SYSTEM DYNAMIC MODEL OF SPORT CLUB: A STRATEGIC DECISION MAKING TOOL

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Abstract

AIM OF ABSTRACT/PAPER - RESEARCH QUESTION
Environment of non-profit sport clubs in the Czech Republic became in lasts years more dynamic than before. These clubs are facing lack of finances due to significant cuts in subsidies and at the same time, competition is rapidly increasing due to newly established businesses. Moreover, behavior of customers appears to be less predictable and thus managers of non-profit struggle to determine the right strategy. Strategy formulation is big task with regards to overall dynamics. Our paper presents a tool (system dynamic model of non-profit sport organization) developed to help managers with formulation of potential strategy scenarios and easier prediction of clubs environment.
THEORETICAL BACKGROUND OR LITERATURE REVIEW*
The strategy formulation is based on knowledge of whole environment gained from value chain, Porters' five forces, PEST (or other modifications) and SWOT analyses. This knowledge is used for strategy formulation at all the levels comprising Corporate, Business and Functional level (Hill & Jones, 2012). The competitive advantage evolves especially at Business and Functional level, both are incorporated in system dynamic model which serves as tool for evaluating of usage one of the Porters' (Porter, 2008) generic strategies (Differentiation, Stuck-in-the middle and Low cost strategy) in a sport club. These generic strategies are very close interconnected to the Functional level of strategy, where the managers balance their effort between Customer responsiveness, Quality, Effectiveness or Innovation. Those are the important sources of competitive advantage but it is necessary to choose appropriate combination of strategy at all there levels. The system dynamic model helps to predict the results of such combinations.
METHODOLOGY, RESEARCH DESIGN AND DATA ANALYSIS
Our research is based on system dynamic modeling (SDM). The

framework is based on extended Balanced Score Card (Customers and marketing, Finances, Human resources, quality, learning and growth perspective and Operations). The extension includes other important influences of micro- and macro-environment like national sport policy factors, culture and leadership etc. (Tripes, Kral, & Zelena, 2013). The complexity of system is characterized as a behavior of elements and their interactions, which can be described thanks important elements such as feedback, stocks and flow, nonlinearity and time delays. The feedback processes are outcomes arising from manager´s decision making and therefore is very important to understand and analyze these processes(Sterman, 2001). Elements stock and flow represent the SDM and dynamic behavior. The principle of stock and flow is based on accumulation – the flows accumulate in the stocks. Stocks and flows identification is a necessary task. Determination of main variables the state (stocks) of system and its changes (flows) provides the SDM. In comparison with Dolles and Sodermans' (2012) framework; SDM is extended by behavior (dynamics) of system during the strategy planning period. Thus, the benefit of this model is in the possibilities of incorporating unpredictable disturbing factors during the strategy planning period.

Knowledge base for the SDM construction and validation was gathered using questionnaire survey, document analysis and expert focus group. The environment knowledge base was used as a training data set for modelling strategic scenario, where particular parameters (connected to both levels of strategy - spending on marketing, price of membership fee, investing to quality, staff development, etc.) had been set and the SDM predicted the influence of such setting to net income, club membership, members' satisfaction, requirements and desires. According to the best possible scenario were all the parameters adjusted to required values and thus, the strategy for the next year was formulated.

RESULTS, DISCUSSION AND IMPLICATIONS/CONCLUSIONS

The strategy for the sport club was formulated according to parameters of the best possible scenario. After a year, the strategy was evaluated. Outcomes such as membership and net income were predicted very precisely. The members' satisfaction survey has been conducted now and the results will be finished soon, what will be presented at the conference.

This system dynamic model seems to be a very useful tool for managers' strategic decisions. The model can be used especially for determining the organizational strategy. Particularly, it determines spending on marketing, quality of staff, equipment and innovations etc. Thanks the SDM can the manager optimize distribution of spending according to performance indicators. This model is suitable for wide range of sport organization providing sports but with necessary modification regarding their environment.How the model works will be presented at the conference. Limiting barrier is extensive knowledge of the clubs' environment, especially of knowledge of competitors and customers' requirements.

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