A Prioritization Model for Components of Strategic Management Process

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Strategic planning might be considered as a job for public accounts and business administrators; but an efficient, effective, performance oriented, and process based strategic planning methodology for public organizations requires broader vision, detailed planning, engineering culture and systems approach techniques that make this task a specific issue for industrial engineering. Aim of this study is to prioritizing strategic management components in public sector organizations and to develop a weighted strategic management methodology will be considered as a decision support and guide for all public organizations. The main focus of this study based on weighting and prioritization of all the strategic management components of public organizations in a comprehensive model proposed for this purpose. For the weighting and prioritization of the components, the AHP (Analytic Hierarchy Process) modelling approach is used in the proposed framework. To illustrate the approach, an illustrative case is presented in Ministry of Finance.

1. Introduction

In public organizations, strategic planning can play an important role to map out the core objectives and goals of the institution. However, having only a well-developed strategic plan can be inadequate to reach goals and objectives. For the success of the implementation of a strategic plan, rather than having a list of the objectives and goals in the plan, it is crucial to set priorities and degree of importance among the components of the strategic management. The purpose of this study is to provide an analytic evaluation model to measure relative importance of the components in a strategic management process in the public organizations. This paper presents an approach to the identification of an organization’s strategic management components, i.e. mission, vision, strategic goals, strategic objectives and

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develops an AHP-based strategic evaluation model to weight all the strategic management components. Thus, the highly qualitative relationships among the strategic management components are operationalized using the AHP. The paper particularly emphasizes a possibility of implementation of the AHP in the strategic management to prioritize the components.

2. Strategic Information System

Today, most organizations in all sectors of industry, commerce and government are fundamentally dependent on their information systems. An organization achieves strategic advantage by using strategy to maximize its strengths. Information systems that help take hold of opportunities are often called strategic information systems (SIS). A SIS is a system that helps companies change their business strategy and structure. It is typically utilized to streamline and quicken the reaction time to environmental changes and aid it in achieving a competitive advantage.

Wiseman emphasizes that companies have begun to use information systems strategically to reap significant competitive advantage [9]. The significance of these systems does not lie in their technological sophistication or in the format of the reports they produce; rather, it is found in the role played by these information systems in the agency’s planning and implementation in gaining and maintaining competitive advantage. The use of information systems may not always lead to competitive advantage, it can serve as an important tool in the agency’s strategic plan. Key features of the SISs are the following:

1) Decision support systems that enable to develop a strategic approach to align information technologies with an organization's business strategies
2) Primarily Enterprise resource planning solutions that integrate/link the business processes to meet the enterprise objectives for the optimization of the enterprise resources
3) Database systems with the "data mining" capabilities to make the best use of available corporate information.
4) The real-time information Systems that intend to maintain a rapid-response and the quality indicators.

3. Strategic Management in Public Sector Organizations

According Poister et.al. [1] strategic management is basically a new management instrument imported to the public sector. Bryson and Roering [2] developed a point strategic planning processes that they say is
applicable to public organizations. In spite of the importance to given to the measurement of the performance of the organizations, Melnyck et al. [3] declare that performance measurement continues being a challenge both for practitioners and academia. The BSC helps to identify indicators that are aligned with the vision, mission and strategies of the agency, and it establishes cause-effect relationships among strategic objectives, even though they do not state the way to establish and quantify those relationships. So, we try to quantify those relationships in this study. The relationships are represented in the strategic map and the weights of components of strategic management in public organizations are determined an AHP model which is the main subject of this work. The AHP is appropriate for judging better an agency’s performance. It has been used in the literature for various purposes. However, their use in the strategic management public organization has been rather limited.

3.1. Strategic Management in Public Sector Organizations in Turkey

For the last five years in Turkey, important steps have been taken in developing and making strategic planning and management widespread. After the New Public Financial Management System went into effect, a period began in which strategic planning and management was perceived as a process mostly related to agency budget and as a financial process. The main elements of the strategic management of the public sector in Turkey are strategic plans, performance programs and accountability reports. These elements are incorporated into the legislation with the Public Financial Management Control Law No. 5018 and the regulations prepared concerning this Law 5018 which was enacted at the end of 2003 and entered into force after 2006. This Law brought along radical changes in terms of our financial management and introduced new and reformative instruments to the public administrations.

4. Strategy Maps and the AHP Methodology in Strategic Management

A strategy map is a management tool that articulates an organisation's strategy through a series of cross-functional cause-and-effect relationships. The theory holds for both private and public sector organisations, though the starting point is typically different. Building a strategy map typically involves understanding the key strategic themes in four general perspectives: Stakeholder, Financial, Internal Process and Learning and Growth [8].
AHP is well-known MCDM method of scientific analysis and decision-making by calibration of hierarchies whose elements are goals, criteria, sub-criteria and alternatives. Thomas Saaty represented conceptual and mathematical setting up of this model in 1980, and it has been enhanced through numerous scientific papers and doctoral thesis ever since. The application of AHP ranges from investment risk to resource allocation and organization planning in fields, such as economics, politics, marketing, sociology, and management. AHP is reliable and easy to use for decision making jobs and that is why it has been the most commonly used and the most popular among experts and practitioners. The AHP technique, which is a theory of measurement for dealing with quantifiable and intangible criteria, has emerged as an important approach to multi-criteria decision-making problems of choice and prioritization [7]. Expert Choice is software for support of AHP that is entirely based on its mathematical basis and the most commonly used one. The MoF is an excellent example of how strategy maps can be used to articulate organizational direction. Interpretation of the strategy map should start at the top. The MoF selected Increase Stakeholder Satisfaction as their ultimate objective (Fig.1).

