

# Does knowledge reuse make a creative person more creative?

Pak-Keung Cheung \*, Patrick Y.K. Chau \*, Anson K.K. Au

*School of Business, The University of Hong Kong, Pok Fu Lam Road, Hong Kong*

Available online 20 February 2007

## Abstract

This paper examines the effect of the most common type of organizational knowledge management system, that is, an intranet-based knowledge repository, on the level of creative performance of an individual. An experiment was conducted on more than a hundred individuals to investigate the quantitative and qualitative levels of creativity outcomes on an open-ended business task. Their levels of baseline creativity skills were also measured in order to inspect its interaction with knowledge reuse. The results suggest that knowledge reuse resulting from this repository type of knowledge management system actually inhibits the creative performance of individuals, especially on the qualitative dimension.

© 2007 Elsevier B.V. All rights reserved.

*Keywords:* Knowledge reuse; Knowledge management; Knowledge management system (KMS); Creativity

## 1. Introduction

Entering the new millennium, business enterprises are facing more and more rapid and complex changes in their competitive environments. In order to survive, management not only needs to make decisions quickly, but also needs to make them innovatively [16,22]. The abilities to generate creative ideas that are both novel and valuable are now considered to be an essential organizational resource in establishing sustainable competitive advantage [6,9,29].

The effectiveness of using information technology to facilitate individual creative performance has long been a prominent research focus (e.g. [8,18,20,21]). With the growing interests in organizational knowledge management, the possibility of creativity support via knowledge reuse is gradually gaining attention.

This paper describes an empirical study that attempts to examine the effects of knowledge reuse – provided by an intranet-based knowledge repository – on individual creativity outcome, with particular interest in the potential contingency effect of the baseline creativity of an individual. That is: (1) Does knowledge reuse enhance or delimit the creativity outcome of an individual? (2) Does the level of enhancing or delimiting effect differ on a creative person from an unimagi-native person?

## 2. Theoretical foundation

Knowledge transfer can generally be subdivided into (1) knowledge sharing, the process by which an entity's knowledge is captured; and (2) knowledge reuse, the process by which an entity is able to locate and use shared knowledge [19]. Knowledge reuses within organizations are typically performed for two distinct objectives: replication and innovation [19]. Knowledge reuse for replication (KRR) focuses on knowledge

\* Corresponding authors.

E-mail addresses: [amanc@business.hku.hk](mailto:amanc@business.hku.hk) (P.-K. Cheung), [pchau@business.hku.hk](mailto:pchau@business.hku.hk) (P.Y.K. Chau).

acquisition through which best practices are transferred (replicated) in order to increase productivity. Knowledge reuse for innovation (KRI) focuses on knowledge integration through which other's knowledge are adapted (integrated) into one's existing knowledge stock in order to accomplish an innovative task. Majchrzak et al. [19] argue that majority of the past researches on knowledge management examined only the KRR related aspects and KRI warrants more research attention.

Creativity is the production of novel and appropriate ideas in any realm of human activity [4]. Creativity is the first step in innovation, which is the successful implementation of those novel and appropriate ideas. Contrary to the conventional belief that creativity wholly depends on one's personality, the componential theory of individual creativity [3,4,2] posits that a person's social environment can have a significant effect on that person's level of intrinsic motivation; which in turn, have a significant effect on that person's creativity. The theory includes three major components of an individual's (or small team's) creativity, each of which is necessary for creativity in any given domain (Fig. 1).

According to Amabile [3], domain expertise is the foundation for all creative work. It is a problem-solver's "network of possible wanderings" that includes memory for factual knowledge, technical proficiency, and special talents in the target work domain. Creative skills provide "something extra" of creative performance. These skills include a cognitive style favorable to taking new perspectives on problems, an application of techniques for the exploration of new cognitive pathways, and a working style conducive to persistent and energetic pursuit of one's work. Task motivation can be either intrinsic (driven by deep interest and involvement in a task, by curiosity, enjoyment, or a personal sense of challenge) or extrinsic (driven by a desire to attain some goal that is apart from the task itself — such as

achieving a promised reward, meeting a deadline or winning a competition). Though intrinsic motivation is more conducive to creativity than extrinsic motivation, certain forms of extrinsic motivation may combine synergistically with intrinsic motivation; enhancing the positive effects of intrinsic motivation on creativity.

### 3. Research model

Knowledge reuse, or in a broader sense, knowledge management has been conceived by numerous practitioners as well as academics as a booster to organizational performance; especially in the areas associated with organizational innovation, such as new product development, innovation diffusion, and technology transfer. Yet, empirical evidence that supports the correlation between innovative performance and knowledge reuse is seriously lacking. The research model proposed below attempts to partially fulfill this research gap by empirically investigating the relationship between knowledge reuse and creativity outcome at an individual level. The proposed model puts knowledge reuse as a predictor of individual creativity outcome, the dependent variable of interest. This model also adheres to the componential model of Amabile [2], which put forward that domain expertise, task motivation and creativity skills of an individual influence the creativity outcome of tasks that he or she performs. In this model, domain expertise and task motivation are taken as control variables. Thus, the levels of these two variables are measured and controlled to ensure there are no significant differences between the experimental groups on these two dimensions. And the levels of creativity skills, which are also termed as baseline creativity by other research, of the individuals are analyzed to determine its interaction effects with knowledge reuse on the creativity outcome (Fig. 2).

Knowledge reuse here refers to the adaptation of explicit knowledge [23] of successful practices so as to generate new and useful ideas. Surveys show that explicit knowledge repository implemented on company intranets are the prevalent type of knowledge management systems deployed in business organizations [11,12]. Some researchers also argue that explicit knowledge is the only mode of knowledge that information technology can help in facilitating its share and reuse [13,24,28]. Thus, adopting this definition of knowledge reuse pulls this study closer to the reality and allows the findings to have more relevant practical implications.

A review of previous researches that involve creativity measurement reveals that creativity outcome is in

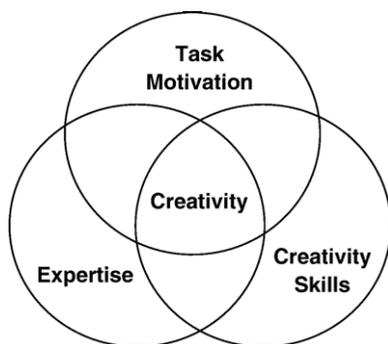


Fig. 1. Three-component model of creativity (adapted from [4]).

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات