of system dynamics is an ideal methodological approach. First, system dynamics can fully examine the dynamic interplay among various stakeholders in multi-levels, visualizing their interrelationships with feedback loops in causal loops diagrams (CLDs).

#### Conceptualization for System Dynamics Modeling

We follow Sterman (2000)'s modelling approach, organizing five phases of system modelling processes: 1) define indicators with problem articulation; 2) dynamic hypotheses development; 3) formulation of an integrated CLD; 4) testing and simulation; 5) policy formations and evaluation. To conceptualize these dynamic causal relationships and inter-relationships as hypotheses development, three casual loops diagrams (CLDs) are drawn as 'grassroots sports dynamics', 'elite sports dynamics' and 'mega sports dynamics.'

#### Results

A case study of 'The Vision 2030: Live Better through Sports' in Singapore The adapted sport-based holistic development model in Singapore. Based on the findings from structural equation model with the first survey with a nationally representative sample as a part of longitudinal data collection, the proposed general conceptual map of integrated and comprehensive sport-based development model is adapted. It offers several prioritized strategic directions for more efficient management of the Vision 2030: Live Better through Sports in Singapore. For example, the first would be to increase the current 30% of population having a meaningful story through sports in their life up to 60-70% by focusing on the significant factors such as frequency of participations in grassroots sports, human capital, role models/inspiration from elite sports development and the perceived significance of mega sports.

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