

# Intelligent impact assessment of HRM to the shareholder value

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## Abstract

Despite the extensive research in human capital management and performance measurement, intelligent reasoning mechanisms, which integrate human resource (HR) practices into strategic-level shareholder decisions, are still emerging. This paper discusses a novel approach of designing a decision-modeling tool, which assesses the impact of contemporary human resource management (HRM) practices to the shareholder value and satisfaction. The underlying research addresses the problem of establishing HRM interrelationships in order to drive the overall business performance from the shareholder value perspective. The proposed methodology tool utilizes the fuzzy causal characteristics of fuzzy cognitive maps (FCMs) to generate a hierarchical and dynamic network of interconnected HR performance drivers. The intelligent computing characteristics of FCMs are also employed to establish a dynamic feedback and bi-directional alignment of HRM practices and strategic improvement. Finally, this research provides a practical insight on the applicability of soft approaches in capturing and illustrating the effect of HRM practices.

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## 1. Introduction

Enterprises are evolving in turbulent and equivocal environments (e.g. Drucker, 1993; Grove, 1999; Kellys, 1998). This requires enterprises to be alert and watchful for the detection of weak signals (e.g. Ansoff, 1975) or discontinuities of emerging threats and to initiate further probing based on such detection (Walls et al., 1992). Enterprises today face critical business challenges (Ulrich, 1998) like globalization, profitability through growth, technology integration, intellectual capital management, continuous change, etc. Such challenges require organizations to build new capabilities, but it is not always apparent who should be responsible for developing those capabilities. Perhaps,

everyone and no one, but in any case this is a unique HR's opportunity to play a leadership role in enabling organizations to meet such competitive challenges. Ensuring that human resource (HR) strategies are in place to deal with these challenges is increasingly recognized as critical to success (Leopold et al., 1999).

Human resource management (HRM) in the literature has been considered a second- or third-order strategy, largely related to implementation rather than shareholder level decision-making. The process of HR strategy formulation and evaluation had not been widely conceptualized until recently. Moreover, the impact of HRM practices to the shareholder strategic value is not modeled adequately, despite the utilization of sophisticated performance evaluation mechanisms at the employee level. The evidence that HR issues are fundamental to business is compelling at the level of unit labor costs, but whether they are fundamental to the strategy process remained highly questionable until recent years (Ritson, 1999). This can be attributed to the fact that contemporary performance evaluation mechanisms focus on analyzing the operational

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effectiveness of the human capital rather than addressing the issue of strategic alignment.

This paper addresses the problem of designing a novel modeling methodology tool to act as an intelligent decision support mechanism for evaluating the impact of HRM practices to the shareholder value and satisfaction. This attempt focuses on bridging the gap between the operational characteristics of HRM practices and the strategic decisions at the shareholder level. The proposed methodology tool utilizes the fuzzy causal characteristics of fuzzy cognitive maps (FCMs) to generate a hierarchical and dynamic network of interconnected HR performance drivers. By using FCMs, the proposed novel mechanism simulates the operational efficiency of HR models with imprecise relationships and quantifies the impact of HRM activities to the overall shareholder satisfaction model.

This research builds on contemporary HRM experience to establish a “soft computing” approach on how to interrelate HRM activities and shareholder value. The FCM approach does not pose as a substitute of traditional HRM operations nor does it offer an alternative to HR performance evaluation. It presents an intelligent decision-making framework for strategic-level HRM based on scenario building and *ex ante* impact assessment.

Primarily, the proposed model targets the principle directors and stakeholders of HRM projects (e.g. HR department, change management leaders, business strategy leaders, etc) assisting them to reason effectively about the status of strategic-level performance metrics, given the (actual or hypothetical) implementation of a set of HR practice changes. However, the holistic nature of the proposed model may couple effectively with other strategic performance evaluation systems. Given the demand for effective shareholder positioning, such a succinct mechanism of conveying the essential dynamics of HR practices is believed to be useful for anyone contemplating or undertaking a strategy formulation exercise. Nevertheless, the explanatory nature of the mechanism can prove to be useful in a wider educational setting.

As far as the contribution to decision-making is concerned, the application of FCMs as an intelligent modeler of HR knowledge is believed to be novel. Moreover, this paper extends typical FCM algorithms in order to adapt to the distributed nature of typical HR activities. Also, this research adopts a new qualitative approach to interpret fuzzy linguistic variables to weight and concept values in order to support further the soft computing characteristics of the tool. It is the belief of this paper that the fuzzy reasoning capabilities enhance considerably the usefulness of the proposed mechanism while reducing the effort of identifying quantitative impact measurements. As far as the added value of this research is concerned, the proposed methodology offers an alternative approach to HRM based on shareholder value analysis and modeling. Preliminary experiments indicate that the proposed approach can be effective and realistic, without employing detailed quantitative calculations.

This paper consists of six sections. Section 2 presents a short literature overview. Section 3 presents an overview of the proposed system, Section 4 discusses the new approach to HRM modeling and Section 5 discusses the major advantages of the proposed tool. Finally, Section 6 concludes this paper and briefly discusses future research activities.

## 2. Literature overview

### 2.1. Contemporary HRM

As firms become increasingly aware that people are among their most valuable strategic assets, they are reappraising the way in which they manage their human capital. The emphasis is shifting from personnel management to the wider, strategic concept of human resource management in which human resource policies and activities, including training and development, are linked closely to business strategy. HR specialists who wish to develop a strategic approach to people management must establish credibility with top management as the key figures to achieve successful results (Handy et al., 1989).

Strategic human resource management addresses a number of key issues. Typical examples (loosely adapted from Baker, 1999) include internal integration of personnel policies, their external integration with overall strategy, line management responsibility for HR implementation, individual rather than collective employee relations, HR commitment, HR initiatives, the managerial role of “enabler”, “empowerer”, and “facilitator”, etc.

Following a resource-based view of an enterprise, firms can develop sustainable competitive advantage by creating value in a way that is rare and difficult for competitors to imitate (Baker, 1999). Although traditional sources of competitive advantage such as natural resources, technology, economies of scale, value creation, and so forth, the resource-based argument is that these sources are increasingly easy to imitate, especially in comparison to a complex social structure such as an employment system. If that is so, HR strategies may be an important source of sustainable competitive advantage (Lado & Wilson, 1994).

But one may ask how HR management can deliver organizational excellence and competitive advantage. According to Ulrich (1997) there are four ways to do so:

- HR management could become a partner with senior and line managers in strategy execution, helping to move planning from the conference room to the marketplace.
- HR management could become an expert in the way work is organized and executed, delivering administrative efficiency to ensure that costs are reduced while quality is maintained.
- HR management could become a champion for employees, vigorously representing their concerns to senior management and at the same time working to increase employee contribution; that is, employees’ commitment to the organization and their ability to deliver results.

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