Knowledge management fit and its implications for business performance: A profile deviation analysis

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ABSTRACT

Knowledge management (KM) has been regarded as a critical issue for the practitioners and academicians in these years. Studies mentioned that human resource management (HRM) plays an important role in implementing knowledge management activities. Meanwhile, the importance of information technology management (ITM) in facilitating effective KM practices has also been recognized. Therefore, in the case of KM strategy must align with HRM strategy, ITM must be integrated into this relationship to achieve organizational outcomes. Top managers from 173 organizations completed the research questionnaire. Performance implications of fit are examined using profile deviation analysis. Findings showed that the holistic perspective of fit among KM strategy, ITM strategy, and HRM strategy demonstrates a significant impact on business performance.

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1. Introduction

Nowadays, knowledge has become a critical asset and potential strategic resource for contemporary firms. Facing the advent of knowledge-based economy, it is important to know how to effectively manage and integrate various kinds of knowledge resources in order to survive and keep competitive advantages. In this vein, knowledge management (KM) is considered to be a pressing and important issue, as corporations must manage their knowledge bases and repositories effectively to gain long-term competitive advantage [1,2]. More specifically, the implementation of KM projects compliant with various KM strategies can provide organizations with dynamic capabilities for improving knowledge quality and quantity, as well as for consolidating the value and practicability of knowledge [3].

Meanwhile, information technology or information systems (IT/IS) can be regarded as effective means to facilitate codifying knowledge and creating networks [4]. It involved management activities of IT resources for an organization [5]. Well-management of IT for helping KM activities is an important concern for executives. For example, "system" KM strategy requires IT tools that allow for explicit knowledge to be formalized and articulated in documents, and shared electronically through IT infrastructures such as intranets [6]. Therefore, firms should invest in an extensive IT system to codify knowledge. In contrast, "human" KM strategy draws upon interpersonal relationships to exchange and share tacit knowledge across organizations. Thus, a moderate investment in IT to connect experts in organizations is needed. The technologies may include an e-mail system, on-line discussion networks, video-conferencing, and other collaborative tools [7].

Furthermore, the strategic role of human resource management (HRM) focuses on designing and implementing of a set of internally consistent policies and practices that ensure a firm's human capital (e.g., employees' knowledge, skills, and abilities) to achieve business goals [8,9]. In KM activities, development and deployment of human resources into various HRM strategies to fit with KM practices are critical concerns for managers [10–14]. For example, according to Hansen et al. [4], different KM strategies should reflect different drivers of their human resources. In "system" KM strategy, adequate HR policies consist of hiring persons who are well suited to reuse of knowledge and implementation of solutions, training people in groups and through computer-based distance learning, and rewarding people for using and contributing to document databases. Additionally, with the "human" KM strategy, suitable HR policies are hiring persons who like problem-solving and can tolerate ambiguity, training people via one-on-one mentoring, and rewarding people for directly sharing knowledge with others. Therefore, both system and human KM strategies highlight the importance of recruitment and selection of employees (HR flow), training and development employment security, teams and job redesign control (work systems), and reward systems.

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The importance of IT/IS-business fit is also acknowledged [15,16]. According to Lee et al. [17], fit theory is one of the top five frequently-used theory out of the 31 listed among the 993 studies in the MIS field. Researchers have come to realize that an absence of strategic alignment probably can cause organizations to be incapable of realizing sufficient value from their IT investments [15,18]. Fit has been found not only to make a great contribution to potential capabilities of an organization's IT infrastructure; it also exerts a significant direct positive effect on organizational performance [19,20]. Conversely, misalignment in organizations results in redundancy and inefficiency in IT functions, and in an increase in costs and delays [21]. More seriously, it can be one of the critical reasons that an organization's performance declines [22,23].

Investigations regarding to integration of various strategies in KM related research is not sufficient. Furthermore, to analyze and design of the organization as a whole is critical to achieve organizational performance [24]. In the practical terms, basic alignment mechanism is "strategy", and it is though that a fit between strategy and organization is the key driven to effectiveness at realizing intended strategies [25]. Therefore, drawing on the concept of fit, this research aims to examine the fit effect among KM strategy, ITM strategy, and HRM strategy on business performance. The authors posit that business performance, including growth and profitability, will be influenced by fit among these strategies.

The general purposes of this study are to contribute to the academia and practice relating to knowledge management fit by pursuing several specific objectives. First, it intends to provide further insights into performance implications within the broad conceptualization of fit among KM strategy, ITM strategy, and HRM strategy. Second, it examines KM fit by using the fit as profile deviation to test for fit among KM strategy, ITM strategy, and HRM strategy. Finally, the authors are devoted to shedding a new light on KM–ITM–HRM fit research to reflect the simultaneous and holistic patterns of interlinkages between KM strategy and other strategies that influence KM activities.

2. Theoretical background and hypothesis

2.1. The concept of fit

The concept of fit is a key issue in structural contingency theory [26] and is well known and discussed in managerial behavior and organizational analysis [27,28]. Its underlying meaning is that organizational performance is a consequence of fit between two or more factors; such as, fit among organization environment, strategy, structure, system, style, and culture [29]. According to Van de Ven and Drazin [29], fit has three approaches: selection, interaction, and systems approaches; whereas six different perspectives are proposed by Venkatraman [30]: matching, moderation, mediation, gestalts, covariation, and profile deviation. These six perspectives can be classified into two categories according to the number of variables being simultaneously examined. Accordingly, fit as matching, moderation, and mediation can be categorized into the reductionistic perspective, whereas fit as gestalts, covariation, and profile deviation can be regarded as holistic perspective [31].

Fit as moderation is similar to Van de Ven and Drazin's [32] proposition of fit as interaction. From this criterion-specific perspective, fit is the interaction between two predictor variables. This relationship is the impact of a predictor variable (e.g., strategy) on a dependent variable (e.g., performance), which is dependent upon a third variable (e.g., environments) which can be called as a moderator [30].

The underlying conceptualization of fit as mediation is intervention. Within this scheme, an intervening variable (e.g., structure) exists that has an indirect effect on an antecedent variable (e.g., strategy) and a direct effect on a consequent variable (e.g., performance) in the model. Fit as mediation and fit as moderation are applied to the situation of a single independent variable; a single moderator or mediator; and a single dependent variable [33].

Fit as matching is conceptually related to Van de Ven and Drazin's [32] concept of fit as a selection approach, which views fit as result of natural choice. In the perspective of fit as matching, fit is a theoretically-defined match between two related variables without necessarily considering a criterion variable.

Fit as gestalts, this criterion-free perspective corresponds to Van de Ven and Drazin's [32] system approach, derived from the conceptual framework of system theory, which conceives of organizations as holistic patterns of interdependencies. Miller [34] argues that this concept is a "new contingency approach" that "seeks to look simultaneously at a large number of variables that collectively defines a meaningful and coherent slice of (organizational) reality" (p. 8). According to Venkatraman [30], the underlying conceptualization of this perspective is an internal congruence among a set of strategic variables, which differs between 'high' and 'low' performance businesses. It extends the bivariate fit perspective through a multi-tiered taxonomical approach [35].

Fit as covariation is a criterion-free perspective which is defined as "a pattern of covariation or internal consistency among a set of underlying theoretically related variables, and it can be best described through an illustration" [30] p. 435. Its verbalization follows a strategy proposition that the degree of internal consistency among related variables or constituencies has a significant effect on performance. This concept of fit is similar to fit as gestalts, but these two concepts differ in the degree of specification of the functional form. Gestalts consider fit to be products of cluster analysis, in which observations can be grouped, based upon a set of attributes; whereas covariation is the process of factor analysis, the grouping of attributes based upon a set of observations [30]. This is the reason that Venkatraman [30] stated: "This perspective requires much greater precision in the pattern of logical consistency among the factors and the explication of the underlying logical link among the attributes" (p. 436).

Fit viewed as a profile deviation is a criterion-specific perspective which represents the degree of adherence to a specified ideal strategic profile; in turn, the level of fit has a significant effect on performance. Its underlying premise is that configurations, rather than bivariate examinations are important to completely describe a synergistic profile or system. Profile deviation perspective is akin to Van de Ven and Drazin's [29] pattern analysis approach. In this context, an ideal profile is assumed to exist, and deviation from this ideal profile implies a weakness in coalignment, resulting in lower performance. According to Venkatraman [30] p. 434], "this perspective allows a researcher to specify an ideal profile and to demonstrate that adherence to such a profile has systematic implications for effectiveness." For instance, Barki et al. [36] adapted this perspective of fit in the context of a software development project. An ideal pattern for risk management profile was specified for a particular level of risk exposure; a software project's degree of adherence to such a multidimensional profile was found to be positively related to performance if it had a high level of risk management-risk exposure coalignment. The calculation of deviation as a Euclidean distance in an n-dimensional space is the proper analytical method for testing this perspective of fit.

2.2. Hypothesis development

According to previous research, fit between business-related strategy and ITM strategy is a critical issue within organization that has been stated frequently [37]. However, there are few studies that empirically address the issue of strategic alignment