**Fig.1 Strategic Map of the MoF**

This allowed for the fact that to be a truly successful organization there were several diverse customer groups with markedly different sets of needs that must be kept happy. The MoF felt that there were five things instrumental to achieving the number one objective. One was maintaining financial integrity. Since the MoF's main charge was to collect taxes and
fund state programs it is obviously essential to manage the money properly. Developing a positive culture was also thought to be a key driver of stakeholder satisfaction. Enhancing customer communication was critical because maybe process improvement efforts were directed toward making interaction with the MoF easy for customers and they needed to know about the changes to utilize them properly. Promoting a positive image gave the public confidence that their tax money was being handled properly, and improving security, the fifth connecting arrow, coming in from the right and illustrating a general connection to every objective, ensured that confidential information was being handled in the proper manner.

5. The Strategic Management Model and Prioritization of the Components

This section describes the elements and the process of the strategic management model, demonstrating during the explanation how the implementation of this model contributes to achieve more efficiency, effectiveness, integrity, transparency and accountability in any public organization. The strategic management model presented is a combination of the Balance Scorecard and Analytic Network Process techniques. There is a multitude of articles and books studying strategic management, but only few consider the relationships among the components of the strategic management explicitly and focus on their prioritization. For a structured examination of the relationships among the elements, we suggest a conceptual framework that provides a holistic view to the strategic management development process; they are primarily supported by the relevant literature, and by a detailed case describing their successful application [5]. Proposed methodology forms the conceptual basis of the proposed analytic approach.

The model combines two areas of knowledge, which are strategic management process and the AHP methodology as methods of multi-criteria decision analysis. This paper accents the role of AHP in the strategic management components’ weighting and prioritizing. The methodology starts with the definition of the mission and vision of the organization. Then it continues with the identification of strategic themes and the critical success factors. Finally, general objectives are defined. On the other hand an internal and external analysis is carried out in order to arrive to a SWOT analysis. The strength, weaknesses, opportunities and threats are identified and classified into the four perspectives of the balanced scorecard. Then, a strategic map is generating by establishing the cause-effect relationship among general and specific objectives. Then,
performance indicators are defined for each objective. Finally, after completed all the above steps, the AHP model is developed to weight and prioritize all the components in the strategic management for public organizations.

5.1. The Developed AHP Model for the MoF

A schematic representation of the constructed hierarchical AHP model is given in Fig.2. The proposed model applies the AHP to the problem of the prioritizing the components of the strategic management for the MoF. The model has been validated through a real case implementation concerning the prioritization of the components, within the frame of the development of its 2008-2012 Strategic Plan [6].

Fig.2. MoF’s Theme-Goal-Objective-Performance Indicators-Activity/Projects Hierarchical Performance Objective

The resulting model consists of five hierarchical levels: The goal level consists of the main elements that determine main components such as the organization’s mission and the vision. The Theme level is related with the strategic themes. Strategic themes are determined in order to group these institutional strategic goals. The theme level consists of five elements. The Strategic Goal level encompasses all those elements
concerning the strategic goals of the MoF. These elements include 9 strategic goals. The Performance Target level consists of 62 performance indicators. Performance indicator is used for measuring the success of the strategic plan and forms basis for performance auditing. Finally, the Alternatives level comprises all activities/projects within the scope of the strategic plan. Activity/Project is the defined form of the wholly complete, manageable and can be costed studies that are to be realized in order to achieve an objective that serves to a specific aim. Activities and projects are connected with performance indicators and strategic goals. Software package Expert Choice is the most appropriate for application of the AHP so Fig. 3 represents a review of evaluation of measures. As we seen Fig. 6 theme 2 has a weight % 460, which is the highest value. Anonymous names are given to the projects.

Fig.3. The Screenshot of the Model from Expert Choice and Overall Synthesized Priorities Activities/Projects

6. Conclusions

Proposed Strategic Planning Methodology is determined by enhancing current worldwide strategic planning methodology with engineering approaches. The result is a corporate style institutional strategic planning methodology approach for public organizations. The methodology delivered in this study has the potential of being a guideline to be rolled out for all of
the public sector including local governments in Turkey. In practice, selection of measures at balanced scorecard implementation is usually done simply through analysis by managerial team without use of any MCDM method. Application of AHP certainly gives much more accurate results because in evaluation of particular elements from one level in relation to the other level in subjective evaluation, correlation of elements is being considered.

References


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